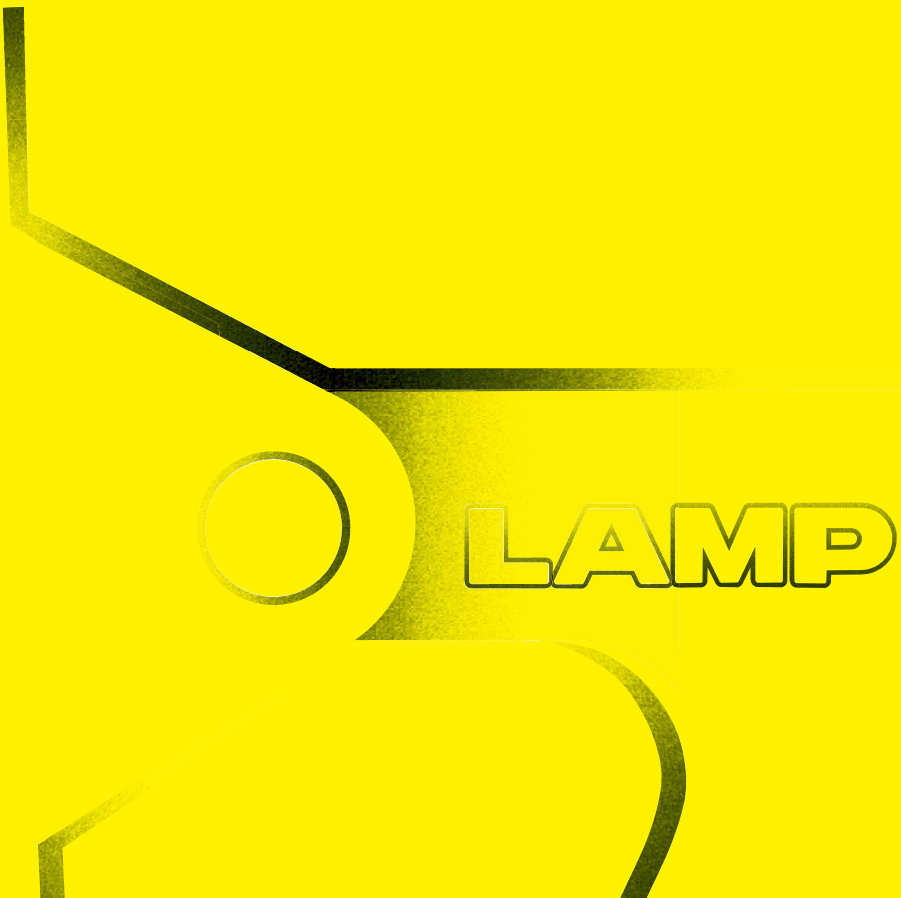
SUGATSUNE

Industrial Component Hardware



June 2022

No.400

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MISCELLANEOUS

Motion Design Tec

LAMP®

HINGES

Hinges are a kind of hardware used for opening and closing doors or lids.
It is said that they look like butterflies, so they are also known as “CHOUTSUGAI (paired butterflies)” in Japanese.
A typical hinge consists of two leaves and one shaft, where the leaves revolve around the shaft.
In recent years, various kinds of hinges are developed, such as hinges with increased opening angle by increasing the number of axes (multiaxis), and hinges which can stop at any position or rotate slowly by introducing friction or resistance at the shaft, etc.

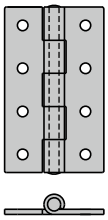
SUGATSUNE

June 2022

TORQUE HINGES
DAMPER HINGES
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Types of Hinges

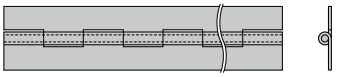
Butt Hinges



LSB P.230

Leaves are flat.

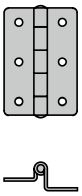
Piano Hinges



LSN P.240

Leaves are long in the axial direction.

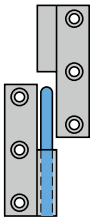
Step Hinges

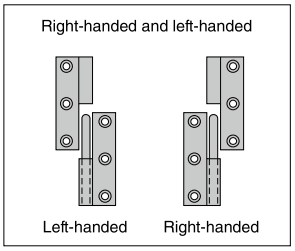


DH-60C P.243

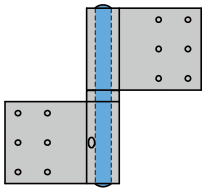
Can be used for overlay doors.

Lift-off Hinges





KN P.244



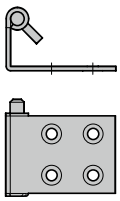
HG-KH P.251

Doors can be attached and detached, convenient for maintenance and door installation.

Pivot Hinges

Installed at the upper and lower ends of a door to reduce visible range of hinge.

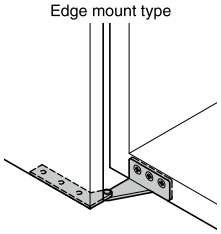
Detachable type



HG-PV-30C P.253

Doors are detachable on the action of spring.

Edge mount type



PL-65 P.254

Installed at the edge of door or cabinet.

Sugatsune Also Offers Made-to-order Products!

Function Addition



Adding detent mechanism on torque hinge

Specification Change



Changing to antibacterial material, adding antibacterial coating

Size Change



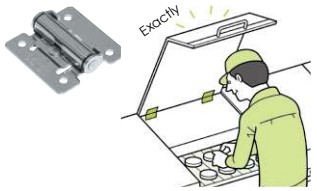
Extending piano hinge to 3000mm

For OEM and ODM request form with required items at consultation, refer to P.1047~P.1049

Outline INDEX

Realising motion functions

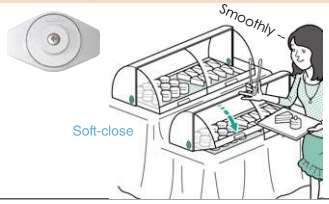
Torque Hinges (Free stop)



Freely stop doors, lids or covers at any position.

P.44~

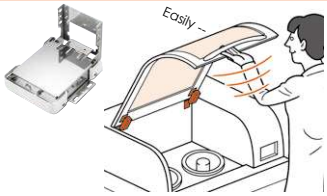
Damper Hinges (Smooth and quiet motion)



Lower opening/closing speed of doors or lids.

P.90~

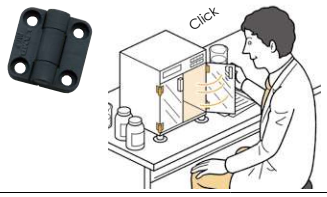
Lift Assist Hinges



Assist in opening/closing heavy lids or covers.

P.122~

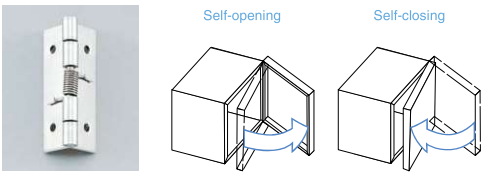
Detent Hinges



Temporarily hold doors, lids or covers at a certain angle.

P.113, P.137~

Spring Hinges

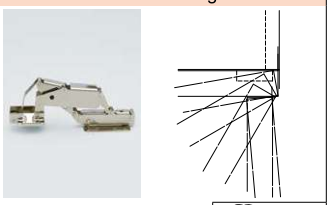


Automatically close or open.

P.256~

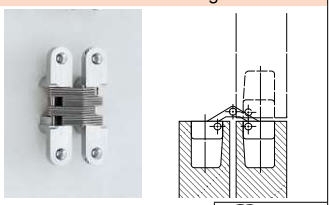
Designing opening/closing locus

Concealed Hinges



P.170~

Concealed Hinges



P.150~

Multi-shaft mechanism draws a unique locus in which the rotation centre moves.
Hinges are invisible from outside.

Search by Application

Clean Room Hinges



Prevent metal-to-metal wear and metal powder scattering.

P.261~

Hinges for Aluminium Frame



Special hinges fitting with the mounting groove of aluminium frame.

P.264~

Glass Door Hinges



Types for inset/overlay doors and types with/without catch are available.

P.271~

Butt Hinges	P.230~
Piano Hinges	P.240~
Step Hinges	P.243~
Lift-off Hinges	P.244~
Pivot Hinges	P.253~
Drop Hinges	P.268~
Special Hinges	P.284~

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INDEX by Types of Hinges

Torque Hinges

Picture	Item Name	Torque N·m	Feature	Page
	HG-VH8-T15	$0.15^{\pm 0.05}$	Damper hinges and spring hinges of the same type also available.	P.44
	HG-VH8-T35	$0.35^{\pm 0.1}$		
	HG-TQS15	$1.5^{+40\%}_{-20\%}$	Friction in one direction only.	P.47
	HG-TQJ100	0~10	Friction in one direction only. Torque adjustable.	P.48
	HG-TQA90	$9.0^{+40\%}_{-20\%}$	Friction in one direction only.	P.49
	HG-TQW8080	$8.0^{\pm 20\%}$	One way torque hinge with operation range of 0~180°.	P.50
	HG-TS03	$0.35^{+40\%}_{-20\%}$	Greaseless.	P.51
	HG-TS07	$0.7^{+40\%}_{-20\%}$		
	HG-TS15	$1.5^{+40\%}_{-20\%}$		
	SFTH-02-5	0.49	All Stainless.	P.51
	SFTH-03-9	0.88		
	SFTH-03-19	1.86		
	SFTH-05-35	3.43		
	SFTH-05-58	5.68		
	HG-TP20	$2^{\pm 25\%}$	Greaseless.	P.52
	HG-TP30	$3^{\pm 25\%}$		
	HG-TP45	$4.5^{\pm 25\%}$		
	HG-TE03	$0.3^{+40\%}_{-20\%}$	Can be used horizontally or vertically.	P.53
	HG-TE08	$0.8^{+40\%}_{-20\%}$		
	HG-TE15	$1.5^{+40\%}_{-20\%}$		
	HG-TU03	$0.35^{+40\%}_{-20\%}$	Hinge is hidden when door is closed. Can be used horizontally or vertically.	P.54
	HG-TU07	$0.7^{+40\%}_{-20\%}$		
	HG-TQU15	$1.5^{+40\%}_{-20\%}$	Concealed one way torque hinge.	P.55
	HG-TUWA07	$0.7^{+40\%}_{-20\%}$	Greaseless.	P.56
	HG-TUWA15	$1.5^{+40\%}_{-20\%}$		
	HG-TQWA15	$1.5^{+40\%}_{-20\%}$	Wide opening version of HG-TQU.	P.57

Picture	Item Name	Torque N·m	Feature	Page
	HG-ITJ4080	$4^{\pm 20\%}$~8	Torque adjustable.	P.66
	HG-ITS25	$2.5^{\pm 20\%}$	Supplied with mounting hole cover.	P.67
	HG-ITS35	$3.5^{\pm 20\%}$		
	HG-ITM50	$5.0^{\pm 20\%}$		
	HG-ITM70	$7.0^{\pm 20\%}$		
	HG-ITSF	–		
	HG-ITMF			
	HG-TWP15	1.5	For exterior use.	P.68
	HG-TWP30	3.0		
	HG-ITHP07	$0.7^{\pm 30\%}$	Heat resistant.	P.68
	HG-ITHP15	$1.5^{\pm 20\%}$		
	HG-ITHP30	$3.0^{\pm 20\%}$		
	HG-TLS30-50-300	$3^{\pm 30\%}$	Greaseless.	P.69
	HG-DTA4	$0.4^{\pm 20\%}$	No reaction (spring-back).	P.70
	HG-DTA8	$0.8^{\pm 20\%}$		
	HG-DTB4	$0.4^{\pm 20\%}$	No reaction (spring-back).	P.71
	HG-DTB8	$0.8^{\pm 20\%}$		
	HG-TA20	$2.0^{\pm 20\%}$	Types with wire hole also available.	P.72
	HG-TA30	$3.0^{\pm 20\%}$		
	HG-TA45	$4.5^{\pm 20\%}$		
	HG-TAC20	$2.0^{\pm 20\%}$	Black version of HG-TA.	P.73
	HG-TAC30	$3.0^{\pm 20\%}$		
	HG-TAC45	$4.5^{\pm 20\%}$		
	HG-TB7	$0.7^{\pm 20\%}$	Provides torque stability in both directions.	P.74
	HG-TB20	$2.0^{\pm 20\%}$		
	HG-TB30	$3.0^{\pm 20\%}$		
	HG-TB45	$4.5^{\pm 20\%}$		
	HG-TBC20	$1.5^{\pm 20\%}$	Black version of HG-TB.	P.75
	HG-TBC30	$2.5^{\pm 20\%}$		
	HG-TBC45	$4.0^{\pm 20\%}$		
	HG-TA45H	$4.5^{\pm 20\%}$	With wire hole.	P.76
	HG-TC45H	$4.5^{\pm 20\%}$		P.77

INDEX by Types of Hinges

Torque Hinges

Picture	Item Name	Torque N·m	Feature	Page
	HG-TAS15	1.5±20%	All stainless.	P.78
	HG-TAS25	2.5±20%		
	HG-TAS40	4.0±20%		
	HG-TASJ40	0~4.0	Torque adjustable.	P.79
	HG-TBS15	1.5±20%	All stainless.	P.80
	HG-TBS25	2.5±20%		
	HG-TBS40	4.0±20%		
	HG-TBSJ40	0~4.0	Torque adjustable.	P.81
	HG-RT30	3±20%	Hinge is hidden when door is closed.	P.82
	HG-RT50	5±20%		
	HG-TMH1530	Shaft A 1.5±20% Shaft B 3.0±20%	Dual axis torque hinge for folding table.	P.83
	HG-TMH2030	Shaft A 2.0±20% Shaft B 3.0±20%		
	H95TSH-F	–	Concealed torque hinge.	P.84
	HG-KNT3	0.3±67%	Lift-off type, easy to detach.	P.88
	HG-KNT7	0.7±36%		
	HG-KNT16	1.6±20%		
	HG-MF08	0.0784±25%	Small plastic torque hinge.	P.89
	HG-MF15	0.147±20%		
	HG-MF25	0.245±20%		
	HG-S50-HR50	5.0±20%	High rigidity torque hinge.	P.58
	HG-S7-MN	0.7±20%	Rotates 360˚. Centre hole for easy cable management (except for HG-S-MN).	P.60
	HG-S20-MN	2.0±20%		
	HG-S30-12	3.0±20%		P.60
	HG-S50-12	5.0±20%		
	HG-S30-21	3.0±20%		P.61
	HG-S50-21	5.0±20%		

Picture	Item Name	Torque N·m	Feature	Page
	HG-S50-34	5.0±20%	Rotates 360˚. Centre hole for easy cable management (except for HG-S-MN).	P.61
	HG-S70-34	7.0±20%		
	HG-S70-50	7.0±20%		P.62
	HG-S100-50	10.0±20%		
	HG-S50-75	5.0±20%		P.62
	HG-S70-75	7.0±20%		
	HG-T70S30	7.0±20% (Tilting) 3.0±20% (Swivelling)	Can hold in tilting or swivelling direction.	P.64
	HG-T30S15	3.0±20% (Tilting) 1.5±20% (Swivelling)		P.65
	HG-RNM30	3.0±20%	For transom window. Window detachment without tools.	P.86
	HG-RNM30-SET			
	HG-PTH30	3.0±20%	Pivot torque hinge.	P.87
	HG-CVT65-15	1.5±25%	Torque hinge for clean room.	P.261
	HG-CVT100-20	2.0±25%		

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INDEX by Types of Hinges

Damper Hinges (Smooth and quiet motion)

Picture	Item Name	Torque N·m	Feature	Page
	HG-VH8-D3	0.022~0.038	Torque hinges and spring hinges of the same type also available.	P.44
	HG-JV65	–	For vertical use. With self-close function which can hold doors closed.	P.90
	HG-JV65-U-LGR	–	Concealed type. For vertical use. Hidden from view when closed.	P.91
	HG-JG150	–	Self and soft close.	P.92
	HG-JHW16S-34	2.0~3.4	Surface mount type.	P.93
	HG-JHW16S-50	3.4~5.0		
	HG-JHW16S-00	–		
	HG-JHW50(G)	3~5		P.94
	HG-JHW70(G)	5~7		
	HG-JH25	3~5		P.96
	HG-JH35	5~7		
	HG-JHM20T-80	6~8		P.99
	HG-JHM20-80	6~8	Recess mount type.	P.100
	HG-JHM16-34	2~3.4		P.101
	HG-JHM16-50	3.4~5		
	HG-JHM14-S-8	0.5~0.8		P.102
	HG-JHM14-S-15	0.8~1.5		
	HG-JHM14-S-20	1.5~2.0		
	HG-JHM11-1	0.05~0.1		P.104
	HG-JHM11-2	0.1~0.2		
	HG-JHM11-3	0.2~0.29		
	HG-JHM11-4	0.29~0.4		
	HG-JHS11-2	0.1~0.25		P.106
	HG-JHS11-4	0.25~0.4		
	HG-JHM9-S HG-JHM9-S4	0.054~0.086 0.027~0.043	Built-in bidirectional damper, Side mount type.	P.108
	HG-JHM9-U HG-JHM9-U4	0.054~0.086 0.027~0.043	Built-in bidirectional damper, Under mount type.	P.109
	HG-JHS9-S	0.027~0.043	Self-opening. Side mount type.	P.110
	HG-JHS9-U	0.027~0.043	Self-opening. Under mount type.	P.111
	HG-JH14-50	3~5	Surface mount type. Supplied with stainless steel bracket.	P.112

Picture	Item Name	Torque N·m	Feature	Page
	HG-CSH63	–	Can hold at two opening angles of 0° and 100° where detent function works.	P.113
	HG-CSH63A(B)M	1~1.7		
	HG-CSH63A(B)H	1.7~2.5		
	UDH-A(B)MS-G	1.5~2.5	Can be detached as a single unit.	P.115
	UDH-A(B)HS-G	2.5~3.5		
	UDH-A(B)GS-G	3.0~4.0		
	UDH-A(B)MP-G	1.5~1.8		
	UDH-A(B)HP-G	1.8~3.5		
	UDH-16SA(B)MS UDH-16A(B)MS-G	1~1.7		P.116
	UDH-16SA(B)HS UDH-16A(B)HS-G	1.7~2.5		
	UDH-16NA(B)MS	1.7~2.4		P.117
	UDH-16NA(B)HS	2.2~3		
	UDH-14A(B)LS	0.5~0.8		P.117
	UDH-14A(B)MS	0.8~1.5		
	UDH-14A(B)TS	1.5~2.0		
	URD8-3	0.022~0.038	Recess mount type.	P.118
	UDD-S	0.5~1.0	Can be mounted at the shaft of rotating lid, etc.	P.119
	UDD-M	1.0~2.0		
	UDD-H	2.0~3.0		

Lift Assist Hinges

Picture	Item Name	Torque N·m	Feature	Page
	HG-PA270-35	$35^{\pm 10\%}$	Outside mount type. Torque adjustable.	P.124
	HG-PA270-45	$45^{\pm 10\%}$		
	HG-PA200(201)-15	$15^{\pm 10\%}$		P.125
	HG-PA200(201)-20	$20^{\pm 10\%}$		
	HG-PA200(201)-25	$25^{\pm 10\%}$		
	HG-PA230(231)-15	$15^{\pm 10\%}$	Inside mount type. Torque adjustable.	P.126
	HG-PA230(231)-20	$20^{\pm 10\%}$		
	HG-PA230(231)-25	$25^{\pm 10\%}$		
	HG-PA202-15	$15^{\pm 10\%}$	Outside Back mount type. Torque adjustable.	P.127
	HG-PA202-20	$20^{\pm 10\%}$		
	HG-PA202-25	$25^{\pm 10\%}$		
	HG-PA300-15	$15^{\pm 10\%}$	Outside mount type. Torque adjustable.	P.128
	HG-PA180-9	$9^{\pm 10\%}$		P.131
	HG-PA210-9	$9^{\pm 10\%}$	Inside mount type. Torque adjustable.	P.132
	HG-JH210	–	Outside mount type.	P.133
	HG-TLAJ25	Retaining Torque 0~3.5	Torque adjustable.	P.134
	HG-TLAJ40			
	HG-PA182-9	$9^{\pm 10\%}$	Outside Back mount type. Torque adjustable.	P.136

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Detent Hinges

Butt Hinges

Picture	Item Name	Retaining Torque N·m	Detent Angle	Page
	HG-MPS2	0.26 0.145	–10˚ 120˚ 170˚	P.138
	HG-YJ50	Approx. 0.49	90˚ each	P.139
	HG-CHJ70	2	–3˚ –90˚ 90˚ 177˚	P.140
	HG-FH128	10	60˚ 120˚	P.141
	CH-75	–	0˚ 90˚ 180˚	P.144
	HG-RCT12-C	40	0˚ 90˚ Ratchet range 5˚ increment	P.144
	HG-RCT1S-90	Moment Load Capacity/set 40	90˚	P.145
	HG-MA95A	Max Torque N.m/pc 45	0˚~180˚ in 10˚ increments	P.146
	HG-MA95AF	–		
	HG-MA95B	Max Torque N.m/pc 45		P.147
	HG-MA95BF	–		

Recess Mount

Picture	Item Name	O. D.	Remarks	Page
	MPH-30	ϕ6	High Torque Type	P.137
	MPH-30-5TN	ϕ5	High Torque Type	P.137

Others (Special Type)

Picture	Item Name	Retaining Torque N·m	Page
	HG-YC105	Approx. 1.18	P.142
	KA-60	Load Capacity 14	P.143
	LNR	–	P.148

Concealed Hinges

Picture	Item Name	Door Thickness	Door Weight kg/2 pcs	Door Weight kg/3 pcs	Page
	R	–	Max. 4 Max. 7	–	P.150
	RK-50	Min. 15	Max. 2.6	–	P.151
	INO-66N	–	Max. 30	Max. 50	P.151
	HES3D-W190	Min. 42	Max. 100	Max. 125	P.154
	HES3D-E190	Min. 38	Max. 100	Max. 125	P.156
	HES3D-E160	Min. 36	Max. 55	Max. 70	P.157
	HES3D-120	Min. 29	Max. 30	Max. 40	P.158

Picture	Item Name	Door Thickness	Door Weight kg/2 pcs	Door Weight kg/3 pcs	Page
	HES3D-120-A100	Min. 29	Max. 30	Max. 40	P.160
	HES3D-90	Min. 23	Max. 12	Max. 16	P.161
	HES3D-70	Min. 19	Max. 9	Max. 12	P.163
	HES3D-V135LGR	Min. 30	Max. 40	Max. 55	P.164
	HES2S-140-A125	Min. 38	Max. 50	Max. 65	P.165
	HGS3D-S160SH	Min. 36	Max. 80	–	P.168

Glass Door Bracket HES3D-G120BKT ····· P.159
Glass Door Bracket HES3D-G90BKT ····· P.162
Bracket for Sheet Metal HES3D-E190BKT ····· P.166
Bracket for Sheet Metal HES3D-120BKT ····· P.166
Installation Template HES3D-TMP ····· P.167

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DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
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INDEX by Types of Hinges

Concealed Hinges

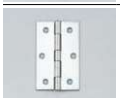
Picture	Series	Recommended Door Thickness	Overlay	Quick Detachment	Page
	360	15~20	19 14 9 Inset	○	P.174 ~
	H360	18~30	26 16 Inset	○	P.178 ~
	J95	18~30	25 16 Inset	○	P.188 ~
	J160	18~36	25	○	P.196
	100	15~20	19 14 9	–	P.202 ~

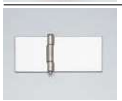
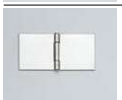
Picture	Series	Recommended Door Thickness	Overlay	Quick Detachment	Page
	170	15~20	19 9 Inset	–	P.208 ~
	H160	18~34	28 23 18 Inset	–	P.211 ~
	HT160	30	15	○	P.222 ~
	H95	30	13.6	○	P.224 ~
	T-90-200	15~18	15~18	–	P.228

Door Dimensions and Number of Hinges ····· P.200
How to Use the Locus Chart ····· P.201
Examples of Installation to Sheet Metal ····· P.221

INDEX by Types of Hinges

Butt Hinges

Picture	Item Name	Load Capacity N/2 pcs		Page
	HG-VH8-N	–		P.44
	LSA, LSB	69 88 157	186 333 363	P.230
	LSF	275 353 500 667		P.230
	KHA	49 59 69 88 108	118 137 147 167 186	P.231
	KHB	49 59 78 98 118	127 147 157 177 206	P.231
	F-A	20 29 39	59 69	P.232
	28300, 28400	167 226		P.232
	50704, 50706	118		P.232
	D-S-A	78 98 137	196 226 284	P.233
	D-S-B	49 59 88	127 186 235	P.233
	D-S-C	20 29 49 59		P.234
	HG-BF1	157		P.234
	28000, 28500	167		P.234
	27800, 27900	167		P.235
	SYR140	69		P.235

Picture	Item Name	Load Capacity N/2 pcs		Page
	LSS	245		P.235
	SBR40	69		P.236
	SR75	186		P.236
	3535SS, 4040SS	333 431		P.236
	3535WSS, 4040WSS	245 294		P.236
	4545BSS	481		P.237
	SR	69 88		P.237
	FHS	186 226 275	490 569 637	P.237
	LSK-1157	127 235 284 333	500 579 647	P.238
	HG-LSC210	1960		P.238
	D-CH	177 275 294		P.239
	OLYA	127 245		P.239
	YHS	59 98		P.239
	HG-CV	147 226		P.262
	HG-P100	98		P.264
	AS-HG-IS	69 157 333		P.264

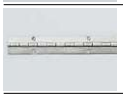
Picture	Item Name	Load Capacity N/2 pcs	Page
	AS-HG-AL	147	P.266
	AS-HG-SUS	294	P.267

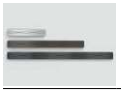
TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
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Piano Hinges

Picture	Item Name	Load Capacity N/pc		Page
	LSN	137 255 275 304 392 461 520 598	628 667 716 745 981 1370 1770 2550	P.240

Picture	Item Name	Load Capacity N/pc		Page
	LH	216 255 324 431	539 569 598 618	P.241
	LHN	549 588 745 834		P.241

Picture	Item Name	Load Capacity N/pc	Page
	HG-MH	–	P.242

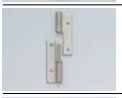
Step Hinges

Picture	Item Name	Load Capacity N/2 pcs	Page
	ROH-80	–	P.243
	KOH-80	127	P.243

Picture	Item Name	Load Capacity N/2 pcs	Page
	DH60N	147	P.243
	DH-60C	108	P.243

Picture	Item Name	Load Capacity N/2 pcs	Page
	28100	167	P.244

Lift-off Hinges

Picture	Item Name	Load Capacity N/2 pcs	Page
	LSX-100	294	P.244
	KN	78 108 167	P.244
	NH-40	69	P.245
	SNR65	177	P.245
	BN	88 118	P.246
	SKH	78 118 284	P.246
	HNH	127 177 245 422	P.247
	HG-STN	88 196 284	P.247
	TS-243	275 333	P.248

Picture	Item Name	Load Capacity N/2 pcs	Page
	ZL-1701	314 559	P.249
	HG-LSH	1961 2177	P.250
	HG-LSW	1960 2180	P.250
	HG-KM	2940 4810	P.251
	HG-KH	2940 4810	P.251
	HG-OT	29 59 69	P.252
	HG-CV-127	981	P.261
	HG-CV-65N	108	P.263
	AS-HG-AL-N	78	P.265

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Pivot Hinges

Detachable Type

Picture	Item Name	Material	Page
	HG-PV-30C	Stainless Steel	P.253
	HG-PV60AC	Stainless Steel	P.253

Edge mount type

Picture	Item Name	Material	Page
	PL-65	Stainless Steel	P.254
	WP1, WP3	Stainless Steel	P.254
	PL-60	Stainless Steel	P.255
	PP-60	Stainless Steel	P.255

Spring Hinges

Picture	Item Name	Load Capacity N/2 pcs	Page
	HG-VH8-OP HG-VH8-CL	–	P.44
	HG-SHL	39 59 78 186 225 284	P.256
	SH-C	88 157 196	P.257
	HG-BF3-2	69	P.257
	HG-SH	9.8 29 59 69	P.258

Picture	Item Name	Load Capacity N/2 pcs	Page
	SA	196 392	P.258
	ST150-6314-05	400	P.259
	PM120	200	P.259
	DA	–	P.260

Clean Room Hinges

Picture	Item Name	Load Capacity N/2 pcs	Page
	HG-CV-127	981	P.261
	HG-CVT	–	P.261
	HG-CV	147 226	P.262

Picture	Item Name	Load Capacity N/2 pcs	Page
	HG-CV-65N	108	P.263
	HG-P100	98	P.264

Hinges for Aluminium Frame

Picture	Item Name	Load Capacity N/2 pcs	Page
	AS-HG-IS	69 157 333	P.264
	AS-HG-AL-N	78	P.265

Picture	Item Name	Load Capacity N/2 pcs	Page
	AS-HG-AL	147	P.266
	AS-HG-SUS	294	P.267

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Drop Hinges

Picture	Item Name	Door Thickness	Page
	SDH-P	16~20	P.268
	SDH-001	16~20	P.269

Picture	Item Name	Door Thickness	Page
	MH-30	Max. 21	P.270
	MH-40	Max. 21	P.270

Glass Door Hinges

Picture	Item Name	Door Size	Page
	XL-GH03-48-0	Door Width: Max. 650 Door Height: Max. 900 Glass Thickness: 5, 6, 8	P.271
	XL-GH03-48-8	Door Width: Max. 650 Door Height: Max. 900 Glass Thickness: 5, 6, 8	P.271
	GH-456C	Door Width: Max. 600 Door Height: Max. 1200 Glass Thickness: 5, 6, 8	P.272
	GH-456N	Door Width: Max. 600 Door Height: Max. 1200 Glass Thickness: 5, 6, 8	P.272
	GH36-NCR	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	P.273
	GH34-0	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	P.274
	GH34-0CR-K	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	P.274

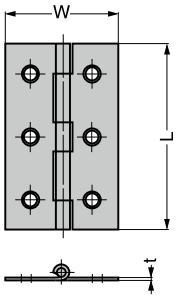
Picture	Item Name	Door Size	Page
	GH34-8CR-K	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	P.275
	GHC34-8CR-K	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	P.275
	GH34-0SS	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	P.276
	GH34-8SS	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	P.278
	GH34-8	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	P.280
	GHC34-8	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	P.282

Special Hinges

Picture	Product Name	Page
	Double Action Hinge HG-BH	P.284
	Corner Fastener Hinges(W/ Lock) STH-C64	P.284

Size and Load Capacity Table by Material and Thickness

Butt Hinges



Thickness (t)	Material: Stainless Steel			
	L × W	Load Capacity N/2 pcs	Item Name	Page
0.8	25.5 × 21	20	D-S-25C	P.234
	31.5 × 22.5	29	D-S-32C	P.234
	38 × 26	29	D-S-38C	P.234
	51 × 31	49	D-S-51C	P.234
	51 × 34.5	49	D-S-51B	P.233
	64 × 33	59	D-S-64C	P.234
	64 × 40	59	D-S-64B	P.233
1	76 × 46	88	D-S-76B	P.233
1.2	38 × 82	59	YHS-38	P.239
	89 × 56	127	D-S-89B	P.233
1.3	51 × 39	78	D-S-51A	P.233
	64 × 42.5	98	D-S-64A	P.233
1.5	25 × 32	49	KHA-25C(N)	P.231
	30 × 32	59	KHA-30C(N)	P.231
	32 × 90	59	YHS-32	P.239
	40 × 35	69	AS-HG-IS40	P.264
	40 × 32	69	KHA-40C(N)	P.231
	40 × 35	69	LSA(B)-40	P.230
	40 × 35	69	SBR40	P.236
	40 × 35	69	SR40	P.237
	50 × 32	88	KHA-50C(N)	P.231
	50 × 35	88	LSA(B)-50	P.230
	50 × 35	88	SR50	P.237
	51 × 116	98	YHS-51	P.239
	60 × 32	108	KHA-60C(N)	P.231
	65 × 32	118	KHA-65C(N)	P.231
	75 × 32	137	KHA-75C(N)	P.231
	76 × 50	137	D-S-76A	P.233
	80 × 32	147	KHA-80C(N)	P.231
	90 × 32	167	KHA-90C(N)	P.231
	100 × 32	186	KHA-100C(N)	P.231
	102 × 66.5	186	D-S-102B	P.233
	127 × 82	235	D-S-127B	P.233
1.8	89 × 56.5	196	D-S-89A	P.233
	102 × 70	226	D-S-102A	P.233
	127 × 82	284	D-S-127A	P.233
2	28 × 140	69	SYR140	P.235
	51 × 128	127	OLYA-128S	P.239
	65 × 50	157	LSA(B)-65	P.230
	65 × 50	157	AS-HG-IS65	P.264
	65 × 50	157	HG-BF1	P.234
	75 × 50	186	LSA(B)-75	P.230
	75 × 50	186	SR75	P.236

Thickness (t)	Material: Stainless Steel			
	L × W	Load Capacity N/2 pcs	Item Name	Page
2.5	51 × 50	127	LSK-1157-1	P.238
	89 × 89	245	3535WSS	P.236
	101.6 × 101.6	294	4040WSS	P.236
3	50 × 50	186	FHS-50	P.237
	60 × 64	226	FHS-60	P.237
	64 × 64	235	LSK-1157-2	P.238
	65 × 56	245	LSS-H(Z)-A(N)65	P.235
	65 × 185	245	OLYA-185S	P.239
	75 × 70	275	FHS-75	P.237
	76 × 74	284	LSK-1157-3	P.238
	89 × 87	333	LSK-1157-4	P.238
	89 × 89	333	3535SS	P.236
	90 × 60	333	LSA(B)-90	P.230
	90 × 60	333	AS-HG-IS90	P.264
	100 × 60	363	LSA(B)-100	P.230
3.4	101.6 × 101.6	431	4040SS	P.236
	114.3 × 114.3	481	4545BSS	P.237
4	100 × 100	490	FHS-100	P.237
	101.6 × 99	500	LSK-1157-5	P.238
	125 × 100	569	FHS-125	P.237
	127 × 119	579	LSK-1157-6	P.238
	150 × 120	637	FHS-150	P.237
	152 × 143	647	LSK-1157-7	P.238
	38 × 39	167	28300	P.232
	50 × 50	226	28400	P.232
	58 × 38	167	27900	P.235
	68 × 43	294	AS-HG-SUS-M3020	P.267
	68 × 50	294	AS-HG-SUS-M3030	P.267
	68 × 57	294	AS-HG-SUS-M3040	P.267
	68 × 64	294	AS-HG-SUS-M4040	P.267
	72 × 38	167	27800	P.235
	74 × 38	167	28500	P.234
	104 × 38	167	28000	P.234
	105 × 26.5	118	50704	P.232
	158 × 26.5	118	50706	P.232
5	50 × 50	275	LSF-50	P.230
	65 × 65	353	LSF-65	P.230
6	75 × 75	500	LSF-75	P.230
	100 × 100	618	LSF-100	P.230
	210 × 150	1960	HG-LSC210(N)	P.238

Thickness (t)	Material: Steel			
	L × W	Load Capacity N/2 pcs	Item Name	Page
0.8	25 × 20	20	F-25A	P.232
	32 × 22	20	F-32A	P.232
	38 × 26	29	F-38A	P.232
	51 × 30	39	F-51A	P.232
1	64 × 33	59	F-64A	P.232
	76 × 41	69	F-76A	P.232
3	60 × 50	177	D-CH-60	P.239
	90 × 60	275	D-CH-90	P.239
	100 × 80	294	D-CH-100	P.239

Thickness (t)	Material: Aluminium Alloy			
	L × W	Load Capacity N/2 pcs	Item Name	Page
3.5	65 × 60	147	HG-CV-65(TNS)	P.262
	65 × 60	147	AS-HG-CV-65	P.262
	65 × 60	–	HG-CVT65-15	P.261
	100 × 60	226	HG-CV-100(TNS)	P.262
	100 × 60	226	AS-HG-CV-100	P.262
	100 × 60	–	HG-CVT100-20	P.261
3.8	68 × 43	147	AS-HG-AL-M3020	P.266
	68 × 50	147	AS-HG-AL-M3030	P.266
	68 × 57	147	AS-HG-AL-M3040	P.266
	68 × 64	147	AS-HG-AL-M4040	P.266

Thickness (t)	Material: Brass			
	L × W	Load Capacity N/2 pcs	Item Name	Page
2.3	25 × 32	49	KHB-25CR	P.231
	30 × 32	59	KHB-30CR	P.231
	40 × 32	78	KHB-40CR	P.231
	50 × 32	98	KHB-50CR	P.231
	60 × 32	118	KHB-60CR	P.231
	65 × 32	127	KHB-65CR	P.231
	75 × 32	147	KHB-75CR	P.231
	80 × 32	157	KHB-80CR	P.231
	90 × 32	177	KHB-90CR	P.231
	100 × 32	206	KHB-100CR	P.231

Thickness (t)	Material: Resin			
	L × W	Load Capacity N/2 pcs	Item Name	Page
8	100 × 80	98	HG-P100	P.264

Size and Load Capacity Table by Material and Thickness

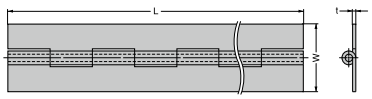
Piano Hinges

Thickness (t)	Material: Stainless Steel			
	L × W	Load Capacity N/pc	Item Name	Page
0.8	300 × 25	137	LSN8-25-300	P.240
	300 × 32	137	LSN8-32-300	P.240
	600 × 25	275	LSN8-25-600	P.240
	600 × 32	275	LSN8-32-600	P.240
	1000 × 25	461	LSN8-25-1000	P.240
	1000 × 32	461	LSN8-32-1000	P.240
	1000 × 38	461	LSN8-38-1000	P.240
	1200 × 32	549	LHN-32-1200	P.241
	1200 × 38	549	LHN-38-1200	P.241
	1500 × 32	588	LHN-32-1500	P.241
	1500 × 38	588	LHN-38-1500	P.241
	1800 × 25	716	LSN8-25-1800	P.240
	1800 × 32	716	LSN8-32-1800	P.240
	1800 × 38	716	LSN8-38-1800	P.240
	1872 × 32	745	LHN-32-1872	P.241
	1872 × 38	745	LHN-38-1872	P.241
	2100 × 32	834	LHN-32-2100	P.241
	2100 × 38	834	LHN-38-2100	P.241

Thickness (t)	Material: Stainless Steel			
	L × W	Load Capacity N/pc	Item Name	Page
1.5	300 × 32	255	LSN15-32-300	P.240
	350 × 32	304	LSN15-32-350	P.240
	450 × 32	392	LSN15-32-450	P.240
	600 × 32	520	LSN15-32-600	P.240
	750 × 32	598	LSN15-32-750	P.240
	850 × 32	628	LSN15-32-850	P.240
	900 × 32	667	LSN15-32-900	P.240
	1000 × 32	745	LSN15-32-1000	P.240
	1000 × 38	745	LSN15-38-1000	P.240
	1000 × 50	745	LSN15-50-1000	P.240
	1800 × 38	1370	LSN15-38-1800	P.240
	1800 × 50	1370	LSN15-50-1800	P.240
2	1000 × 50	981	LSN20-50-1000	P.240
3	1000 × 100	1370	LSN30-100-1000	P.240
	2000 × 100	2550	LSN30-100-2000	P.240
4	500 × 100	981	LSN40-100-500	P.240
	1000 × 100	1770	LSN40-100-1000	P.240

Thickness (t)	Material: Steel			
	L × W	Load Capacity N/pc	Item Name	Page
1.6	300 × 32	216	LH-30A	P.241
	350 × 32	255	LH-35A	P.241
	450 × 32	324	LH-45A	P.241
	600 × 32	431	LH-60A	P.241
	750 × 32	539	LH-75A	P.241
	850 × 32	569	LH-85A	P.241
	900 × 32	598	LH-90A	P.241
	1000 × 32	618	LH-100A	P.241

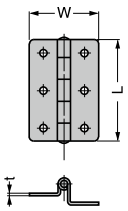
Thickness (t)	Material: Aluminium Alloy			
	L × W	Load Capacity N/pc	Item Name	Page
3.5	400 × 70	–	HG-MH400S(BR/BL)	P.242
	800 × 70	–	HG-MH800S(BR/BL)	P.242
	1100 × 70	–	HG-MH1100S(BR/BL)	P.242



Step Hinges

Thickness (t)	Material: Stainless Steel			
	L × W	Load Capacity N/2 pcs	Item Name	Page
1.5	60 × 40	108	DH-60C	P.243
2	60 × 36.3	147	DH60N	P.243
4	39 × 43	167	28100	P.244

Thickness (t)	Material: Steel			
	L × W	Load Capacity N/2 pcs	Item Name	Page
1.6	80 × 57	–	ROH-80	P.243
	80 × 69.5	127	KOH-80	P.243



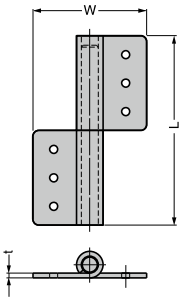
Lift-off Hinges

Thickness (t)	Material: Stainless Steel			
	L × W	Load Capacity N/2 pcs	Item Name	Page
1.5	40 × 30	69	NH-40CL(R)	P.245
	45 × 50	29	HG-OTA45L(R)	P.252
	45 × 50	29	HG-OTB45L(R)	P.252
	50 × 30	88	BN-50S	P.246
	50 × 32	78	KN-50CL(R)	P.244
	64 × 36	108	KN-64CL(R)	P.244
	64 × 36	118	BN-64S	P.246
	75 × 50	59	HG-OTA(B)75	P.252
	100 × 50	69	HG-OTA(B)100	P.252
2	75 × 38	167	KN-75CL(R)	P.244
2.5	50 × 40	127	HNH-50CL(R)	P.247
	51 × 11	78	SKH-51S	P.246
	65 × 40	177	SNR65L(R)	P.245
	65 × 50	177	HNH-65CL(R)	P.247
	100 × 60	294	LSX-100L(R)	P.244
3	60 × 13	118	SKH-60S	P.246
	75 × 70	245	HNH-75CL(R)	P.247
	103 × 28.3	333	TS-243-30S	P.248
	125 × 100	981	HG-CV-127L(R)	P.261
	108 × 96	314	ZL-1701-10	P.249

Thickness (t)	Material: Stainless Steel			
	L × W	Load Capacity N/2 pcs	Item Name	Page
4	100 × 82	422	HNH-100CL(R)	P.247
	144 × 104	559	ZL-1701-12	P.249
4.5	80 × 14.5	284	SKH-80S	P.246
5	80 × 36	88	HG-STN-40L(R)	P.247
6	60 × 46	196	HG-STN-60L(R)	P.247
	154 × 116	1961	HG-LSH-154L(R)	P.250
	154.5 × 116	1960	HG-LSW-154L(R)	P.250
	204 × 160	2177	HG-LSH-204L(R)	P.250
	204.5 × 160	2180	HG-LSW-204L(R)	P.250
8	75 × 66	284	HG-STN-75L(R)	P.247
12	268 × 300	2940	HG-KH12-268L(R)	P.251
	268 × 350	2940	HG-KM12-268L(R)	P.251
19	275 × 300	4810	HG-KH19-275L(R)	P.251
	275 × 350	4810	HG-KM19-275L(R)	P.251

Thickness (t)	Material: Steel			
	L × W	Load Capacity N/2 pcs	Item Name	Page
3.2	103 × 28.5	275	TS-243-30	P.248

Thickness (t)	Material: Aluminium Alloy			
	L × W	Load Capacity N/2 pcs	Item Name	Page
3.5	65 × 60	108	HG-CV-65NR(L)	P.263
	65 × 60	108	AS-HG-CV-65NR(L)	P.263
3.8	63 × 43	78	AS-HG-AL-NL(R)3020	P.265
	63 × 50	78	AS-HG-AL-NL(R)3030	P.265
	63 × 50	78	AS-HG-AL-NL(R)4020	P.265
	63 × 57	78	AS-HG-AL-NL(R)3040	P.265
	63 × 64	78	AS-HG-AL-NL(R)4040	P.265



[Concept of Moment]

When selecting Motion Design Tech products, such as torque hinges and damper hinges, etc., the criterion is the moment of the door or cover. Moment refers to the action of the force tending to make the object rotate around a point. If the moment matches the torque (※) of the hinge, it means that the hinge is applicable.

※ Torque refers to the action of the force making the object rotate around the rotation axis. When using multiple hinges, its value is the torque multiplied by the number of hinges being used.

Formula for Calculating the Moment

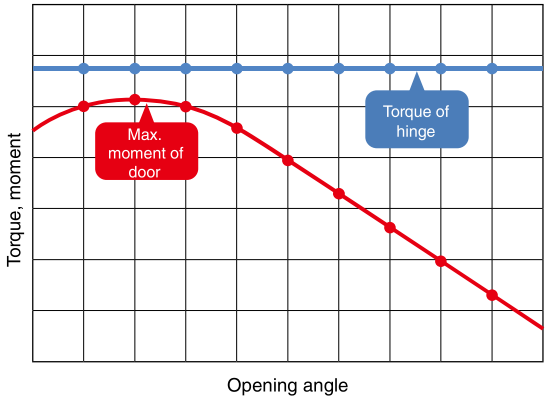
Moment of door or lid = Horizontal distance from rotation centre to centre of gravity × Weight of door or lid

Maximum moment of door or lid = Maximum horizontal distance from rotation centre to centre of gravity × Weight of door or lid

Relationship between Applicable Hinge and Moment of Door

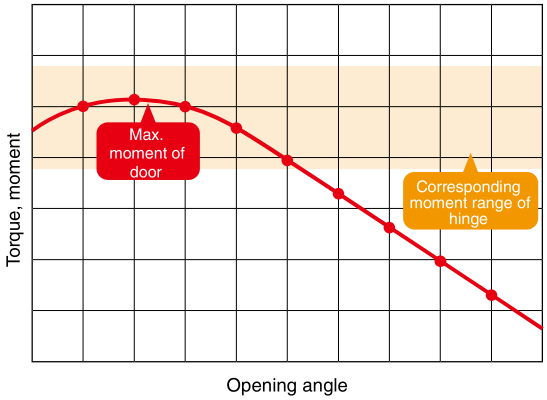
● In case of a torque hinge (Free stop)

If the torque of the hinge is more than the maximum moment of the door, then the hinge is applicable.



● In case of a damper hinge (soft motion)

If the maximum moment of the door is within the torque range of the hinge, then the hinge is applicable.

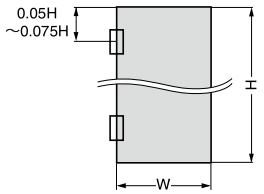


※ The moment of the door is calculated as per the horizontal distance from the rotation centre to the centre of gravity. Therefore, it changes with the opening angle.

[Concept of Load-bearing]

The load-bearing of individual hinge is calculated as per “Door width : Door height = 1:2” .

Wherein, the mounting position of the hinge is determined according to the situation that the distance from the upper end surface or lower end surface of the door to the hinge centre in longitudinal direction is within the range of 0.05 H ~ 0.075 H (H is the height of the door).



[Precautions for Use]

Torque Hinge

- 2 hinges per door (lid) is recommended.
- Continuous action (repeated action within short time) is not allowed.
- Avoid eccentric load on the hinge.
- Do not contact with water, oil and lubricants, etc.
- Torque refers to the torque at delivery, rather than the torque after durability test.
- Do not use in the outdoor or at dusty places to avoid significantly degrading of performance.

Damper Hinge

- 2 hinges per door (lid) is recommended.
- Use within the torque range.

COMBINATION HINGE HG-VH8

Lapcon INSTRUCTION



- Hinges with built-in damper, spring or torque unit, etc.
- Various motions by using hinges with different built-in parts in combination.
- For hinges with built-in springs, the spring tension can be adjusted with a hex key.

[Specifications]
- Operating temperature: 0℃~40℃

[Applications]
- Lightweight lids of small equipment, etc.

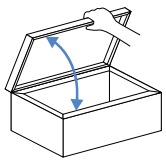
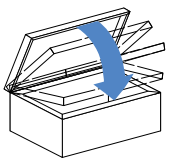
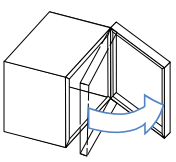
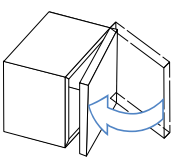
[Remarks]
- Be sure to read the "Cautions" 1.
- When installing, ensure that both hinge shafts are aligned.

Selection Tool
Sasuga-kun (Soft-close)

Video Link

Selection Tool
Sasuga-kun (Free stop)

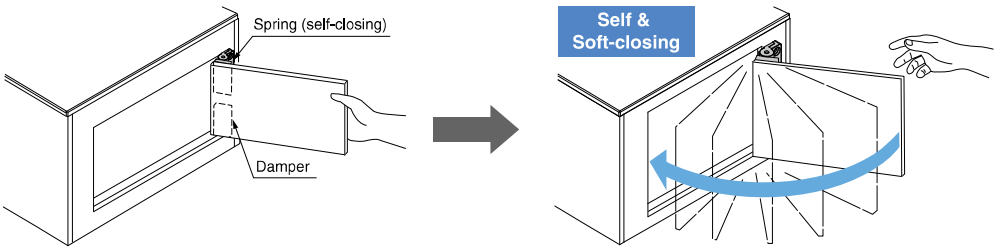
[Hinge Motions] For top-opening lid

Part Built-in		Without Part Built-in	Damper	Spring (self-opening)	Spring (self-closing)	Torque
Motions		 Freely opens and closes as normal hinges.	Soft-close  Slowly closes.	Self-opening  Always tries to open.	Self-closing  Always tries to close.	Free stop  Stops at any position.
Possible Combinations (built-in unit)	Without Part Built-in	Yes	Yes	Yes	Yes	Yes
	Damper	Yes	Yes	Yes	Yes	No
	Spring (self-opening)	Yes	Yes	Yes	No	It depends
	Spring (self-closing)	Yes	Yes	No	Yes	It depends
	Torque	Yes	No	It depends	It depends	Yes

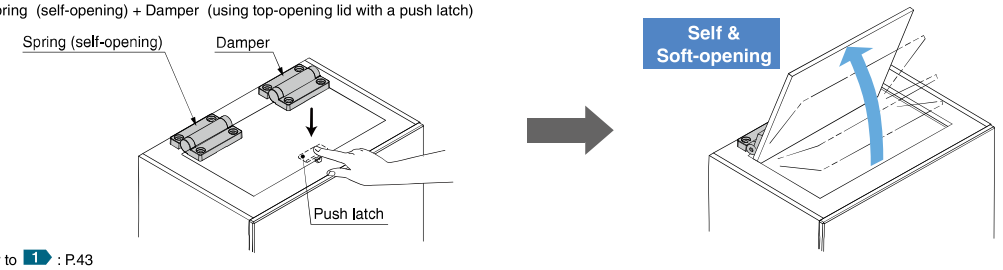
(It depends) Please carry out thorough tests before using since performance with these combinations might vary depending on door size and weight.

[Combination Example]

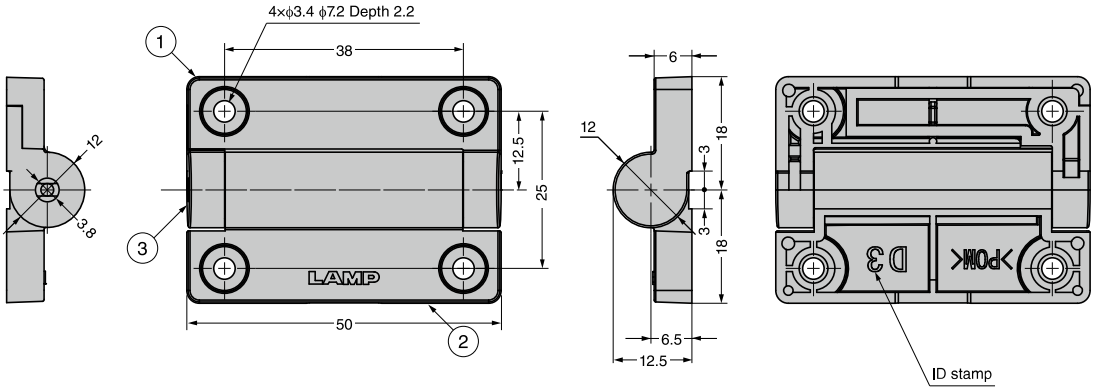
● Spring (self-closing) + Damper (lateral-opening)



● Spring (self-opening) + Damper (using top-opening lid with a push latch)



Refer to 1 : P.43



No.	Part Name	Material	Colour
①	Bracket A	POM	Black, White
②	Bracket B		
③	Bracket C		
–	Damper URD8-3	POM, etc.	–
–	Spring Unit URS8	–	–
–	Torque Unit URT8	–	–

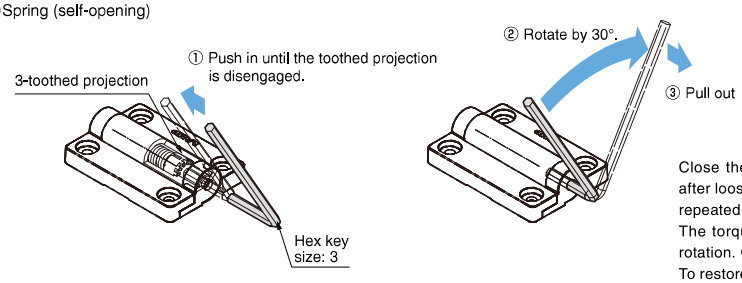
Lateral-opening door weight: Max. 810g
Reference door size: W300×H450×t 5 mm
Acrylic plate, Density 1.2 g/cm³

RoHS	CAD	Item Code	Item Name	Part Built-in	ID Stamp	Colour	Torque N·m/pc	Torque kgf·cm/pc	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-032-616	HG-VH8-N-BL	–	N	Black	–	–	270°	11	40	640
G	3D	170-032-617	HG-VH8-N-WT			White					40	640
G	3D	170-032-618	HG-VH8-D3-BL	Damper	D3	Black	0.022~0.038	0.22~0.39		14	40	640
G	3D	170-032-619	HG-VH8-D3-WT			White					40	640
G	3D	170-032-620	HG-VH8-OP-BL	Spring (self-opening)	OP	Black	※	※		18	40	640
G	3D	170-032-621	HG-VH8-OP-WT			White					40	640
G	3D	170-032-622	HG-VH8-CL-BL	Spring (self-closing)	CL	Black					40	640
G	3D	170-032-623	HG-VH8-CL-WT			White					40	640
G	3D	170-032-624	HG-VH8-T15-BL	Torque	T1	Black	0.15±0.05	1.53±0.51		19	40	640
G	3D	170-032-625	HG-VH8-T15-WT			White					40	640
G	3D	170-032-626	HG-VH8-T35-BL		T3	Black	0.35±0.1	3.57±1.02			40	640
G	3D	170-032-627	HG-VH8-T35-WT			White					40	640

※ Increased by 0.0153N・m (0.16kgf・cm) by adjusting the spring tension. The initial value of the spring tension is 0N・m.

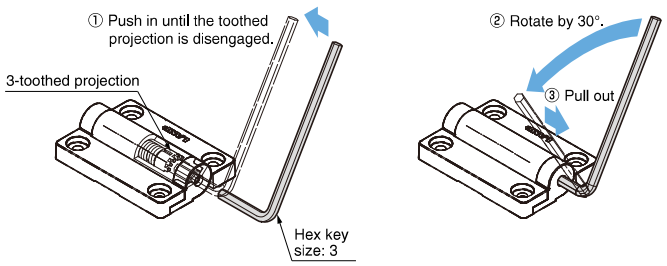
[How to Adjust Spring Tension]

●Spring (self-opening)



Close the lid, and check if the lid can be opened smoothly after loosing your hand(s). If the spring tension is not enough, repeated steps ① ~ ③.
The torque will be increased by 0.0153N・m at each 30° of rotation. Generally no more than 4 times (120°) are required. To restore to the initial state, rotate in the direction opposite to above.

●Spring (Self-closing)



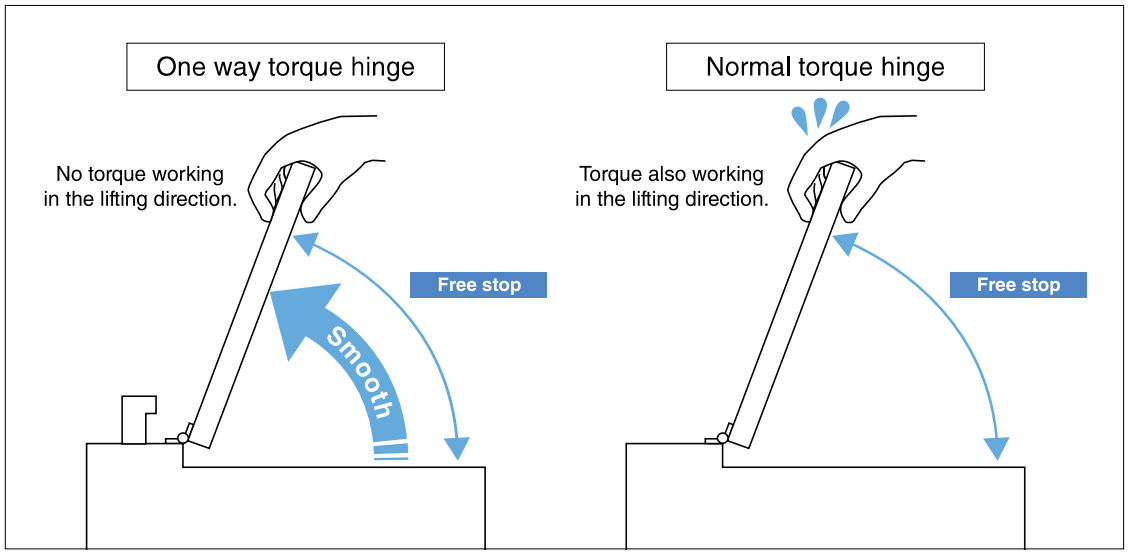
Open the lid and check if the lid can be closed smoothly after loosing your hand(s). If the spring tension is not enough, repeated steps ① ~ ③.
The torque will be increased by 0.0153N・m at each 30° of rotation. Generally no more than 4 times (120°) are required.To restore to the initial state, rotate in the direction opposite to above.

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

ONE WAY TORQUE HINGE

Free stop + Easy operation

Friction in one direction only (free stop): Allows for frictionless handling of the door or lid in the opposite direction.



[List of One Way Torque Hinges]

Item Name			
	HG-TQS15	HG-TQJ100	HG-TQA
Torque N · m	$1.5^{+40\%}_{-20\%}$	0~10 (Adjustable)	$9.0^{+40\%}_{-20\%}$
Page	P.47	P.48	P.49

Item Name			
	HG-TQW8080	HG-TQU15	HG-TQWA15
Torque N · m	$8.0^{\pm 20\%}$	$1.5^{+40\%}_{-20\%}$	$1.5^{+40\%}_{-20\%}$
Page	P.50	P.55	P.57

[Other One Way Torque Products]

FREE STOP STAY (ONE WAY) S-TAR P.386







- Torque stay for upward-opening, downward-opening and top-opening.
- Friction in one direction only, realising smooth opening.
- Torque adjustable with a hex key (included).
- Torque: 0 ~ 7N · m (adjustable)

ONE WAY TORQUE HINGE HG-TQS15



Free stop
Passed 20,000 open/close private cycle tests

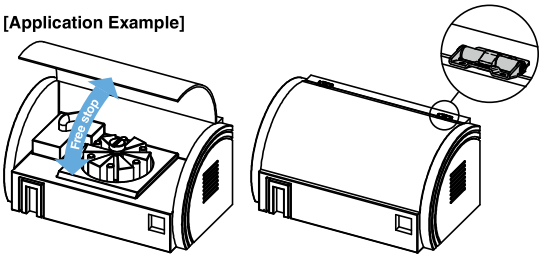
- Friction in one direction only: Allows for frictionless handling of the doors in the opposite direction.
- Can be used horizontally or vertically.

[Applications]
- Medical equipment, inspection equipment, various automatic devices

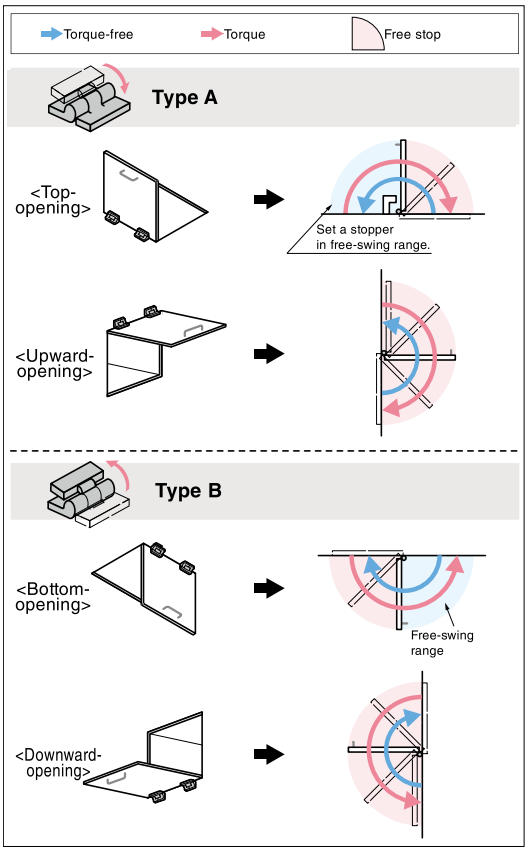
[Remarks]
- Be sure to read the "Cautions" 1.
- Set a stopper in free-swing range (see the figure below for details).
- When installing, ensure that both hinge shafts are aligned.
- In consideration of torque decrease due to aging, temperature, humidity, etc., the torque at shipping is set relatively high.
- A caution sticker is attached to keep the hinge from opening and closing during transport. Remove when installing the product.
- Install a catch or latch as well to keep lids or doors from sagging open.

[Recommended Screws]
- M5 screws

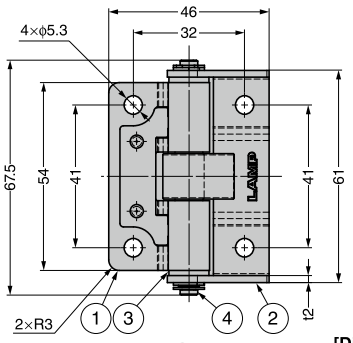
[Application Example]



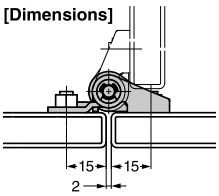
[Torque Direction and Free-stop Range]



Selection Tool
Sasuga-kun

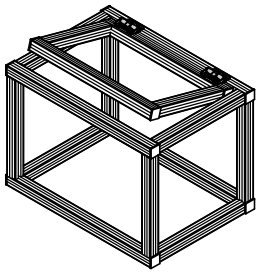


[Dimensions]



No.	Part Name	Material	Finish/Colour
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Base		
③	Fixing Tube	Polyacetal (POM)	Black
④	Shaft	Stainless Steel	-
⑤	Housing	Zinc Alloy	Nickel

[Aluminium Installation Frame]



Available for installation on aluminium frames of □30 or less.

RoHS	CAD	Item Code	Item Name	Torque Working Direction	Torque N·m	Torque kgf·cm	Weight (g)
G	3D	170-049-851	HG-TQS15-A	Hinge Opening Direction	1.5 +40% −20%	15.3 +40% −20%	89
G	3D	170-046-655	HG-TQS15-B	Hinge Closing Direction			

Refer to 1: P.43

ADJUSTABLE ONE WAY TORQUE HINGE HG-TQJ100

INSTRUCTION



- Friction in one direction only: Allows for frictionless handling of the door in the opposite direction.
- Torque adjustable from 0 to 10N・m.
- High torque type with max. torque up to 10N・m.
- Two types (friction in opening direction and in closing direction) available.
- Torque is stable.
- Cover attached to torque adjustment part for clean appearance.

[Specifications]

- Operating temperature: 0℃~40℃

[Applications]

- Impact-free opening and closing of door.Medical equipment, FA equipment, and OA equipment, etc.

[Remarks]

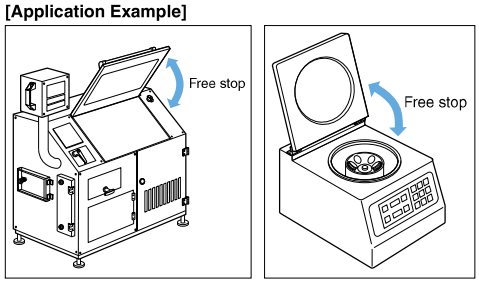
- Be sure to read the "Cautions" 1.
- Use all mounting holes.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Do not remove the torque adjustment screw.
- Use a hex key (nominal size 5) for torque adjustment.
- Readjust the torque moment when it lowers.
- Be sure to fix the slit on the opposite shaft when turning the torque adjustment nut.

Video Link

Selection Tool

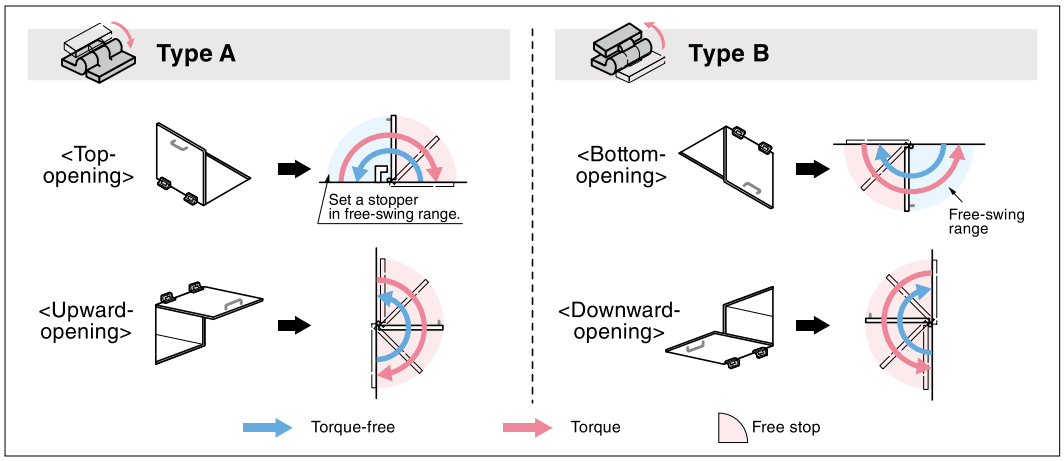
Sasuga-kun

[Application Example]

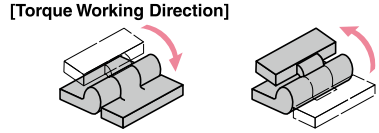


Since torque is adjustable from 0 to 10N・m, applicable to various doors.

[Torque Direction and Free-stop Range]



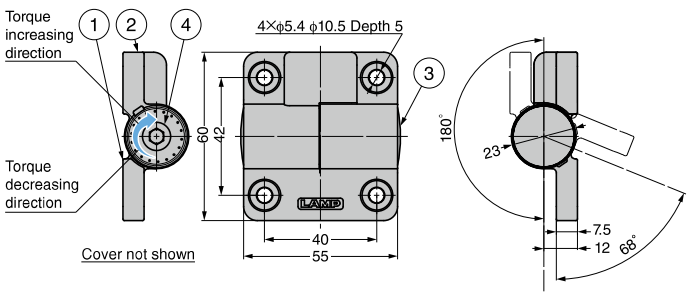
[Torque Working Direction]



Opening direction
Item name suffixed with "A"

Closing direction
Item name suffixed with "B"

No.	Part Name	Material	Finish / Colour
①	Bracket A	Zinc Alloy	Silver (baking paint)
②	Bracket B		
③	Cover	PP	Dark Grey
④	Torque Adjustment Nut	Steel	—



RoHS	CAD	Item Code	Item Name	Torque Working Direction	Torque N・m/pc	Torque kgf・cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-032-969	HG-TQJ100-A	Hinge Opening Direction	0~10	0~102	242	12	96
G	3D	170-032-970	HG-TQJ100-B	Hinge Closing Direction				12	96

Refer to 1 : P.43

ONE WAY TORQUE HINGE HG-TQA



Sold in pairs.

- Friction in one direction only: Allows for frictionless handling of the door in the opposite direction.
- Torque is stable.

[Specifications]

- Operating temperature: 0℃~50℃

[Applications]

- Impact-free opening and closing of door.Medical equipment, FA equipment, and OA equipment, etc.

[Remarks]

- Be sure to read the "Cautions" 1.
- Use the door at less than 80% of torque (7.2N・m or less).
- Torque will decrease at low temperature.
- Not suited to vibration environment.
- Hexalobular socket head screw (shown below as ◎) may not be used for torque adjustment.Do not tighten or loosen.
- Install an external stopper to hold the door within the range where torque is not effective (Refer to the lower left diagram for details).
- Install a catch to keep the door closed.
- Before installation, check if the installing position is strong enough.
- Install the torque unit (male) at the fixed side while the clutch unit (female) at the movable side.
- Sold in pairs.
- When installing, ensure that both hinge shafts are levelled and aligned.

Video Link

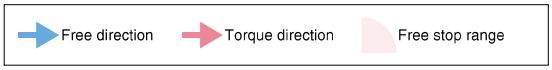
Selection Tool

Sasuga-kun

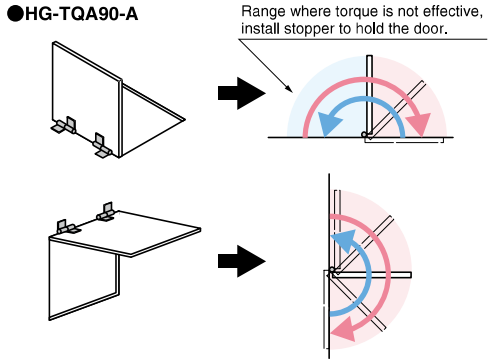
[Recommended Screws]

- M5 binding head screws

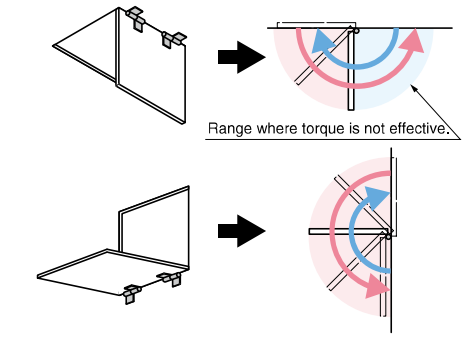
[Torque and Free Stop Range]

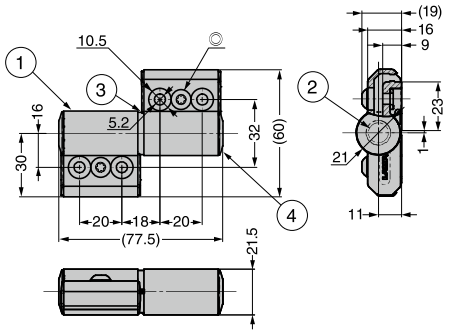


●HG-TQA90-A



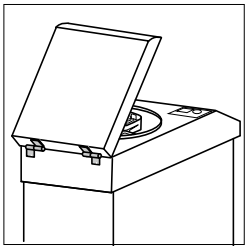
●HG-TQA90-B



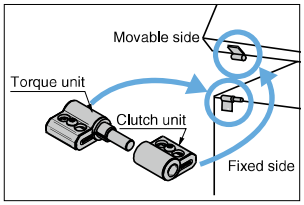


No.	Part Name	Material	Finish
①	Body	Aluminium Alloy	Anodised Silver
②	Shaft	Stainless Steel	Plain
③	Sleeve	POM	Black
④	Cover		

[Application Example]



[Installation]



RoHS	CAD	Item Code	Item Name	Torque N·m / pair※	Torque kgf·cm / pair※	Weight (g / pair)	Box (pairs)	Carton (pairs)
G	3D	170-021-244	HG-TQA90-A	$9.0^{+40\%}_{-20\%}$	$91.8^{+40\%}_{-20\%}$	270	1	10
G	3D	170-021-245	HG-TQA90-B				1	10

Refer to 1 : P.43

※ Since torque will decrease due to long-term use, temperature, humidity and other factors, it is set to a higher level at delivery.

TWO STEPS ONE WAY TORQUE HINGE HG-TQW8080



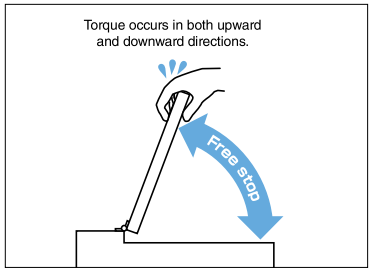
- Generates torque in downward direction only. (Operation range: 0 - 180˚)
- The torque direction reverses when the hinge opens at over 90˚. This allows a flap to hold in position at all angles of 180˚ with smooth and light operation.

[Specifications]
- Operating temperature: 0˚C~40˚C

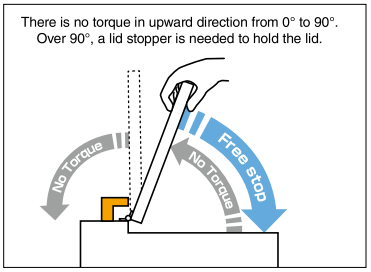
[Application]
- Doors that should not be subjected to impact when opening and closing. Medical equipment, FA equipment, OA equipment, etc.

[Remarks]
- Use all installation holes.
- Keep the centre of the hinge shafts level to prevent misalignment during installation.

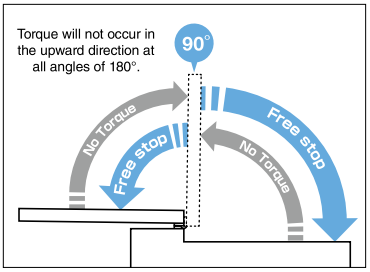
Video Link



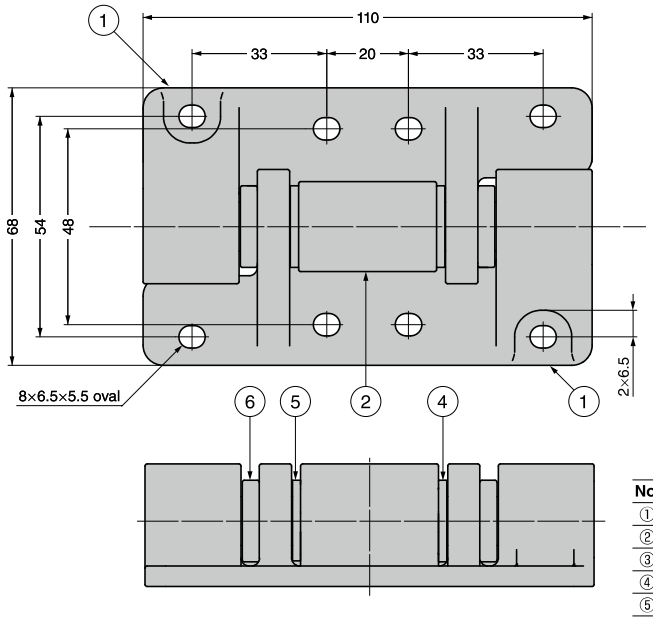
Conventional torque hinge

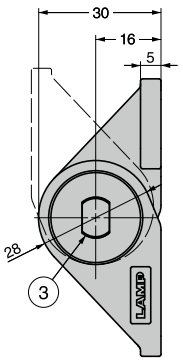


Conventional one-way torque hinge



HG-TQW8080 hinge





Operation range (180˚)

Selection Tool
Sasuga-kun

No.	Part Name	Material	Finish/Colour
①	Base	Zinc Alloy	Satin Chrome
②	Bracket		
③	Shaft	Stainless Steel (SUS)	–
④	Plug	Polyacetal (POM)	Black
⑤	Washer A		
⑥	Washer B		

RoHS	CAD	Item Code	Item Name	Torque N·m	Torque kgf·cm	Weight (g)	Box (pcs)	Carton (pcs)
GT	3D	170-041-284	HG-TQW8080	8.0±20%	81.6±20%	625	8	16

TORQUE HINGE HG-TS

SUS



Free stop
Greaseless
Passed 20,000 open/ close private cycle test

- Sugatsune's patented technology reduces the number of parts for a cost-effective solution.
- Can be installed to aluminium frame.

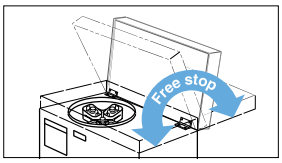
[Specifications]
- Operating temperature: -10˚C~50˚C
- Operating humidity: 90%RH or less

[Applications]
- Stereo equipment, FA equipment, and various automatic equipment

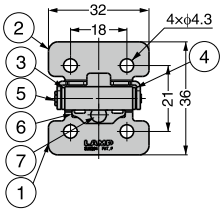
[Remarks]
- Be sure to read the "Cautions" 1.
- When installing, ensure that both hinge shafts are levelled and aligned.

Selection Tool
Sasuga-kun

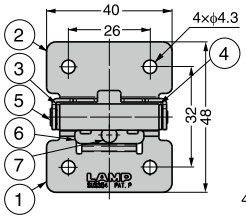
[Application Example]



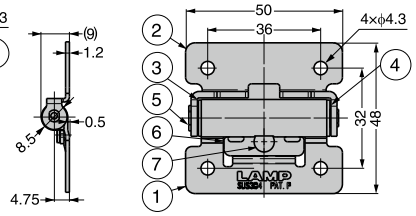




HG-TS03



HG-TS07



HG-TS15

No.	Part Name	Material	Finish / Colour
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Base		
③	Rotating Tube L	POM	Black
④	Rotating Tube R		

No.	Part Name	Material	Finish / Colour
⑤	Shaft	Stainless Steel (SUS303)	–
⑥	Press Washer	Stainless Steel (SUS304)	Barrel Polished
⑦	Pin	Stainless Steel	–

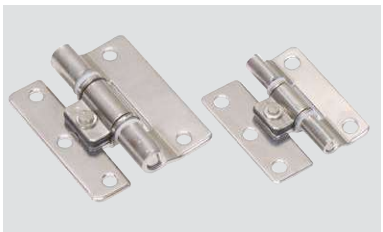
RoHS	CAD	Item Code	Item Name	Torque N·m/pc※	Torque kgf·cm/pc※	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-018-501	HG-TS03	0.35 +40% −20%	3.6 +40% −20%	15.0	50	500
G	3D	170-018-502	HG-TS07	0.7 +40% −20%	7.1 +40% −20%	27.5	50	500
G	3D	170-018-503	HG-TS15	1.5 +40% −20%	15.3 +40% −20%	64.1	20	200

Refer to 1 : P.43

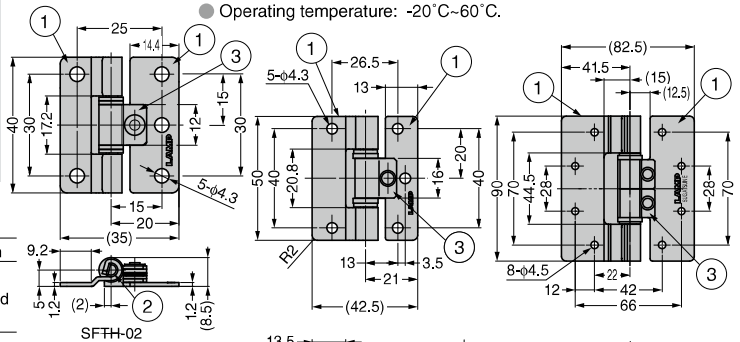
※ Since torque will decrease due to long-term use, temperature, humidity and other factors, it is set to a higher level at delivery.

STAINLESS STEEL TORQUE HINGE SFTH

SUS

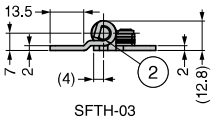


- Hinge with friction torque holds lid/door in desired position.
- Stainless steel material ideal for corrosive environments.
- Operating temperature: -20˚C~60˚C.

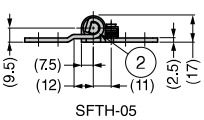


SFTH-02

No.	Part Name	Material	Finish
①	Body A	Stainless Steel (SUS304)	Polished
②	Shaft	Stainless Steel (SUS303)	
③	Body B	Stainless Steel (SUS301)	



SFTH-03

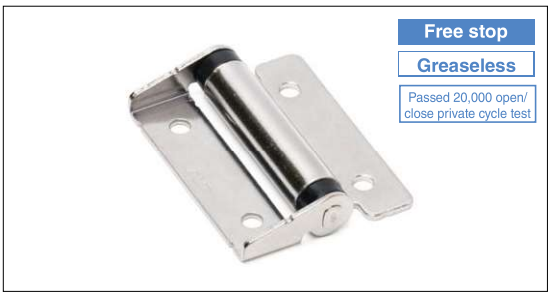


SFTH-05

RoHS	CAD	Item Code	Item Name	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-098-199	SFTH-02-5	5±1	21	50	500
G	3D	170-098-198	SFTH-03-9	9±2	51	30	300
G	3D	170-098-197	SFTH-03-19	19±2			
G	3D	170-098-196	SFTH-05-35	35±5	195	10	100
G	3D	170-098-200	SFTH-05-58	58±5			

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

TORQUE HINGE HG-TP





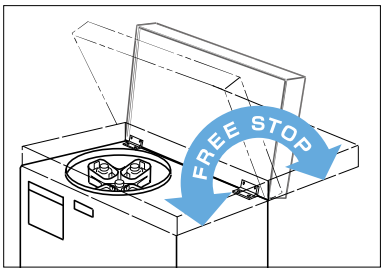
- A combination of plastic and metal is used for friction in order to prevent metallic dust caused by metal to metal contact.

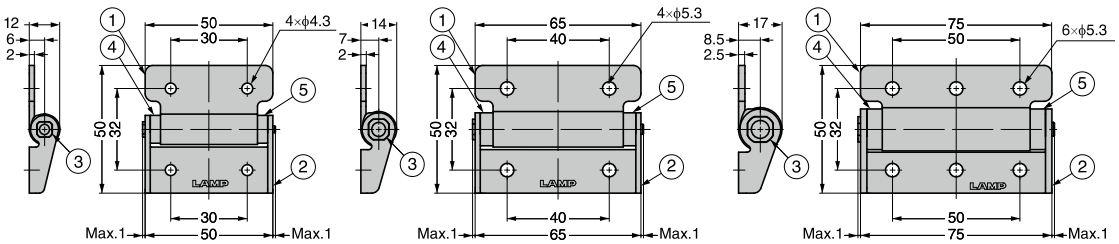
[Specifications]
- Operating temperature: -10˚C~40˚C
- Can be used in both vertical and horizontal directions.

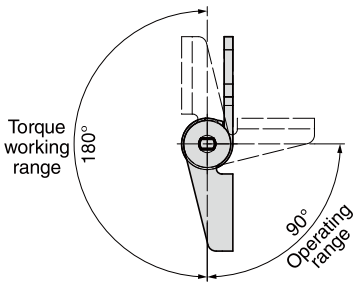
[Applications]
- Stereo equipment, FA equipment, and various automatic equipment

[Remarks]
- Be sure to read the “Cautions” 1.
- Ensure that hinge shafts are leveled and aligned.
- Install a lid to the bracket A.

[Application Example]







No.	Part Name	Material	Finish / Colour
①	Bracket A	Stainless Steel (SUS304)	Barrel Polished
②	Bracket B		
③	Shaft	Stainless Steel (SUS303)	—
④	Plug	POM	Black
⑤	Washer		

Selection Tool
Sasuga-kun

RoHS	CAD	Item Code	Item Name	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pc)	Carton (pc)
G	3D	170-043-653	HG-TP20	$2^{\pm 25\%}$	$20.3^{\pm 25\%}$	60	50	200
G	3D	170-043-654	HG-TP30	$3^{\pm 25\%}$	$30.5^{\pm 25\%}$	90	25	100
G	3D	170-043-655	HG-TP45	$4.5^{\pm 25\%}$	$45.8^{\pm 25\%}$	150	25	100

Refer to 1 : P.43

TORQUE HINGE HG-TE

Free stop

Passed 20,000 open/ close private cycle test

- Holds the lid or cover at any angle.
- Can be used horizontally or vertically.
- Optional cover conceals the screw part.



HG-TE03



HG-TE08



HG-TE15



With optional cover mounted

[Specifications]

- Operating temperature: -10˚ C ~ 50˚ C

[Applications]

- Acoustic equipment, FA equipment, various automatic devices, medical equipment, analytical instruments

[Remarks]

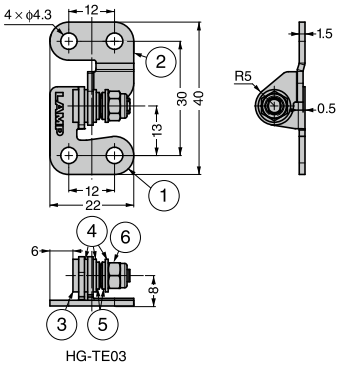
- Be sure to read the “Cautions” 1 .
- When installing, ensure that both hinge shafts are aligned.
- Mount the lid on the movable body.

[Optional Parts]

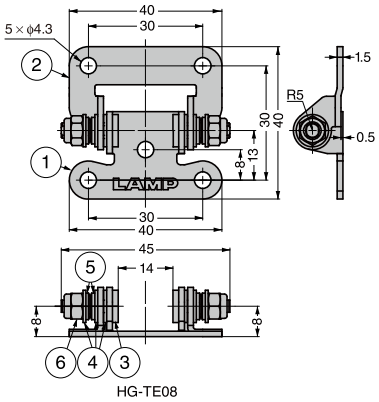
- Cover

[Application Example]

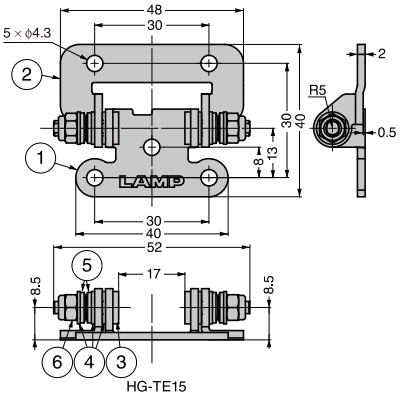




HG-TE03

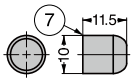


HG-TE08

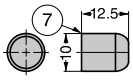


HG-TE15

[Options] Cover

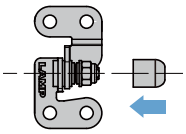


HG-TEC1



HG-TEC2

[Cover Installation Dimensions]



Mount covering the screw part

No.	Part Name	Material	Finish/Colour
①	Body A	Stainless Steel (SUS304)	Barrel Polished
②	Body B		
③	Shaft	Steel	–
④	Friction Plate	Stainless Steel (SUS304)	
⑤	Disc Spring	Steel	
⑥	Lock Nut M4	Stainless Steel (SUS304)	
⑦	Cover	PBT Resin	Grey

[Body]

RoHS	CAD	Item Code	Item Name	Torque N·m	Torque kgf·cm	Weight (g)
G	3D	170-048-663	HG-TE03	$0.3^{+40\%}_{-20\%}$	$3.1^{+40\%}_{-20\%}$	13
G	3D	170-048-664	HG-TE08	$0.8^{+40\%}_{-20\%}$	$8.2^{+40\%}_{-20\%}$	25
G	3D	170-048-665	HG-TE15	$1.5^{+40\%}_{-20\%}$	$15.3^{+40\%}_{-20\%}$	34

[Cover] Optional Parts

Sold in units of 1 pc. When using on the right and left screw parts of HG-TE08 and HG-TE15, purchase 2 pcs.

RoHS	CAD	Item Code	Item Name	Corresponding Hinge	Weight (g)
G	3D	170-048-666	HG-TEC1	HG-TE03, HG-TE08	0.4
G	3D	170-048-667	HG-TEC2	HG-TE15	0.4

Refer to 1 : P.43

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

CONCEALED TORQUE HINGE HG-TU

SUS



- Installation on the back side of the door for clean appearance.
- Can be used horizontally or vertically.

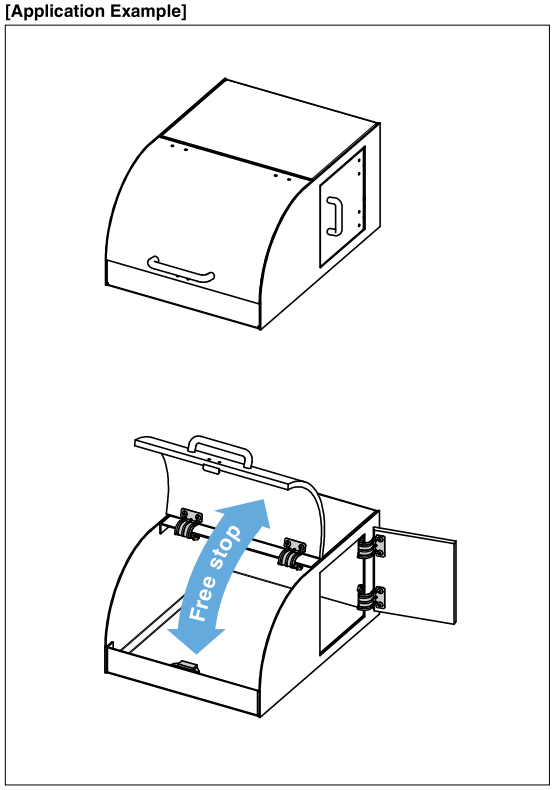
[Remarks]

- Be sure to read the "Cautions" 1.
- When installing, ensure that both hinge shafts are aligned.

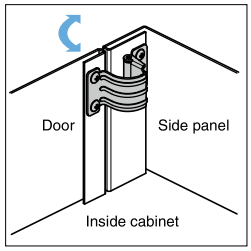
Selection Tool

Sasuga-kun

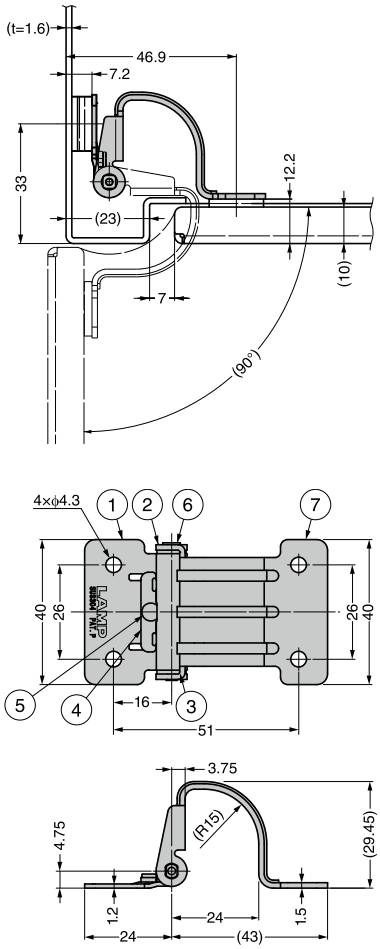
[Application Example]



[Installation]



[Dimensions]



No.	Part Name	Material	Finish / Colour
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Fixing Tube L	POM	Black
③	Fixing Tube R		
④	Press Washer	Stainless Steel (SUS304)	Barrel Polished
⑤	Pin	Stainless Steel	–
⑥	Shaft	Stainless Steel (SUS303)	
⑦	Base	Stainless Steel (SUS304)	Barrel Polished

RoHS	CAD	Item Code	Item Name	Torque N·m/pc※	Torque kgf·cm /pc※	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-022-304	HG-TU03	0.35 +40% −20%	3.6 +40% −20%	50	20	200
G	3D	170-022-305	HG-TU07	0.7 +40% −20%	7.1 +40% −20%			
G	3D	170-052-628	HG-TUF	–	–			

Refer to 1 : P.43

※ Since torque will decrease due to long-term use, temperature, humidity and other factors, it is set to a higher level at delivery.

ONE WAY CONCEALED TORQUE HINGE HG-TQU15



Free stop
Passed 20,000 open/close private cycle tests

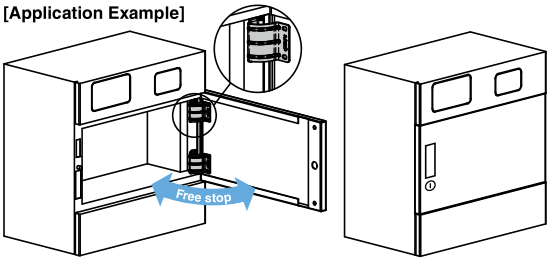
- Friction in one direction only: Allows for frictionless handling of the doors in the opposite direction.
- Can be used horizontally or vertically.

[Applications]
- Medical equipment, inspection equipment, various automatic devices

[Remarks]
- Be sure to read the "Cautions" 1.
- Set a stopper in free-swing range (see the figure below for details).
- When installing, ensure that both hinge shafts are aligned.
- In consideration of torque decrease due to aging, temperature, humidity, etc., the torque at shipping is set relatively high.
- A caution sticker is attached to keep the hinge from opening and closing during transport. Remove when installing the product.
- Install a catch or latch as well to keep lids or doors from sagging open.

[Recommended Screws]
- M5 screws

[Application Example]



[Torque Direction and Free-stop Range]

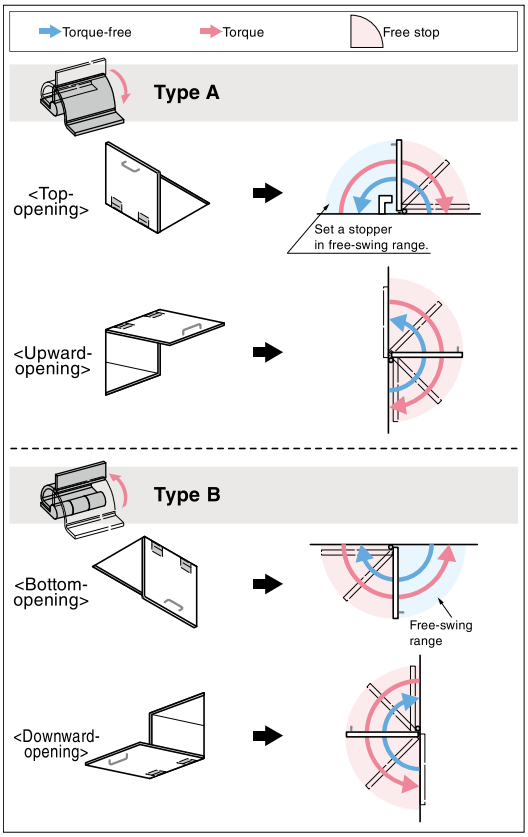
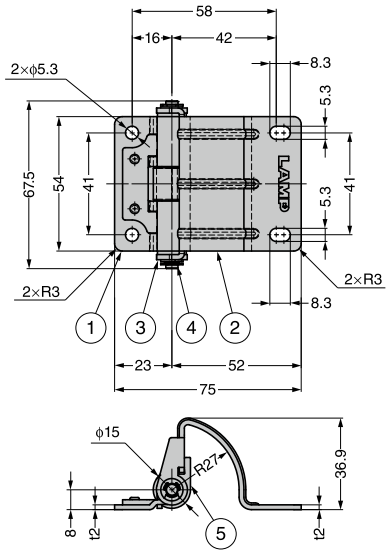
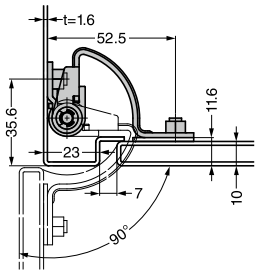


*Figure shows torque direction.
Check the actual opening and closing angles in the Reference Dimensions.



No.	Part Name	Material	Finish/Colour
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Base		
③	Fixing Tube	Polyacetal (POM)	Black
④	Shaft	Stainless Steel	-
⑤	Housing	Zinc Alloy	Nickel

[Reference Dimensions]



Selection Tool
Sasuga-kun

RoHS	CAD	Item Code	Item Name	Torque Working Direction	Torque N·m	Torque kgf·cm	Weight (g)
G	3D	170-049-852	HG-TQU15-A	Hinge Opening Direction	1.5 +40% -20%	15.3 +40% -20%	145
G	3D	170-046-656	HG-TQU15-B	Hinge Closing Direction			

Refer to 1: P.43

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

CONCEALED TORQUE HINGE HG-TUWA Wide-opening



- High torque and wide opening angle (130˚) type of HG-TU 1.
- Installation on the back side of the door for clean appearance.
- Can be used horizontally or vertically.

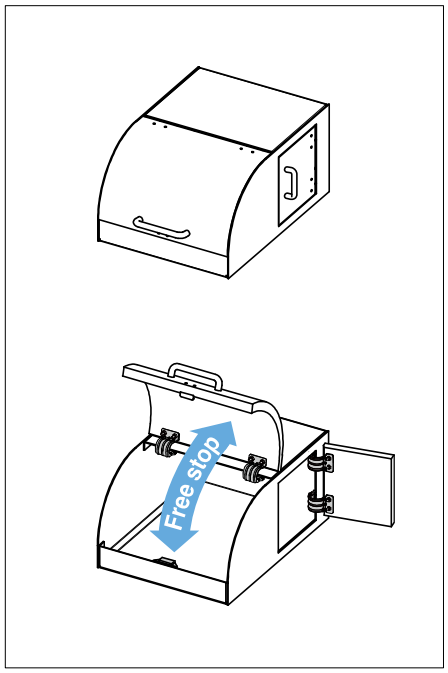
[Remarks]

- Be sure to read the "Cautions" 2.
- When installing, ensure that both hinge shafts are aligned.

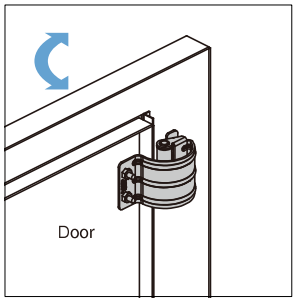
Selection Tool

Sasuga-kun

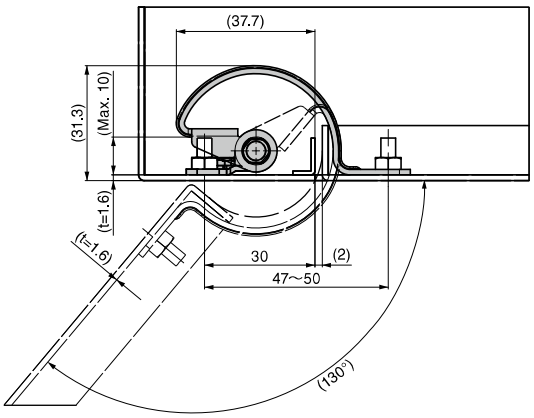
[Application Example]

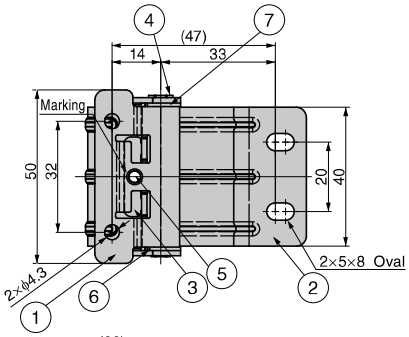


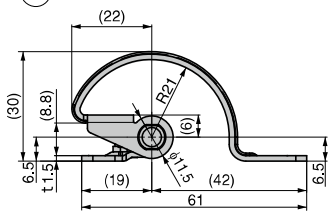
[Installation]



[Dimensions]







No.	Part Name	Material	Finish/Colour
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Base		
③	Press Washer		
④	Shaft	Stainless Steel (SUS303)	–
⑤	Pin	Stainless Steel	
⑥	Fixing Tube L	POM	Black
⑦	Fixing Tube R		

RoHS	CAD	Item Code	Item Name	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-034-313	HG-TUWA07	0.7 +40% −20%	7.1 +40% −20%	88	20	100
G	3D	170-034-314	HG-TUWA15	1.5 +40% −20%	15.3 +40% −20%		20	100

Refer to 1 : P.54, 2 : P.43

ONE WAY CONCEALED TORQUE HINGE HG-TQWA15 Wide-opening



Free stop
Passed 20,000 open/ close private cycle tests

- Friction in one direction only: Allows for frictionless handling of the doors in the opposite direction.
- Can be used horizontally or vertically.

[Applications]

- Medical equipment, inspection equipment, various automatic devices

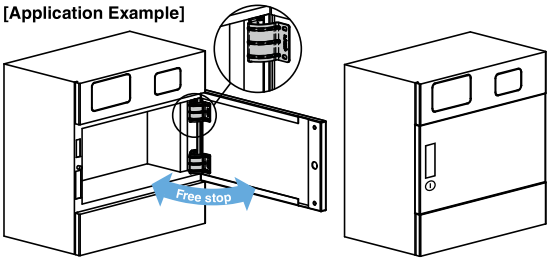
[Remarks]

- Be sure to read the "Cautions" 1.
- Set a stopper in free-swing range (see the figure below for details).
- When installing, ensure that both hinge shafts are aligned.
- In consideration of torque decrease due to aging, temperature, humidity, etc., the torque at shipping is set relatively high.
- A caution sticker is attached to keep the hinge from opening and closing during transport. Remove when installing the product.
- Install a catch or latch as well to keep lids or doors from sagging open.

[Recommended Screws]

- M5 screws

[Application Example]



[Torque Direction and Free-stop Range]

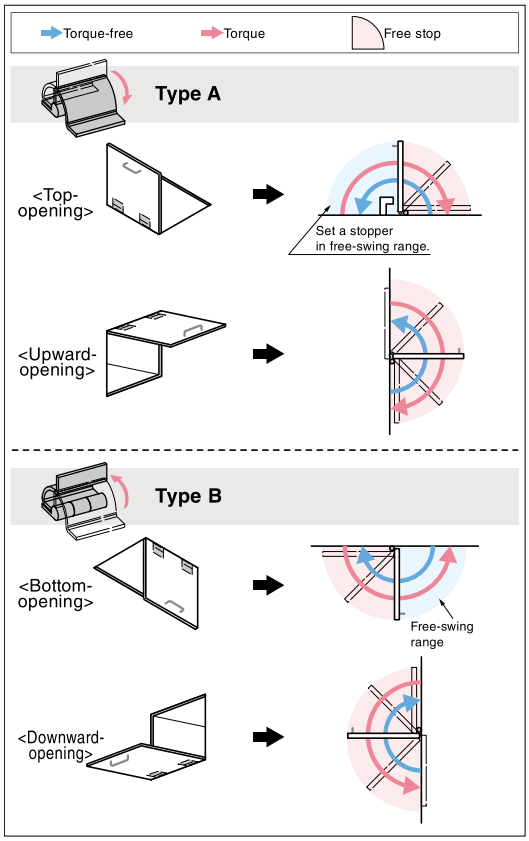
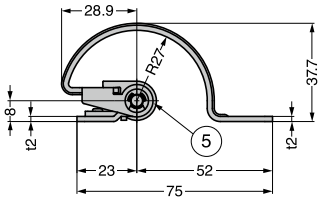
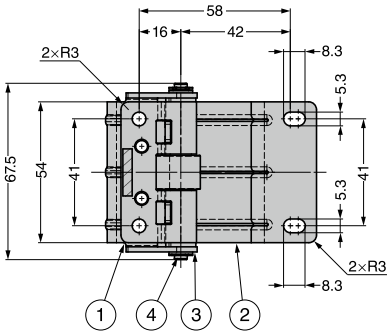


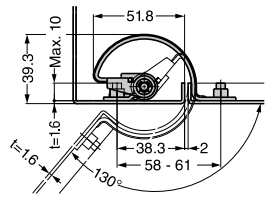
*Figure shows torque direction.
Check the actual opening and closing angles in the Reference Dimensions.





No.	Part Name	Material	Finish/Colour
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Base		
③	Fixing Tube	Polyacetal (POM)	Black
④	Shaft	Stainless Steel	-
⑤	Housing	Zinc Alloy	Nickel

[Reference Dimensions]



Selection Tool
Sasuga-kun

RoHS	CAD	Item Code	Item Name	Torque Working Direction	Torque N·m	Torque kgf·cm	Weight (g)
G	3D	170-049-853	HG-TQWA15-A	Hinge Opening Direction	1.5 ±40% ±20%	15.3 ±40% ±20%	183
G	3D	170-046-657	HG-TQWA15-B	Hinge Closing Direction			

Refer to 1 : P.43

HIGH-RIGIDITY SWIVEL TORQUE HINGE HG-S50-HR50 Unbalanced Load Type



Free stop

Passed 30,000 open/close private cycle test

- Has high rigidity and can handle unbalanced load.
- Can rotate 360° and hold at any angle.
- Centre hole for cable management.
- Rotation angle can be controlled with the supplied angle control bolt.

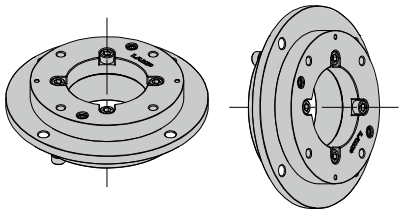
[Applications]
- Operation panel of machine tools and LCD, etc.

[Others]
- Usage conditions for vertical mounting is under verification.

[Remarks]
- Be sure to read the "Cautions" 1.
- Never turn top flange screws (6 pcs), at risk of malfunction.

[Parts Included]
- Hexagon Socket Head Cap Screw M5x14 (2 pcs) for angle control
- Spring washer 5 (2 pcs)

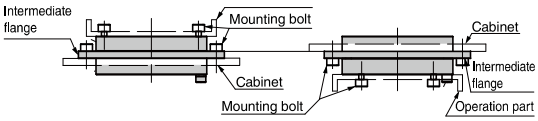
[Mounting Direction]



Horizontal Mounting　　Vertical Mounting

Video Link

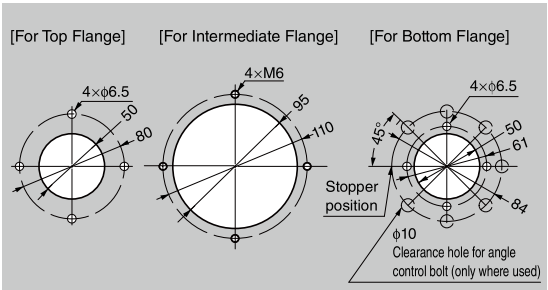
[Horizontal Installation Example]



When mounting the operation part on the top flange

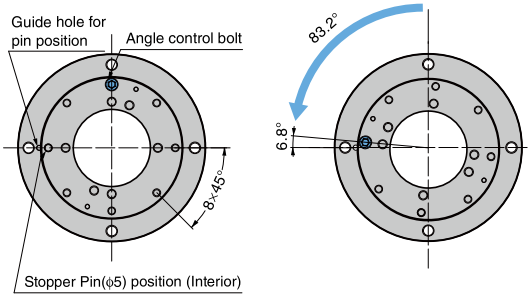
When mounting the operation part on the bottom flange

[Cut Out Dimensions]



[Rotation Angle Control Function]

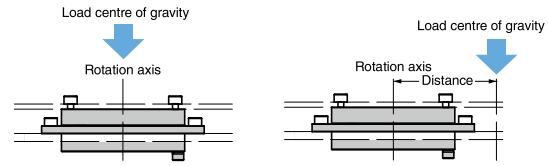
Rotation angle can be controlled by mounting the supplied angle control bolt.



Before Rotation　　After Rotation

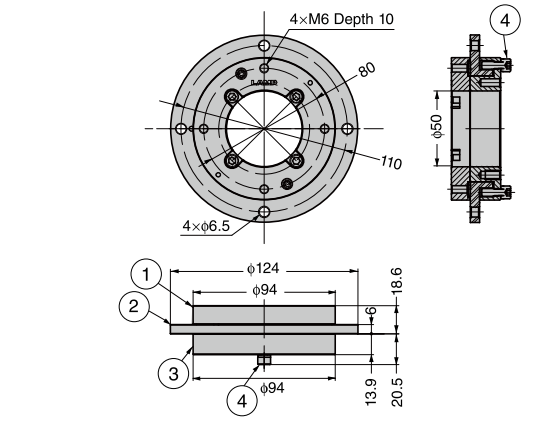
There are 8 angle control screw holes at 45° intervals; the actual rotation angles are 6.8° narrower because the stopper pins are blocked by bolts.

[Vertical Load Capacity & Allowable Moment]



Vertical Load Capacity (Load centre of gravity and rotation axis aligned)

Allowable Moment (Load centre of gravity and rotation axis misaligned)



No.	Part Name	Material	Finish / Colour
①	Top Flange	Steel	Clear Zinc Chromate
②	Intermediate Flange		
③	Bottom Flange		
④	Spring Washer Embedded Hexagon Socket Head Cap Screw M5x14	–	

RoHS	CAD	Item Code	Item Name	Size	Hole Diameter	Torque N·m	Torque kgf·cm	Vertical Load Capacity N	Vertical Load Capacity kgf	Allowable Moment N·m	Allowable Moment kgf·cm	Weight (g)
G	ab	170-051-124	HG-S50-HR50	124	50	5.0±20%	51.0±20%	600	61.2	80	816	1330

Refer to 1 : P.43

SWIVEL TORQUE HINGE HG-S



- HG-S-MN, HG-S-21 and HG-S-75 are newly launched.
- Rotation angle: 360°
- Centre hole for easy cable management (except for HG-S-MN). Five types of hole diameters (ϕ12, ϕ21.5, ϕ34, ϕ50, and ϕ75) are available.

[Applications]

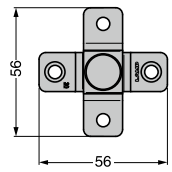
- Operation panel of machine tools and LCD, etc.

[Remarks]

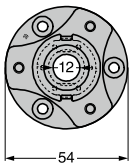
- Be sure to read the "Cautions" 1.
- Hinges can be used upside down. However, fix the screws from the mounting surface (refer to the "Installation" in relevant pages). Otherwise, the products will not function.
- ⋆ is horizontal use only.

[Selection Guide]

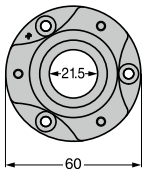
RoHS	CAD	Item Code	Item Name	No.	Size	Hole Diameter	Torque N·m/pc	Torque kgf·cm/pc	Page
G	3D	170-029-726	HG-S7-MN	1	56	–	0.7±20%	7.1±20%	2
G	3D	170-029-727	HG-S20-MN				2.0±20%	20.4±20%	
G	3D	170-021-976	HG-S30-12	2	ϕ54	12	3.0±20%	30.6±20%	
G	3D	170-021-975	HG-S50-12				5.0±20%	51.0±20%	
G	3D	170-029-728	HG-S30-21	3	ϕ60	21.5	3.0±20%	30.6±20%	3
G	3D	170-029-729	HG-S50-21				5.0±20%	51.0±20%	
G	3D	170-023-959	HG-S50-34	4 ⋆	ϕ87	34	5.0±20%	51.0±20%	
G	3D	170-023-960	HG-S70-34				7.0±20%	71.4±20%	
G	3D	170-023-961	HG-S70-50	5 ⋆	ϕ103	50	7.0±20%	71.4±20%	4
G	3D	170-023-962	HG-S100-50				10.0±20%	102.0±20%	
G	3D	170-029-730	HG-S50-75	6 ⋆	ϕ128	75	5.0±20%	51.0±20%	
G	3D	170-029-731	HG-S70-75				7.0±20%	71.4±20%	



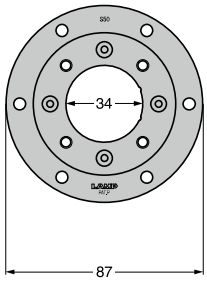
1 HG-S-MN



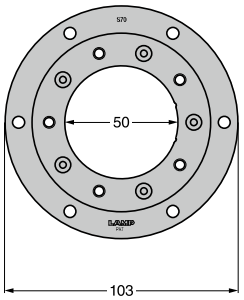
2 HG-S-12



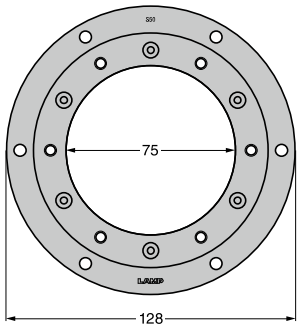
3 HG-S-21



4 HG-S-34

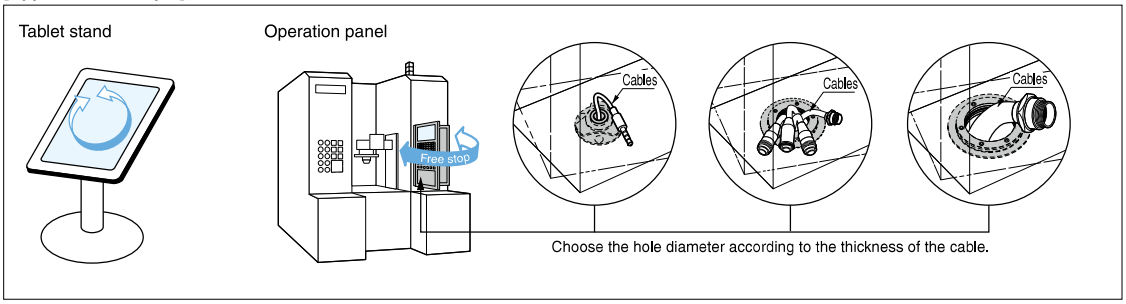


5 HG-S-50



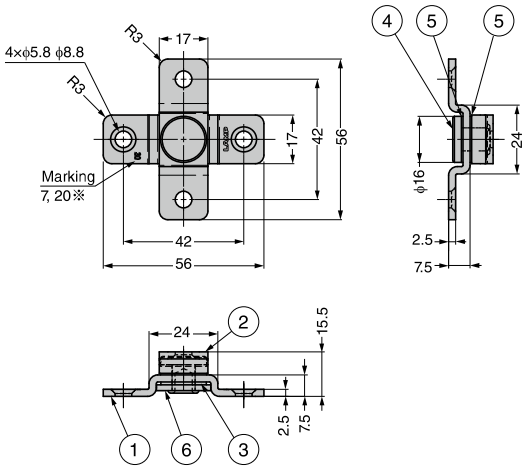
6 HG-S-75

[Application Example]



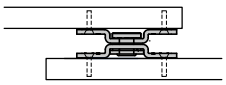
Refer to 1 : P.43, 2 : P.60, 3 : P.61, 4 : P.62

SWIVEL TORQUE HINGE HG-S-MN Small Type



※7: HG-S7-MN, 20: HG-S20-MN.

[Installation]

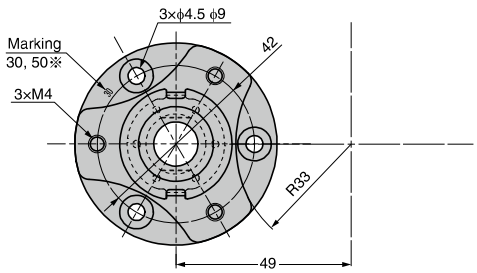


Video Link

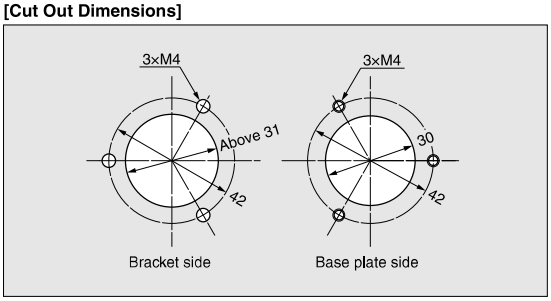
No.	Part Name	Material	Finish
①	Bracket B	Stainless Steel (SUS430)	Barrel Polished
②	Bracket A		
③	F Plate	Bronze	–
④	Shaft	Stainless Steel (SUS303)	
⑤	Spring Washer	Stainless Steel	
⑥	Washer	Stainless Steel (SUS430)	Barrel Polished

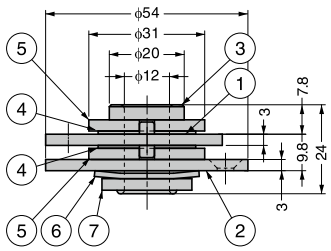
RoHS	CAD	Item Code	Item Name	Size	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-029-726	HG-S7-MN	56	0.7±20%	7.1±20%	48	25	200
G	3D	170-029-727	HG-S20-MN		2.0±20%	20.4±20%	49	25	200

SWIVEL TORQUE HINGE HG-S-12 Hole Dia. φ12



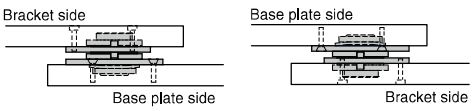
[Cut Out Dimensions]





※30: HG-S30-12, 50: HG-S50-12.

[Installation]



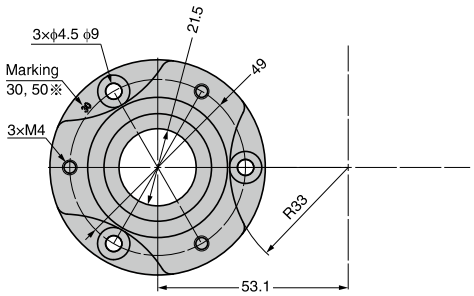
Video Link

No.	Part Name	Material	Finish
①	Bracket	Stainless Steel (SUS430)	Barrel Polished
②	Base plate		
③	Sleeve	Stainless Steel (SUS303)	–
④	F Plate	Bronze	
⑤	Washer	Stainless Steel (SUS430)	Barrel Polished
⑥	Spring Washer	Steel	–
⑦	Washer	Stainless Steel (SUS430)	

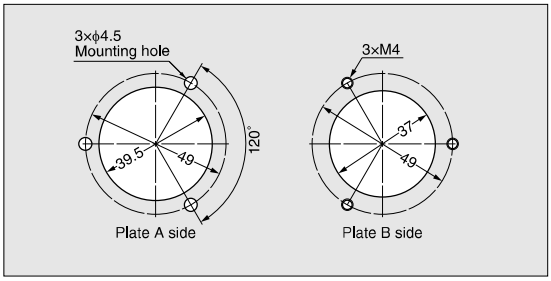
Max. load capacity : 200N (20.4kgf)/pc

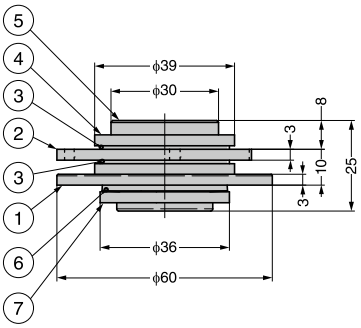
RoHS	CAD	Item Code	Item Name	Size	Hole Diameter	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-021-976	HG-S30-12	54	12	3.0±20%	30.6±20%	129	100	10
G	3D	170-021-975	HG-S50-12			5.0±20%	51.0±20%	132	100	10

SWIVEL TORQUE HINGE HG-S-21 Hole Dia. ϕ21.5



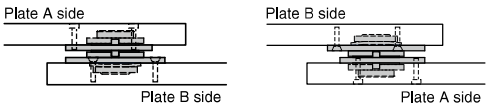
[Cut Out Dimensions]





※30: HG-S30-21, 50: HG-S50-21.

[Installation]



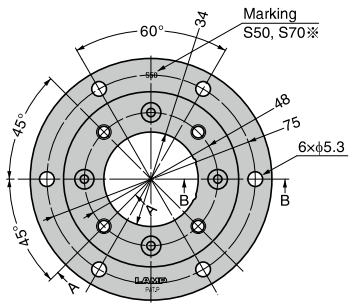
Video Link

No.	Part Name	Material	Finish
①	Plate B	Stainless Steel (SUS430)	Barrel Polished
②	Plate A		
③	F Plate	Bronze	Barrel Polished
④	Washer	Stainless Steel (SUS430)	Barrel Polished
⑤	Sleeve	Stainless Steel (SUS303)	Plain
⑥	Spring Washer	Stainless Steel	–
⑦	Washer	Stainless Steel (SUS430)	

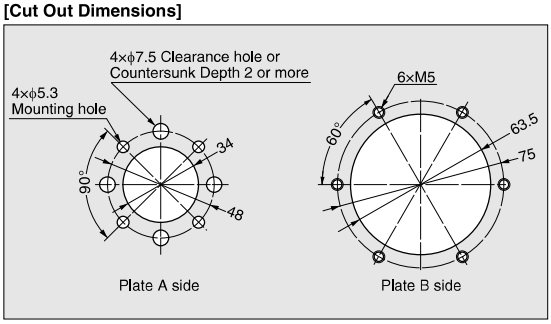
Max. load capacity : 200N (20.4kgf)/pc

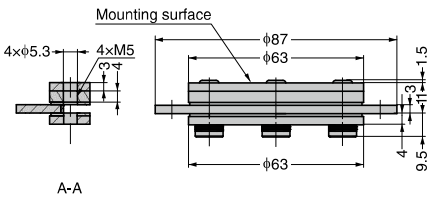
RoHS	CAD	Item Code	Item Name	Size	Hole Diameter	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-029-728	HG-S30-21	60	21.5	3.0±20%	30.6±20%	175	10	80
G	3D	170-029-729	HG-S50-21			5.0±20%	51.0±20%	174	10	80

SWIVEL TORQUE HINGE HG-S-34 Hole Dia. ϕ34



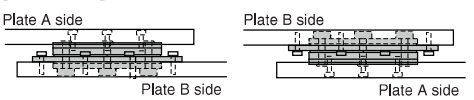
[Cut Out Dimensions]





※S50: HG-S50-34, S70: HG-S70-34.

[Installation]



Video Link

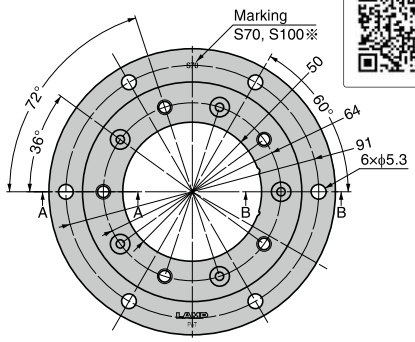
No.	Part Name	Material	Finish
①	Plate A	Stainless Steel (SUS430)	Barrel Polished
②	Plate B		
③	Plate C		
④	F Plate	Bronze	–
⑤	Bush	Stainless Steel (SUS303)	
⑥	Spring Washer	Stainless Steel	
⑦	Shaft	Stainless Steel (SUS303)	

Max. load capacity : 400N (40.8kgf)/pc

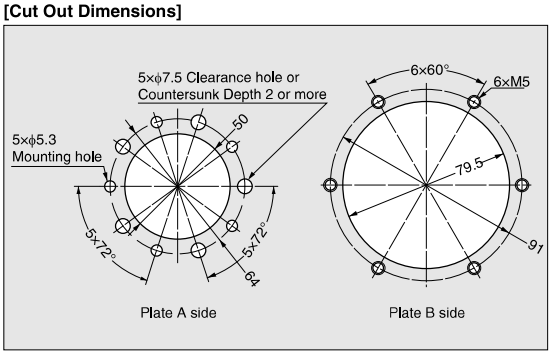
RoHS	CAD	Item Code	Item Name	Size	Hole Diameter	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-023-959	HG-S50-34	87	34	5.0±20%	51.0±20%	280	5	40
G	3D	170-023-960	HG-S70-34			7.0±20%	71.4±20%	282	5	40

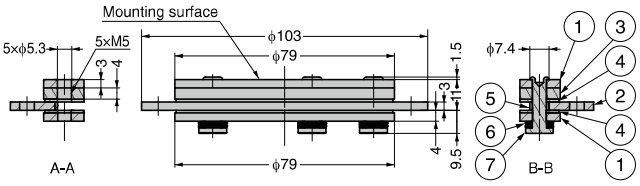
SWIVEL TORQUE HINGE HG-S-50 Hole Dia.φ50

Video Link



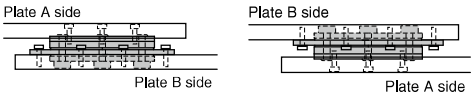
[Cut Out Dimensions]





※S70: HG-S70-50, S100: HG-S100-50.

[Installation]



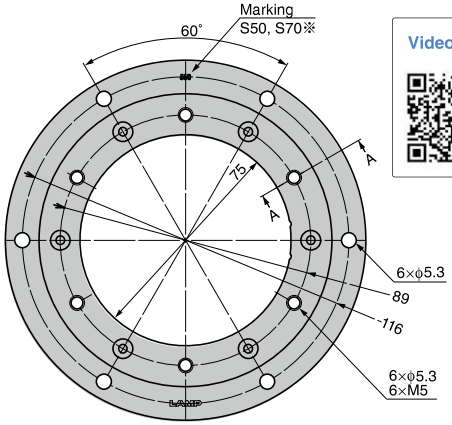
No.	Part Name	Material	Finish
①	Plate A	Stainless Steel (SUS430)	Barrel Polished
②	Plate B		
③	Plate C		
④	F Plate	Bronze	–
⑤	Bush	Stainless Steel (SUS303)	
⑥	Spring Washer	Stainless Steel	
⑦	Shaft	Stainless Steel (SUS303)	

Max. load capacity : 400N (40.8kgf)/pc

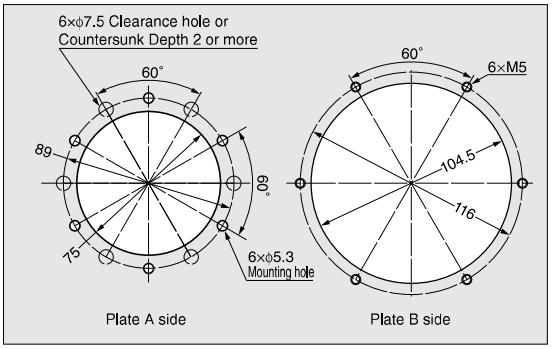
RoHS	CAD	Item Code	Item Name	Size	Hole Diameter	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-023-961	HG-S70-50	103	50	7.0±20%	71.4±20%	365	5	40
G	3D	170-023-962	HG-S100-50			10.0±20%	102.0±20%	371	5	40

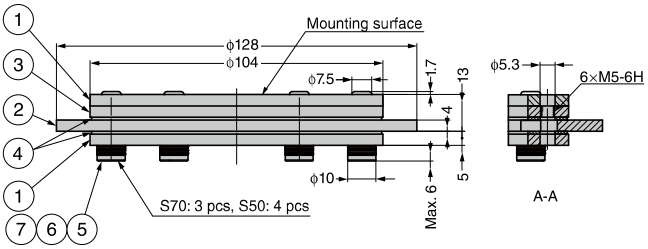
SWIVEL TORQUE HINGE HG-S-75 Hole Dia.φ75

Video Link



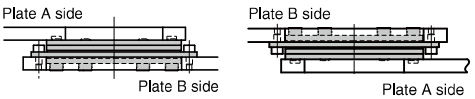
[Cut Out Dimensions]





※ S50: HG-S50-75, S70: HG-S70-75.

[Installation]



No.	Part Name	Material	Finish
①	Plate A	Stainless Steel (SUS430)	Barrel Polished
②	Plate B		
③	Plate C		
④	F Plate	Bronze	–
⑤	Bush	POM	
⑥	Spring Washer	Stainless Steel	
⑦	Shaft	Stainless Steel (SUS303)	

RoHS	CAD	Item Code	Item Name	Size	Hole Diameter	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-029-730	HG-S50-75	128	75	5.0±20%	51.0±20%	545	5	40
G	3D	170-029-731	HG-S70-75			7.0±20%	71.4±20%	575	5	40

ANGLE LIMITER PLATE FOR SWIVEL TORQUE HINGE HG-S-ARP



HG-S-34-ARP　HG-S-50-ARP　HG-S-75-ARP

- Plate and stopper form a set which can be installed to control the swivel angle of Swivel Torque Hinge HG-S 1.
- Two swivel directions and five angles can be selected according to the stopper installation position.

[Other]

- Contact Sugatsune for angles other than 30˚, 60˚, 90˚, 120˚, or 150˚.

[Remarks]

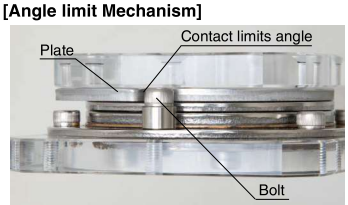
- Use screw loosening prevention adhesive when mounting screws.
- To fix the HG-S body, use hex socket head cap bolts (JIS B 1176).

[Parts Included]

- Stopper

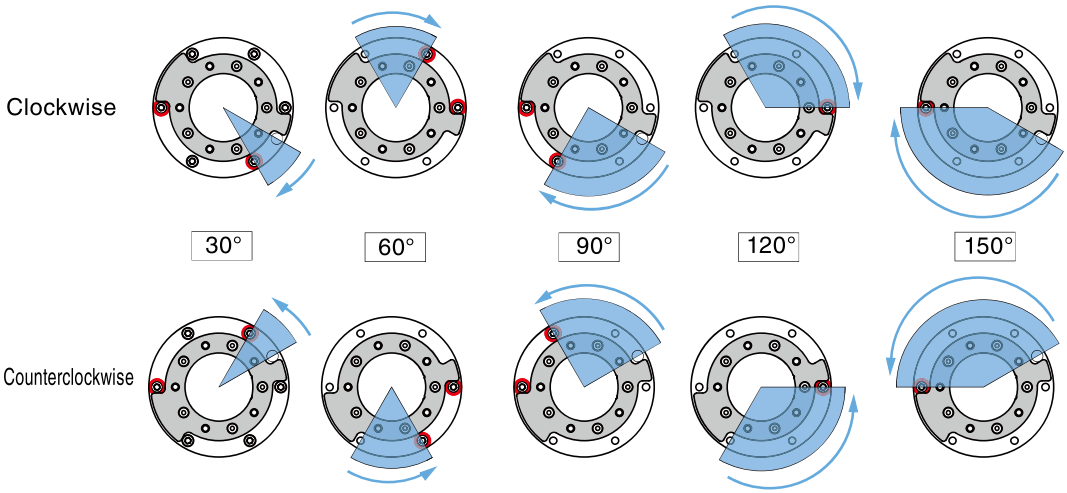
HG-S-34-ARP: Height 6.2 mm/2 pcs
HG-S-50-ARP: Height 6.2 mm/2 pcs
HG-S-70-ARP: Height 7.2 mm/2 pcs (height differs from other models. Cannot be used together.)

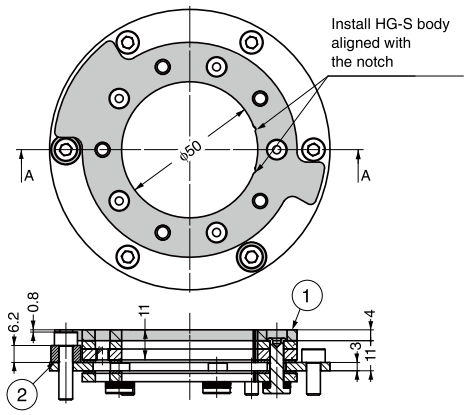
[Angle limit Mechanism]



The angle is limited by contact between the stopper co-fastening bolt (to be prepared by the customer) and the plate.

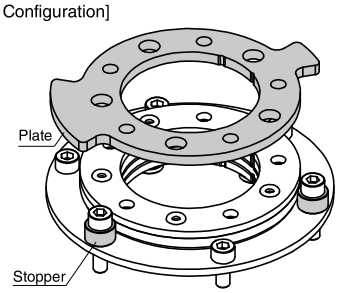
[Stopper Installation Position, Swivel Direction & Control Angle]





Cutaway view A-A

[Part Configuration]



No.	Part Name	Material	Finish
①	Angle limitter Plate	Stainless Steel (SUS430)	Barrel Polished
②	Angel limitter Stopper	Stainless Steel (SUS303)	–

RoHS	CAD	Item Code	Item Name	Corresponding Hinge	Weight (g)
G	3D	170-046-597	HG-S-34ARP	HG-S-34	77.6
G	3D	170-046-598	HG-S-50ARP	HG-S-50	99.7
G	3D	170-046-599	HG-S-75ARP	※HG-S-75	148.5

Refer to 1: P.58~P.62

※ Correspoding to HG-S50-75 Only (Not to HG-S75-75).

TORQUE HINGE (DUAL AXIS) HG-T70S30



- Dual Axis: Can hold at any angle in tilt & swivel.
- Swivels 360˚.
- Able to limit swivel angle and tilt angle by inserting a screw in ※1 hole and a pin in ※2 hole shown in the figure below, respectively. (The screw and pin not included)
  Limited opening and closing angle
  : Tilting ··· 0˚~120˚
  : Swivelling ··· ±30˚, ±90˚
- Provides torque stability in both directions.

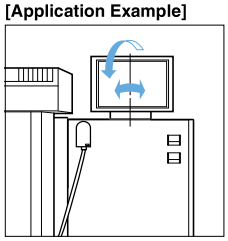
[Specifications]
- Operating temperature: 0℃~40℃

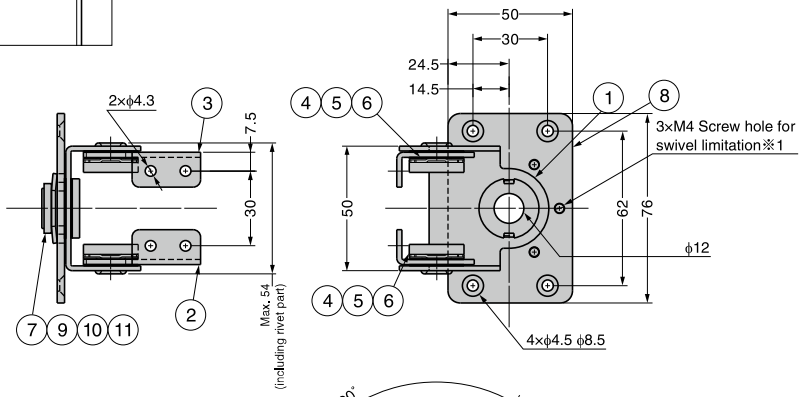
[Applications]
- LCD, monitoring camera, etc.

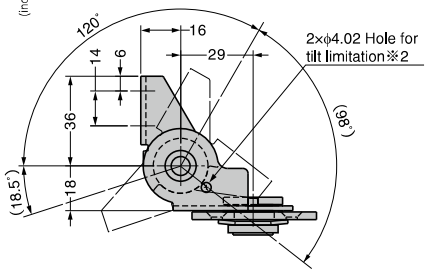
[Remarks]
- Be sure to read the "Cautions" 1.
- Tilt angle and swivel angle may decrease depending on the size, shape and installation method of the monitor used.
- Do not use in water splash environment.

Video Link

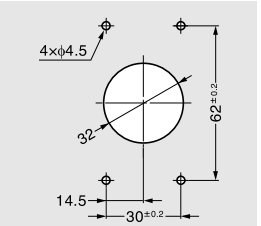
[Application Example]



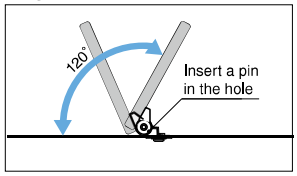


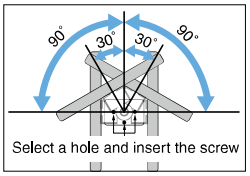


[Cut Out Dimensions]



[Angle Limitation]





No.	Part Name	Material	Finish
①	Base	Stainless Steel (SUS430)	Barrel Polished
②	Bracket L		
③	Bracket R		
④	Spring Washer	Steel (SK85)	–
⑤	F Plate B	Bronze	
⑥	Shaft	Stainless Steel (SUS303)	
⑦	Sleeve		
⑧	Base plate	Stainless Steel (SUS430)	Barrel Polished
⑨	F Plate	Bronze	–
⑩	Washer	Stainless Steel (SUS430)	Barrel Polished
⑪	Spring Washer	Steel	–

RoHS	CAD	Item Code	Item Name	Torque N·m/pc (Tilting)	Torque kgf·cm/pc (Tilting)	Torque N·m/pc (Swivelling)	Torque kgf·cm/pc (Swivelling)	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-012-419	HG-T70S30	7.0±20%	71.4±20%	3.0±20%	30.6±20%	229	5	40

Refer to 1 : P.43

TORQUE HINGE (DUAL AXIS) HG-T30S15



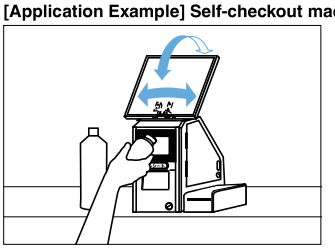
- Dual Axis: Can hold at any angle in tilt & swivel.
- Swivels 360°.
- Surface mount base provides easy installation on cabinets.
- Provides torque stability in both directions.

[Specifications]
- Operating temperature: 0℃~40℃

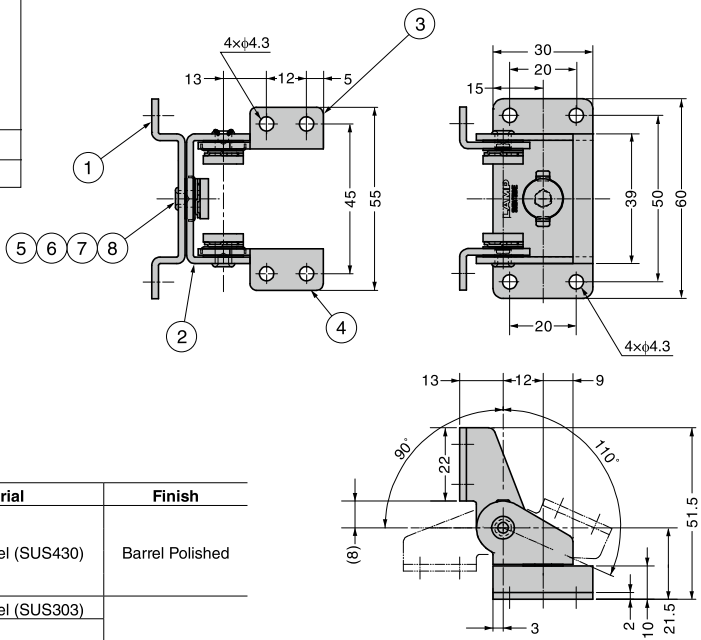
[Applications]
- Self-checkout machine and small monitor, etc.

[Remarks]
- Be sure to read the "Cautions" 1.
- Tilt angle and swivel angle may decrease depending on the size, shape and installation method of the monitor used.
- Do not use in water splash environment.

[Application Example] Self-checkout machine



Video Link



No.	Part Name	Material	Finish
①	Base plate	Stainless Steel (SUS430)	Barrel Polished
②	Base		
③	Bracket L		
④	Bracket R		
⑤	Shaft	Stainless Steel (SUS303)	–
⑥	F Plate A	Bronze	
⑦	F Plate B		
⑧	Spring Washer	Steel (SK)	

RoHS	CAD	Item Code	Item Name	Torque N·m/pc (Tilting)	Torque kgf·cm/pc (Tilting)	Torque N·m/pc (Swivelling)	Torque kgf·cm/pc (Swivelling)	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-020-826	HG-T30S15	3.0±20%	30.6±20%	1.5±20%	15.3±20%	87	12	96

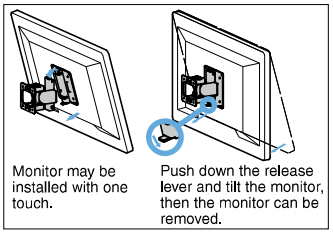
Refer to 1 : P.43

MONITOR BRACKET DIGEST



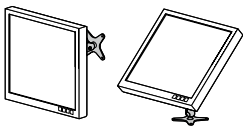
MONITOR BRACKET KA-T100S50 WITH TORQUE & AUXILIARY LOCK 1

[How to Install and Remove Monitor]





MONITOR BRACKET KA-150 2



Refer to 1 : P.786, 2 : P.793

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

ADJUSTABLE TORQUE HINGE HG-ITJ4080



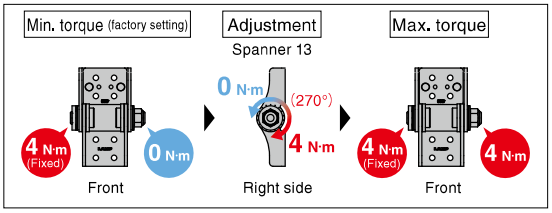
- Torque adjustable from 4 to 8 N・m.
- To prevent accidental fall of door or lid, minimum torque is set at 4 N・m.
- High torque and space-saving type.

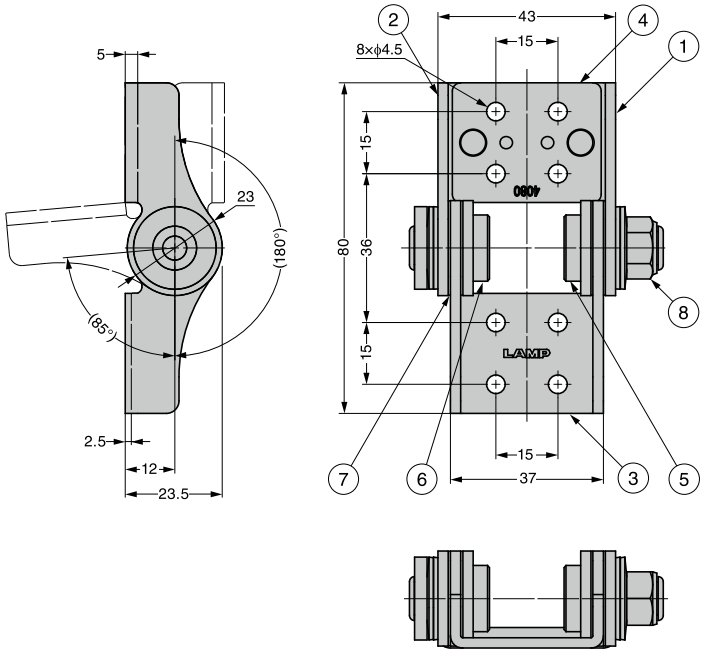
[Specifications]
- Operating temperature: 0℃~40℃

[Remarks]
- Be sure to read the “Cautions” 1.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Use a spanner (nominal size 13) for torque adjustment.
- Do not forcibly remove the torque adjustment nut.

Video Link

Selection Tool
Sasuga-kun





No.	Part Name	Material	Finish
①	Bracket A	Stainless Steel (SUS430)	Barrel Polished
②	Bracket B		
③	Bracket C		
④	Connecting Plate		
⑤	Shaft A	Stainless Steel	–
⑥	Shaft B		
⑦	Washer	Bronze	Barrel Polished
⑧	Torque Adjustment Nut M8	Stainless Steel (SUSXM7)	–

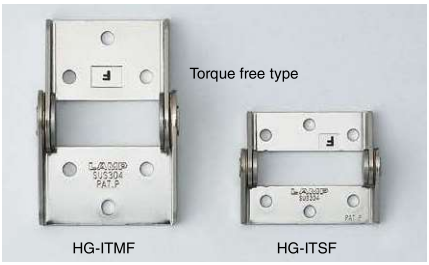
RoHS	CAD	Item Code	Item Name	Torque N・m/pc	Torque kgf・cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-029-802	HG-ITJ4080	$4^{\pm 20\%}$~8	$41^{\pm 20\%}$~82	163	10	80

Refer to 1 : P.43

TORQUE HINGE HG-IT







- Cover of the same colour with body hides mounting holes for clean appearance (sold separately).
- With a label to recognise the torque value.
- Torque free type (HG-ITSF, HG-ITMF) also available. Covers various torque ranges by using "torque type" and "torque free type" as a pair.

[Specifications]
- Operating temperature: -10℃~50℃

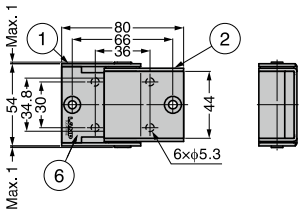
[Applications]
- LCD, monitoring camera, etc.

[Remarks]
- Be sure to read the "Cautions" 1.
- When installing, ensure that both hinge shafts are levelled and aligned.

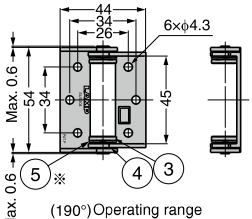
[Sold Separately]
- Cover

Selection Tool
Sasuga-kun

Video Link

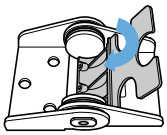


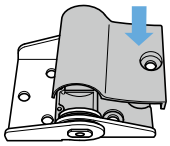
HG-ITM (With cover shown)

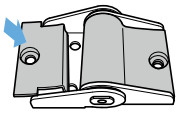


HG-ITS (Without cover shown)

[How to Install Cover]


1. Insert the cover A under the hinge shaft.

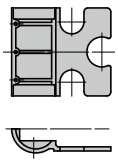

2. Put the cover B on the cover A.

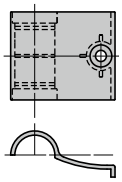

3. Put the cover C.

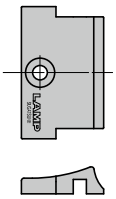
No.	Part Name	Material	Finish / Colour
①	Base	Stainless Steel (SUS304)	Barrel Polished
②	Bracket		
③	Shaft	Stainless Steel (SUS303)	Plain
④	Washer	Bronze	Barrel Polished
⑤	Spring Washer	Steel	Nickel
⑥	Cover	ABS	Metallic Silver Paint / Clear

※⑤: Only for HG-ITS and HG-ITM (Not provided for the torque free type).

Refer to 1 : P.43


Cover A


Cover B


Cover C

[Hinge]

RoHS	CAD	Item Code	Item Name	Torque N·m/pc	Torque kgf·cm/pc	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G'	3D	170-090-106	HG-ITS25	2.5±20%	25.49±20%	190°	50	20	160
G'	3D	170-090-115	HG-ITS35	3.5±20%	35.69±20%			20	160
G'	3D	170-090-114	HG-ITM50	5.0±20%	50.98±20%	193°	130	10	80
G'	3D	170-090-113	HG-ITM70	7.0±20%	71.38±20%			10	80
G'	3D	170-090-999	HG-ITSF	–	–	190°	50	20	160
G'	3D	170-090-998	HG-ITMF			193°	130	10	80

[Cover] Sold Separately

RoHS	CAD	Item Code	Item Name	Cover for	Weight (g)	Box (pcs)	Carton (pcs)
G'	3D	170-091-002	HG-ITSC	HG-ITS	10	40	960
G'	3D	170-091-001	HG-ITMC	HG-ITM	18	20	480

TORQUE HINGE HG-TWP Exterior Type

Under Development SUS



※The shape of body is different from actual item. Refer to the drawings for details.

- Ideal for exterior application.
- O-rings at the shaft part prevent invasion of water and dust.

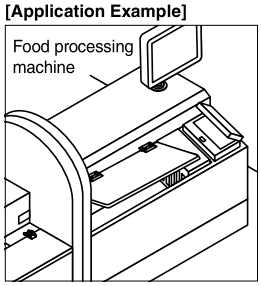
[Specifications]

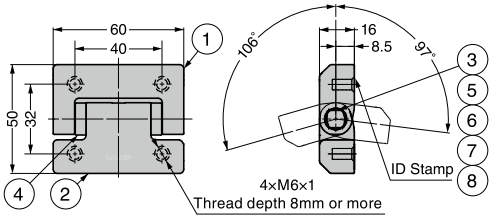
- Operating temperature: 0℃~40℃

[Remarks]

- Be sure to read the "Cautions" 1.
- Use all mounting holes.
- When installing, ensure that both hinge shafts are levelled and aligned.

[Application Example]





No.	Part Name	Material
①	Bracket	Stainless Steel (SUS316)
②	Base	
③	Shaft	
④	Plug	POM
⑤	O-ring (Outside)	Rubber
⑥	O-ring (Inside)	
⑦	Spring Pin	Stainless Steel (SUS304)
⑧	Hexagon Socket Set Screw	

RoHS	CAD	Item Code	Item Name	ID Stamp	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
–	–	170-037-310	HG-TWP15	15	1.5	15.3	–	–	–
–	–	170-037-311	HG-TWP30	30	3.0	30.6	–	–	–

Refer to 1 : P.43

TORQUE HINGE HG-ITHP Heat Resistance



- Suitable for use in heat-generating environment.

[Specifications]

- Operating temperature: 0℃~100℃

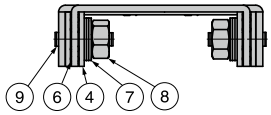
For applications beyond the operating temperature range above, please contact local representatives.

[Applications]

- Dryer, lighting equipment, temperature chamber

[Remarks]

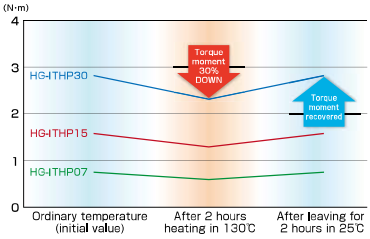
- Be sure to read the "Cautions" 1.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Torque may decrease during and after heating. And it will restore when returning to normal temperature.

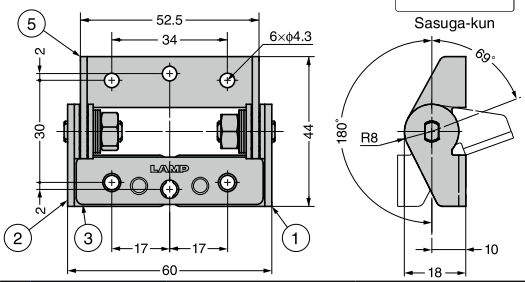


Selection Tool

Sasuga-kun

[Torque Transition] (in high temperature)





No.	Part Name	Material	Finish
①	Base L	Stainless Steel (SUS304)	–
②	Base R		
③	Connecting Bracket		
④	Thrust Plate	Carbon Steel	Nickel
⑤	Movable Bracket	Stainless Steel (SUS304)	–
⑥	Ball	Steel	
⑦	Spring Washer	Stainless Steel	
⑧	Hexagon Nut	Steel (SWCH)	Clear Chromate (Trivalent)
⑨	Shaft	Stainless Steel (SUS303)	–

RoHS	CAD	Item Code	Item Name	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-037-312	HG-ITHP07	$0.7^{\pm 30\%}$	$7.1^{\pm 30\%}$	70	25	100
G	3D	170-037-313	HG-ITHP15	$1.5^{\pm 20\%}$	$15.3^{\pm 20\%}$	70	25	100
G	3D	170-037-314	HG-ITHP30	$3.0^{\pm 20\%}$	$30.6^{\pm 20\%}$	72	25	100

Refer to 1 : P.43

TORQUE PIANO HINGE HG-TLS30-50-300

Free stop
Greaseless
Passed 30,000 open/ close private cycle test



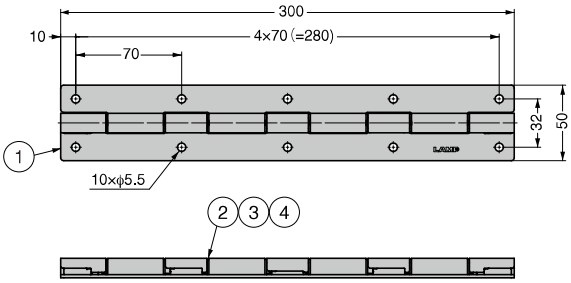
- Long type torque hinge.
- Possible to install in vertical and horizontal.

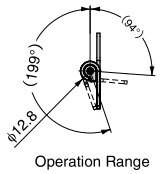
[Remarks]

- Be sure to read the “Cautions” 1.
- When using multiple hinges, ensure that both hinge shafts are levelled and aligned.
- Can not be used by cutting the length.

Selection Tool

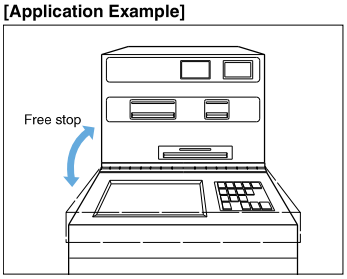
Sasuga-kun





Operation Range

[Application Example]



For opening/closing of cash machine maintenance door.

No.	Part Name	Material
①	Hinge	Stainless Steel (SUS304)
②	Shaft	
③	Plug	POM
④	Holder	PA

RoHS	CAD	Item Code	Item Name	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-037-315	HG-TLS30-50-300	$3^{\pm 30\%}$	$31^{\pm 30\%}$	388	5	20

Refer to 1 : P.43

DETENT TORQUE HINGE HG-DTA

SUS



●Detent function prevents spring-back in closed position.

[Specifications]
●Operating temperature: 0℃~40℃

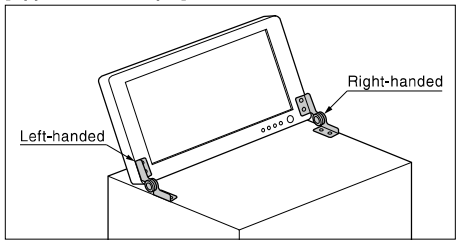
[Applications]
●Small device with cover, folding machine, etc.

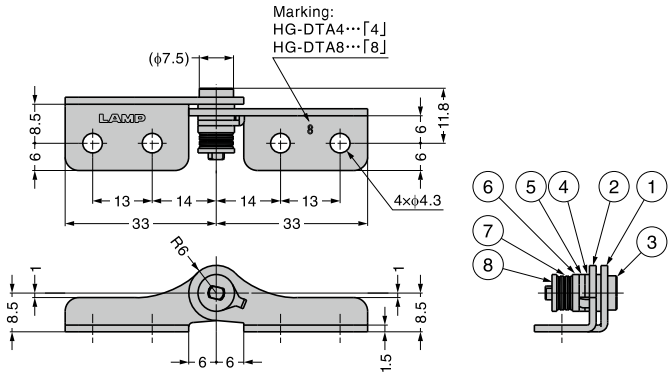
[Remarks]
●Be sure to read the "Cautions" 1.
●For pair using: Please use the same torque in both hinges.
●When installing, ensure that both hinge shafts are levelled and aligned.

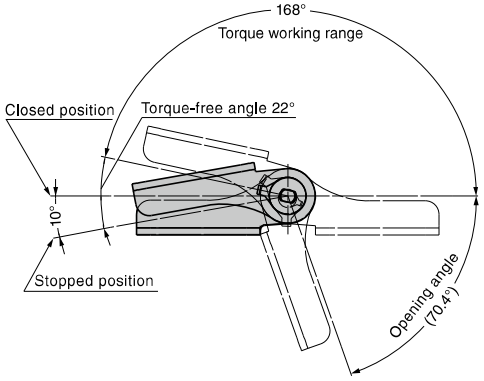
Video Link

Selection Tool
Sasuga-kun

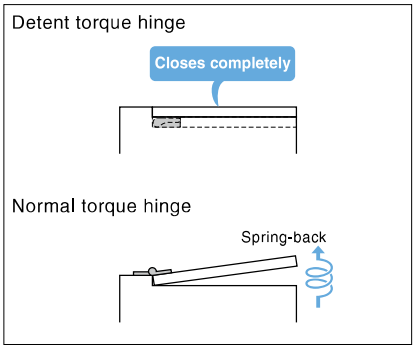
[Application Example]







Left-handed type shown. Right-handed type is symmetrical.



●Detent function prevents spring-back in closed position.

No.	Part Name	Material	Finish
①	Base	Stainless Steel (SUS304)	Barrel Polished
②	Bracket		
③	Shaft	Stainless Steel (SUS303)	–
④	Washer	Stainless Steel	
⑤	Cam A		
⑥	Cam B		
⑦	Spring Washer		
⑧	Plate	Stainless Steel (SUS304)	

RoHS	CAD	Item Code	Item Name	Type	Torque N·m/pc	Torque kgf·cm/pc	Release Torque※ N·m/pc	Release Torque※ kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-026-457	HG-DTA4-R	Right-handed	0.4 ±20%	4.08 ±20%	0.7 ±20%	7.14 ±20%	19	50	500
G	3D	170-026-458	HG-DTA4-L	Left-handed						50	500
G	3D	170-026-459	HG-DTA8-R	Right-handed	0.8 ±20%	8.16 ±20%	1.5 ±20%	15.31 ±20%		50	500
G	3D	170-026-460	HG-DTA8-L	Left-handed						50	500

Refer to 1 : P.43

※Torque required to release detent.

DETENT TORQUE HINGE HG-DTB

SUS



●Detent function prevents spring-back in closed position.

[Specifications]

●Operating temperature: 0℃~40℃

[Applications]

●Small device with cover, folding machine, etc.

[Remarks]

●Be sure to read the "Cautions" 1.

●For pair using: Please use the same torque in both hinges.

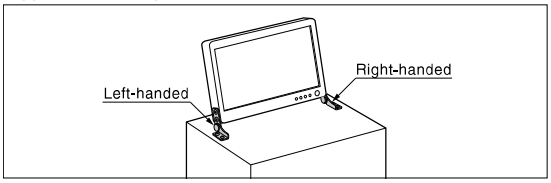
●When installing, ensure that both hinge shafts are levelled and aligned.

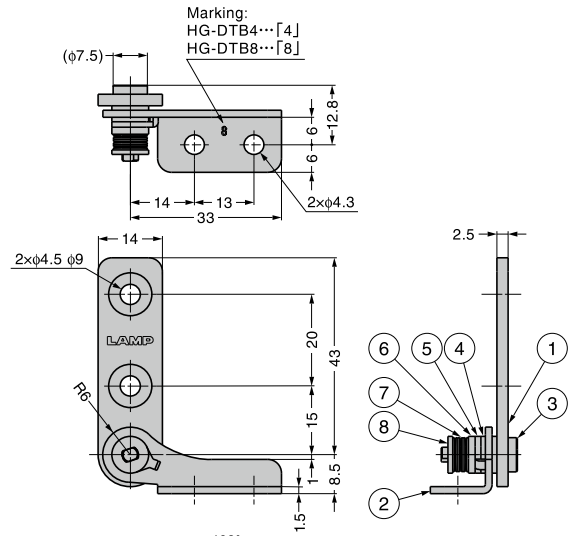
Video Link

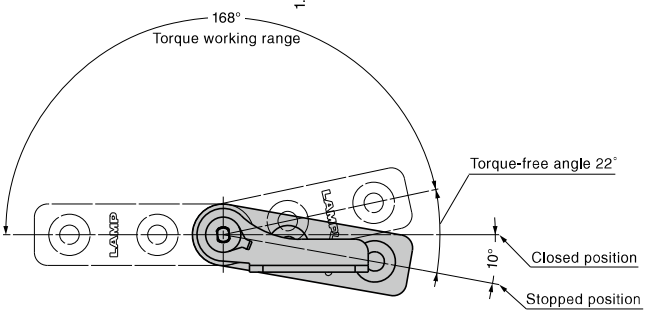
Selection Tool

Sasuga-kun

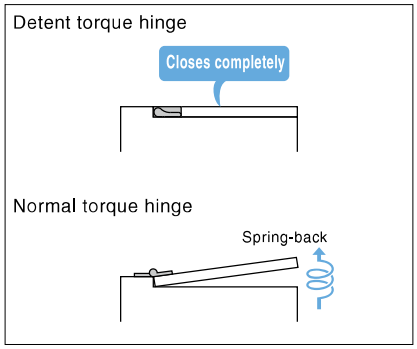
[Application Example]







Left-handed type shown. Right-handed type is symmetrical.



●Detent function prevents spring-back in closed position.

No.	Part Name	Material	Finish
①	Base	Stainless Steel (SUS304)	Barrel Polished
②	Bracket		
③	Shaft	Stainless Steel (SUS303)	–
④	Washer	Stainless Steel	
⑤	Cam A		
⑥	Cam B		
⑦	Spring Washer		
⑧	Plate	Stainless Steel (SUS304)	

RoHS	CAD	Item Code	Item Name	Type	Torque N·m/pc	Torque kgf·cm/pc	Release Torque※ N·m/pc	Release Torque※ kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-026-461	HG-DTB4-R	Right-handed	0.4±20%	4.08±20%	0.7±20%	7.14±20%	22	50	500
G	3D	170-026-462	HG-DTB4-L	Left-handed						50	500
G	3D	170-026-463	HG-DTB8-R	Right-handed	0.8±20%	8.16±20%	1.5±20%	15.31±20%	23	50	400
G	3D	170-026-464	HG-DTB8-L	Left-handed						50	400

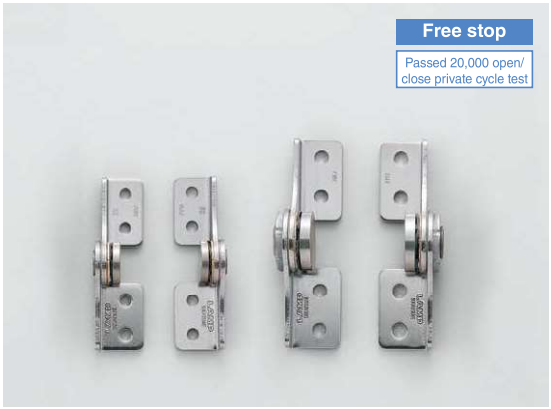
Refer to 1 : P.43

※Torque required to release detent.

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

TORQUE HINGE HG-TA

SUS



- Highly durable HG-TA45H with wire hole is newly launched 1.

[Specifications]
- Operating temperature: 0℃~40℃

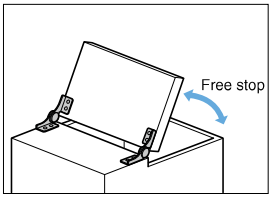
[Applications]
- LCD, monitoring camera, etc.

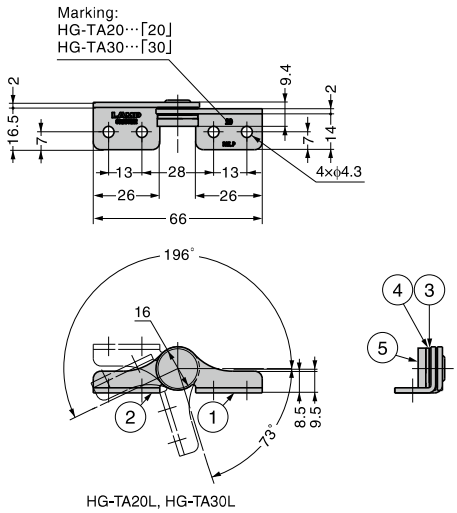
[Remarks]
- Be sure to read the "Cautions" 2 .
- For pair using: Please use the same torque in both hinges.
- When installing, ensure that both hinge shafts are levelled and aligned.

Selection Tool
Sasuga-kun

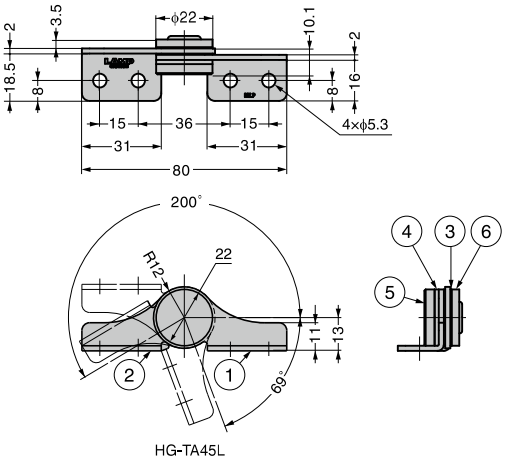
Video Link

[Application Example]





HG-TA20L, HG-TA30L



HG-TA45L

No.	Part Name	Material	Finish
①	Bracket	Stainless Steel (SUS430)	Barrel Polished
②	Base		
③	F Plate	Bronze	–
④	Spring Washer	Steel	
⑤	Shaft	Stainless Steel (SUS303)	
⑥	Washer	Stainless Steel (SUS430)	Barrel Polished

RoHS	CAD	Item Code	Item Name	Description	Type	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-012-403	HG-TA20R	Without wire hole	Right-handed	2.0±20%	20.4±20%	30	40	320
G	3D	170-012-404	HG-TA20L		Left-handed				40	320
G	3D	170-012-405	HG-TA30R		Right-handed	3.0±20%	30.6±20%		40	320
G	3D	170-012-406	HG-TA30L		Left-handed				40	320
G	3D	170-012-407	HG-TA45R		Right-handed	4.5±20%	45.9±20%	65	20	160
G	3D	170-012-408	HG-TA45L		Left-handed				20	160

Refer to 1 : P.76, 2 : P.43

TORQUE HINGE HG-TAC Black



Free stop

- Black version of torque hinge HG-TA 1.
- With black resin cover concealing the shaft.

[Specifications]

- Operating temperature: 0˚C~40˚C

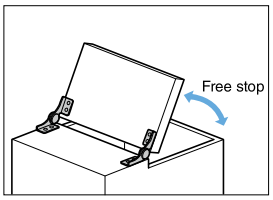
[Applications]

- LCD, monitoring camera, etc.

[Remarks]

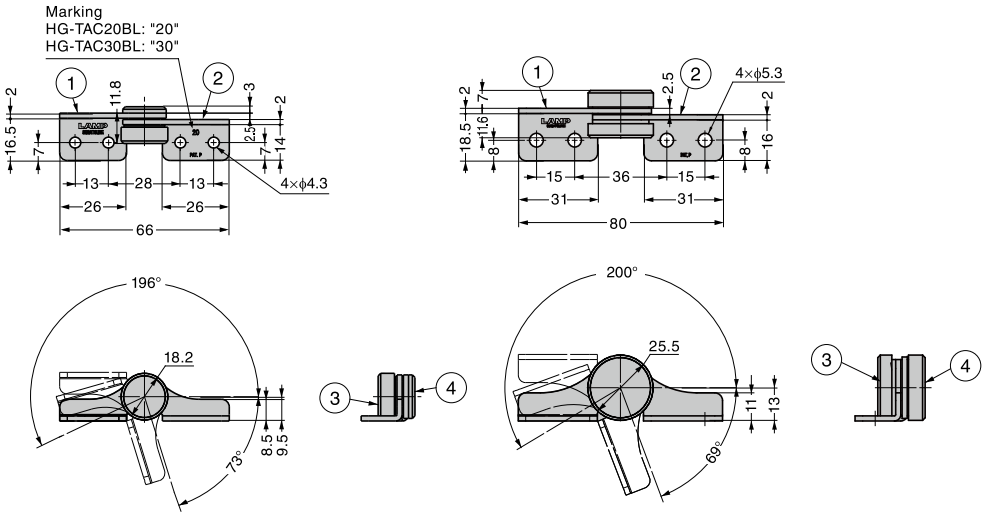
- Be sure to read the "Cautions" 2.
- For pair using: Please use the same torque in both hinges.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Handle with care, as scratches show up clearly on black.

[Application Example]



Selection Tool

Sasuga-kun



HG-TAC20BL-L, HG-TAC30BL-L

HG-TAC45BL-L

Left-hand opening shown. The right-handed opening is symmetrical.

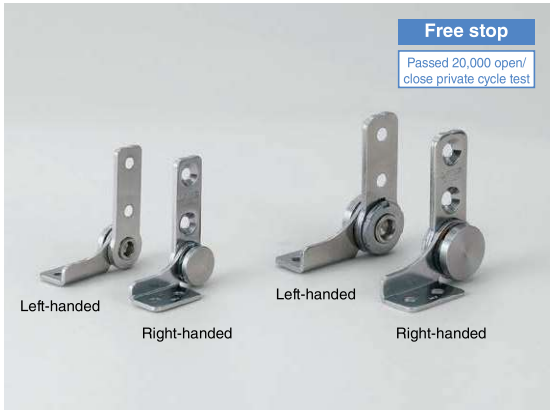
No.	Part Name	Material	Finish/Colour
①	Bracket	Stainless Steel (SUS430)	Black Powder Coating
②	Base		
③	Flange Cover	PBT	Black
④	Crimped Cover		

RoHS	CAD	Item Code	Item Name	Description	Type	Torque N·m	Torque kgf·cm	Weight (g)
–	–	–	HG-TAC20BL-R	Without wire hole	Right-handed	2.0 ±20%	20.4 ±20%	–
–	–	–	HG-TAC20BL-L		Left-handed			
–	–	–	HG-TAC30BL-R		Right-handed	3.0 ±20%	30.6 ±20%	
–	–	–	HG-TAC30BL-L		Left-handed			
–	–	–	HG-TAC45BL-R		Right-handed	4.5 ±20%	45.9 ±20%	
–	–	–	HG-TAC45BL-L		Left-handed			

Refer to 1: P.72, 2: P.43

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

TORQUE HINGE HG-TB



- Provides torque stability in both directions.

[Specifications]
- Operating temperature: 0℃~40℃

[Applications]
- LCD, monitoring camera, etc.

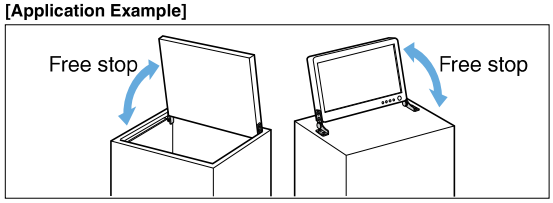
[Remarks]
- Be sure to read the "Cautions" 1.
- For pair using: Please use the same torque in both hinges.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Can not be used around water because not all parts are made of stainless steel.

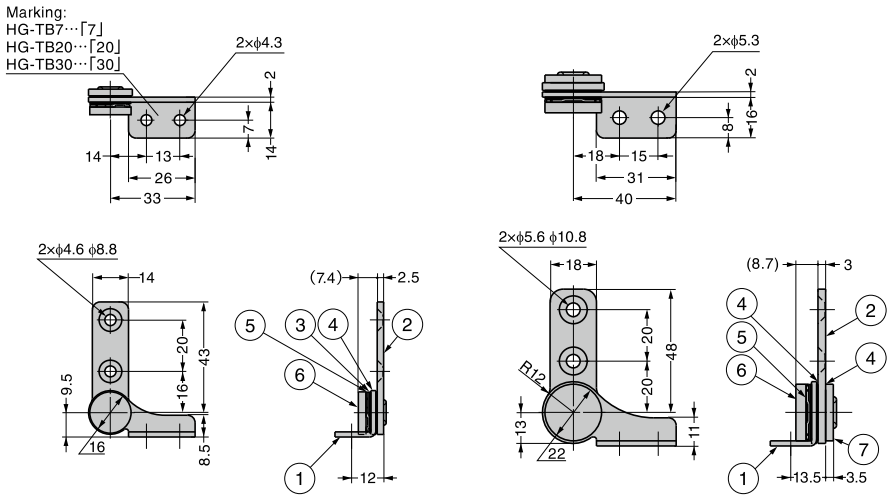
Video Link

Selection Tool

Sasuga-kun

[Application Example]





HG-TB7L, G-TB20L, HG-TB30L

HG-TB45L

Left-handed type shown. Right-handed type is symmetrical.

No.	Part Name	Material	Finish
①	Bracket	Stainless Steel (SUS430)	Barrel Polished
②	Base		
③	F Plate A	Bronze	–
④	F Plate B		
⑤	Spring Washer	Steel	
⑥	Shaft	Stainless Steel (SUS303)	
⑦	Washer	Stainless Steel (SUS430)	Barrel Polished

RoHS	CAD	Item Code	Item Name	Type	Torque N·m/pc	Torque kgf·cm/pc	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-022-142	HG-TB7R	Right-handed	$0.7^{\pm 20\%}$	$7.1^{\pm 20\%}$	360°	31	40	320
G	3D	170-022-143	HG-TB7L	Left-handed					40	320
G	3D	170-012-413	HG-TB20R	Right-handed	$2.0^{\pm 20\%}$	$20.4^{\pm 20\%}$		32	40	320
G	3D	170-012-414	HG-TB20L	Left-handed					40	320
G	3D	170-012-415	HG-TB30R	Right-handed	$3.0^{\pm 20\%}$	$30.6^{\pm 20\%}$			40	320
G	3D	170-012-416	HG-TB30L	Left-handed					40	320
G	3D	170-012-417	HG-TB45R	Right-handed	$4.5^{\pm 20\%}$	$45.9^{\pm 20\%}$		67	20	160
G	3D	170-012-418	HG-TB45L	Left-handed					20	160

Refer to 1 : P.43

TORQUE HINGE HG-TBC Black

Free stop



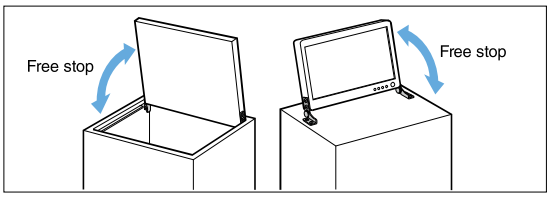
- Black version of TORQUE HINGE HG-TB 1.
- With black resin cover concealing the shaft.

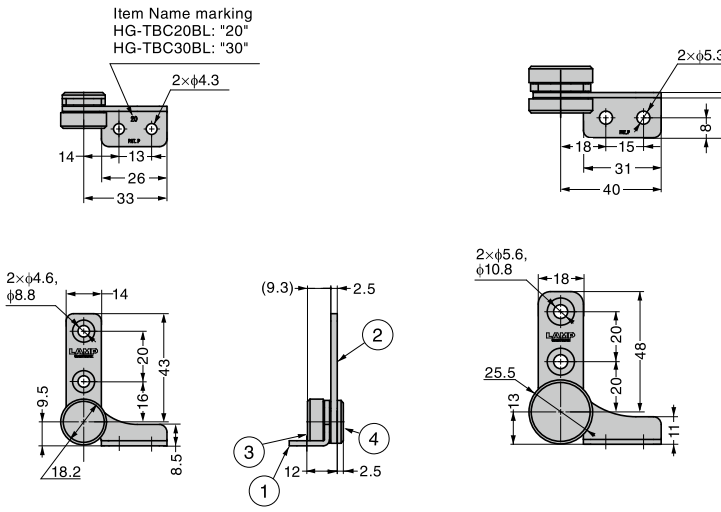
[Specifications]
- Operating temperature: 0˚C~40˚C

[Application]
- LCD, monitoring cameras, etc.

[Remarks]
- Be sure to read the "Cautions" 2.
- For pair using: Please use the same torque in both hinges.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Handle with care, as scratches stand out on black.

[Application Example]





HG-TBC20BL-L, HG-TBC30BL-L

HG-TBC45BL-L

Left-handed type shown. Right-handed type is symmetrical.

Video Link

Selection Tool

Sasuga-kun

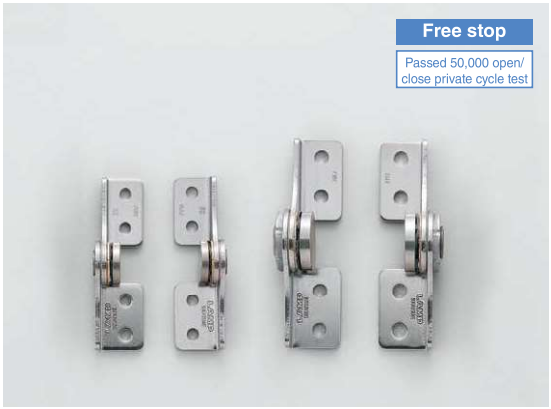
No.	Part Name	Material	Colour
①	BRACKET	Stainless Steel (SUS430)	Black
②	Base		
③	Flange Cover	PBT	
④	Crimped Cover		

RoHS	CAD	Item Code	Item Name	Type	Torque N·m	Torque kgf·cm	Opening Angle	Weight (g)
–	–	170-050-305	HG-TBC20BL-R	Right-handed	1.5 ±20%	15.3 ±20%	360°	–
–	–	170-050-306	HG-TBC20BL-L	Left-handed				
–	–	170-050-307	HG-TBC30BL-R	Right-handed	2.5 ±20%	25.5 ±20%		
–	–	170-050-308	HG-TBC30BL-L	Left-handed				
–	–	170-050-309	HG-TBC45BL-R	Right-handed	4.0 ±20%	40.8 ±20%		
–	–	170-050-310	HG-TBC45BL-L	Left-handed				

Refer to 1: P.74, 2: P.43

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

TORQUE HINGE HG-TA45H



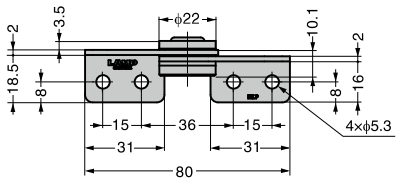
- With wire hole.
- Excellent durability.

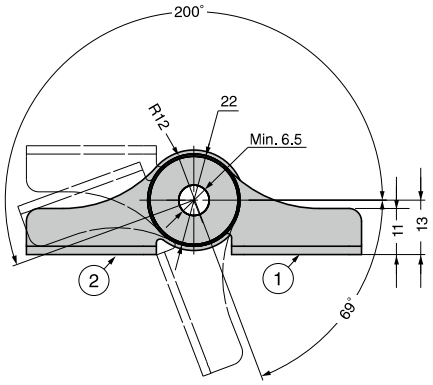
[Specifications]
- Operating temperature: 0℃~40℃

[Applications]
- LCD, monitoring camera, etc.

[Remarks]
- Be sure to read the “Cautions” 1.
- For pair using: Please use the same torque in both hinges.
- When installing, ensure that both hinge shafts are levelled and aligned.

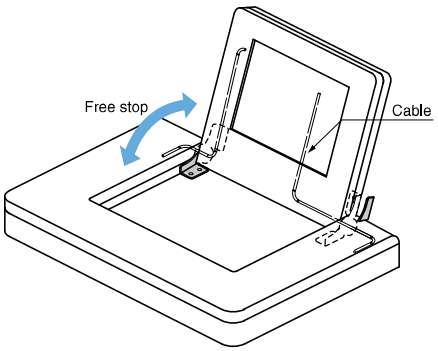
Selection Tool
Sasuga-kun

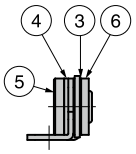




Left-handed type shown. Right-handed type is symmetrical.

[Application Example]



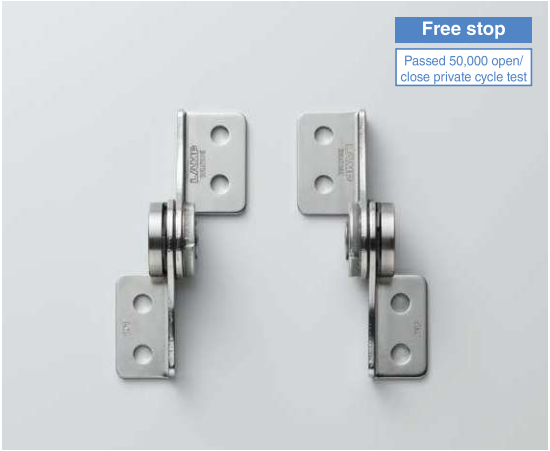


No.	Part Name	Material	Finish
①	Bracket	Stainless Steel (SUS430)	Barrel Polished
②	Base		
③	F Plate	Bronze	–
④	Spring Washer	Steel	
⑤	Shaft	Stainless Steel (SUS303)	
⑥	Washer	Stainless Steel (SUS430)	Barrel Polished

RoHS	CAD	Item Code	Item Name	Description	Type	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-034-215	HG-TA45HR	With wire hole	Right-handed	4.5±20%	45.9±20%	60	20	160
G	3D	170-034-216	HG-TA45HL		Left-handed				20	160

Refer to 1 : P.43

TORQUE HINGE HG-TC45H



- With wire hole.
- Excellent durability.

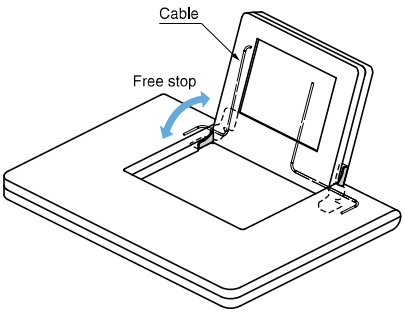
[Specifications]
- Operating temperature: 0℃~40℃

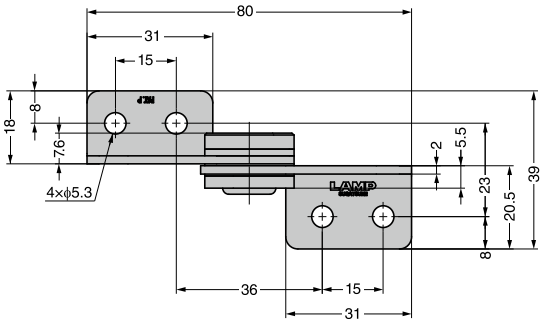
[Applications]
- LCD, monitoring camera, etc.

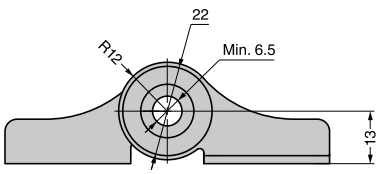
[Remarks]
- Be sure to read the "Cautions" 1.
- For pair using: Please use the same torque in both hinges.
- When installing, ensure that both hinge shafts are levelled and aligned.

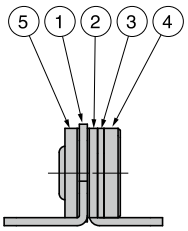
Selection Tool
Sasuga-kun

[Application Example]









Left-handed type shown. Right-handed type is symmetrical.

No.	Part Name	Material	Finish / Colour
①	Bracket	Stainless Steel (SUS430)	Barrel Polished
②	Base		
③	Spring Washer	Steel	–
④	Shaft	Stainless Steel (SUS303)	
⑤	Washer	Stainless Steel (SUS430)	Barrel Polished

RoHS	CAD	Item Code	Item Name	Description	Type	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-034-217	HG-TC45HR	With wire hole	Right-handed	4.5±20%	45.9±20%	60	20	160
G	3D	170-034-218	HG-TC45HL		Left-handed				20	160

Refer to 1 : P.43

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

STAINLESS STEEL TORQUE HINGE HG-TAS

SUS



- Stainless steel construction suitable for corrosive environments.

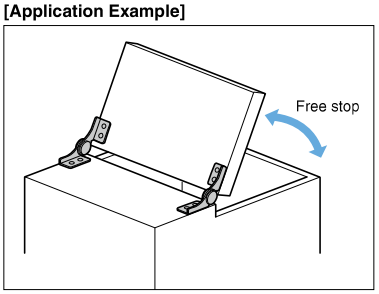
[Specifications]
- Operating temperature: 0℃~40℃

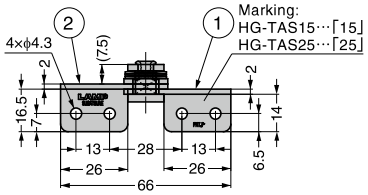
[Applications]
- LCD, monitoring camera, etc.

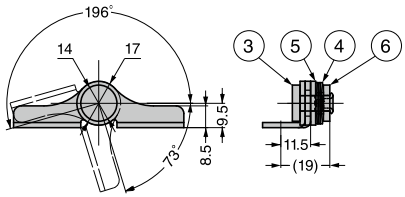
[Remarks]
- Be sure to read the "Cautions" 1.
- For pair using: Please use the same torque in both hinges.
- When installing, ensure that both hinge shafts are levelled and aligned.

Selection Tool
Sasuga-kun

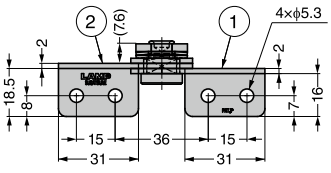
[Application Example]

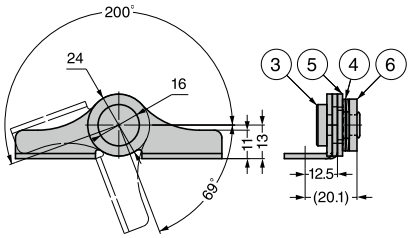






HG-TAS15L, 25L





HG-TAS40L

Left-handed type shown. Right-handed type is symmetrical.

No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Base		
③	Shaft	Stainless Steel (SUS303)	–
④	Spring Washer	Stainless Steel (SUS304)	
⑤	Plate		Barrel Polished
⑥	Washer	Stainless Steel (SUS430)	

RoHS	CAD	Item Code	Item Name	Type	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-037-294	HG-TAS15R	Right	1.5±20%	15.3±20%	37	40	320
G	3D	170-037-295	HG-TAS15L	Left			37	40	320
G	3D	170-037-296	HG-TAS25R	Right	2.5±20%	25.5±20%	38	40	320
G	3D	170-037-297	HG-TAS25L	Left			38	40	320
G	3D	170-037-298	HG-TAS40R	Right	4.0±20%	40.8±20%	64	20	160
G	3D	170-037-299	HG-TAS40L	Left			64	20	160

Refer to 1 : P.43

ADJUSTABLE TORQUE HINGE HG-TASJ40

SUS



- Torque adjustable from 0 to 4 N・m.
- Stainless steel construction suitable for corrosive environments.

[Specifications]

- Operating temperature: 0℃~40℃

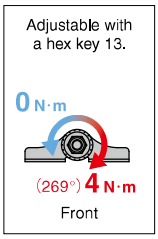
[Remarks]

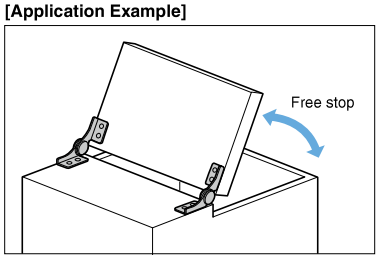
- Be sure to read the "Cautions" 1.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Use a spanner (nominal size 13) for torque adjustment.
- Do not forcibly remove the torque adjustment nut.
- The factory setting of torque is 4.0N・m. Adjust if necessary.

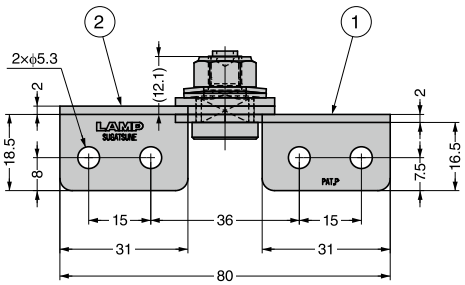
Selection Tool

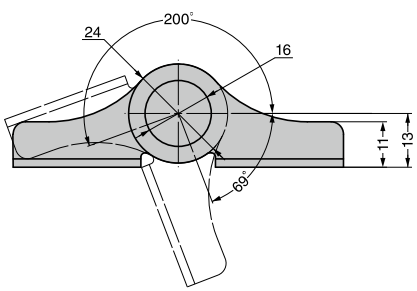
Sasuga-kun

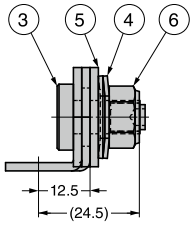
[Application Example]

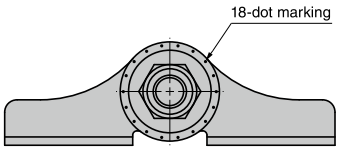












Left-handed type shown. Right-handed type is symmetrical.

No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Base		
③	Shaft	Stainless Steel (SUS303)	–
④	Spring Washer	Stainless Steel (SUS304)	
⑤	Plate		Barrel Polished
⑥	Lock Nut	Stainless Steel	–

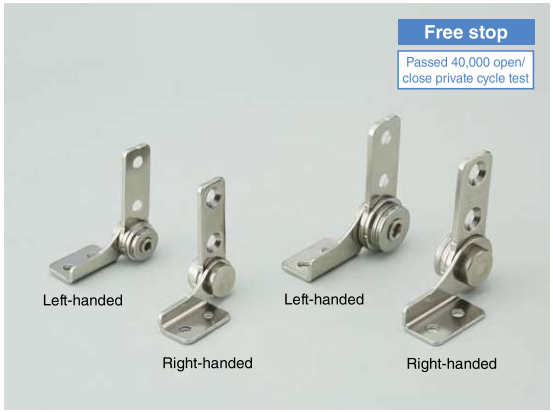
RoHS	CAD	Item Code	Item Name	Type	Torque N・m/pc	Torque kgf・cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-037-306	HG-TASJ40R	Right	0~4.0	0~40.8	64	20	160
G	3D	170-037-307	HG-TASJ40L	Left			64	20	160

Refer to 1 : P.43

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

STAINLESS STEEL TORQUE HINGE HG-TBS

SUS



- Stainless steel construction suitable for corrosive environments.

[Specifications]
- Operating temperature: 0℃~40℃

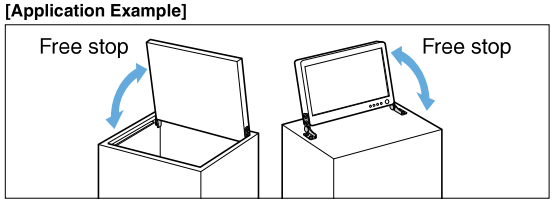
[Applications]
- LCD, monitoring camera, etc.

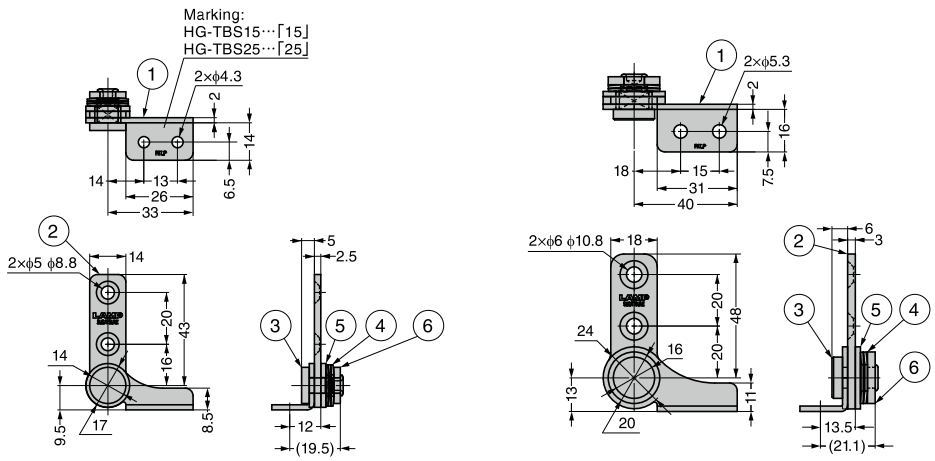
[Remarks]
- Be sure to read the "Cautions" 1.
- For pair using: Please use the same torque in both hinges.
- When installing, ensure that both hinge shafts are levelled and aligned.

Selection Tool

Sasuga-kun

[Application Example]





HG-TBS15L, HG-TBS25L

HG-TBS40L

Left-handed type shown. Right-handed type is symmetrical.

No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Base		
③	Shaft	Stainless Steel (SUS303)	–
④	Spring Washer	Stainless Steel (SUS304)	
⑤	Plate		Barrel Polished
⑥	Washer	Stainless Steel (SUS430)	

RoHS	CAD	Item Code	Item Name	Type	Torque N·m/pc	Torque kgf·cm/pc	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-037-300	HG-TBS15R	Right	1.5±20%	15.3±20%	360°	37	40	320
G	3D	170-037-301	HG-TBS15L	Left				37	40	320
G	3D	170-037-302	HG-TBS25R	Right	2.5±20%	25.5±20%		38	40	320
G	3D	170-037-303	HG-TBS25L	Left				38	40	320
G	3D	170-037-304	HG-TBS40R	Right	4.0±20%	40.8±20%		67	20	160
G	3D	170-037-305	HG-TBS40L	Left				67	20	160

Refer to 1 : P.43

ADJUSTABLE TORQUE HINGE HG-TBSJ40

SUS



- Torque adjustable from 0 to 4 N・m.
- Stainless steel construction suitable for corrosive environments.

[Specifications]

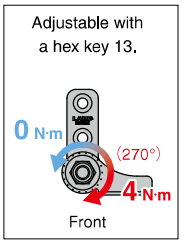
- Operating temperature: 0℃~40℃

[Remarks]

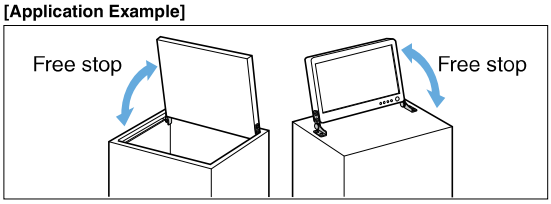
- Be sure to read the “Cautions” 1.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Use a spanner (nominal size 13) for torque adjustment.
- Do not forcibly remove the torque adjustment nut.
- The factory setting of torque is 4.0N・m. Adjust if necessary.

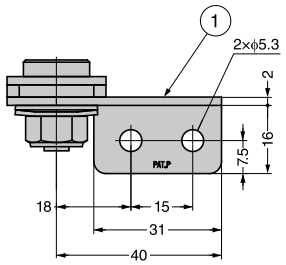
Selection Tool

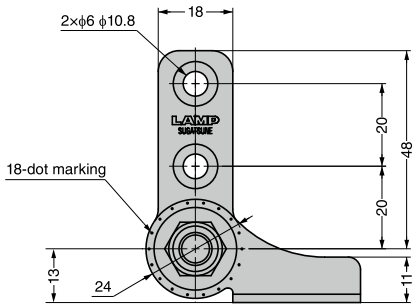
Sasuga-kun



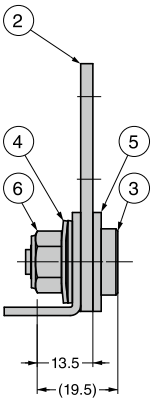
[Application Example]

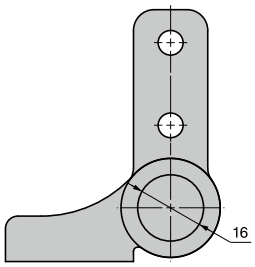






Left-handed type shown. Right-handed type is symmetrical.





No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Base		
③	Shaft	Stainless Steel (SUS303)	–
④	Spring Washer	Stainless Steel (SUS304)	
⑤	Plate		Barrel Polished
⑥	Lock Nut	Stainless Steel	–

RoHS	CAD	Item Code	Item Name	Type	Torque N・m/pc	Torque kgf・cm/pc	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-037-308	HG-TBSJ40R	Right	0~4.0	0~40.8	360°	67	20	160
G	3D	170-037-309	HG-TBSJ40L	Left				67	20	160

Refer to 1 : P.43

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

TORQUE HINGE (CONCEALED) HG-RT



- Hinge is completely hidden when the door is closed.
- Torque decreases as the opening angle increases, making easier to open the lid (refer to "Torque Curve" at the lower left).
- Use with top-opening lids (opening angle 0°~100°) (free stop range).
- Non-friction torque type also available 1 .

[Specifications]

- Operating temperature: 0℃~40℃

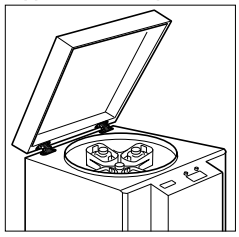
[Remarks]

- Be sure to read the “Cautions” 2 .
- Torque changes with the opening angle (refer to "Torque Curve" at the lower left).
- When selecting, ensure that the maximum torque of lid (door) is less than half of the torque at the hinge closed position (see the table below).
- Set a stopper in the Range where torque is not effective (refer to "Free Stop Range" at the left)
- When installing, ensure that both hinge shafts are levelled and aligned.

[Recommended Screws]

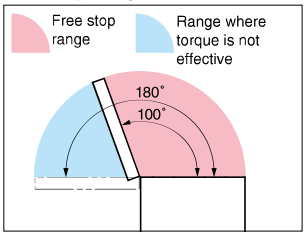
- Countersunk head tapping screw 4 or Countersunk head screw M4

[Application Example]



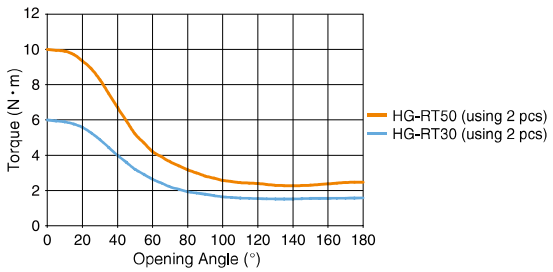
Use with top-opening lids (opening angle 0 ° ~100°).

[Free Stop Range]

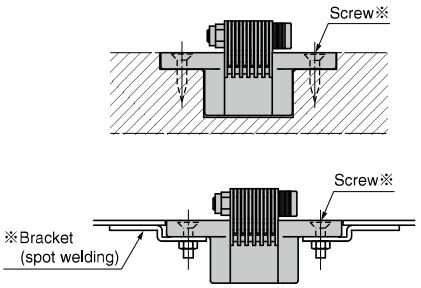


Install stopper to hold the door within the range where torque is not effective.

[Torque Curve]

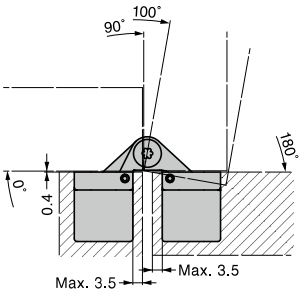


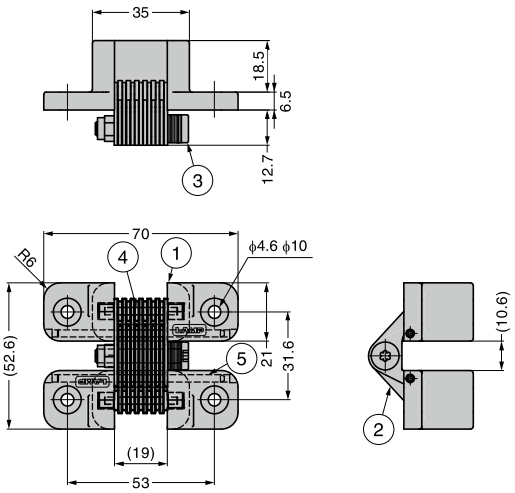
[Installation]



※Screws and brackets not included.

[Locus Chart]





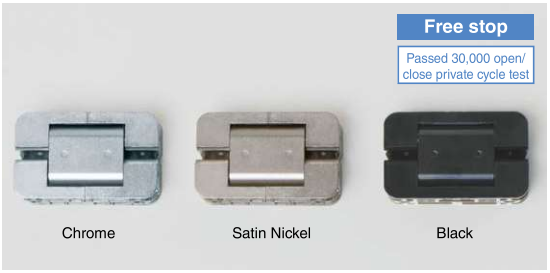
No.	Part Name	Material	Finish
①	Body	Zinc Alloy (ZDC)	Satin Chrome
②	Arm	Stainless Steel (SUS304)	Plain
③	Shaft 1		
④	Shaft 2		
⑤	Shaft 3		

RoHS	CAD	Item Code	Item Name	Max. Lid (Door) Moment		Torque N·m/2pcs (Closed Position)	Torque kgf·cm/2pcs (Closed Position)	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
				Max. N·m/2 pcs	Max. kgf·cm/2 pcs						
G	3D	170-026-478	HG-RT30	3	31	$3^{\pm 20\%}$	$31^{\pm 20\%}$	180°	160	12	72
G	3D	170-021-889	HG-RT50	5	51	$5^{\pm 20\%}$	$51^{\pm 20\%}$			12	72

Refer to 1 : P.150, 2 : P.43

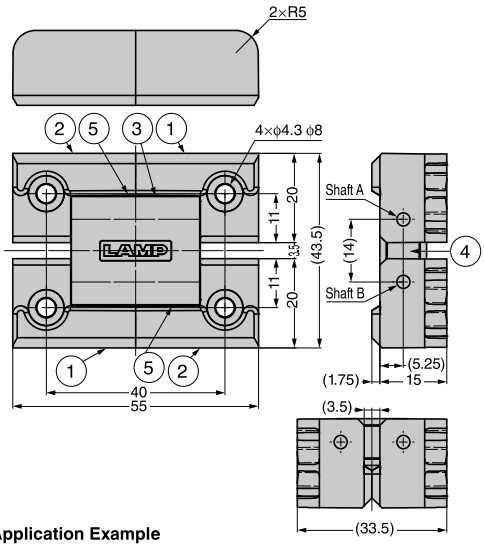
DUAL AXIS TORQUE HINGE HG-TMH

INSTRUCTION









- Can be opened 180° .
- Shafts do not protrude when the hinge is fully open or closed.
- Different torque of two shafts provides easy operation.

[Applications]

- Folding tables in shops, trains, caravans, etc.

[Remarks]

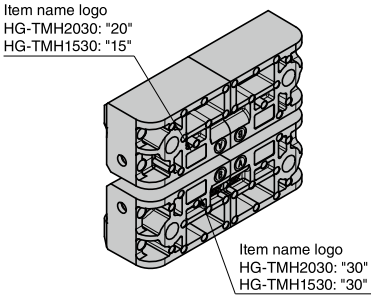
- Swivel use only. Ensure that both hinge shafts are aligned when installing.
- Use hard wood or similar strong material and make sure to tighten the screw.

[Recommended Screws]

- Countersunk head screw M4 (for sheet metal)
- Countersunk head tapping screw 4 (for wood)

Video Link

Video Link



Hinge Motions

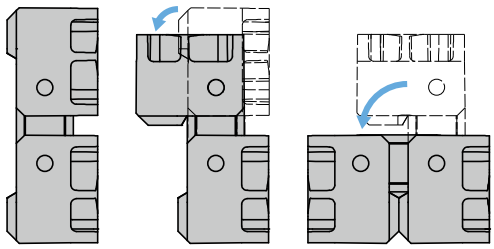
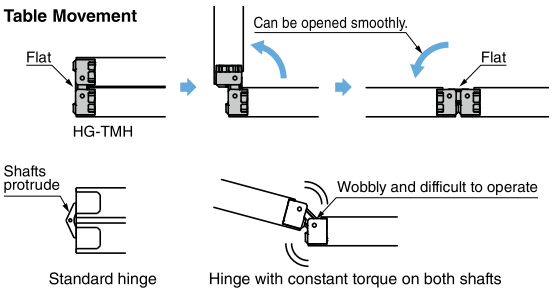
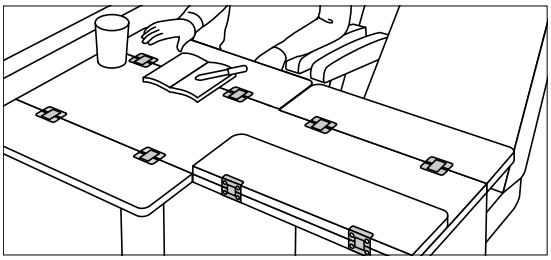


Table Movement

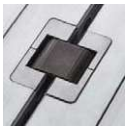


Application Example





When fully opened



Flat and shafts do not protrude.

No.	Part name	Material	Finish/Colour
①	Body A	Zinc Alloy (ZDC)	As below
②	Body B		
③	Intermediate Body		
④	Sleeve	PBT	Black
⑤	Bumper		

RoHS	CAD	Item Code	Item Name	Finish/Colour	Shaft A		Shaft B		Weight (g)	Box (pcs)	Carton (pcs)
					Torque (N·m)	Torque (kgf·cm)	Torque (N·m)	Torque (kgf·cm)			
G	3D	170-034-907	HG-TMH1530-CR	Chrome	1.5±20%	15.3±20%	3.0±20%	30.6±20%	165	10	50
G	3D	170-034-908	HG-TMH2030-CR		2.0±20%	20.4±20%				10	50
G	3D	170-045-006	HG-TMH1530-SN	Satin Nickel	1.5±20%	15.3±20%				10	50
G	3D	170-045-007	HG-TMH2030-SN		2.0±20%	20.4±20%				10	50
G	3D	170-045-008	HG-TMH1530-BL	Plain/Black	1.5±20%	15.3±20%				10	50
G	3D	170-045-009	HG-TMH2030-BL		2.0±20%	20.4±20%				10	50

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

TORQUE CONCEALED HINGE H95TSH-F



- Has free-stop torque mechanism with 95° opening.
- Gives no spring-back and backlash.
  When the angle is near 0°, the torque will be released.
- Easy installation and detachment.
- Hinge can be easily fixed onto the mounting plate by pressing down.
- Less interference with adjacent objects due to wide throw opening.
- The safety pin prevents accidental unlocking of the lock lever.

[Application]

- Vending machines, ticket machines, contiguous doors, small cabinet door embedded in the walls.

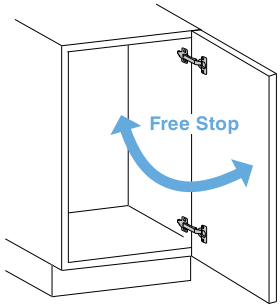
[Sold Separately]

- Mounting Plate H95TSZ

[Remarks]

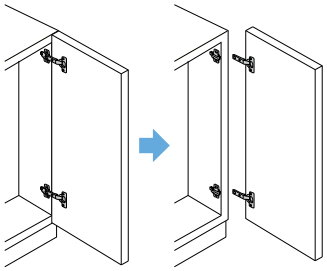
- When the angle is near 0°, the torque will be released.

[Torque Mechanism]



Holds in position even if the door is inclined.

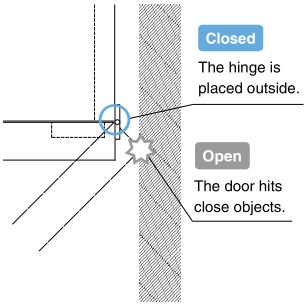
[Easy Installation and Detachment]



[Door Locus Comparison]

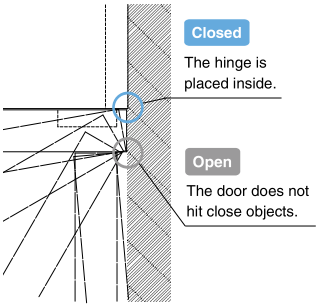


Butt Hinge

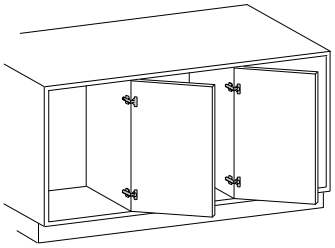




Concealed Hinge

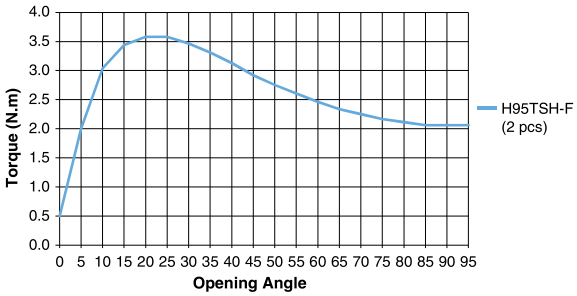


[Alternative Installations]



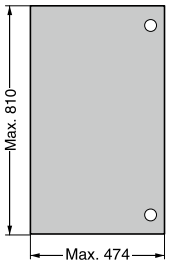
Can be used on doors lined up side by side.

[Torque Graph]



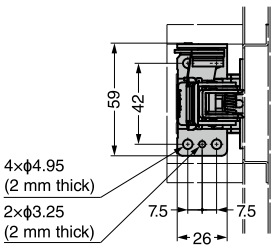
Although the torque will be released to prevent "spring-back" at a nearly closed angle, the door will not be firmly kept closed. If detent function is needed, please use with catches.

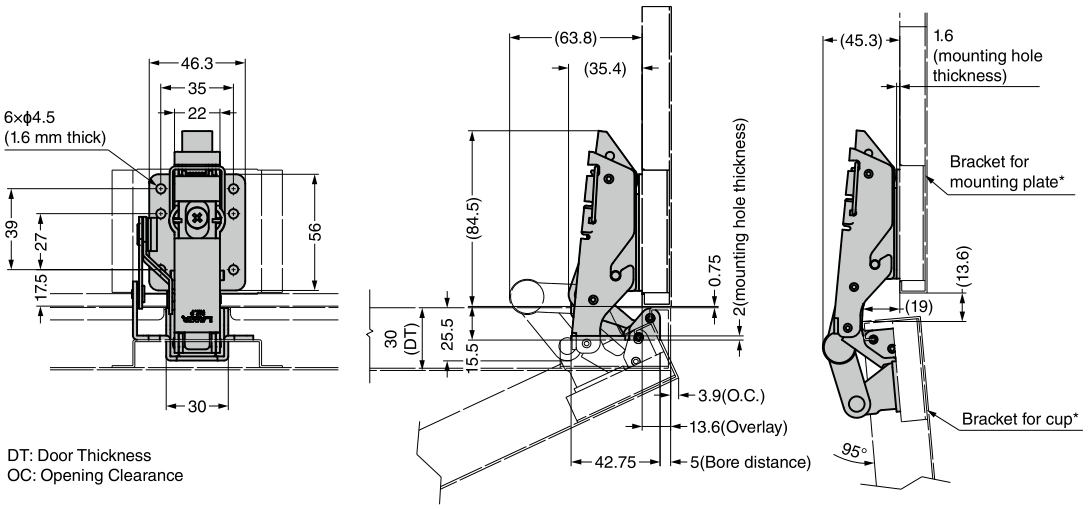
[Example Door Spec]



- Height : Max. 810 mm
- Width : Max. 474 mm
- Thickness : Max. 92 mm
- Weight : Max. 20 kg

* 2 hinges used

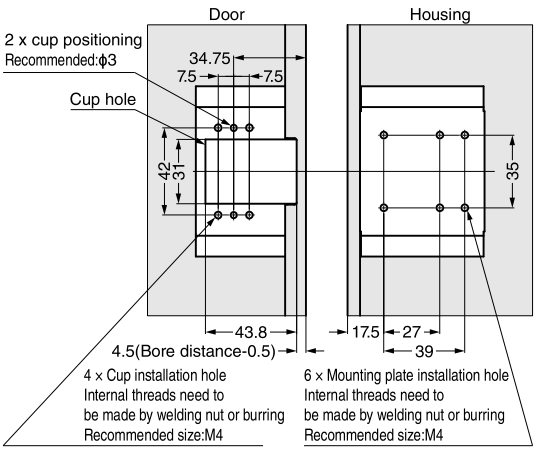




DT: Door Thickness
OC: Opening Clearance

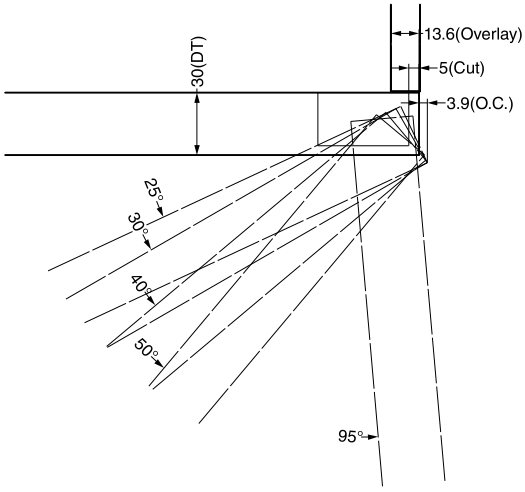
* Please prepare "Bracket for mounting plate" and "Bracket for cup" by yourself.

[Cut Out Dimensions]



The drawing shows the installation position in the conditions below:
- Bore distance : 5 mm
- Door thickness : 30 mm
- Overlay : 13.6 mm

[Locus Chart]



Reference door weight: 20 kg
(In case of door size W450 x H800, pitch 550, vertical use)

[Hinge Body]

RoHS	CAD	Item Code	Item Name	Main Material	Finish	Weight (g)	Box (pcs)
G	3D	160-046-391	H95TSH-F	Steel	Nickel	180	60

[Mounting Plate] Sold Separately

RoHS	CAD	Item Code	Item Name	Main Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-591	H95TSZ	Steel	Nickel	94	100

DETACHABLE TORQUE HINGE HG-RNM30

INSTRUCTION



- Window attachment and detachment without tools, easy to maintain.
- Lock mechanism prevents the window from falling off.

[Remarks]

- Be sure to read the “Cautions” 1.
- Sold in set (hinge and strike each 2 pcs).
- When installing, ensure that both hinge shafts are levelled and aligned.
- Force for operating window varies depending on use environment (air temperature, wind).
- Do not use with window enduring strong wind pressure.
- Use mohair separately if air tightness is required.

Video Link

[Parts Included]

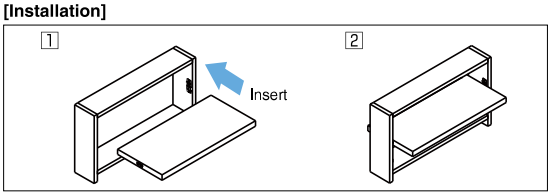
Only for HG-RNM30-SET

- Pan head tapping screw 4×20 (strike side)
- Countersunk head tapping screw 4×20 (hinge side)

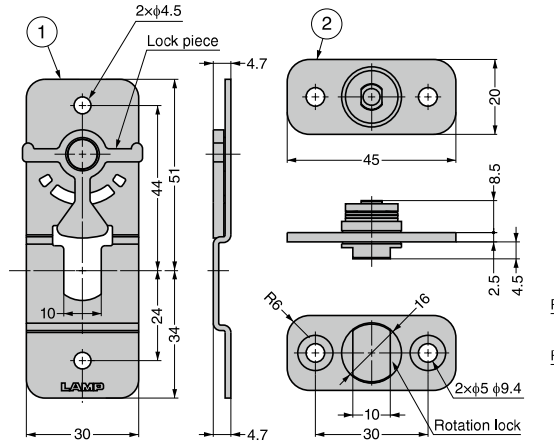
[Recommended Screws]

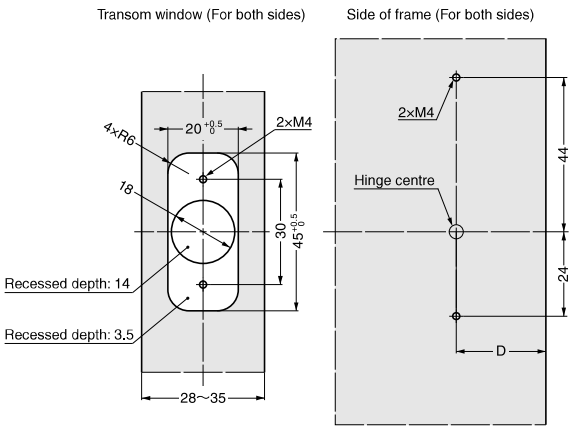
- Pan head screw M4 (strike side)
- Countersunk head screw M4 (hinge side)

[Installation]



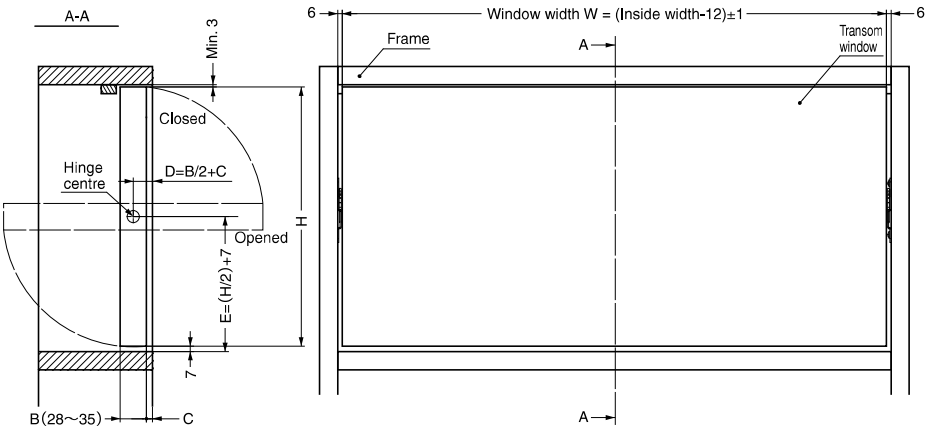
[Cut Out Dimensions]



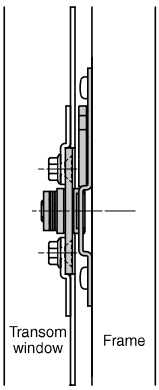


No.	Part Name	Material	Finish
①	Strike	Stainless Steel, POM	–
②	Hinge	Stainless Steel, etc.	

[Cut Out Dimensions]



[Installation Reference]



RoHS	CAD	Item Code	Item Name	Screw	Torque N·m/set	Torque kgf·cm/set	Weight (g)	Box (sets)	Carton (sets)
G	3D	170-029-733	HG-RNM30	w/o	3.0±20%	30.6±20%	112	15	120
G	3D	170-033-319	HG-RNM30-SET	w/				15	120

Refer to 1 : P.43

PIVOT TORQUE HINGE HG-PTH30

INSTRUCTION SUS



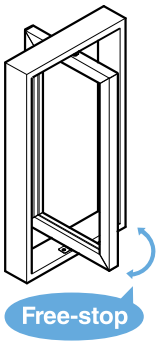
- No tools are needed to attach and detach doors, allowing for easy maintenance.
- The safety retainer prevents doors and windows from falling off.

[Remarks]
- Be sure to read the "Cautions" 1.
- When installing, ensure that both hinge shafts are leveled and aligned.
- Force for operation varies depending on use environment, including air temperature and wind.
- Do not use with a door and window enduring strong wind pressure.

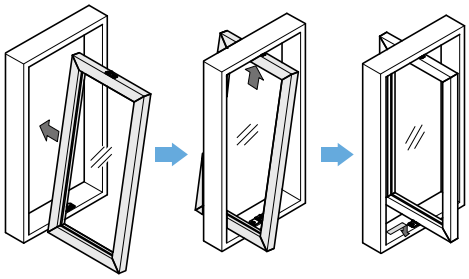
[Parts Included]
- Binding head tapping screw 4×20 (for the pivot hinge)
- Countersunk head tapping screw 4×20 (for the mouting plates and torque hinge)

Video Link

[Holds in any position]



[Easy Installation]

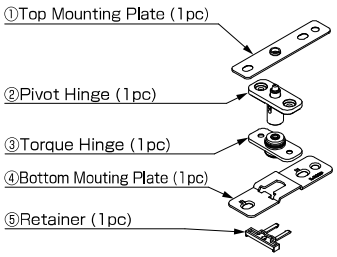


Insert the window into the frame.

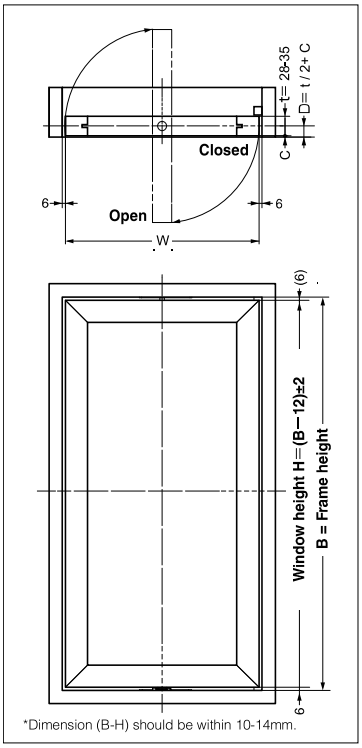
Insert the hinge into the top plate while holding the window at an incline.

Insert the hinge into the bottom plate.

[Component Parts]



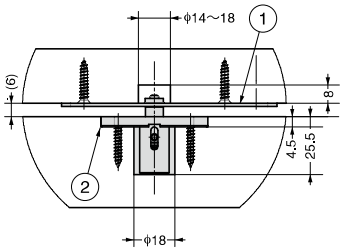
[Installation]



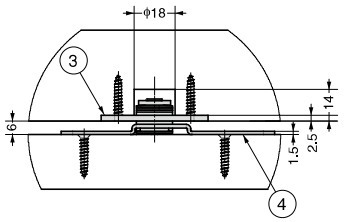
*Dimension (B-H) should be within 10-14mm.

[Detailed Drawings]

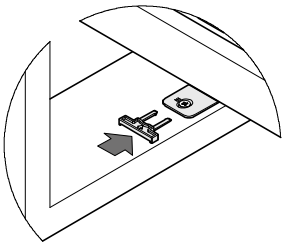
-Upside



-Downside

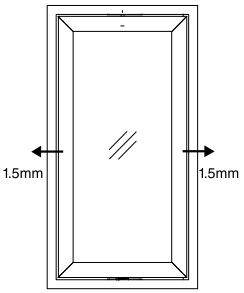


[Prevents Doors From Falling Off]



The retainer prevents doors from falling off.
It only needs to be inserted into the bottom plate.

[Adjustable Side Spaces]



Can be adjusted horizontaly after installation.

Sold in sets of two hinges.

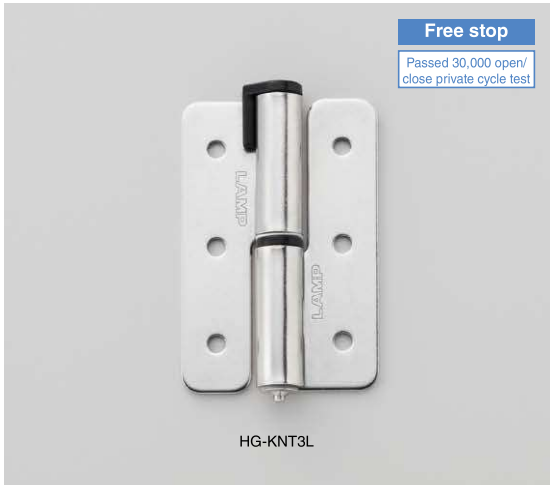
RoHS	CAD	Item Code	Item Name	Material	Door Width	Door Height	Door Thickness	Door Weight kg/set	Torque N·m/2pcs	Torque kgf·m/2pcs	Weight (g)	Box (set)	Carton (set)
G	3D	170-043-673	HG-PTH30	Stainless Steel	350-500	700-1200	28-35	Max. 10	$3.0^{\pm 20\%}$	$30.6^{\pm 20\%}$	95	15	120

Refer to 1 : P.43

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

LIFT-OFF TORQUE HINGE HG-KNT

INSTRUCTION



HG-KNT3L

Selection Tool
Sasuga-kun

Video Link

- Can be used vertically and horizontally.
- Lift-off type, easy to detach doors.

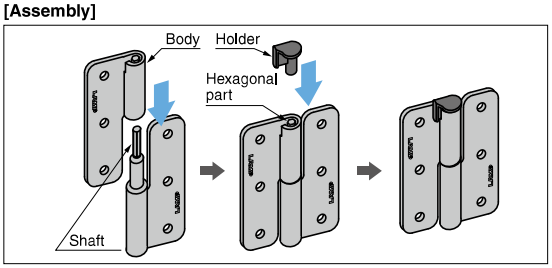
[Applications]

- Laboratory equipment, OA equipment, FA equipment, and various automatic equipment.

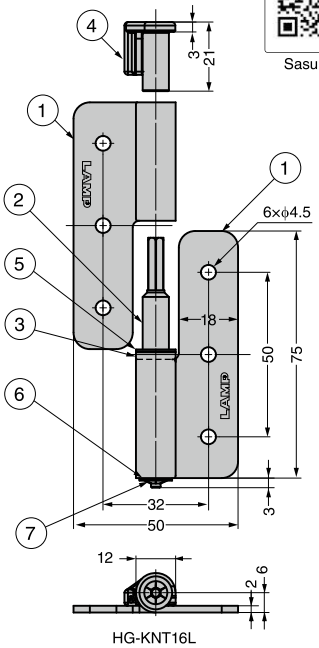
[Remarks]

- Be sure to read the “Cautions” 1.
- When installing, ensure that both hinge shafts are aligned.
- Insert into holder following installation of the door. Infirm insertion may cause damage.
- When using the hinges horizontally, set the holders opposite each other to prevent them being inserted or removed.

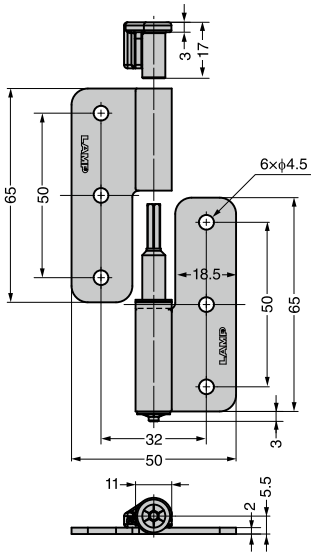
[Assembly]



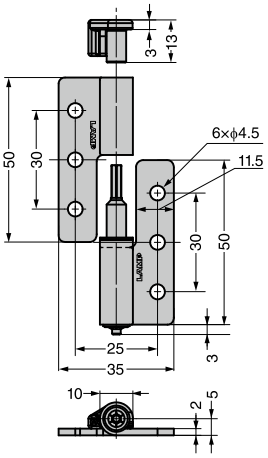
Insert the body into shaft, and then insert the holder into the hexagonal part of shaft to generate torque. To detach, use a tool to push the holder out.



HG-KNT16L



HG-KNT7L



HG-KNT3L

Left-handed type shown. Right-handed type is symmetrical.

No.	Part Name	Material	Finish / Colour
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Shaft	Stainless Steel (SUS303)	–
③	Plug	POM	Black
④	Holder	PA	
⑤	Washer	PTFE	Natural
⑥	Washer	POM	
⑦	Push Nut	Stainless Steel (SUS304)	–

RoHS	CAD	Item Code	Item Name	Type	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-035-380	HG-KNT3L	Left-handed	$0.3^{\pm 67\%}$	$3.1^{\pm 67\%}$	42	50	200
G	3D	170-035-381	HG-KNT3R	Right-handed				50	200
G	3D	170-035-382	HG-KNT7L	Left-handed	$0.7^{\pm 36\%}$	$7.1^{\pm 36\%}$	76	40	160
G	3D	170-035-383	HG-KNT7R	Right-handed				40	160
G	3D	170-035-384	HG-KNT16L	Left-handed	$1.6^{\pm 20\%}$	$16.3^{\pm 20\%}$	96	30	120
G	3D	170-035-385	HG-KNT16R	Right-handed				30	120

Refer to 1 : P.43

MINI TORQUE HINGE HG-MF



●Small plastic torque hinge.

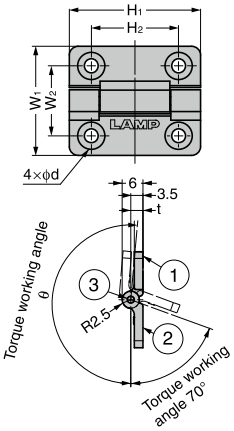
[Applications]

●Small and lightweight doors such as office equipment and shop furniture

[Remarks]

●Be sure to read the "Cautions" 1.

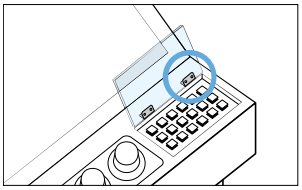
●When installing, ensure that both hinge shafts are levelled and aligned.



Selection Tool

Sasuga-kun

[Application Example]



No.	Part Name	Material	Colour
①	Body A	POM	Black, White
②	Body B		
③	Shaft	Stainless Steel (SUS303)	–

RoHS	CAD	Item Code	Item Name	Colour	W1	W2	H1	H2	t	θ	dϕ	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-023-854	HG-MF08-BL	Black	25	16	20	10	2	190°	ϕ2.4, ϕ4.2	0.0784±25%	0.8±25%	2	400	1800
G	3D	170-023-855	HG-MF08-WT	White										2	400	1800
G	3D	170-023-856	HG-MF15-BL	Black			30	20			ϕ3.2, ϕ6.2	0.147±20%	1.5±20%	3	300	1200
G	3D	170-023-857	HG-MF15-WT	White										3	300	1200
G	3D	170-023-858	HG-MF25-BL	Black	28	18	40	25	2.5	185°		0.245±20%	2.5±20%	5	200	600
G	3D	170-023-859	HG-MF25-WT	White										5	200	600

Refer to 1 : P.43

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

SOFT-CLOSE HINGE HG-JV65 For Vertical Use

Lapcon INSTRUCTION

Passed 50,000 open/close private cycle test



HG-JV65-S-BL



HG-JV65-S-LGR



Comes with screw covers

- Closing speed of doors is adjustable with a hex key.
- Comes with self-close function which can hold doors closed.

[Specification]
- Temperature: 0˚C~40˚C

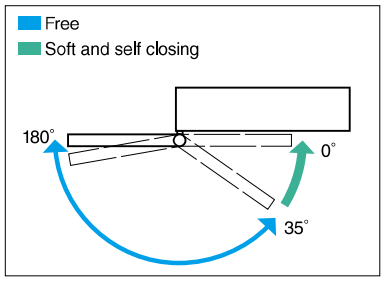
[Remarks]
- Please use with stoppers to prevent doors from opening over 180˚.

[Parts Included]
- Screw cover

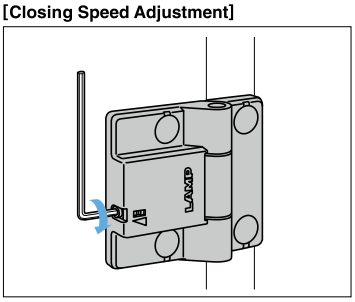
[Recommended Screw]
- For wood:
  - Binding head tapping screw M5
  - Pan head tapping screw M5
- For sheet metal:
  - Binding head screw M5
  - Pan head screw M5
  - Button bolt M5

Video Link

[Operating Range]

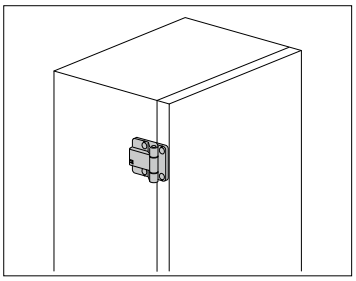


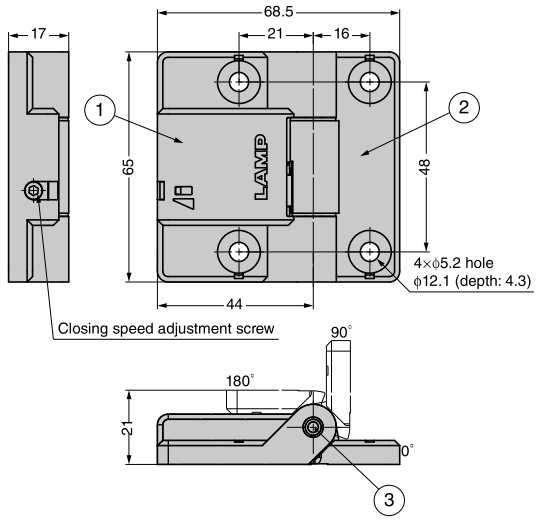
[Closing Speed Adjustment]



Closing speed of doors is adjustable with a hex key (size: 2.5).

[Installation]





No.	Part Name	Material	Finish/Colour
①	Body A	Polyamide (PA)	Black, Light Grey
②	Body B	Steel	
③	Shaft	Brass	Nickel
–	Screw Cover	Elastomer (SPE)	Black, Light Grey

RoHS	CAD	Item Code	Item Name	Finish	Available Door Specs				Weight (g)	Box (pcs)	Carton (pcs)
					Width	Height	Weight (kg/2pcs)	Weight (kg/3pcs)			
G	3D	170-046-272	HG-JV65-S-BL	Black	Max. 700	Max. 2400	1.0~7.0	7.0~12.0	85	1	60
G	3D	170-046-273	HG-JV65-S-LGR	Light Grey						1	60

SOFT-CLOSE HINGE HG-JV65-U-LGR Concealed Type / For Vertical Use

Lapcon INSTRUCTION

Passed 50,000 open/close private cycle test



- Will be hidden from view when closed. (The hinge is installed inside of enclosures.)
- Automatically and slowly closes doors from 35˚. (Self and soft closing)
- Closing speed of doors is adjustable with a hex key.

[Specification]
- Temperature: 0℃~40℃

[Remarks]
- Set door stopper to prevent doors from opening over 95˚.

[Parts Included]
- Body cover

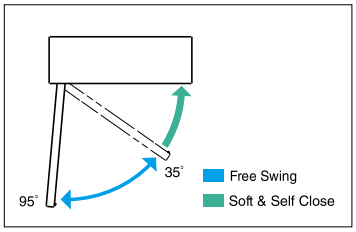
[Recommended Screw]
- M5 binding head screw
- M5 pan head screw
- M5 button bolt
- M5 truss head screw

Video Link

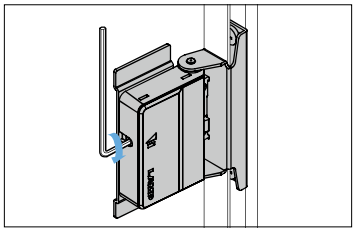
[Installation Inside Cabinet]



[Operating Range]

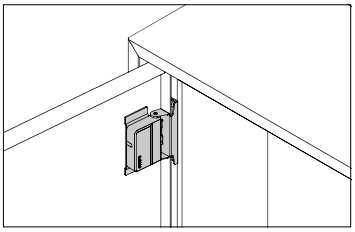


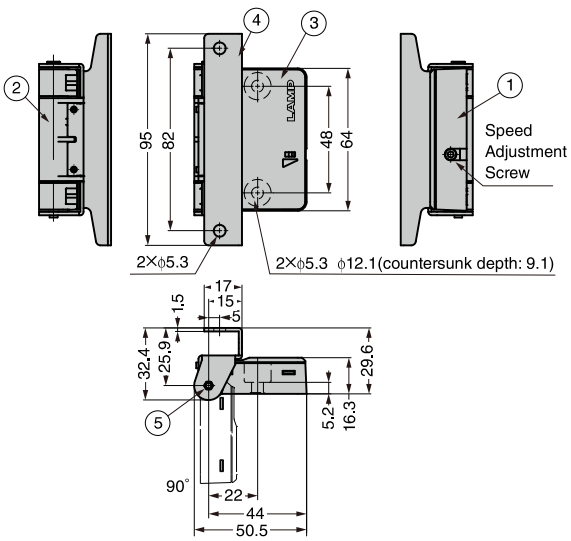
[Closing Speed Adjustment]



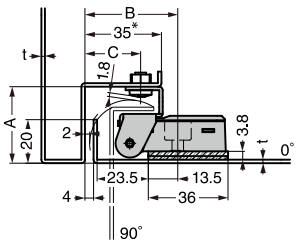
Closing speed is adjustable with a hex key. (size: 2.5)

[Installation]





[Installation and Dimensions]



*The nut and bending section might be close depending on the thickness of the sheet metal.

Thickness	A	B	C
t = 1.6	35	42.5	25.5
t≦3.2	35+(t-1.6)	42.5+(t-1.6)	25.5+(t-1.6)

No.	Part Name	Material	Finish/Colour
①	Body A	Polyamide	Light Grey
②	Body B		
③	Body Cover	Polyacetal	
④	Press Arm	Stainless Steel (SUS304)	Plain
⑤	Shaft	Steel (SUM)	Nickel

RoHS	CAD	Item Code	Item Name	Colour	Door Specs				Weight (g)
					Width	Height	Weight (kg/2pcs)	Weight (kg/3pcs)	
G	3D	170-049-813	HG-JV65-U-LGR	Light Grey	Max. 700	Max. 2400	1.0~7.0	7.0~12.0	135

GRAVITY SOFT-CLOSE HINGE HG-JG150 Self and Soft Close

Lapcon INSTRUCTION

Passed 50,000 open/close private test



Self-close Hinge
(for lower)



Soft-close Hinge
(for upper)

- Automatically and slowly close doors from 65 degrees.
  (The self-close feature uses gravity, and the soft-close feature is due to a built-in damper.)
- Can separate into two parts for easy installation and disassembly.
- The closing speed of doors is adjustable.
- Doors cannot be removed when closed for security purposes. (0˚)
- Door position can be adjusted for depth and in a horizontal direction (± 3 mm).

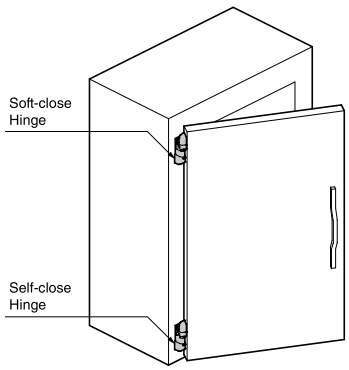
[Specification]
- Temperature : 0℃~40℃

[Remarks]
- Set door stopper to prevent doors from opening over 180˚ .
- Sold in set of two hinges. (soft-close hinge and self-close hinge)

[Parts Included]
- Cover
- Adjustment Plate

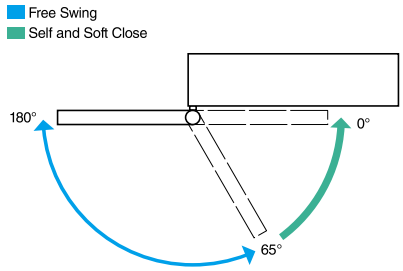
[Recommended Screw]
- M6 Binding head screw / Pan head screw
- M6 Hexagon socket head bolt / Button bolt

[Installation of Left-handed Type]

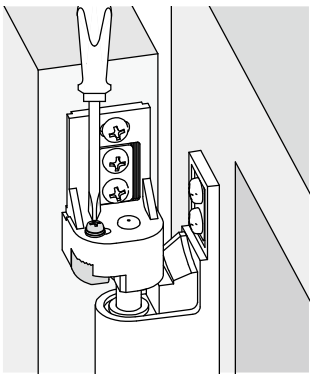


* Pitch between hinges: Min. 1200 mm

[Door Motion]

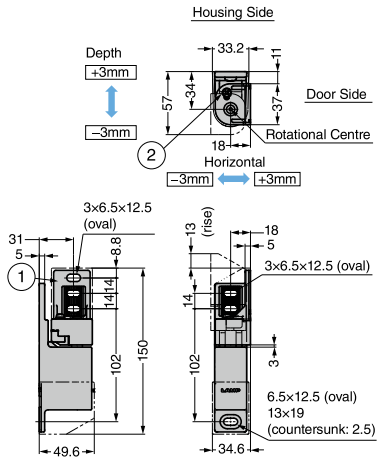


[Speed Adjustment]

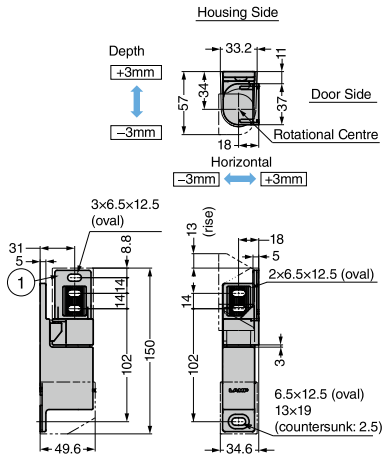


Closing speed can be adjusted with the screw of the soft-close hinge which is for the upper side.

[Soft-close Hinge]

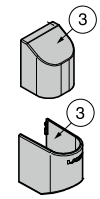


[Self-close Hinge]



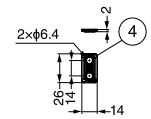
* Left-handed type is shown.

[Covers]



Video Link

[Adjustment Plate]



No.	Part Name	Material	Finish
①	Body	Zinc Alloy (ZDC)	Chrome
②	Speed Adjustment Screw	Steel	Nickel
③	Cover	ABS	Chrome
④	Adjustment Plate	Zinc Alloy (ZDC)	

Sold in set of two hinges. (soft-close hinge and self-close hinge)

RoHS	CAD	Item Code	Item Name	Position	Finish	Door Width	Door Height	Load Capacity kgf / set	Weight (g)	Carton (set)
G	3D	170-048-340	HG-JG150R-CR	Right-handed	Chrome	Max. 900	Max. 2400	10 to 20	995	10
G	3D	170-048-341	HG-JG150L-CR	Left-handed						10

DAMPER HINGE HG-JHW16S

Lapcon L=R INSTRUCTION



- Surface mount type with built-in damper UDH-16S 1.
- Covers various torque ranges by using "with damper" and "without damper" as a pair.

[Specifications]
- Operating temperature: 0℃~40℃

[Applications]
- Top-opening lids and upper covers of various cabinets

[Remarks]
- Be sure to read the "Cautions" 2.
- Torque range is the value when using one hinge (when two hinges with identical torque is used for one lid, the value is doubled).
- Install a stopper such as a stay at the lid opening/closing position (0~120 degree or less) for not exceeding the specified swivelling range.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Do not disassemble or modify the product.

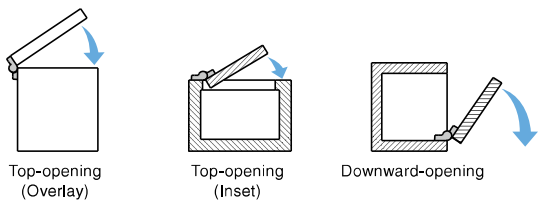
[Recommended Screws]
- M5 hexagon socket head cap screws (4 pcs)
- Washers 5 (4 pcs)

Video Link

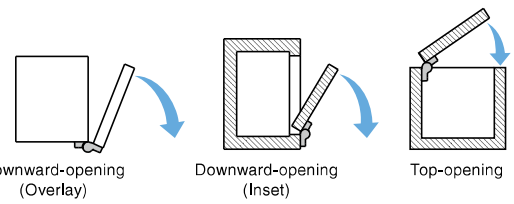
Selection Tool
Sasuga-kun

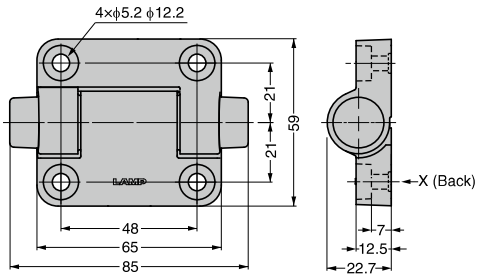
[Damper Working Direction]

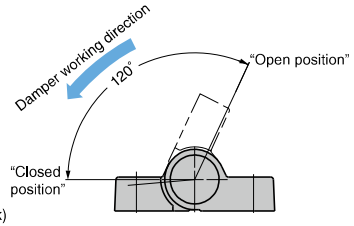
HG-JHW16S



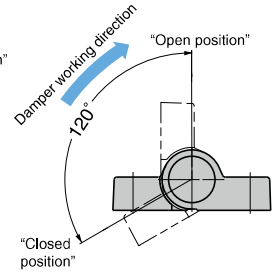
HG-JHW16SG





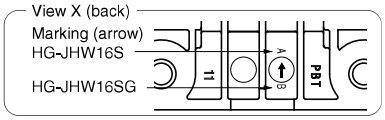


HG-JHW16S



HG-JHW16SG

※"Opening" and "Closing" directions shown above are for the case of external installation.



Material	Finish / Colour
PBT	Emboss/Dark Grey

RoHS	CAD	Item Code	Item Name	Damper Working Direction (When External Installation)	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)
G	3D	170-027-420	HG-JHW16S-34	For Closing	2.0~3.4	20.4~34.7	83	30
G	3D	170-027-421	HG-JHW16S-50		3.4~5.0	34.7~51.0		30
G	3D	170-027-422	HG-JHW16S-34G	For Opening	2.0~3.4	20.4~34.7		30
G	3D	170-027-423	HG-JHW16S-50G		3.4~5.0	34.7~51.0		30
G	3D	170-027-419	HG-JHW16S-00	Without Damper	–	–	52	30

Refer to 1 : P.116, 2 : P.43

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

DAMPER HINGE HG-JHW, HG-JHWG

Lapcon AS INSTRUCTION


HG-JHW


HG-JHWG

- Hinge with built-in dampers UDH 1.
- AS parts set for installing to aluminium frame also available. 2

[Applications]

- Top-opening lids and upper covers of various cabinets.

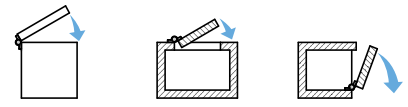
[Remarks]

- Be sure to read the "Cautions" 3.
- Install a stopper such as a stay at the lid opening/closing position (0~115 degree or less) for not exceeding the specified swivelling range.
- When installing, ensure that both hinge shafts are levelled and aligned.

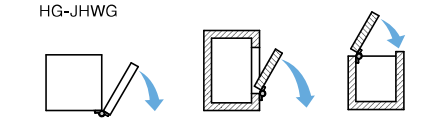
[Damper Working Direction]

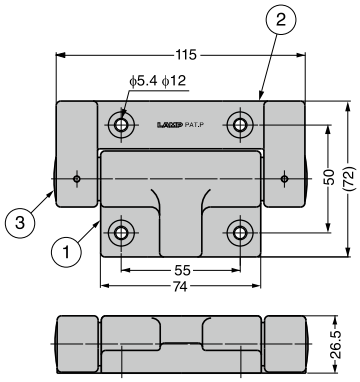
Selection Tool
Sasuga-kun

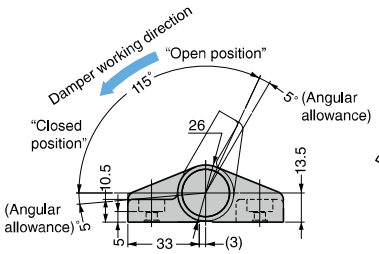
HG-JHW



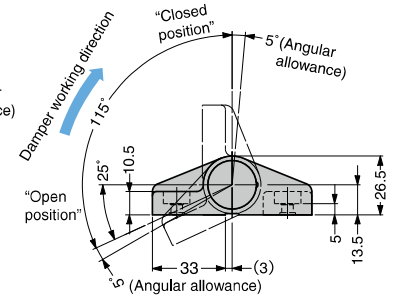
HG-JHWG







HG-JHW



HG-JHWG

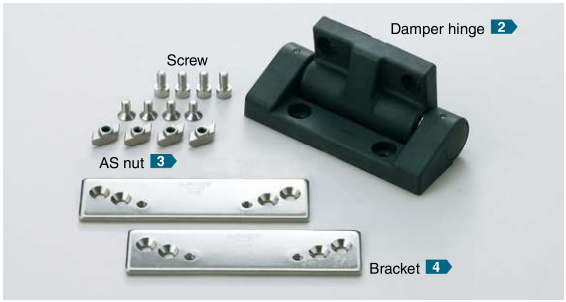
No.	Part Name	Material	Finish / Colour
①	Bracket (body side)	PBT	Emboss/Dark Grey
②	Bracket (shaft side)		
③	Cap	PP	

RoHS	CAD	Item Code	Item Name	Damper Working Direction	Torque N·m/pc	Torque kgf·cm/pc	Marking Colour	Box (pcs)	Carton (pcs)
G'	3D	170-092-212	HG-JHW50	For Closing	3~5	30.6~51	White	4	64
G'	3D	170-092-211	HG-JHW70		5~7	51~71.4	w/o	4	64
G'	3D	170-092-215	HG-JHW50G	For Opening	3~5	30.6~51	White, Red	4	64
G'	3D	170-092-216	HG-JHW70G		5~7	51~71.4	Red	4	64

Refer to 1 : P.115, 2 : P.95, 3 : P.43

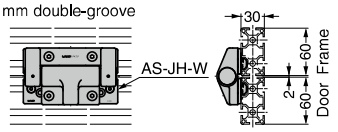
AS Parts Set for Installing to Aluminium Frame

Please refer to the series introduction page 1 for details about AS series.

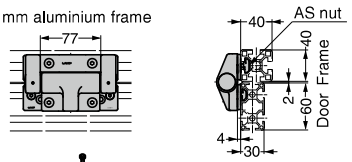


[Dimensions]

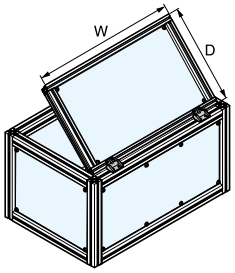
In case of 30×60 mm double-groove aluminium frame



In case of 40×40 mm aluminium frame



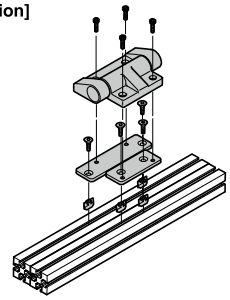
[Criterion of Door Weight]



Item Name	W	D	Door Weight kg
HG-JHW50	600	500	3.4
HG-JHW70	1000		5

※ In case of using two hinges for one door.

[Installation]

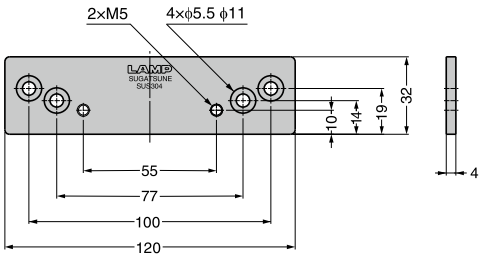


[AS Parts Set] Parts set of brackets, screws and AS nuts used for installing to aluminium frame.

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (g)
G	–	170-041-554	AS-HG-JHW50-30-8	Groove Width 8 mm	Damper Hinge HG-JHW50 : 1pc Bracket AS-JH-W : 2pcs AS Nut AS-8M5 : 4pcs Hexagon Socket Head Cap Screw M5×8 : 4pcs Hexagon Socket Countersunk Head Screw M5×12 : 4pcs	–
G	–	170-041-555	AS-HG-JHW70-30-8		Damper Hinge HG-JHW70 : 1pc Bracket AS-JH-W : 2pcs AS Nut AS-8M5 : 4pcs Hexagon Socket Head Cap Screw M5×8 : 4pcs Hexagon Socket Countersunk Head Screw M5×12 : 4pcs	–
G	–	170-041-556	AS-HG-JHW50-40-10-30-8	Groove Width 8 mm Groove Width 10 mm	Damper Hinge HG-JHW50 : 1pc Bracket AS-JH-W : 2pcs AS Nut AS-8M5 : 2pcs AS Nut AS-10M5 : 2pcs Hexagon Socket Head Cap Screw M5×8 : 4pcs Hexagon Socket Head Cap Screw M5×12 : 4pcs	–
G	–	170-041-557	AS-HG-JHW70-40-10-30-8		Damper Hinge HG-JHW70 : 1pc Bracket AS-JH-W : 2pcs AS Nut AS-8M5 : 2pcs AS Nut AS-10M5 : 2pcs Hexagon Socket Head Cap Screw M5×8 : 4pcs Hexagon Socket Head Cap Screw M5×12 : 4pcs	–

Refer to 1 : P.20, 2 : P.94, 3 : P.526, 4 : P.95

AS BRACKET FOR HG-JHW AS-JH-W



- Used for installing damper hinge HG-JHW to aluminium frame.
- Use AS nuts for installation.

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-692	AS-JH-W	Stainless Steel (SUS304)	Barrel Polished	105	25	250

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

DAMPER HINGE HG-JH

Lapcon AS INSTRUCTION



Sold in pairs.

- Hinge with built-in dampers hinge UDH 1.
- Smooth movement in the opening direction.
- Left-handed…Damper works when rotating counterclockwise.
  Right-handed…Damper works when rotating clockwise.
- AS parts set for installing to aluminium frame also available. 2

[Applications]

- Top-opening lids and upper covers of various cabinets.

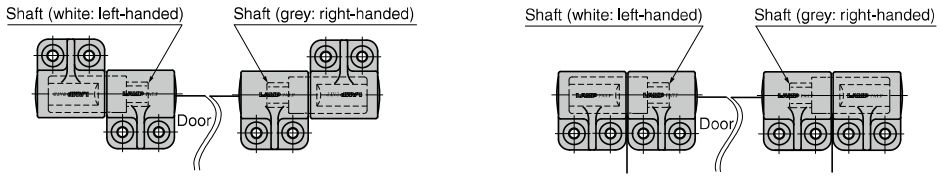
[Remarks]

- Be sure to read the “Cautions” 3.
- Torque range is the value when using two hinges for one door.
- Install a stopper such as a stay at the lid opening/closing position (0~115 degree or less) for not exceeding the specified rotation range.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Sold in pairs.

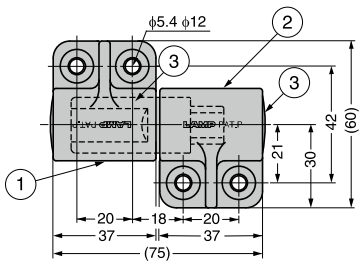
Selection Tool

Sasuga-kun

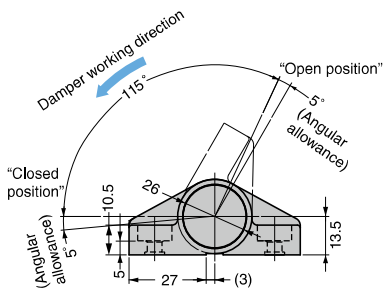
[Installation]



When viewing door from lower side as shown above, install the left-handed type damper (white) on the left side and the right-handed type (grey) on the right side.



Left-handed type shown.



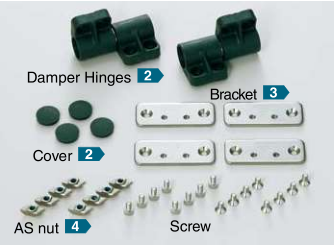
No.	Part Name	Material	Finish / Colour
①	Bracket	PBT	Emboss/Dark Grey
②	Damper		
③	Cap	PP	

RoHS	CAD	Item Code	Item Name	Torque N·m/pair	Torque kgf·cm/pair	Marking Colour (Base Side)	Weight (g)	Box (pairs)	Carton (pairs)
G	3D	170-092-209	HG-JH25	3~5	30.6~51	Blue	200	4	64
G	3D	170-092-210	HG-JH35	5~7	51~71.4	Red	193	4	64

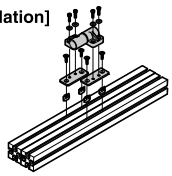
Refer to 1 : P.115, 2 : P.97, 3 : P.43

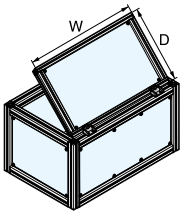
AS Parts Set for Installing to Aluminium Frame

Please refer to the series introduction page 1 for details about AS series.



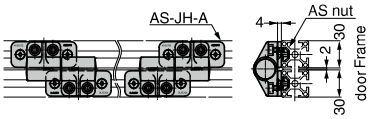
[Installation]



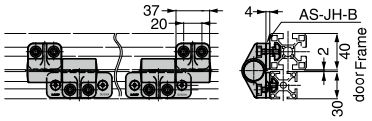


[Dimensions]

In case of 30×30 mm aluminium frame



In case of 40×40 mm aluminium frame



[Criterion of Door Weights]

Item Name	W	D	Door Weight kg
HG-JH25	400	400	2.3
HG-JH35	700	400	3.2

※ In case of using two hinges for one door.

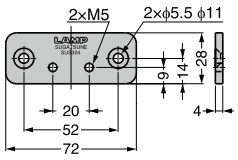
[AS Parts Set] Parts set of brackets, screws and AS nuts used for installing to aluminium frame.

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (g)
–	–	170-041-550	AS-HG-JH25-30-8	Groove Width 8 mm	Damper Hinge HG-JH25 : 1set Bracket AS-JH-A : 4pcs AS Nut AS-8M5 : 8pcs M5×10 Hexagon Socket Head Cap Screw : 8pcs M5×12 Hexagon Socket Countersunk Head Screw : 8pcs M5 Washers (size 5) : 8pcs	–
–	–	170-041-551	AS-HG-JH35-30-8		Damper Hinge HG-JH35 : 1set Bracket AS-JH-A : 4pcs AS Nut AS-8M5 : 8pcs M5×10 Hexagon Socket Head Cap Screw : 8pcs M5×12 Hexagon Socket Countersunk Head Screw : 8pcs M5 Washers (size 5) : 8pcs	–
–	–	170-041-552	AS-HG-JH25-40-10-30-8	Groove Width 8 mm Groove Width 10 mm	Damper Hinge HG-JH25 : 1set Bracket AS-JH-A : 2pcs Bracket AS-JH-B : 2pcs AS Nut AS-8M5 : 8pcs AS Nut AS-10M5 : 8pcs M5×10 Hexagon Socket Head Cap Screw : 4pcs M5×20 Hexagon Socket Head Cap Screw : 4pcs M5×12 Hexagon Socket Countersunk Head Screw : 4pcs M5 Washers (size 5) : 8pcs	–
–	–	170-041-553	AS-HG-JH35-40-10-30-8		Damper Hinge HG-JH35 : 1set Bracket AS-JH-A : 2pcs Bracket AS-JH-B : 2pcs AS Nut AS-8M5 : 8pcs AS Nut AS-10M5 : 8pcs M5×10 Hexagon Socket Head Cap Screw : 4pcs M5×20 Hexagon Socket Head Cap Screw : 4pcs M5×12 Hexagon Socket Countersunk Head Screw : 4pcs M5 Washers (size 5) : 8pcs	–

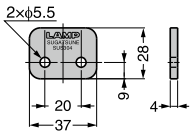
Refer to 1 : P.20, 2 : P.96, 3 : P.97, 4 : P.526

AS BRACKET FOR HG-JH AS-JH

AS SUS



AS-JH-A



AS-JH-B

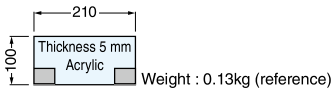
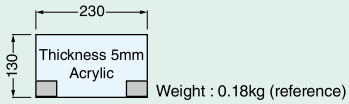
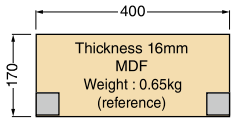
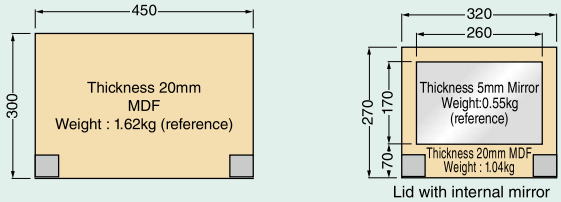
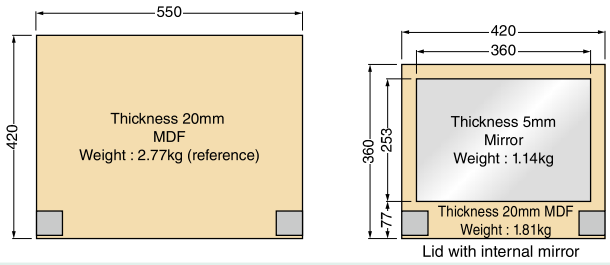
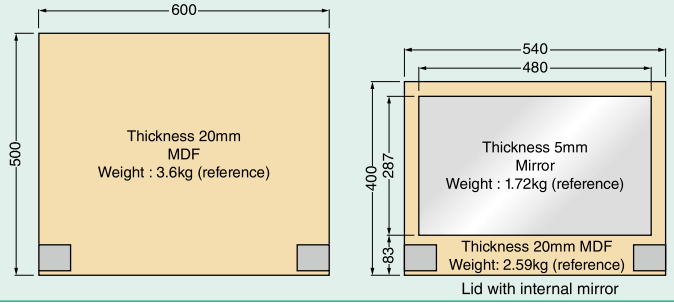
- Used for installing damper hinge HG-JH to aluminium frame.
- Use AS nuts for installation.

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-690	AS-JH-A	Stainless Steel (SUS304)	Barrel Polished	60	50	500
G	3D	170-090-691	AS-JH-B			30	100	1000

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

HG-JHM Damper hinges series - Supported lid digest

- This table gives a general guideline of the different lid weight and measurements that can be used with HG-JHM series.
- Lid measurements have been calculated using the maximum torque available for the product model. (for example, for HG-JHM16 series we used HG-JHM16-50)
- The lid measurements are just an example of the various possible combinations of length, width and thickness.
- The torque value is calculated using one pair of HG-JHM installed on one lid.

Model	Torque force	Lid size (example)
HG-JHM9-S4(U4) 1  Side mount Back mount	0.027 ～ 0.043 N・m (0.275 ～ 0.44 kgf・cm)	
HG-JHM9-S(U) 2  Side mount Back mount	0.027 ～ 0.086 N・m (0.275 ～ 0.88 kgf・cm)	
HG-JHM11 3 	0.05 ～ 0.4 N・m (0.51 ～ 4.08 kgf・cm)	
HG-JHM14 4 	0.5 ～ 2 N・m (5.1 ～ 20.4 kgf・cm)	
HG-JHM16 5 	2 ～ 5 N・m (20.4 ～ 51 kgf・cm)	
HG-JHM20 6  HG-JHM20T 7  Surface mount	6 ～ 8 N・m (61.2 ～ 81.6 kgf・cm)	

【How to calculate the maximum torque moment】

$$T = m \times 9.80665 \times L \times \frac{1}{1000}$$

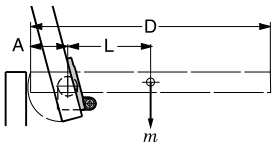
T = Maximum moment of the lid
m = Lid weight [kg]
L = Distance from the rotation point to the centre of gravity of the lid (mm)
(In case the centre of gravity is situated in the middle of the lid)

$$L = \frac{D}{2} - A \quad \text{(For HG-JHM20T, } L = \frac{D}{2} - A + 20\text{)}$$

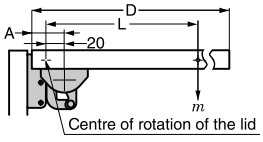
D = Lid length [mm]
A = Distance from the rotation point to the back edge of the lid [mm]
(For HG-JHM20T, A : Installation measurements of the bracket)

Calculation example (for HG-JHM14)

If D = 180mm, A = 26mm, m = 0.96kg… $T = 0.96 \times 9.80665 \times (\frac{180}{2} - 26) \times \frac{1}{1000} = 0.6$ [N・m]



Model	A
HG-JHM9	18
HG-JHM11	26
HG-JHM14	26
HG-JHM16	32
HG-JHM20	36



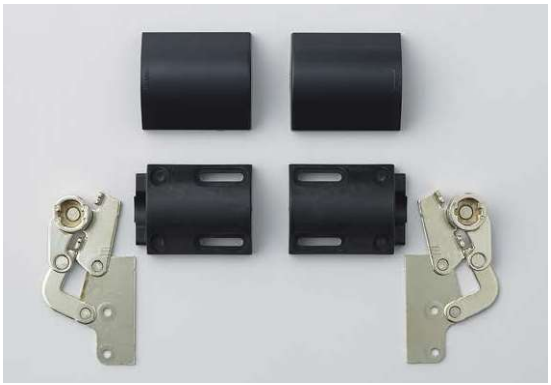
Model	A
HG-JHM20T	36～38

Material	Specific gravity
Acrylic	1.2
MDF	0.6
Mirror	2.5

Refer to 1 2 : P.108, P.109, 3 : P.104, 4 : P.102, 5 : P.101, 6 : P.100, 7 : P.99

DAMPER HINGE HG-JHM20T Surface Mount Type

Lapcon INSTRUCTION



W/ black cover　　Sold in pairs.



W/ white cover



Assembly example

- Newly-added surface mount type: Easy to install without the need of recessing.
- Hinge with built-in damper UDH 1.
- Soft-close and smooth-open features.
- For Inset Lid.
- Cover hides mounting screws.

[Remarks]

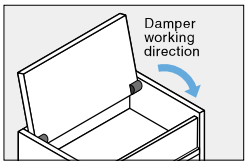
- Sold in pairs.
- Below torque range is the value when using a pair of hinges (left and right) per lid.
- Be sure to read the "Cautions" 2.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Damper mechanism works when opening the top-opening lid by about 60° or more. Otherwise, the damper may not work.

[Parts Included]

- Hinge plate mounting screws: binding head tapping screw 3.5 x 14 (nickel) 4 pcs
- Bracket mounting screws: binding head tapping screw 3.5 x 20 (nickel) 8 pcs



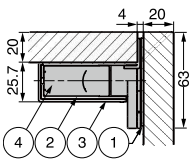
Chrome finished cover



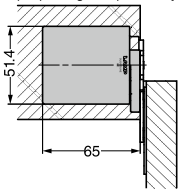
No.	Part Name	Material	Finish/Colour
①	Hinge Plate	Steel (SPCC)/Zinc Alloy (ZDC)	Nickel
②	Bracket	POM	Black
③	Cover	ABS	Black/White/Chrome
④	Damper	–	Bearing Right-handed: Grey, Left-handed: Natural

[Front View]

Top-opening lid closed



Top-opening lid opened by 90°



※Right-handed type shown. Left-handed type is symmetrical.

Door thickness	Standard		Chamfered Lid Edge	
	Size A	Gap	Size A	Gap
16	36	4	38	2
18			37	3
20			–	–

Selection Tool

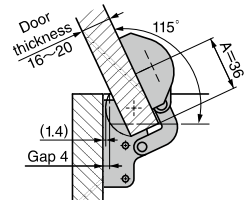
Sasuga-kun

[Door Weight Selection]

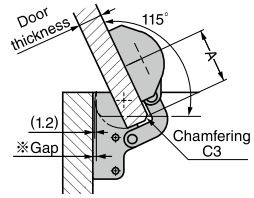
Door Length (D)	Door Weight (m)
250	5.61~7.48 kg
300	4.57~6.09 kg
350	3.85~5.13 kg
400	3.33~4.43 kg
450	2.93~3.90 kg

[Installation]

Standard

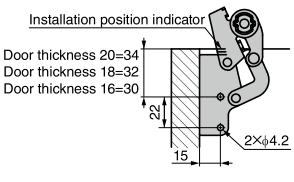


Chamfered lid edge

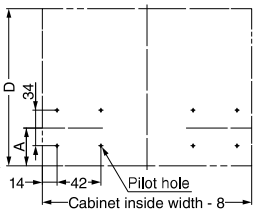


※Gap is decreased compared with standard when chamfered.

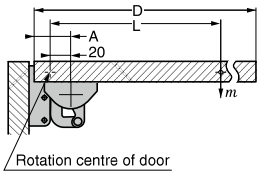
[Hinge Plate Installation Position]



[Cut Out Dimensions]



■Calculation of maximum door moment (for homogeneous material)



$$T = m \times 9.80665 \times L \times \frac{1}{1000}$$

T : Max. door torque (N・m)

m : Door weight (kg)

L : Distance from rotation centre to door centre of gravity (mm)

$$L = \frac{D}{2} - A + 20 \text{ ※}$$

D : Door length (mm)

A : Bracket installation dimension (mm) (The range of A is about 36mm ~38mm)

※(Formula for assuming that the centre of gravity is in the centre of door)

※For heterogeneous door (e.g., attached with a mirror), please refer to our website > Selection Tool Sasuga-kun > "What is the centre of gravity? What is moment?" page.

RoHS	CAD	Item Code	Item Name	Finish/Colour	Torque N・m/pair	Torque kgf・cm/pair	Marking Colour (Base Side)	Weight (g)	Box (pairs)	Carton (pairs)
G	3D	170-036-328	HG-JHM20T-80BL	Black	6~8	61.2~81.6	Yellow	–	–	–
G	3D	170-036-329	HG-JHM20T-80WT	White				–	–	–
G	3D	170-036-839	HG-JHM20T-80CR	Chrome				–	–	–

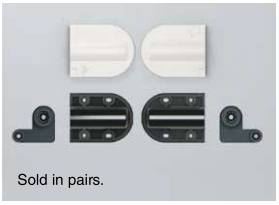
Refer to 1 : P.115, 2 : P.43

DAMPER HINGE HG-JHM20

Lapcon INSTRUCTION



W/ black cover



W/ white cover

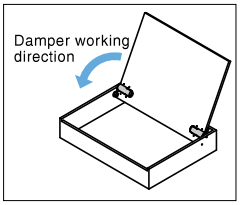
- Hinge with built-in dampers UDH 1.
- Smooth movement in the opening direction.
- Mortise mount type.
- Easy to cut out with a router.
- Cover hides mounting screws for clean appearance.

[Remarks]

- Be sure to read the "Cautions" 2.
- Sold in pairs.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Damper mechanism works when opening the lid by about 60° or more.

[Parts Included]

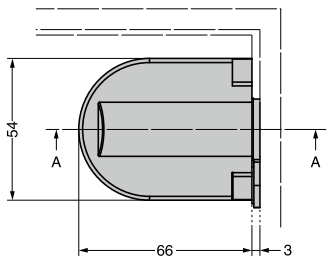
- Countersunk head tapping screw 4×20 (For wooden door)



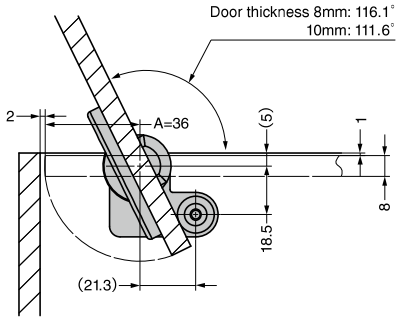
Selection Tool

Sasuga-kun

[Top View]



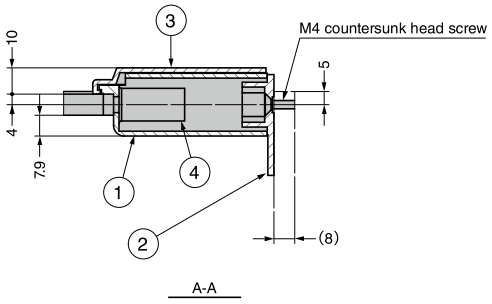
[Installation]



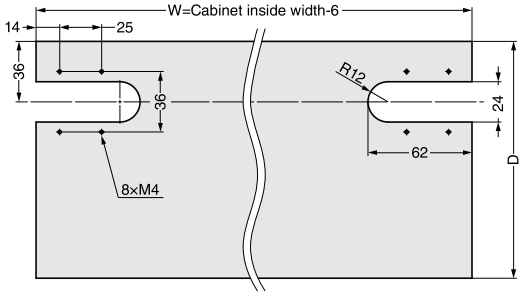
※If the distance from the screw hole to the edge is 5mm, a level difference of 1mm is generated.

※Min. door thickness 8mm

[Cross-section Drawing]



[Cut Out Dimensions]



No.	Part Name	Material	Finish / Colour
①	Body	POM	Black
②	Bracket	Aluminium Alloy (ADC)	Black Enamel Finish
③	Cover	ABS	Black/White
④	Damper	–	–

RoHS	CAD	Item Code	Item Name	Colour	Torque N·m/pair	Torque kgf·cm/pair	Marking Colour (Base Side)	Weight (g)	Box (pairs)	Carton (pairs)
G	3D	170-012-854	HG-JHM20-80BL	Black	6~8	61.2~81.6	Yellow	206	–	–
G	3D	170-012-855	HG-JHM20-80WT	White				206	–	–

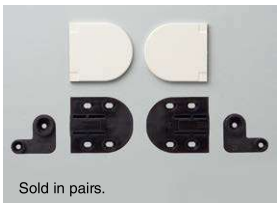
Refer to 1 : P.115, 2 : P.43

DAMPER HINGE HG-JHM16

Lapcon INSTRUCTION



W/ black cover



W/ white cover

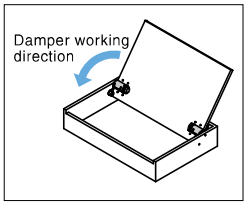
- Hinge with built-in damper UDH-16 1.
- Smooth movement in the opening direction.
- Mortise mount type.
- Easy to cut out with a router.
- Cover hides mounting screws for clean appearance.

[Remarks]

- Be sure to read the "Cautions" 2.
- Sold in pairs.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Damper mechanism works when opening the lid by about 60° or more.

[Parts Included]

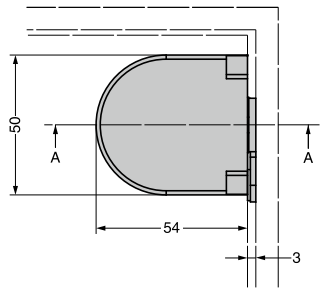
- Countersunk head tapping screw 4×20 (For wooden door)



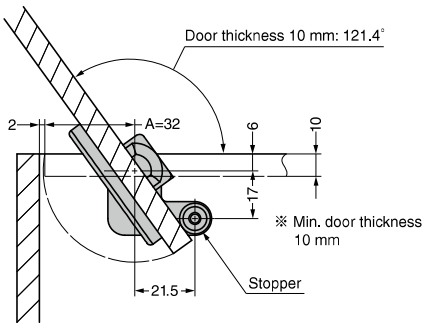
Selection Tool

Sasuga-kun

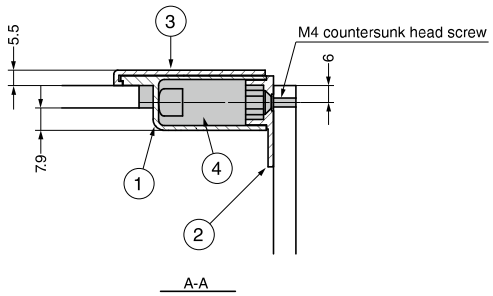
[Top View]



[Installation]

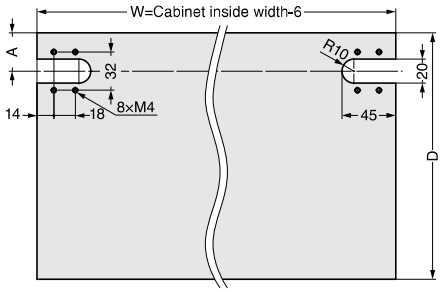


[Cross-section Drawing]



A-A

[Cut Out Dimensions]



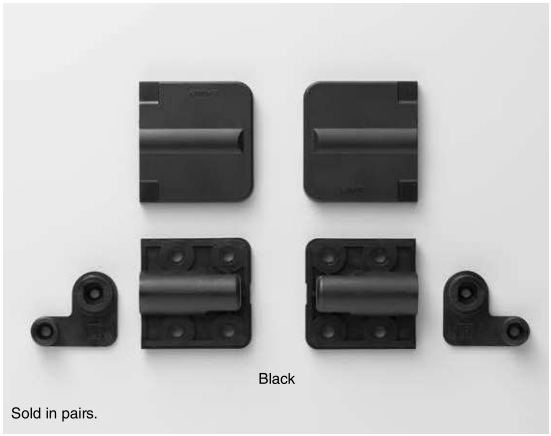
No.	Part Name	Material	Finish / Colour
①	Body	POM	Black
②	Bracket	Aluminium Alloy (ADC)	Black Enamel Finish
③	Cover	ABS	Black/White
④	Damper	–	–

RoHS	CAD	Item Code	Item Name	Colour	Torque N·m/pair	Torque kgf·cm/pair	Marking Colour (Base Side)	Weight (g)	Box (pairs)	Carton (pairs)
G	3D	170-092-221	HG-JHM16-34BL	Black	2~3.4	20.4~34.7	Green	126	–	–
G	3D	170-092-222	HG-JHM16-34WT	White				126	–	–
G	3D	170-092-223	HG-JHM16-50BL	Black	3.4~5	34.7~51	Black	126	–	–
G	3D	170-092-224	HG-JHM16-50WT	White				126	–	–

Refer to 1 : P.116, 2 : P.43

DAMPER HINGE HG-JHM14

INSTRUCTION



Sold in pairs.

- Hinge with built-in damper UDH-14 1.
- Smooth movement in the opening direction.
- Cover hides mounting screws for clean appearance.
- Easy to cut out with a router.

[Specification]

- Operating temperature: 0℃~40℃

[Remarks]

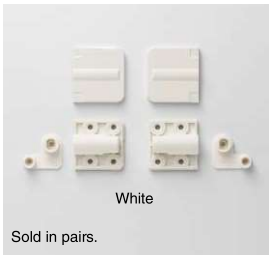
- Be sure to read the "Cautions" 2.
- The installation example in the Manual Instruction is for wooden lid.
- Sold in pairs.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Damper mechanism works when opening the lid by about 60˚ or more.

[Sold Separately]

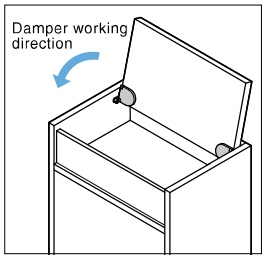
- Bracket for under mount (UKZ14) also available 3.

Selection Tool

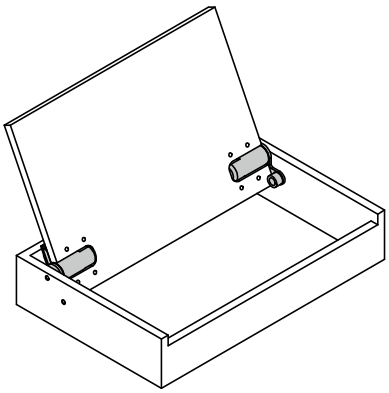
Sasuga-kun



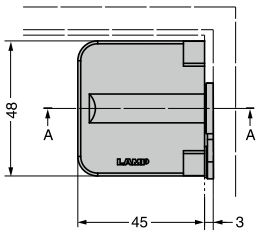
Sold in pairs.



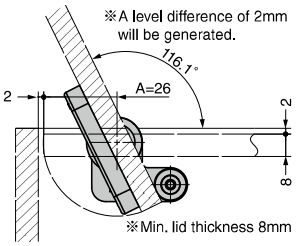
Side Mount Type



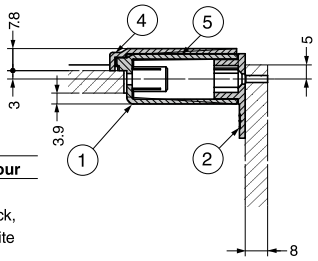
[Top View]



[Installation]

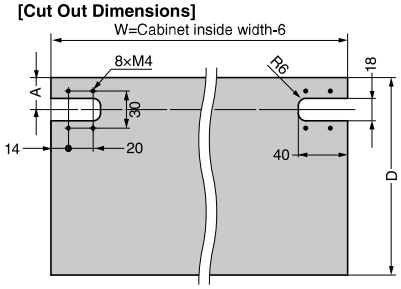


[Cross-section Drawing]



A-A

[Cut Out Dimensions]

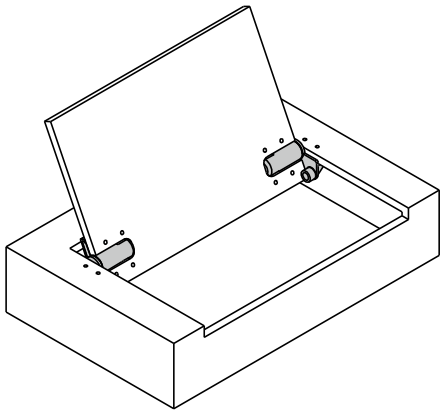


No.	Part Name	Material	Colour
①	Body	POM	Black, White
②	Bracket for side mount R	Reinforced	
③	Bracket for side mount L	PBT	
④	Cover	ABS	
⑤	Damper	–	–

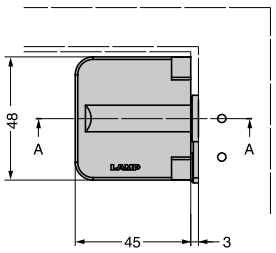
RoHS	CAD	Item Code	Item Name	Colour	Torque N·m/pair	Torque kgf·cm/pair	Marking Colour	Opening Angle	Weight (g)	Box (pairs)	Carton (pairs)
G	3D	170-031-930	HG-JHM14-S-8BL	Black	0.5~0.8	5.1~8.2	Purple	105˚	51.4	20	220
G	3D	170-031-931	HG-JHM14-S-8WT	White					51.4	20	220
G	3D	170-031-932	HG-JHM14-S-15BL	Black	0.8~1.5	8.2~15.3	Blue		51.4	20	220
G	3D	170-031-933	HG-JHM14-S-15WT	White					51.4	20	220
G	3D	170-031-934	HG-JHM14-S-20BL	Black	1.5~2	15.3~20.4	Green		51.4	20	220
G	3D	170-031-935	HG-JHM14-S-20WT	White					51.4	20	220

Refer to 1 : P.117, 2 : P.43, 3 : P.103

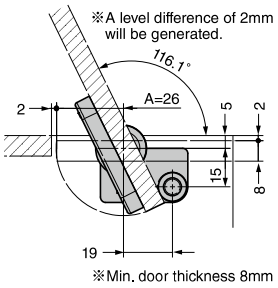
■Under Mount Type (optional bracket 1 for under mount is required)



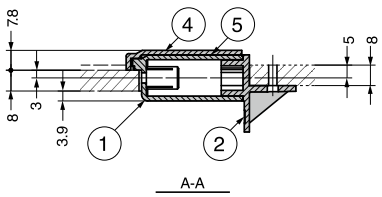
[Top View]



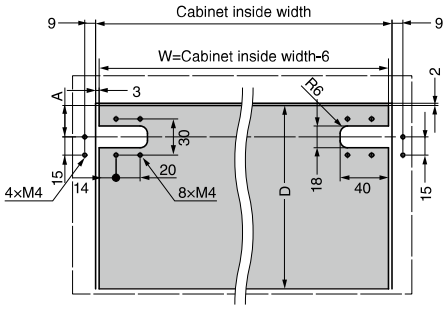
[Installation]



[Cross-section Drawing]



[Cut Out Dimensions]



No.	Part Name	Material	Colour
①	Body	POM	Black, White
②	Bracket for Side Mount R	Reinforced PBT	
③	Bracket for Side Mount L	PBT	
④	Cover	ABS	
⑤	Damper	–	–

Refer to 1 : P.103

BRACKET FOR HG-JHM14 UNDER MOUNT UKZ14

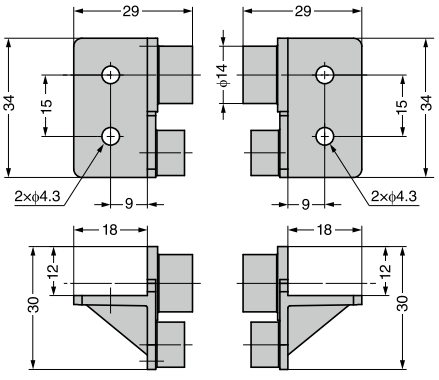
INSTRUCTION



UKZ14-BL



UKZ14-WT



Bracket for under mount L Bracket for under mount R

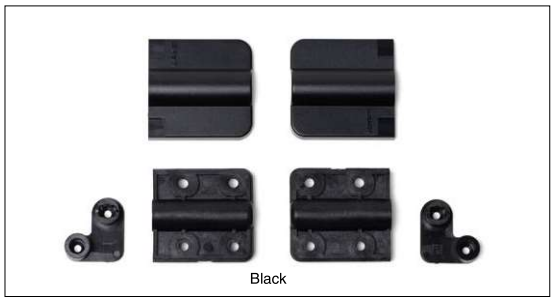
[Bracket for Under Mount]

RoHS	CAD	Item Code	Item Name	Material	Colour	Weight (g)	Box (pairs)	Carton (pairs)
G	3D	170-031-936	UKZ14-BL	Reinforced PBT	Black	13	40	440
G	3D	170-031-937	UKZ14-WT		White	14	40	440

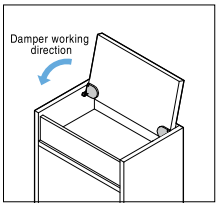
TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

DAMPER HINGE HG-JHM11

Lapcon INSTRUCTION


Black


White



- Hinge with built-in damper.
- Damper unit works to close door softly. Smooth movement in opening direction.
- Mounted in sideboard and installed in inset door.
- Applicable into surface mount with Bracket UTZ11-BL.
- Cover hides mounting screws for clean appearance.
- Easy to cut out with a router.

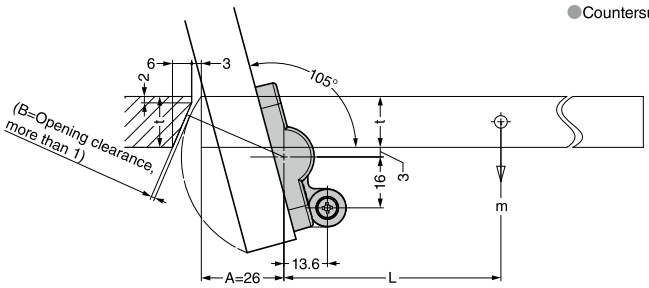
[Specification]
- Operation temperature: 0˚C~40˚C

[Application]
- Small covers for machine or wire manager.

[Remarks]
- Applicable moment of door: 0.05-0.4N·m. Use a pair/door.
- When installing, ensure that both hinge shafts are levelled and alighted.
- Damper mechanism works when opening the lid by about 60˚ or more. Otherwise, damper may not work.
- Prepare stopper separately to keep the lid closed.
- Closing speed may change depending on operating temperature.

[Sold Separately]
- Bracket for Surface Mount UKZ11-BL

[Recommended Screw]
- Countersunk tapping screw 3, bind tapping screw 4

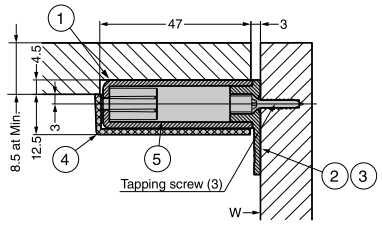


*t =16. Prepare more than 1 for Gap B of Opening clearance.

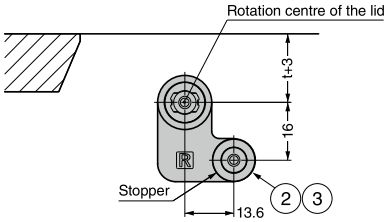
Selection Tool
Sasuga-kun

Installation

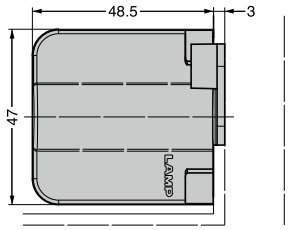
[Cross-section Drawing]



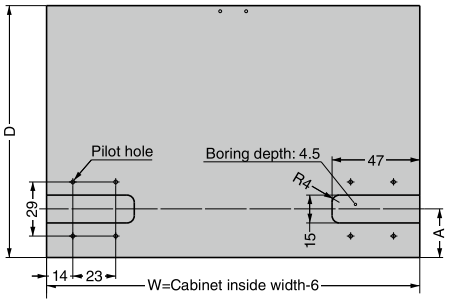
[Installed Position of Bracket]



[Top View] When closed door



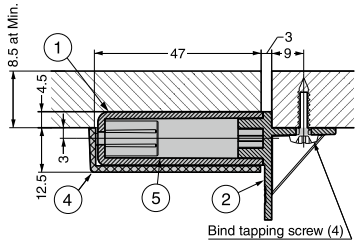
[Cut Out Dimensions]



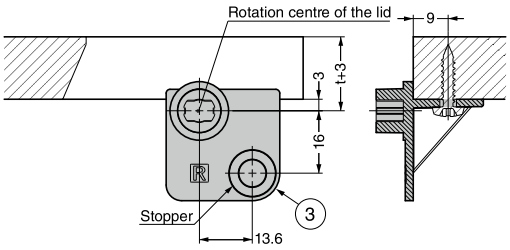
No.	Part Name	Material	Colour
①	Body	Polyacetal (POM)	Black
②	Bracket for side mount R	PBT	
③	Bracket for side mount L		
④	Cover	ABS	Black/White
⑤	Damper	–	–

[Surface Mount Type]
(Installed with Bracket for Surface Mount UKZ11-BL)

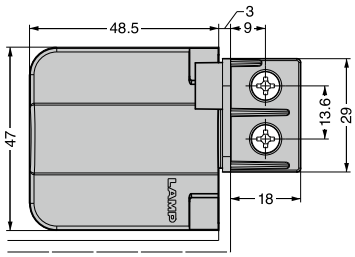
[Cross-section Drawing]



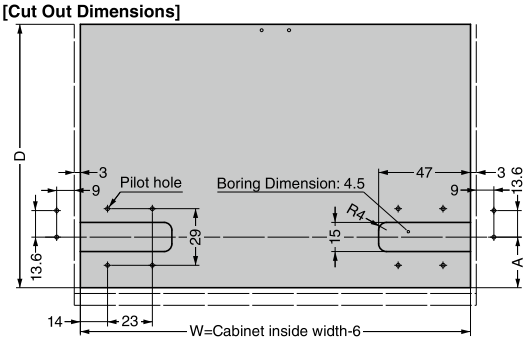
[Installation Position of Bracket]



[Top View]



[Cut Out Dimensions]



No.	Part Name	Material	Colour
①	Body	Polyacetal (POM)	Black
②	Bracket for side mount R	PBT	
③	Bracket for side mount L		
④	Cover	ABS	Black/White
⑤	Damper	–	–

[Hinge]

Sold by set.

RoHS	CAD	Item Code	Item Name	Colour	Torque N·m/pair	Torque kgf·cm/pair	Opening Angle	Weight (g)	Box	Carton
G	3D	170-041-206	HG-JHM11-1BL	Black	0.05-0.1	0.51-1.02	105°	43.9	25 set	275 set
G	3D	170-041-207	HG-JHM11-1WT	White						
G	3D	170-041-208	HG-JHM11-2BL	Black	0.1-0.2	1.02-2.04				
G	3D	170-041-209	HG-JHM11-2WT	White						
G	3D	170-041-210	HG-JHM11-3BL	Black	0.2-0.29	2.04-2.96				
G	3D	170-041-211	HG-JHM11-3WT	White						
G	3D	170-041-212	HG-JHM11-4BL	Black	0.29-0.4	2.96-4.08		46.8		
G	3D	170-041-213	HG-JHM11-4WT	White						



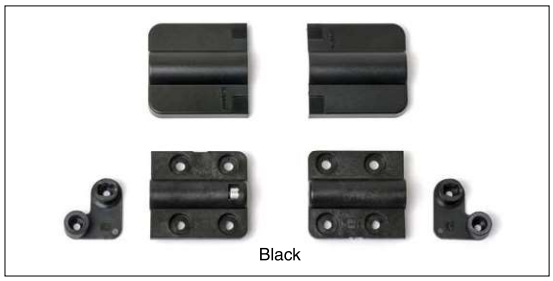
[Bracket for Surface Mount]

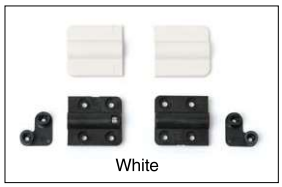
RoHS	CAD	Item Code	Item Name	Colour	Box	Carton
G	3D	170-041-218	UKZ11-BL	Black	50 set	500 set

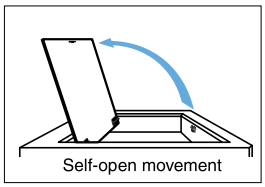
TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

SELF-OPEN DAMPER HINGE HG-JHS11

Lapcon INSTRUCTION


Black


White


Self-open movement

- Small damper hinge with self-opening function for top-opening lids. Using with a touch latch enables pop-up function of the lid.
- Inset type.
- Opening speed is adjustable with a hex key.
- Applicable into surface mount with Bracket UKZ11-BL (sold separately).
- Cover hides mounting screws for clean appearance.
- Easy to cut out with a router.

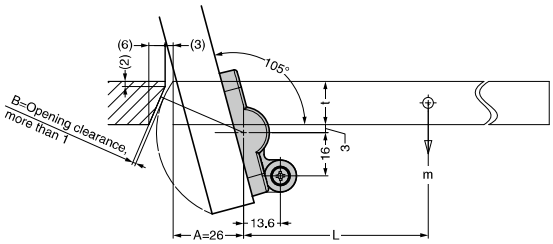
[Specification]
- Operation temperature: 0˚C~40˚C

[Application]
- Small covers for machine or wire manager, etc.

[Remarks]
- Applicable moment of door: 0.25~0.4N · m. Use a pair/door.
- Install Spring unit on left side and damper unit for right side of the door.
- When installing, ensure that both hinge shafts are levelled and alighted.
- Please install with touch latch separately to keep the door closed.

[Sold Separately]
- Bracket for HG-JHS11 Surface Mount UKZ11-BL

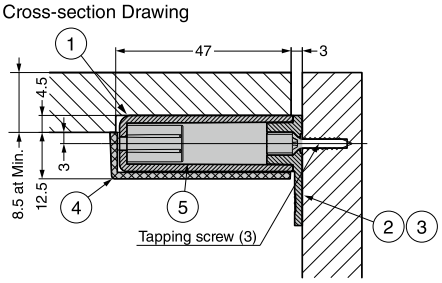
[Recommended Screws]
- Countersunk tapping screw3, bind tapping screw 4



*t =16. Prepare more than 1 for Gap B of Opening clearance.

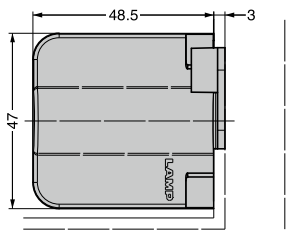
[Installation]

Cross-section Drawing



[Top View]

When closed door



[Calculation of maximum door moment]

T= m × 9.80665 × L

T:Max. door torque (N/mm)

m:Door weight (kg)

L:Disrance from rotation centre to door centre of gravity (mm)

$L=\frac{D}{2}-A$ (Formula for assuming that the centre of gravity is in the centre of door)

D:Door length (mm)

A:Bracket installation dimension (mm)

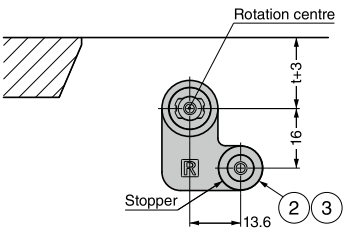
[Example] D=180 mm、A=26 mm、m=0.63kg

$T=0.63\times9.80665\times(\frac{180}{2}-26)=395(mN\cdot m)$

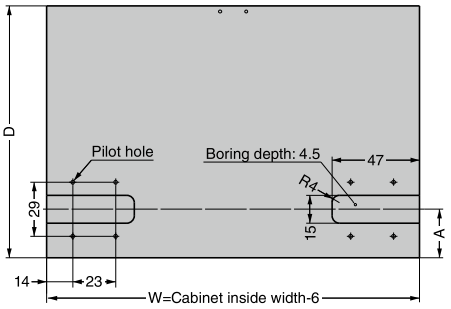
$=0.395\ (N\cdot m)$

[Installation]

Bracket



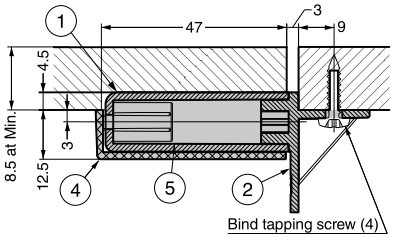
[Cut Out Dimensions]



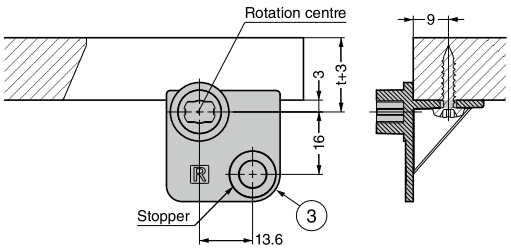
No.	Part Name	Material	Colour
①	Body	Polyacetal (POM)	Black
②	Bracket for side mount R	PBT	
③	Bracket for side mount L		
④	Cover	ABS	Black/White
⑤	Damper	–	–

[Surface Mount Type]
(Installed with Bracket for Surface Mount UKZ11-BL)

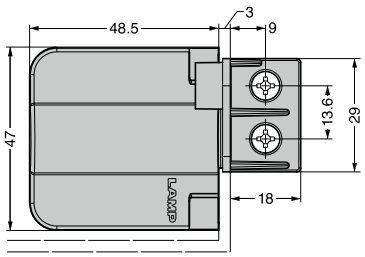
[Cross-section Drawing]



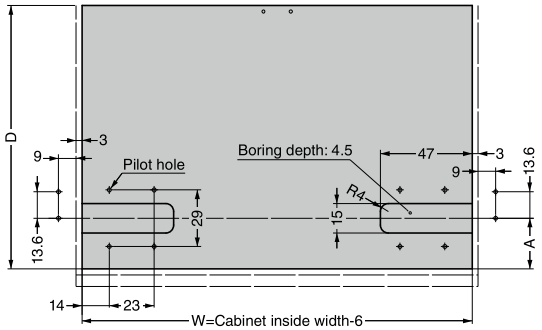
[Installation Position of Bracket]



[Top View]



[Cut Out Dimensions]

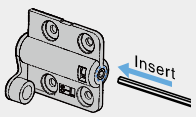


No.	Part Name	Material	Colour
①	Body	Polyacetal (POM)	Black
②	Bracket for side mount R	PBT	
③	Bracket for side mount L		
④	Cover	ABS	Black / White
⑤	Damper	–	–

[Adjustment of Lid Opening Speed]

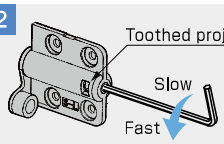
When increasing lid opening speed

1



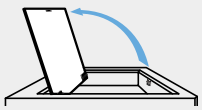
Insert a hex key (size 3) into the hole of spring unit (L side)

2



Push in the hex key *until toothed projection is disengaged, while rotating counter clockwise by 30°, and then pull it out.

3



Close the lid, and check if the lid can be opened smoothly. Repeat steps 1 - 3 (maximum 5 times) if the lid opening speed is still slow.

When decreasing lid opening speed (returning to the speed before adjustment)

Loosen the force following the hex key rotating clockwise.

*Make sure to rotate counter clockwise following pushing in the hex key and disengaging the projection. Forced rotation may cause damage.

[Hinge]

Sold by set.

RoHS	CAD	Item Code	Item Name	Colour	Torque N·m/pair	Torque kgf/pair	Opening Angle	Weight	Box	Carton
–	3D	170-041-214	HG-JHS11-2BL	Black	0.1 – 0.25	1.02 – 2.55	105°	56 g	12 set	50 set
–	3D	170-041-215	HG-JHS11-2WT	White					12 set	50 set
–	3D	170-041-216	HG-JHS11-4BL	Black	0.25 – 0.4	2.55 – 4.08			12 set	50 set
–	3D	170-041-217	HG-JHS11-4WT	White					12 set	50 set



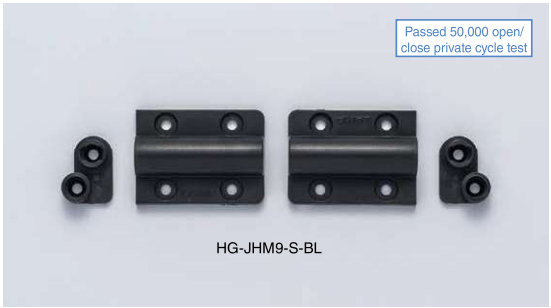
[Bracket for Surface Mount]

Sold by set.

RoHS	CAD	Item Code	Item Name	Colour	Weight	Box	Carton
G	3D	170-041-218	UKZ11-BL	Black	12 g	50 set	500 set

MINI DAMPER HINGE HG-JHM9-S Side Mount

INSTRUCTION



HG-JHM9-S-BL

- Hinge with built-in damper.
- Can be used for top-opening, upward-opening, downward-opening and bottom-opening.
- Under mount type 1 also available.

[Specifications]
- Operating temperature: 0℃~40℃

[Applications]
- Small lid for conference table, small cover of mechanical equipment, etc.

[Remarks]
- Be sure to read the "Cautions" 2.
- Sold in pairs.
- When installing, ensure that both hinge shafts are levelled and aligned.

[Recommended Screws]
- Countersunk head screw M3, Binding head screw M3, Countersunk head tapping screw 3, Binding head tapping screw 3, etc.

Video Link

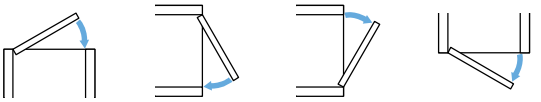
Selection Tool

Sasuga-kun

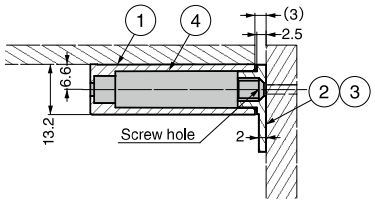
[Application Example]



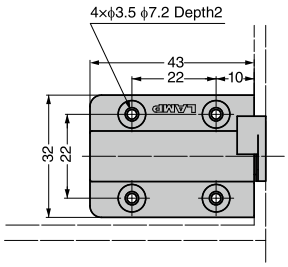
[Damper Working Direction]


Top-opening Upward-opening Downward-opening Bottom-opening

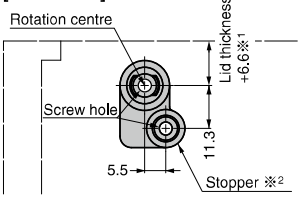
[Front View] Cross-section



[Bottom View]

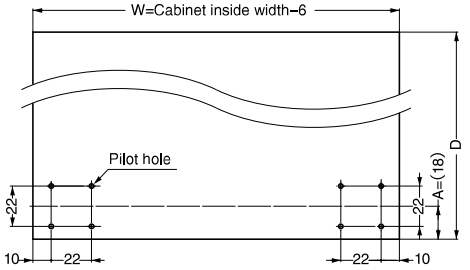


[Installation] Bracket

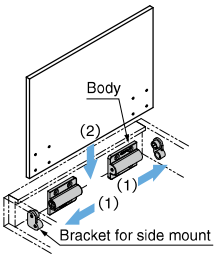


※1 Dimension when side board is flush with top surface of lid.
※2 To increase the opening angle of lid, rotate the stopper then fix it.

[Cut Out Dimensions]



[How to Install Body and Lid]
(1) Insert the body into fixed bracket.
(2) Align mounting holes of lid with the body, and then fix with screws.



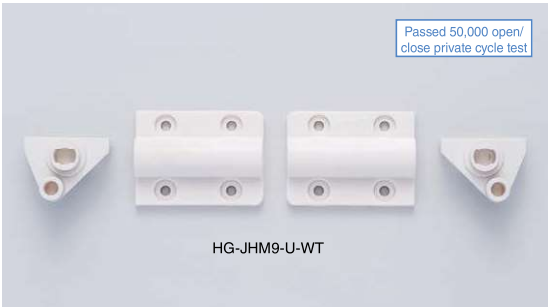
No.	Part Name	Material	Colour
①	Body	POM	Black, White
②	Bracket R	PBT	
③	Bracket L		
④	Damper	POM	–

RoHS	CAD	Item Code	Item Name	Colour	Torque N·m/pair	Torque kgf·cm/pair	Opening Angle	Weight (g)	Box (pairs)	Carton (pairs)
G	3D	170-025-895	HG-JHM9-S-BL	Black	0.054~0.086	0.55~0.88	105°	29	40	440
G	3D	170-025-896	HG-JHM9-S-WT	White				28	40	440
G	3D	170-037-326	HG-JHM9-S4-BL	Black	0.027~0.043	0.275~0.44		26	40	440
G	3D	170-037-327	HG-JHM9-S4-WT	White				26	40	440

Refer to 1 : P.109, 2 : P.43

MINI DAMPER HINGE HG-JHM9-U Under Mount

INSTRUCTION



- Hinge with built-in damper.
- Can be used for top-opening, upward-opening, downward-opening and bottom-opening.
- Side mount type 1 also available.

[Specifications]
- Operating temperature: 0℃~40℃

[Applications]
- Small lid for conference table, small cover of mechanical equipment, etc.

[Remarks]
- Be sure to read the "Cautions" 2.
- Sold in pairs.
- When installing, ensure that both hinge shafts are levelled and aligned.

[Recommended Screws]
- Binding head screw M3, Binding head tapping screw 3, etc.

Video Link

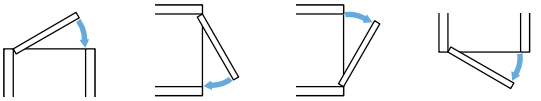
Selection Tool

Sasuga-kun

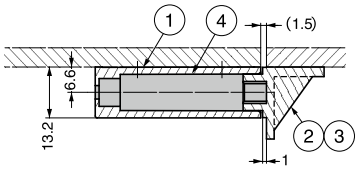
[Application Example] Shown below is HG-JHM9-S 1



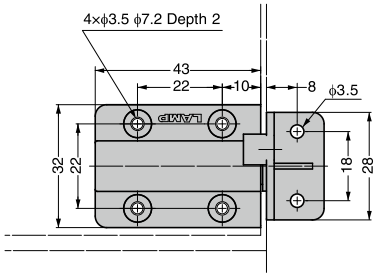
[Damper Working Direction]



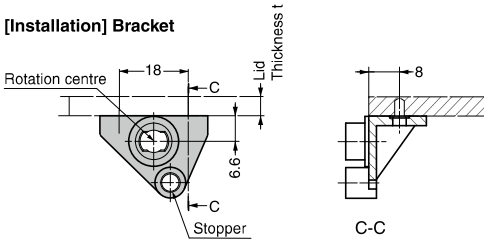
[Front View] Cross-section



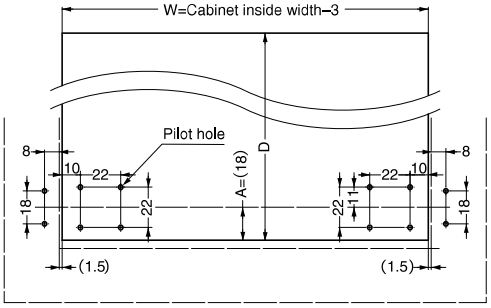
[Bottom View]



[Installation] Bracket

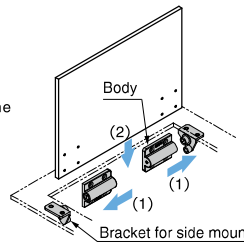


[Cut Out Dimensions]



[How to Install Body and Lid]

(1) Insert the body into fixed bracket.
(2) Align mounting holes of lid with the body, and then fix with screws.



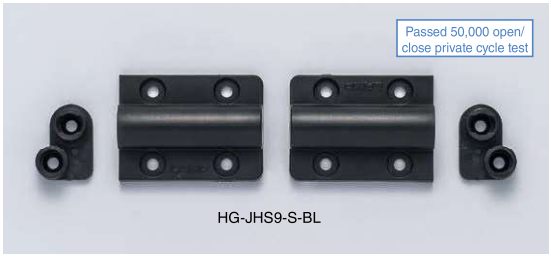
No.	Part Name	Material	Colour
①	Body	POM	Black, White
②	Bracket R	PBT	
③	Bracket L		
④	Damper	POM	–

RoHS	CAD	Item Code	Item Name	Colour	Torque N·m/pair	Torque kgf·cm/pair	Opening Angle	Weight (g)	Box (pairs)	Carton (pairs)
G	3D	170-025-897	HG-JHM9-U-BL	Black	0.054~0.086	0.55~0.88	105°	31	35	385
G	3D	170-025-898	HG-JHM9-U-WT	White				31	35	385
G	3D	170-037-328	HG-JHM9-U4-BL	Black	0.027~0.043	0.275~0.44		28	35	385
G	3D	170-037-329	HG-JHM9-U4-WT	White				28	35	385

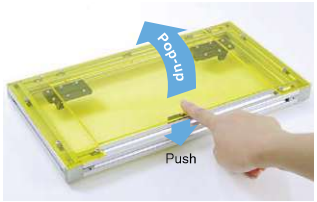
Refer to 1 : P.108, 2 : P.43

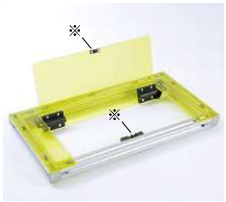
SELF-OPEN MINI DAMPER HINGE HG-JHS9-S Side Mount

INSTRUCTION



HG-JHS9-S-BL





※: Optional push latch ESN-195/BLK 1 (Picture above is HG-JHS9-U 2).

- Small damper hinge with self-opening function for top-opening lids. Using with a push latch 1 enables pop-up function of the lid.
- Inset type.
- Opening speed is adjustable with a hex key.
- Under mount type 2 also available.

[Specifications]
- Operating temperature: 0℃~40℃

[Applications]
- Small lid for conference table, small cover of mechanical equipment, etc.

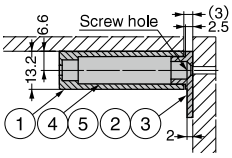
[Remarks]
- Be sure to read the "Cautions" 3.
- Sold in pairs.
- Make sure to mount spring unit at L side of the body. Check if damper is mounted at R side.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Install a push latch (sold separately) to keep the lid at closed position.

[Recommended Screws]
- Countersunk head screw M3, Binding head screw M3, Countersunk head tapping screw 3, Binding head tapping screw 3, etc.

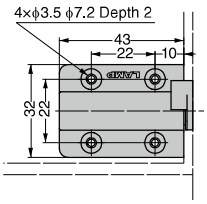
Video Link

Video Link

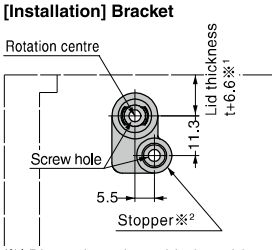
[Front View] Cross-section



[Bottom View]

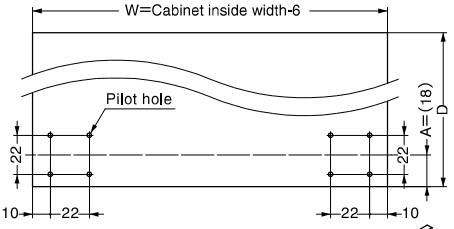


[Installation] Bracket



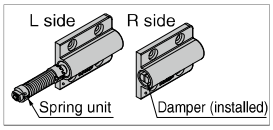
※1 Dimension when side board is flush with top surface of lid.
※2 To increase the opening angle of lid , rotate the stopper then fix it.

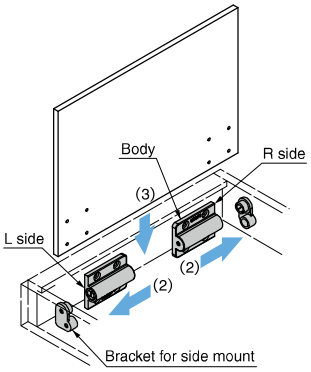
[Cut Out Dimensions]



[How to Install Body and Lid]

(1) Mount spring unit at L side of the body. Check if damper is mounted at R side.
(2) Insert the body into fixed bracket.
(3) Align mounting holes of lid with the body, and then fix with screws.



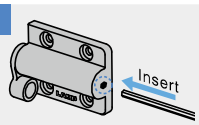


No.	Part Name	Material	Colour
①	Body	POM	Black, White
②	Bracket R	PBT	
③	Bracket L		
④	Damper (R side)	POM	–
⑤	Spring Unit (L side)	Zinc Alloy (ZDC)/Stainless Steel	Chromate/-

[Adjustment of Lid Opening Speed]

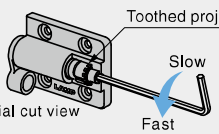
When increasing lid opening speed

1



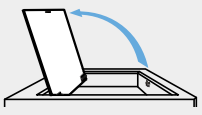
Insert a hex key (size 2.5) into the hole of spring unit (L side)

2



Push in the hex key※ until toothed projection is disengaged, while rotating counterclockwise by 30°, and then pull it out.

3



Close the lid, and check if the lid can be opened smoothly. Repeat steps 1~3 (maximum 1~2 times) if lid opening speed is still slow.

When decreasing lid opening speed (returning to the speed before adjustment)

Loosen the force following the hex key rotating clockwise.

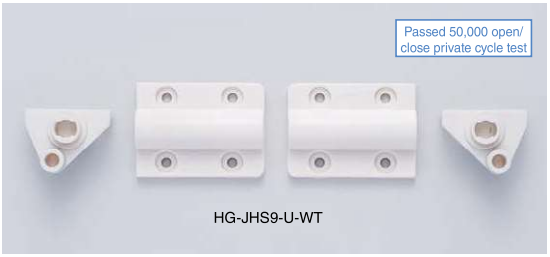
※Make sure to rotate counterclockwise following pushing in the hex key and disengaging the projection. Forced rotation may cause damage.

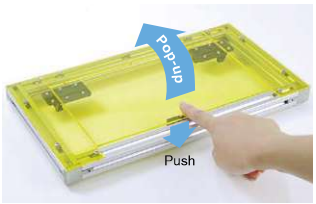
RoHS	CAD	Item Code	Item Name	Colour	Torque N·m/pair	Torque kgf·cm/pair	Opening Angle	Weight (g/pair)	Box (pairs)	Carton (pairs)
G	3D	170-028-293	HG-JHS9-S-BL	Black	0.027~0.043	0.275~0.44	105°	38	40	440
G	3D	170-028-294	HG-JHS9-S-WT	White					40	440

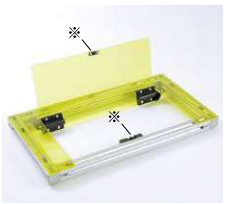
Refer to 1 : P.477, 2 : P.111, 3 : P.43

SELF-OPEN MINI DAMPER HINGE HG-JHS9-U Under Mount

INSTRUCTION







※: Optional push latch ESN-195/BLK 1 .

- Small damper hinge with self-opening function for top-opening lids. Using with a push latch 1 enables pop-up function of the lid.
- Inset type.
- Opening speed is adjustable with a hex key.
- Side mount type 2 also available.

[Specifications]
- Operating temperature: 0℃~40℃

[Applications]
- Small lid for conference table, small cover of mechanical equipment, etc.

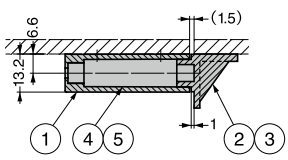
[Remarks]
- Be sure to read the "Cautions" 3.
- Sold in pairs.
- Make sure to mount spring unit at L side of the body. Check if damper is mounted at R side.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Install a push latch (sold separately) to keep the lid at closed position.

[Recommended Screws]
- Binding head screw M3, Binding head tapping screw 3, etc.

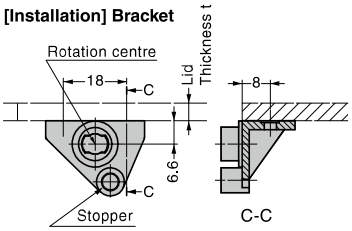
Video Link

Video Link

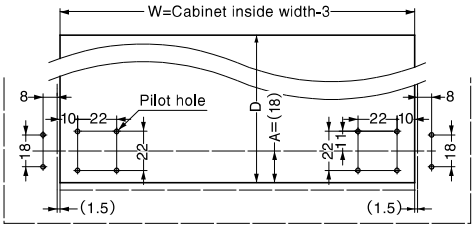
[Front View] Cross-section



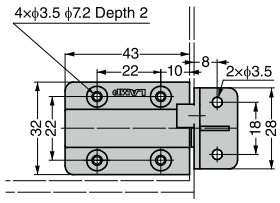
[Installation] Bracket



[Cut Out Dimensions]



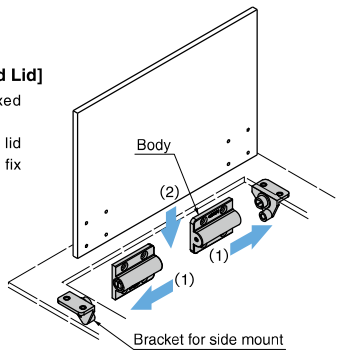
[Bottom View]



No.	Part Name	Material	Colour
①	Body	POM	Black, White
②	Bracket R	PBT	
③	Bracket L		
④	Damper (R side)	POM	–
⑤	Spring Unit (L side)	Zinc Alloy (ZDC) /Stainless Steel	Chromate/-

[How to Install Body and Lid]

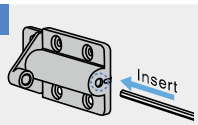
(1) Insert the body into fixed bracket.
(2) Align mounting holes of lid with the body, and then fix with screws.



[Adjustment of Lid Opening Speed]

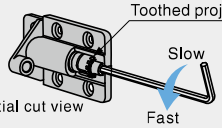
When increasing lid opening speed

1



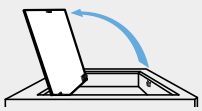
Insert a hex key (size 2.5) into the hole of spring unit (L side)

2



Push in the hex key※ until toothed projection is disengaged, while rotating counterclockwise by 30°, and then pull it out.

3



Close the lid, and check if the lid can be opened smoothly. Repeat steps 1~3 (maximum 1~2 times) if lid opening speed is still slow.

When decreasing lid opening speed (returning to the speed before adjustment)

Loosen the force following the hex key rotating clockwise.

※Make sure to rotate counterclockwise following pushing in the hex key and disengaging the projection. Forced rotation may cause damage.

RoHS	CAD	Item Code	Item Name	Colour	Torque N·m/pair	Torque kgf·cm/pair	Opening Angle	Weight (g/pair)	Box (pairs)	Carton (pairs)
G	3D	170-028-295	HG-JHS9-U-BL	Black	0.027~0.043	0.275~0.44	105°	38	35	385
G	3D	170-028-296	HG-JHS9-U-WT	White					35	385

Refer to 1 : P.477, 2 : P.110, 3 : P.43

DAMPER HINGE HG-JH14-50 Stainless Steel Bracket

Lapcon INSTRUCTION SUS



Sold in pairs.

- Hinge with damper UDH-14 1 with stainless steel bracket.
- Light and smooth opening and soft closing.
- Left-handed…Damper works when rotating counterclockwise.
  Right-handed…Damper works when rotating clockwise.
- Low torque type (1.6~3.0N・m) also available by made to order.

[Applications]

- Top-opening lids of various cabinets for soft closing.

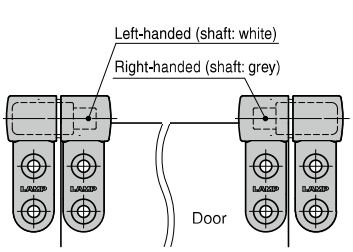
[Remarks]

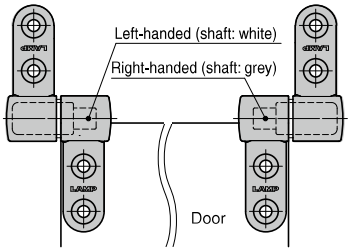
- Be sure to read the "Cautions" 2.
- Install a stopper such as a stay at the lid opening/closing position (0~115 degree or less) for not exceeding the specified rotation range. Damper may be damaged if exceeding the rotation range.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Sold in pairs.

Selection Tool

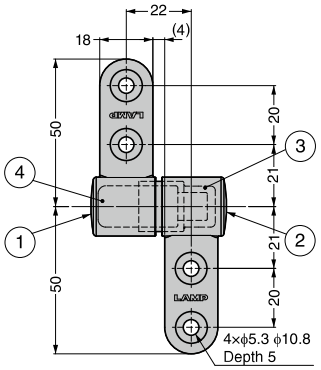
Sasuga-kun

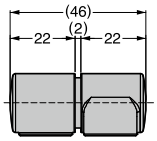
[Installation]



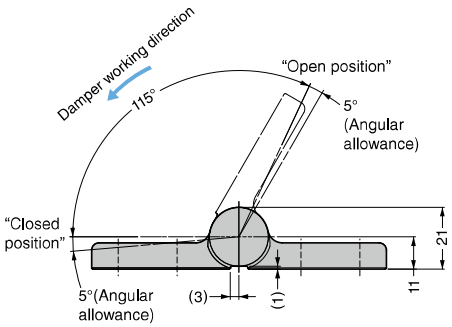


When viewing door from lower side as shown above, install the left-handed type damper (white) on the left side and the right-handed type (grey) on the right side.





Left-handed type shown.



No.	Part Name	Material	Finish / Colour
①	Bracket (L)	Stainless Steel (SCS13)	Mirror
②	Bracket (R)		
③	Bush	POM	White
④	Damper	Stainless Steel/PBT	–

RoHS	CAD	Item Code	Item Name	Torque N・m/pair	Torque kgf・cm/pair	Weight (g/pair)	Box (pairs)	Carton (pairs)
G	3D	170-021-173	HG-JH14-50	3~5	30.6~51	254	8	48

Refer to 1 : P.117, 2 : P.43

DETENT HINGE HG-CSH63 With Damper



- Detent at both 0˚and 100˚.
- Also available without damper type.
- Damper works clockwise or counterclockwise.

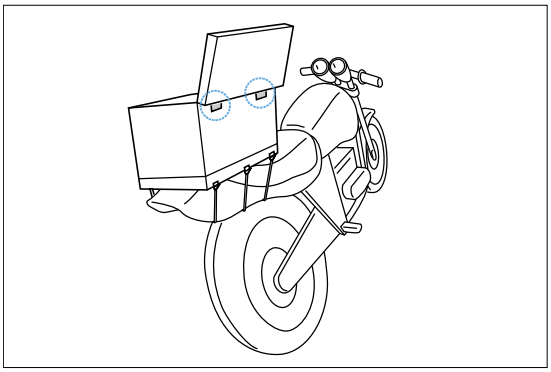
[Applications]

- Carrying box of motorcycle courier, etc.

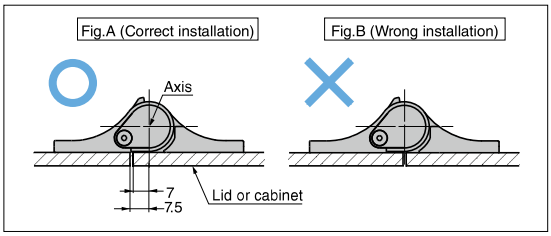
[Remarks]

- Be sure to read the “Cautions” 1 .
- When installing, ensure that both hinge shafts are levelled and aligned.
- Torque not adjustable.

[Installation]



[Installation]

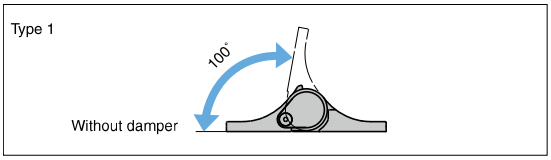


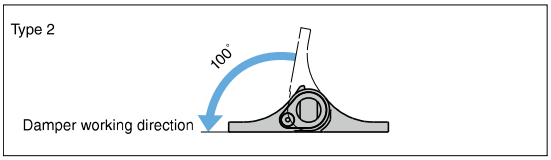
As shown in Fig. A, shift the axis of hinge and the edge of lid or cabinet.

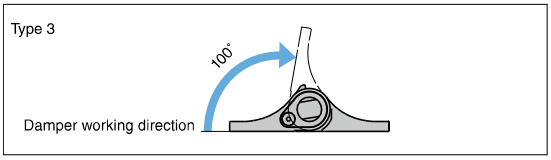
Selection Tool

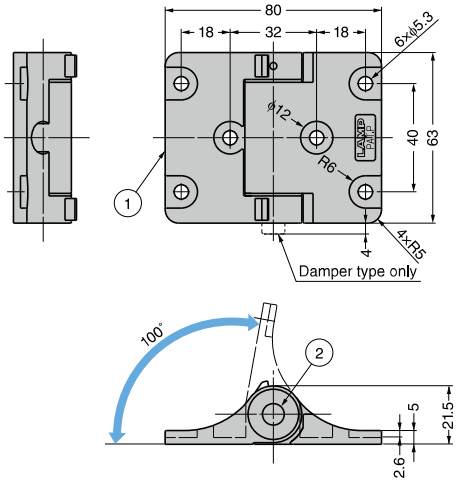
Sasuga-kun

[Types]









No.	Part Name	Material	Finish / Colour
①	Body	Aluminium Alloy	Silver Enamel Finish
②	Shaft・Spring	Stainless Steel (SUS304)	–

RoHS	CAD	Item Code	Item Name	Type	Torque N·m/pc	Torque kgf·cm/pc	Retaining Torque N·m/pc	Retaining Torque kgf·cm/pc	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
–	3D	170-090-044	HG-CSH63	1 (Without Damper)	–	–	0.98	10	100˚	98.7	10	120
G	3D	170-090-109	HG-CSH63AM	2	1~1.7	10.2~17.3				114.3	10	120
G	3D	170-090-108	HG-CSH63AH		1.7~2.5	17.3~25.5					10	120
G	3D	170-090-111	HG-CSH63BM	3	1~1.7	10.2~17.3					10	120
G	3D	170-090-110	HG-CSH63BH		1.7~2.5	17.3~25.5					10	120

Refer to 1 : P.43

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

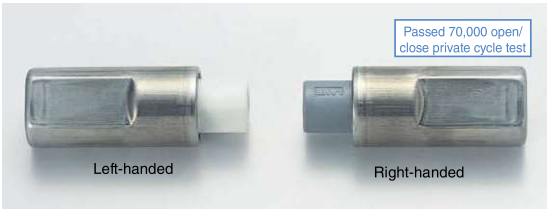
TORQUE DAMPER UDH SERIES

Picture	Item Name	Diameter	Length	Damping direction	Torque	Page
	UDH-A	20mm	55mm		150 - 400N·cm	P.115
	UDH-B	20mm	55mm		150 - 400N·cm	P.115
	UDH16N-A	16mm	51mm		170 - 300N·cm	P.117
	UDH16N-B	16mm	51mm		170 - 300N·cm	P.117
	UDH16-A	16mm	37mm		100 - 250N·cm	P.116
	UDH16-B	16mm	37mm		100 - 250N·cm	P.116
	UDH16S-A	16mm	37mm		100 - 250N·cm	P.116
	UDH16S-B	16mm	37mm		100 - 250N·cm	P.116
	UDH14-A	14mm	37mm		50 - 200·cm	P.117
	UDH14-B	14mm	37mm		50 - 200·cm	P.117

TORQUE DAMPERS

Item Name	Torque (N.cm)	Torque range (N.cm) 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400	Page
UDD-S	50 - 100		P.119
UDD-M	100 - 200		P.119
UDD-H	200 - 300		P.119
UDH-M	150 - 250		P.115
UDH-H	250 - 350		P.115
UDH-G	300 - 400		P.115
UDH16N-M	170 - 240		P.117
UDH16N-H	220 - 300		P.117
UDH16-M	100 - 170		P.116
UDH16-H	150 - 250		P.116
UDH16S-M	100 - 170		P.116
UDH16S-H	150 - 250		P.116
UDH14-T	150 - 200		P.117
UDH14-M	80 - 150		P.117
UDH-14L	50 - 80		P.117

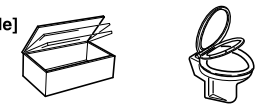
TORQUE DAMPER UDH



- Patented technology allows compact design.
- Can be used as a single unit.
- Keeps lids / doors from slamming shut.
- With marking colour at the body to recognise the torque moment. Refer to the following for details.
- Ideal for applications requiring flap slow down. Helps prevent noise and impact.
- Standard and progressive models available.

Video Link

[Application Example]



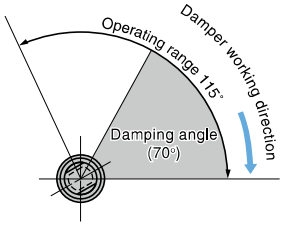
[Applications]

- Toilet seat / lid, cover for maintenance, etc.

[Remarks]

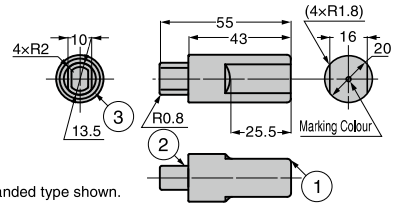
- When mounting on sheet metal, ensure the edge of the plate is rounded to prevent damage to the damper.
- Do not apply and vertical load on the shaft.

[Damper Operating Angle]



Right-handed: damper works when the shaft is turned clockwise (this figure)
Left-handed: damper works when the shaft is turned counterclockwise
(symmetrical to this figure)

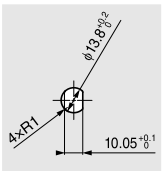
Selection Tool
Sasuga-kun



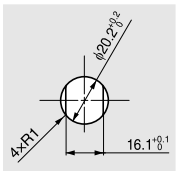
Right-handed type shown.

[Cut Out Dimensions]

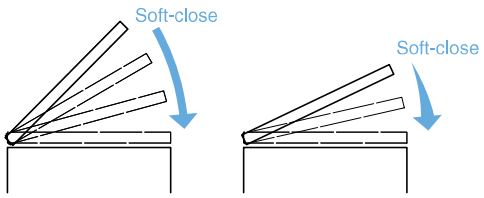
Shaft side hole size



Body side hole size



[Difference Between Standard Type and Progressive Type]



No.	Part Name	Material	Colour
①	Body	Stainless Steel	–
②	Shaft	PBT	Left-handed: Natural, Right-handed: Grey
③	Cover Ring	Black	–

[Standard Type]

RoHS	CAD	Item Code	Item Name	Type	Damper Working Direction	Marking Colour	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Carton (pcs)
G	3D	170-090-820	UDH-AMS-G	Left-handed	Counterclockwise	Blue	1.5~2.5	15.3~25.5	38	200
G	3D	170-090-822	UDH-BMS-G	Right-handed	Clockwise					200
G	3D	170-090-821	UDH-AHS-G	Left-handed	Counterclockwise	Red	2.5~3.5	25.5~35.7		200
G	3D	170-090-823	UDH-BHS-G	Right-handed	Clockwise					200
G	3D	170-090-824	UDH-AGS-G	Left-handed	Counterclockwise	Yellow	3.0~4.0	30.6~40.8		200
G	3D	170-097-955	UDH-BGS-G	Right-handed	Clockwise					200

[Progressive Type]

RoHS	CAD	Item Code	Item Name	Type	Damper Working Direction	Marking Colour	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Carton (pcs)
G	3D	170-090-825	UDH-AMP-G	Left-handed	Counterclockwise	Green	1.5~1.8	15.3~18.4	38	200
G	3D	170-090-827	UDH-BMP-G	Right-handed	Clockwise					200
G	3D	170-090-826	UDH-AHP-G	Left-handed	Counterclockwise	Black	1.8~3.5	18.4~35.7		200
G	3D	170-090-828	UDH-BHP-G	Right-handed	Clockwise					200

TORQUE DAMPER UDH-16



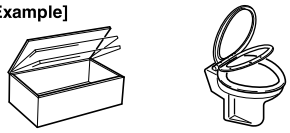
- Patented technology allows compact design.
- Can be used as a single unit.
- Keeps lids / doors from slamming shut.
- Left-handed and right-handed can be distinguished according to the colour of shaft. In addition, slow rotation type changed the shape of shaft.
- With marking colour at the body to recognise the torque moment. Refer to the following for details.
- Ideal for applications requiring flap slow down. Helps prevent noise and impact.
- Standard and progressive models available.

Video Link

[Applications]
- Toilet seat / lid, cover for maintenance, etc.

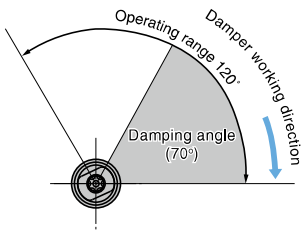
[Remarks]
- When mounting on sheet metal, ensure the edge of the plate is rounded to prevent damage to the damper.
- Do not apply any vertical load on the shaft.

[Application Example]

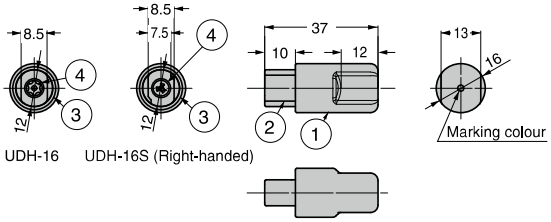


Selection Tool
Sasuga-kun

[Damper Operating Angle]

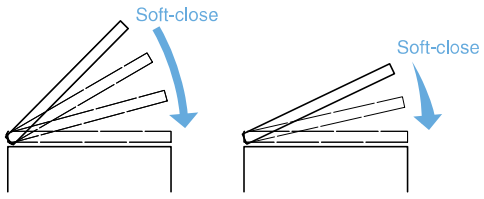


Right-handed: damper works when the shaft is turned clockwise (this figure)
Left-handed: damper works when the shaft is turned counterclockwise (symmetrical to this figure)



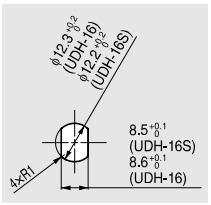
UDH-16 UDH-16S (Right-handed)

[Difference Between Standard Type and Progressive Type]

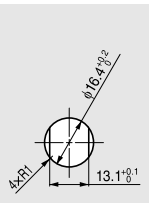


[Cut Out Dimensions]

Shaft side hole size



Body side hole size



No.	Part Name	Material	Finish / Colour
①	Body	Stainless Steel	–
②	Shaft	PBT	Left-handed: Natural, Right-handed: Grey
③	Cover Ring		Black
④	Screw	Stainless Steel	–

[Standard Type]

RoHS	CAD	Item Code	Item Name	Type	Damper Working Direction	Marking Colour	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Carton (pcs)
G	3D	170-011-717	UDH-16SAMS	Left-handed	Counterclockwise	Blue	1~1.7	10.2~17.3	16	200
G	3D	170-011-719	UDH-16SBMS	Right-handed	Clockwise					200
G	3D	170-011-718	UDH-16SAHS	Left-handed	Counterclockwise	Red	1.7~2.5	17.3~25.5		200
G	3D	170-011-720	UDH-16SBHS	Right-handed	Clockwise					200

[Progressive Type]

RoHS	CAD	Item Code	Item Name	Type	Damper Working Direction	Marking Colour	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Carton (pcs)
G	3D	170-090-829	UDH-16AMS-G	Left-handed	Counterclockwise	Green	1~1.7	10.2~17.3	16	200
G	3D	170-090-831	UDH-16BMS-G	Right-handed	Clockwise					200
G	3D	170-090-830	UDH-16AHS-G	Left-handed	Counterclockwise	Black	1.7~2.5	17.3~25.5		200
G	3D	170-090-832	UDH-16BHS-G	Right-handed	Clockwise					200

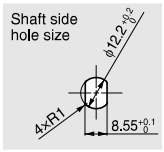
TORQUE DAMPER UDH-16N

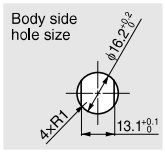


- Patented technology allows compact design.
- Can be used as a single unit.
- Keeps lids / doors from slamming shut.
- Left-handed and right-handed can be distinguished according to the colour and shape of shaft.
- With marking colour at shaft to recognise the torque moment.
- Ideal for applications requiring flap slow down. Helps prevent noise and impact.

Video Link

[Cut Out Dimensions]





[Applications]

- Toilet seat / lid, cover for maintenance, etc.

[Remarks]

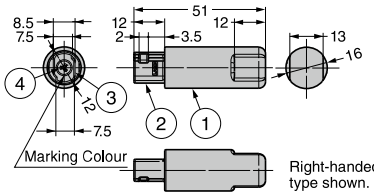
- When mounting on sheet metal, ensure the edge of the plate is rounded to prevent damage to the damper.
- Do not apply any vertical load on the shaft.

Selection Tool

Sasuga-kun

[Damper Operating Angle]



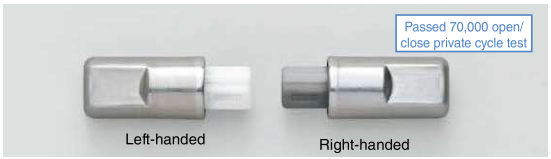


Right-handed: damper works when the shaft is turned clockwise (this figure)
Left-handed: damper works when the shaft is turned counterclockwise (symmetrical to this figure)

No.	Part Name	Material	Finish / Colour
①	Body	Stainless Steel	–
②	Shaft	PBT	Left-handed: Natural, Right-handed: Grey
③	Cover Ring	PPS	Black
④	Screw	Stainless Steel	–

RoHS	CAD	Item Code	Item Name	Type	Damper Working Direction	Marking Colour	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Carton (pcs)
G	3D	170-090-833	UDH-16NAMS	Left-handed	Counterclockwise	Blue	1.7~2.4	17.3~24.5	25	200
G	3D	170-090-834	UDH-16NBMS	Right-handed	Clockwise					200
G	3D	170-090-835	UDH-16NAHS	Left-handed	Counterclockwise	Red	2.2~3	22.4~30.6		200
G	3D	170-090-836	UDH-16NBHS	Right-handed	Clockwise					200

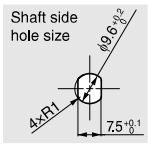
TORQUE DAMPER UDH-14

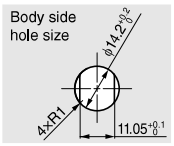


- Patented technology allows compact design.
- Can be used as a single unit.
- Keeps lids / doors from slamming shut.
- Left-handed and right-handed can be distinguished according to the colour and shape of shaft.
- With marking colour at shaft to recognise the torque moment.
- Excellent in corrosion resistance and rigidity due to stainless steel body.
- Ideal for applications requiring flap slow down. Helps prevent noise and impact.

Video Link

[Cut Out Dimensions]





[Applications]

- Toilet seat / lid, cover for maintenance, etc.

[Remarks]

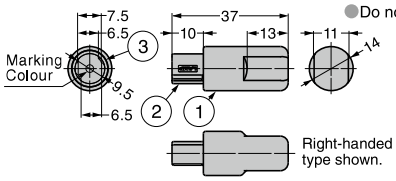
- When mounting on sheet metal, ensure the edge of the plate is rounded to prevent damage to the damper.
- Do not apply any vertical load on the shaft.

Selection Tool

Sasuga-kun

[Damper Operating Angle]



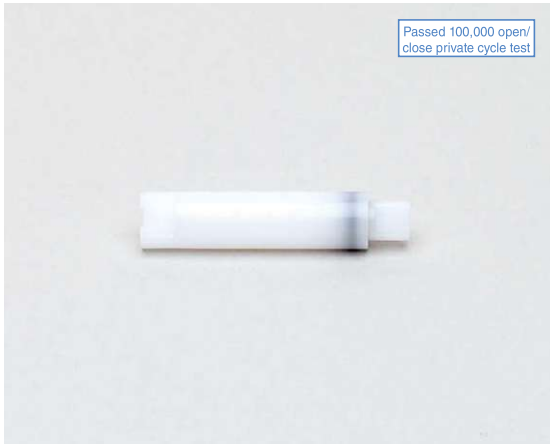


Right-handed: damper works when the shaft is turned clockwise (this figure)
Left-handed: damper works when the shaft is turned counterclockwise (symmetrical to this figure)

No.	Part Name	Material	Finish / Colour
①	Body	Stainless Steel	–
②	Shaft	PBT	Left-handed: Natural, Right-handed: Grey
③	Cover Ring	POM	Black

RoHS	CAD	Item Code	Item Name	Type	Damper Working Direction	Marking Colour	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)
G	3D	170-028-472	UDH-14ALS	Left-handed	Counterclockwise	Purple	0.5~0.8	5.1~8.2	10	400
G	3D	170-028-473	UDH-14BLS	Right-handed	Clockwise					400
G	3D	170-017-538	UDH-14AMS	Left-handed	Counterclockwise	Blue	0.8~1.5	8.2~15.3		400
G	3D	170-017-539	UDH-14BMS	Right-handed	Clockwise					400
G	3D	170-024-697	UDH-14ATS	Left-handed	Counterclockwise	Green	1.5~2.0	15.3~20.4		400
G	3D	170-025-678	UDH-14BTS	Right-handed	Clockwise					400

ROTARY DAMPER URD8-3



- Insert type rotary damper.
- Unlimited rotation angle and rotation direction, suitable for various opening modes. In addition, combining with springs further expands application.
- Small outer diameter realises space-saving and downsizing of equipment.

[Specifications]

- Operating temperature: 0℃~50℃

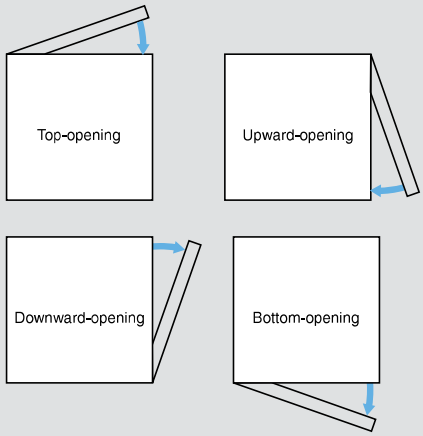
[Applications]

- Switch cover of equipment
- Wire hole cover of table

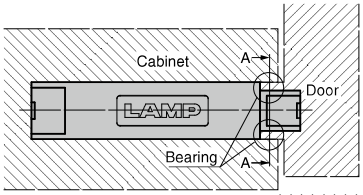
[Remarks]

- Be sure to read the "Cautions" 1.
- Measurement conditions of torque value: ambient temperature 23℃, rotation speed 20rpm.
- For use beyond the operating temperature range above, please contact local representatives.

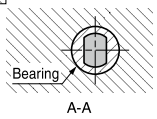
Suitable for various opening modes

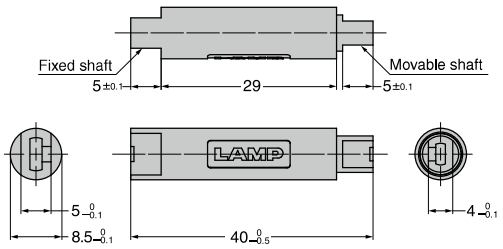


[Installation]

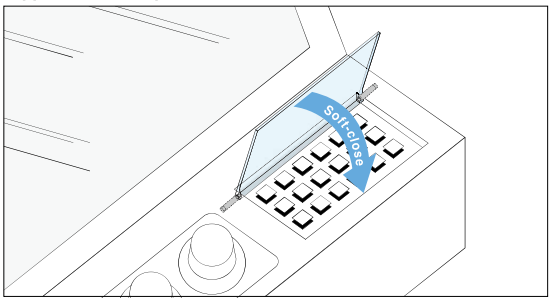


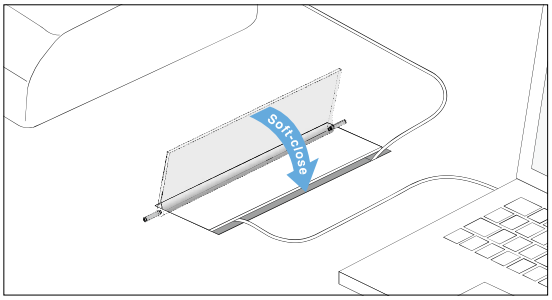
Recommend door cut out to prevent load on the shaft.



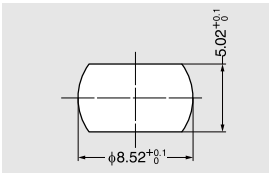


[Application Example]

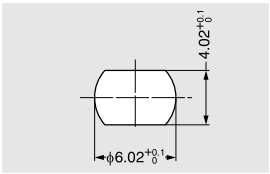




[Cut Out Dimensions]



Fixed shaft



Movable shaft

RoHS	CAD	Item Code	Item Name	Material	Colour	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-026-907	URD8-3	POM	Natural	0.022~0.038	0.22~0.39	2.5	100	2000

Refer to 1 : P.43

DISK DAMPER UDD®

INSTRUCTION



- Keeps lids/doors from slamming shut.
- Simple design does not affect cabinet appearance.
- Choose from 3 torques according to door size.
- Ideal for food showcase, etc.

[Specifications]

- Operating temperature: 5℃~35℃

[Remarks]

- Spacer or L-shaped bracket may be required depending on the shape of display.
- Customer should provide spacer according to board thickness in the application below.
- Use types (S, M, H) with identical torque on the left and right sides.
- Use indoors.
- Do not use impact screwdriver for mounting.
- Do not use in water splash environment.
- Use 2 pcs in one set.

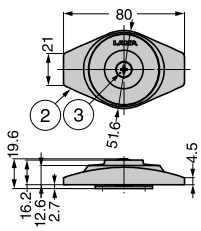
Video Link

Selection Tool

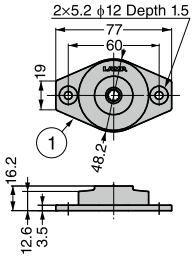
Sasuga-kun

[Assembled State]

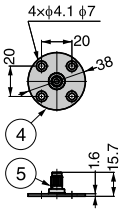
(Body+Cover+Mounting plate)



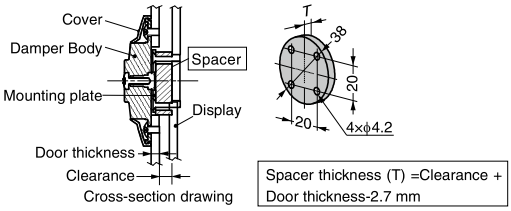
[Damper Body]



[Mounting Plate]

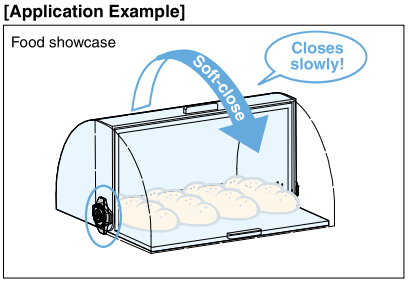


[Spacer]

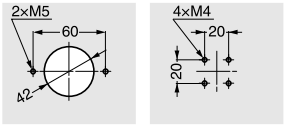


No.	Part Name	Material	Finish / Colour
①	Damper Body	–	–
②	Cover	ABS	Emboss/Light Grey
③	Screw	Steel	Nickel
④	Mounting Plate		
⑤	Shaft		Zinc Chromate

[Application Example]

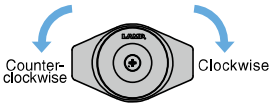


[Cut Out Dimensions]

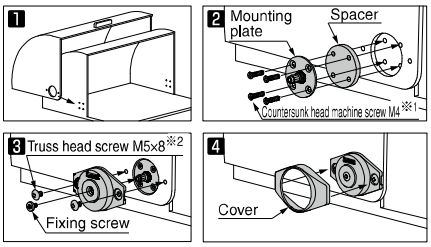


Door side Fixed side

[Damper Working Direction]



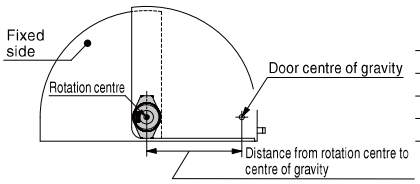
[How to Install]



※1, ※2 screws not included.
In case of wooden display, please prepare countersunk head tapping screw 3.5 for ※1, and truss head tapping screw 5x12 for ※2.

[Selection of Damper]

Choose from 3 types according to door moment.
Max. door moment = Door weight kg × 9.80665 × Distance from rotation centre to centre of gravity (m)



Door Moment	Type	Qty
1.0~2.0 N・m	S	2 pcs
2.0~4.0 N・m	M	2 pcs
4.0~6.0 N・m	H	2 pcs

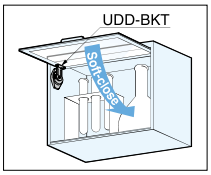
RoHS	CAD	Item Code	Item Name	Damper Working Direction	Torque N・m/pc	Torque kgf・cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	180-022-306	UDD-S-L	Counterclockwise	0.5~1.0	5.1~10.2	90	20	20
G	3D	180-022-307	UDD-S-R	Clockwise				20	20
G	3D	180-022-308	UDD-M-L	Counterclockwise	1.0~2.0	10.2~20.4		20	20
G	3D	180-022-309	UDD-M-R	Clockwise				20	20
G	3D	180-022-310	UDD-H-L	Counterclockwise	2.0~3.0	20.4~30.6		20	20
G	3D	180-022-311	UDD-H-R	Clockwise				20	20

BRACKET FOR DISK DAMPER UDD-BKT

L=R SUS



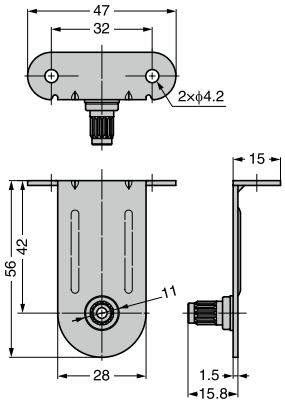
[Application Example]



- Bracket of disk damper UDD 1 for upward-opening doors.

[Remarks]

- Chamfer edge of top board to reduce the gap between the door and top board by referring to Fig.2 and Table 2 (recommended).
- Install a stopper on the cabinet (Fig.3).
- Catch is needed for holding door in opened position.
- Face plate SDS for glass door and spacer SDS-50G 2 available for glass/acrylic doors.



[Installation]

Fig.1

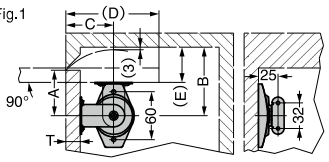


Fig.2

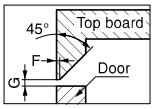


Fig.3

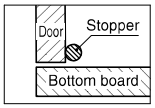


Table 1

No.	Door Thickness T	A	B	C	D	E
①	5	46	70	49	(95)	(26)
②	15	54	82	57	(111)	(40)
③	18	57	86	60	(117)	(44)

Table 2

Chamfering Allowance F	Gap G
1	3
2	4
3	5

※① is the value when using acrylic or glass door with a door thickness of 5 mm, a face plate SDS for glass door, and spacer SDS-50G.
②③ are the values when using wooden doors with door thicknesses given in the above table.

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Carton (pcs)
G	3D	180-026-764	UDD-BKT	Stainless Steel (SUS304)	Plain	33	60

Refer to 1 : P.119, 2 : P.369

LIFT-ASSIST DAMPER LAD®, LAD®-ST DIGEST



- Ideal for the top board of counter entrance.
- Supplied with LAPCON mechanism, damper works during closing and top board slowly closes.Damper works even at a slight opening angle.
- Lift-assist function allows opening the top board easily.
- Can be retrofitted to existing counters without machining.
- Installation position can be easily determined with the supplied template.

Selection Tool

Sasuga-kun



LAD 1



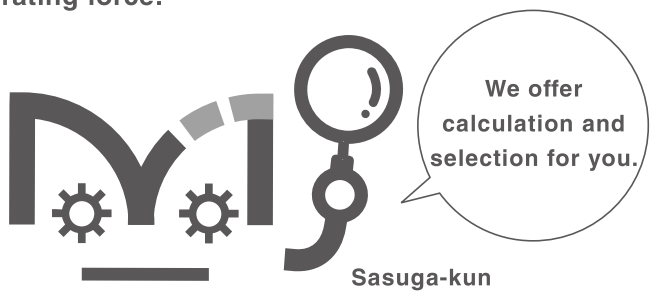
LAD-ST (with stopper) 2
Stops at 95° opening.

Refer to 1 : P.330, 2 : P.328

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

Product Selection Tool Sasuga-kun

Just inputting the dimensions and weight of the flap/door, you can select suitable Motion Design Tech products or simulate (graphically display) moment and operating force.



Access from here | Sasuga-kun | Search

https://cont.sugatsune.co.jp/motion/en/

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

LIFT-ASSIST HINGE SERIES INTRODUCTION

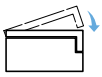
Power Assist Motion



What is the LIFT-ASSIST HINGE?

This hinge uses spring reaction force to reduce weight and assist with the opening and closing of heavy doors.

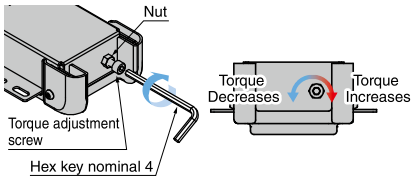
With soft-closing function



The use of a damper enables slow, safe closing after letting go of the top lid.

[How to Adjust Torque]

Torque is adjustable by turning the adjustment screw.



Loosen the end nut with a spanner, and then turn the torque adjustment screw with a hex key.
Tighten the nut again after adjustment.

[Specifications]

- Operating temperature: 0˚ C~40˚ C

[Application]

- Medical equipment, analytical instruments, semiconductor equipment, etc.

[Remarks]

- When installing, ensure that both hinge shafts are levelled and aligned.
- Install a stopper (not included) on the cabinet to avoid exceeding the operating angle when opening or closing.
- Do not use outdoors.
- Check that the cabinet has sufficient strength and rigidity before use.
- For inside mount type, check the torque adjustment screw position, and turn the screw with cabinet and lid already mounted.

Video Link

Video Link

[Series Products]

Mounting Specifications			Torque (N·m)	Torque Adjustment Range	Peak Torque	Page
Outside Mount		HG-PA270	45 ±10 % 35 ±10 %	±5%	35	P.124
		HG-PA200 HG-PA201	25 ±10 % 20 ±10 % 15 ±10 %	±5%	35 20	P.125
		HG-PA300-15	15 ±10 %	±10 %	60~80 Balance Adjustable	P.128
		HG-PA180-9	9 ±10 %	±11 %	35	P.131
		HG-JH210	20.58	–	–	P.133
Back Mount		HG-PA202	25 ±10 % 20 ±10 % 15 ±10 %	±5 %	20	P.127
		HG-PA182-9	9 ±10 %	±11 %	20	P.136
Inside Mount		HG-PA230 HG-PA231	25 ±10 % 20 ±10 % 15 ±10 %	±5%	35 20	P.126
		HG-PA210-9	9 ±10 %	±11 %	35	P.132

For product selection, please use the "SASUGA-kun" selection tool.
Simulations using multiple hinges are available.

Click the banner on the website

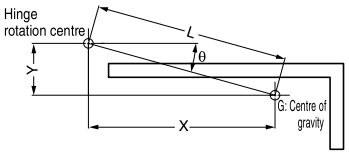
Selection Tool "Sasuga-kun"

[How to Select a Model] Refer to 1~3 below for model selection.

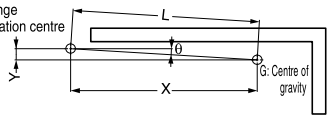
1. Calculating lid moment

Equation: Mu=m × g × L × cos θ

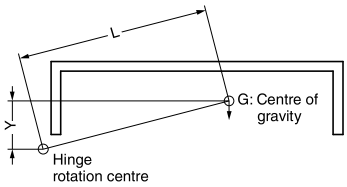
●Outside mount (HG-PA180, HG-PA200, HG-PA201, HG-PA270)



●Inside mount (HG-PA210, HG-PA230, HG-PA231)



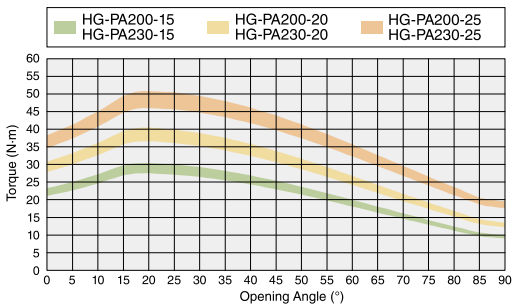
●Back mount (HG-PA182-9, HG-PA202)

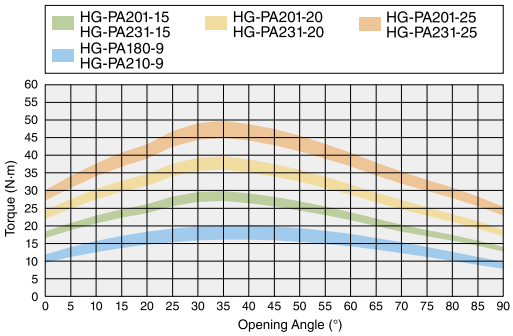


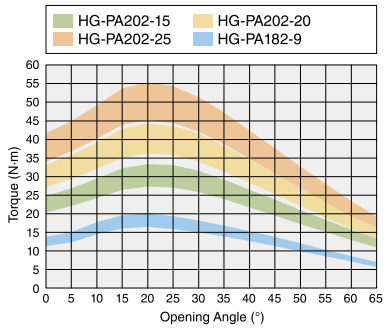
X	Horizontal distance from hinge rotation centre to centre of gravity
Y	Vertical distance from hinge rotation centre to centre of gravity
L	Distance from hinge rotation centre to centre of gravity

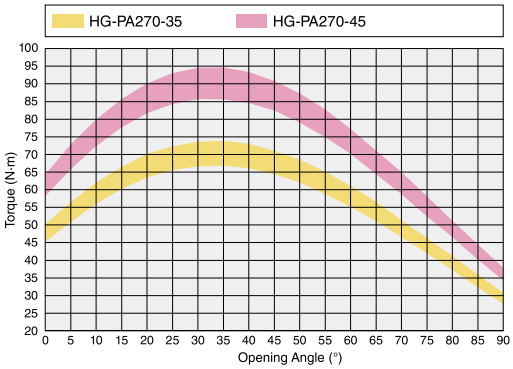
θ	Angle from horizontal line at hinge rotation centre to centre of gravity
m	Lid weight
G	Lid centre of gravity

2. Checking hinge torque (2 pcs)



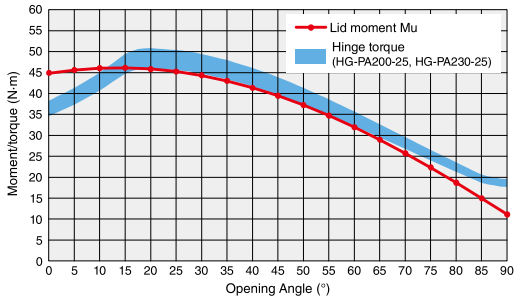






3. Selecting model

Example of overlapping lid moment and hinge torque (2 hinges)



As in the graph, lid moment and hinge torque overlap in models with appropriate specifications.

Lid moment Mu > Hinge torque: Force is applied in lid closing direction.
Lid moment Mu < Hinge torque: Force is applied in lid opening direction.

*Confirm movement with the actual product when lid moment Mu is at the upper or lower limit of the LIFT-ASSIST HINGE torque range.

Application example conditions: X=43 cm, Y=10.5 cm, L=44.3 cm, W=10.8 kg
Application example hinges: HG-PA200-25 or HG-PA230-25 (2 pcs)

LIFT-ASSIST HINGE HG-PA270 Outside Mount

INSTRUCTION SUS

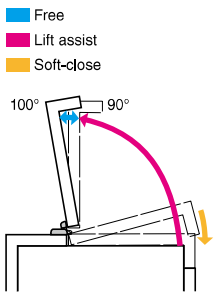


- Easy to lift heavy top-opening lid with spring tension (lift assist function).
- Smooth and soft-closing movement at the end, preventing lid from slamming shut.
- Torque is adjustable by turning the adjustment screw (±5%).
- With plastic cover for clean appearance.

[Remarks]

- Be sure to read the "Cautions" 1 .
- Install a stopper (not included) on the cabinet to prevent from exceeding the operating angle during opening or closing.

[Operating Range]

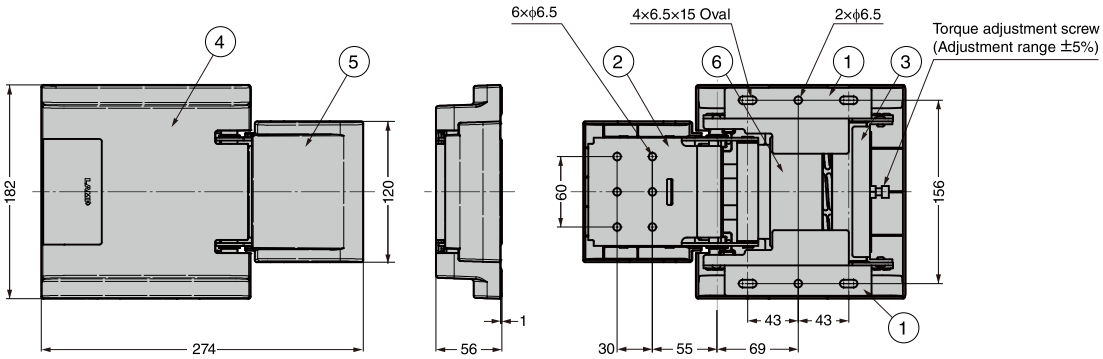


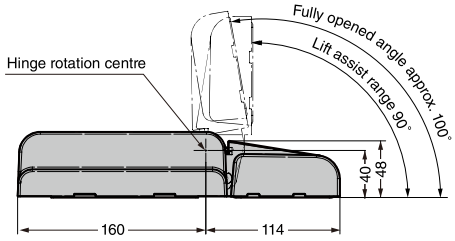
Video Link

Selection Tool

Sasuga-kun

Video Link





No.	Part Name	Material / Colour
①	Base A	Stainless Steel (SUS430)
②	Base B	
③	Case	
④	Cover A	PBT/Light Grey
⑤	Cover B	
⑥	Slider	POM
–	Spring	Steel (SWO)

RoHS	CAD	Item Code	Item Name	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-034-307	HG-PA270-35	35±10%	357±10%	2500	1	4
G	3D	170-034-308	HG-PA270-45	45±10%	459±10%		1	4

Refer to 1 : P.43

LIFT-ASSIST HINGE HG-PA200, HG-PA201 Outside Mount

SUS



- The torque peaks at 20° or 35° depending on the lid shape (see diagram below).
- Easy to lift heavy top-opening lid with spring tension (lift assist function).
- Smooth and soft-closing movement at the end, preventing lid from slamming shut.
- Torque is adjustable by turning the adjustment screw (±5%).
- With plastic cover for clean appearance.

[Remarks]

- Be sure to read the "Cautions" 1 .
- Install a stopper (not included) on the cabinet to prevent from exceeding the operating angle during opening or closing.
- For HG-PA200 and HG-PA201, centre-of-gravity positions of the applicable doors are different.
  Please refer to How to Select 2 for model selection.

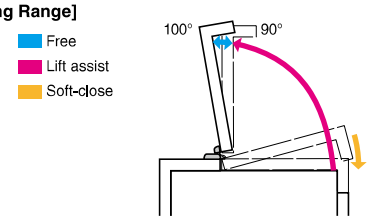
Video Link

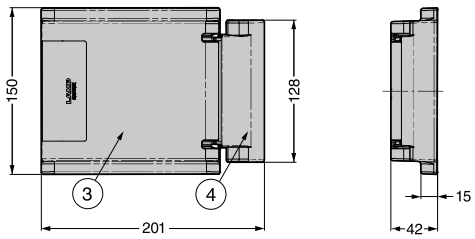
Selection Tool

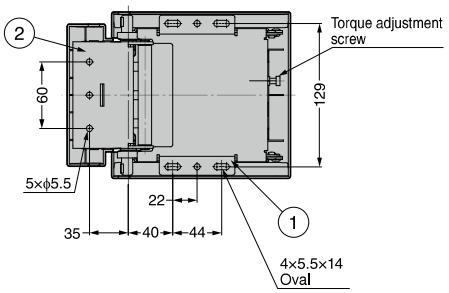
Sasuga-kun

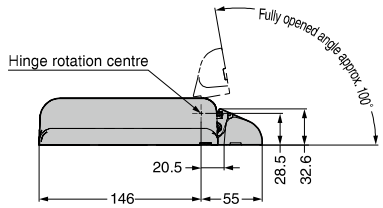
Video Link

[Operating Range]



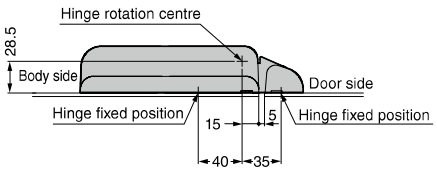






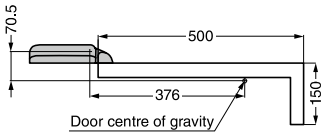
No.	Part Name	Material / Colour
①	Base A	Stainless Steel (SUS430)
②	Base B	
③	Cover A	PBT/Light Grey
④	Cover B	
–	Slider	POM
–	Spring	Steel (SWO)

[Installation]

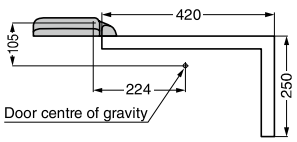


[Installation]

HG-PA200 (Peak torque angle 20°)



HG-PA201 (Peak torque angle 35°)



RoHS	CAD	Item Code	Item Name	Description	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-025-668	HG-PA200-15	Peak torque angle 20°	$15^{\pm 10\%}$	$153^{\pm 10\%}$	1385	1	8
G	3D	170-025-669	HG-PA200-20		$20^{\pm 10\%}$	$204^{\pm 10\%}$		1	8
G	3D	170-025-670	HG-PA200-25		$25^{\pm 10\%}$	$255^{\pm 10\%}$		1	8
G	3D	170-029-741	HG-PA201-15	Peak torque angle 35°	$15^{\pm 10\%}$	$153^{\pm 10\%}$		1	8
G	3D	170-029-742	HG-PA201-20		$20^{\pm 10\%}$	$204^{\pm 10\%}$		1	8
G	3D	170-029-743	HG-PA201-25		$25^{\pm 10\%}$	$255^{\pm 10\%}$		1	8

Refer to 1 : P.43, 2 : P.123

LIFT-ASSIST HINGE HG-PA230, HG-PA231 Inside Mount

SUS



- The torque peaks at 20° or 35° depending on the lid shape (see diagram below).
- Easy to lift heavy top-opening lid with spring tension (lift assist function).
- Smooth and soft-closing movement at the end, preventing lid from slamming shut.
- Torque is adjustable by turning the adjustment screw (±5%).
- Able to limit the 140° opening angle to 55° or 80° with use of the included stopper plate.
- Opening angle can also be restricted between 15° and 90° (made to order).

[Remarks]

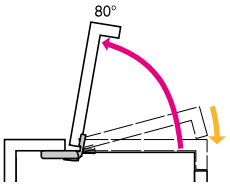
- Be sure to read the "Cautions" 1 .
- For HG-PA230 and HG-PA231, centre-of-gravity positions of the applicable doors are different. Please refer to How to Select 2 for model selection.
- Install a stopper (not included) on the cabinet to prevent from exceeding the operating angle during opening or closing.

Video Link

No.	Part Name	Material / Colour
①	Base A	Stainless Steel (SUS430)
②	Base B	
③	Cover	PP/Light Grey
④	Case	Stainless Steel (SUS430)
⑤	Stopper Plate	
–	Slider	POM
–	Spring	Steel (SWO)

[Operating Range]

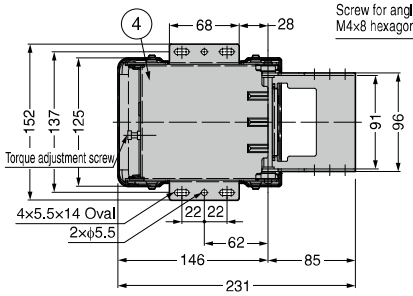
Lift assist
Soft-close

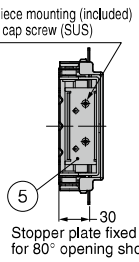


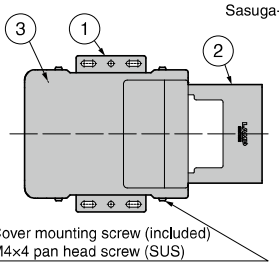
Selection Tool

Sasuga-kun

Video Link

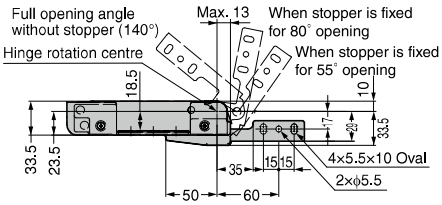




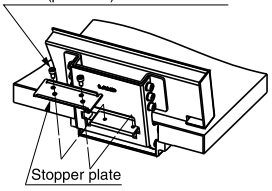


[Setting of Opening angle]

Opening angle can be limited to 55° or 80° with the included stopper plate.

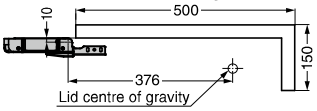


Hexagon socket head cap screw
M4x8 (provided)

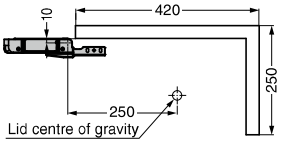


[Installation]

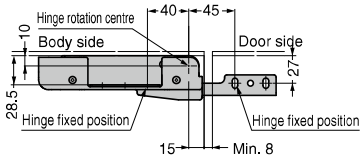
HG-PA230 (Peak torque angle 20°)



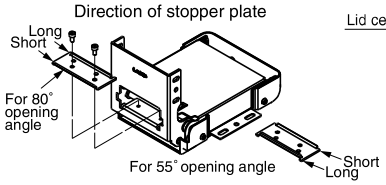
HG-PA231 (Peak torque angle 35°)



[Installation]



Direction of stopper plate



RoHS	CAD	Item Code	Item Name	Description	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-025-671	HG-PA230-15	Peak torque angle 20°	15±10%	153±10%	1296	1	8
G	3D	170-025-672	HG-PA230-20		20±10%	204±10%		1	8
G	3D	170-025-673	HG-PA230-25		25±10%	255±10%		1	8
G	3D	170-029-744	HG-PA231-15	Peak torque angle 35°	15±10%	153±10%		1	8
G	3D	170-029-745	HG-PA231-20		20±10%	204±10%		1	8
G	3D	170-029-746	HG-PA231-25		25±10%	255±10%		1	8

Refer to 1 : P.43, 2 : P.123

LIFT-ASSIST HINGE HG-PA202 Outside Back Mount

INSTRUCTION

Lift assist
Soft-close

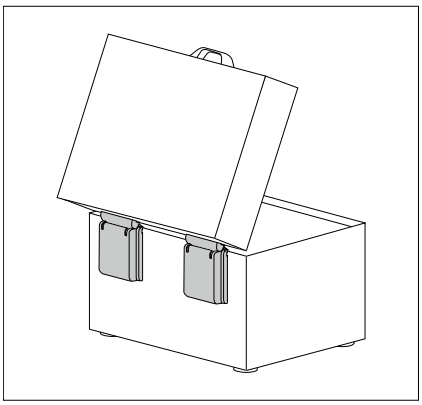


- Easy to lift heavy top-opening lids due to spring tension. (Lift-assist)
- The built-in damper prevents lids from slamming shut. (Soft-close)
- Torque is adjustable by turning the adjustment screw. (±5 %)
- Comes with a cover to hide the mounting screws.
- Designed for use under the condition that lid's centre of gravity is at a higher position than the rotational centre. (The angle of torque peak is about 20°.)

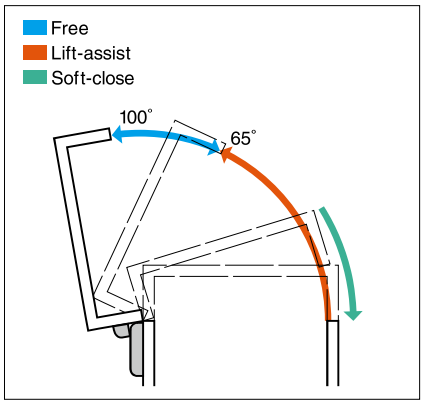
[Remarks]

- Be sure to read the "Cautions" 1.
- Please make sure that the lid will not fall backward when fully opened.

[Outside Back Mount]



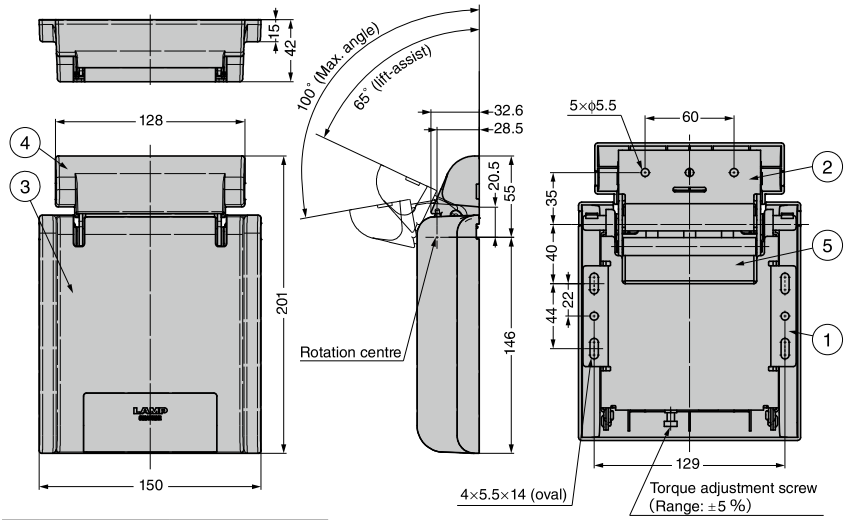
[Operating Range]



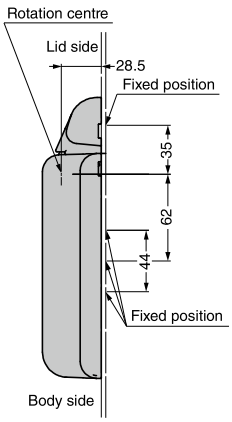
Video Link

Selection Tool

Sasuga-kun



[Installation]



No.	Part Name	Material/Colour
①	Base A	Stainless Steel (SUS430)
②	Base B	
③	Cover A	PBT/ Light Grey
④	Cover B	
–	Slider	POM
–	Spring	Steel (SWO)

RoHS	CAD	Item Code	Item Name	Torque N·m	Torque kgf·cm	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-045-365	HG-PA202-15	15±10%	153±10%	1385	1	8
G	3D	170-045-366	HG-PA202-20	20±10%	204±10%		1	8
G	3D	170-045-367	HG-PA202-25	25±10%	255±10%		1	8

Refer to 1 : P.43

BALANCE-ADJUSTABLE LIFT-ASSIST HINGE HG-PA300-15 OUTSIDE MOUNT

INSTRUCTION SUS



- Easy to lift heavy top-opening lids due to spring tension (lift-assist).
- Balance adjustment allows for use in a wider range of lids than conventional lift-assist hinges.
- The built-in damper prevents lids from slamming shut (soft-close).
- Torque is adjustable by turning the adjustment screw (±10%).
- Comes with a plastic cover for clean appearance.

[Applications]

- Medical equipment, analytical instruments, semiconductor equipment.

[Remarks]

- Be sure to read the "Cautions" 1.

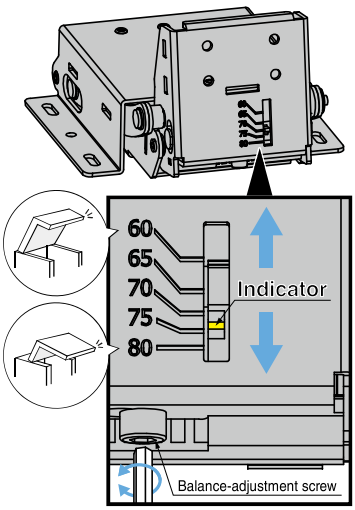
Video Link

Video Link

Selection Tool

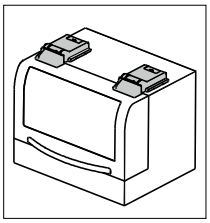
Sasuga-kun

[Balance Adjustment]

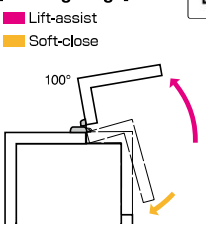


Angle of peak torque is adjustable with hex key 5. This feature allows adjustment to the location of center of gravity

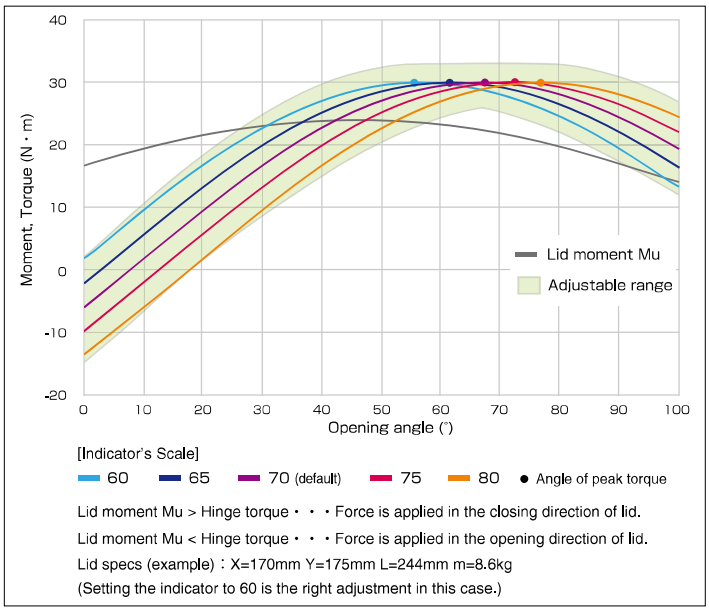
[Installation]



[Working range]



[Torque-Angle Graph] showing the adjustable range of peak torque's angle



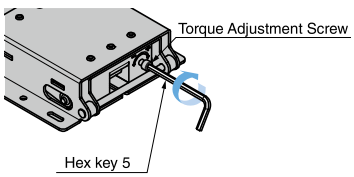
Lid moment Mu > Hinge torque・・・Force is applied in the closing direction of lid.

Lid moment Mu < Hinge torque・・・Force is applied in the opening direction of lid.

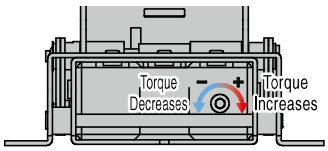
Lid specs (example)：X=170mm Y=175mm L=244mm m=8.6kg

(Setting the indicator to 60 is the right adjustment in this case.)

[How to Adjust Torque]

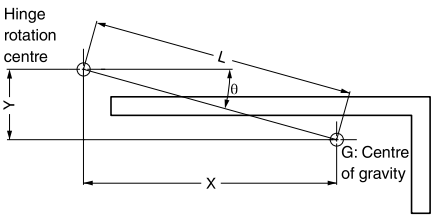


Turn the screw with a hex key



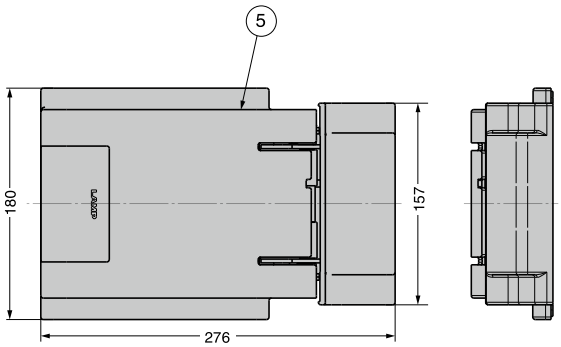
[Calculating Lid Moment]

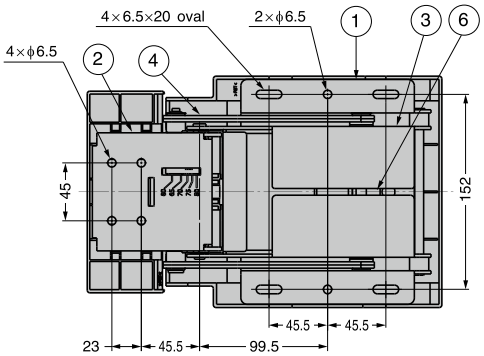
Calculation formula $Mu=m \times L \times \cos\theta$

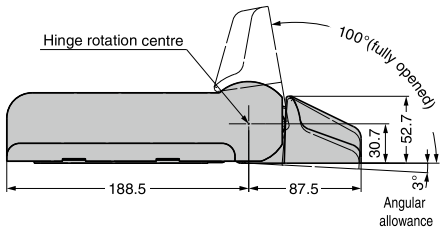


X	Horizontal distance from rotation centre to lid centre of gravity
Y	Vertical distance from rotation centre to lid centre of gravity
L	Distance from rotation centre to lid centre of gravity
θ	Angle from the horizontal line at the rotation centre to lid centre of gravity
m	Lid weight
G	Lid centre of gravity

Refer to 1 : P.43

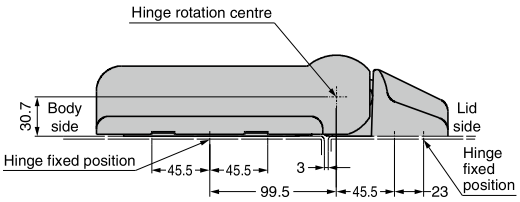




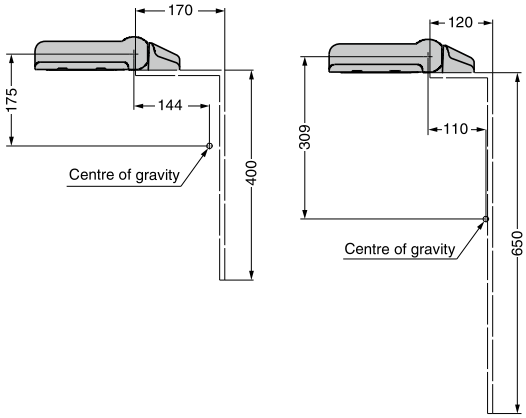


No.	Part Name	Material / Colour
①	Base A	Stainless Steel (SUS430)
②	Base B	
③	Case	
④	Link Arm	
⑤	Plastic Cover	PBT / Light Grey
⑥	Slider	POM
⑦	Spring	Steel (SWO)

[Installation]



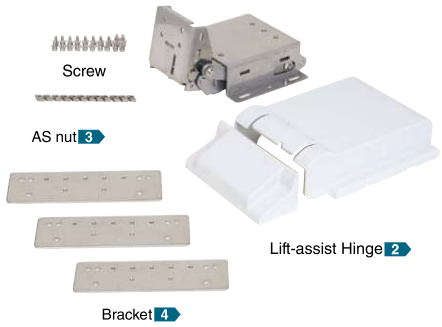
[Installation Example]



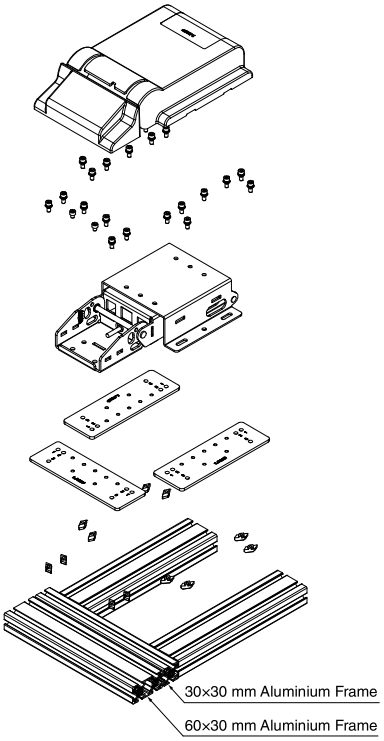
RoHS	CAD	Item Code	Item Name	Description	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
GT	3D	170-044-367	HG-PA300-15	Peak torque 60°~80°	15±10%	153±10%	3400	1	–

AS Parts Set for Installing to Aluminium Frame

Refer to the series introduction page 1 for details about the AS series.

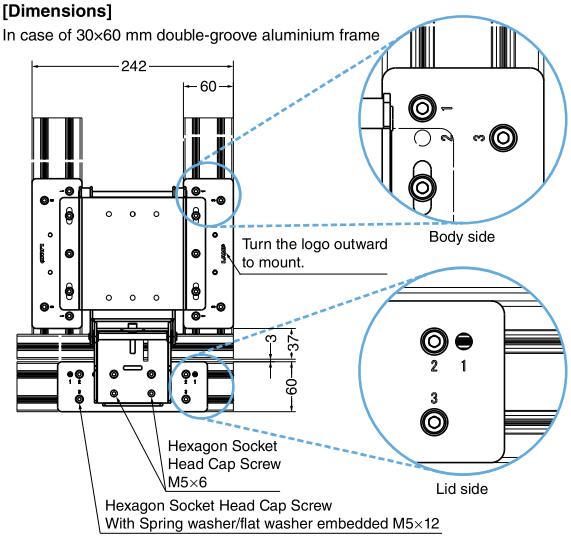


[Installation Dimensions]



[Dimensions]

In case of 30×60 mm double-groove aluminium frame



Use holes 2 and 3 when mounting on the lid side aluminium frame, and holes 1 and 3 on the body side aluminium frame.

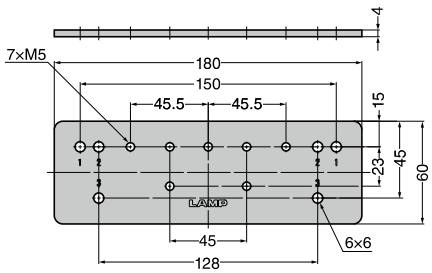
[AS Set] Parts set of brackets, screws and AS nuts used for installing to aluminium frame.

RoHS	CAD	Item Code	Item Name	Compatible Aluminium Frame	Parts
G	–	170-051-068	AS-HG-PA300-30-8	Groove width 8 mm	Lift-assist Hinge HG-PA300-15 : 1 pc Bracket AS-HG-PA300 : 3 pcs AS Nut AS-8M5 : 12 pcs Hexagon Socket Head Cap Screw With Spring washer/flat washer embedded M5×12 : 20 pcs Hexagob Socket Head Cap Screw M5×6 : 2 pcs

Refer to 1: P.20, 2: P.128, 3: P.526, 4: P.130

AS BRACKET FOR HG-PA300 AS-HG-PA300

AS SUS



- Bracket for installing the Balance-Adjustable Lift-Assist Hinge HG-PA300 to aluminium frame.
- Use AS nuts for installation.

Sold in units of 1 set (3 pcs).

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g/set)
G	3D	170-050-285	AS-HG-PA300	Stainless Steel (SUS304)	Barrel Polished	950

LIFT-ASSIST HINGE HG-PA180-9 Outside Mount

INSTRUCTION SUS

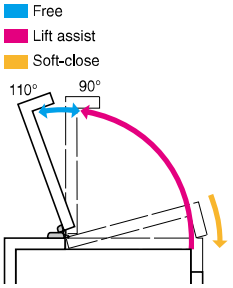


- Easy to lift heavy top-opening lid with spring tension (lift assist function).
- Smooth and soft-closing movement at the end, preventing lid from slamming shut.
- Torque is adjustable by turning the adjustment screw (±11%).
- With plastic cover for clean appearance.

[Remarks]

- Be sure to read the "Cautions" 1 .

[Operating Range]

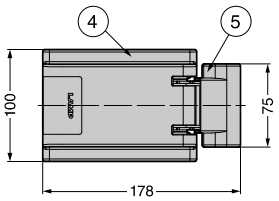


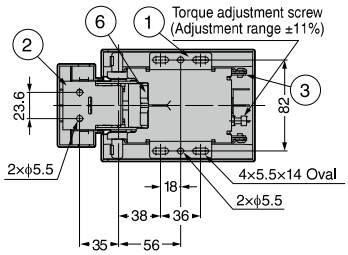
Video Link

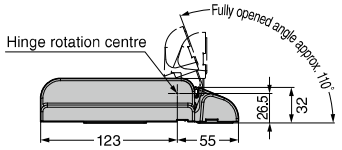
Selection Tool

Sasuga-kun

Video Link

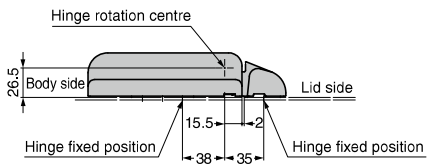






No.	Part Name	Material / Colour
①	Base A	Stainless Steel (SUS430)
②	Base B	
③	Case	
④	Cover A	PBT/Light Grey
⑤	Cover B	
⑥	Slider	POM
–	Spring	Steel (SWO)

[Installation]



RoHS	CAD	Item Code	Item Name	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-029-739	HG-PA180-9	9±10%	91±10%	800	1	12

Refer to 1 : P.43

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

LIFT-ASSIST HINGE HG-PA210-9 Inside Mount

INSTRUCTION SUS



- Easy to lift heavy top-opening lid with spring tension (lift assist function).
- Smooth and soft-closing movement at the end, preventing lid from slamming shut.
- Torque is adjustable by turning the adjustment screw (±11%).
- Able to limit the 140° opening angle to 55°or 80°with use of the included stopper plate.
- Opening angle can also be restricted between 15°and 90°(made to order).

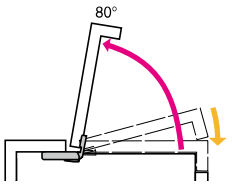
[Remarks]

- Be sure to read the "Cautions" 1 .
- When not mounting the angle restricting piece, Install a stopper (not included) on the cabinet to prevent from exceeding the operating angle during opening or closing.

Video Link

[Operating Range]

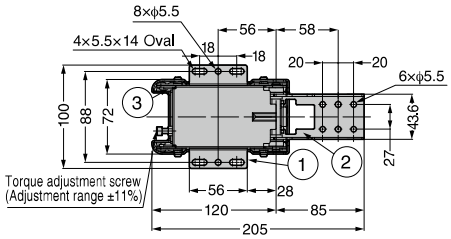
Lift assist
Soft-close

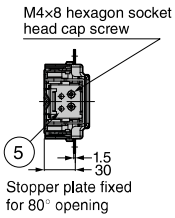


Selection Tool

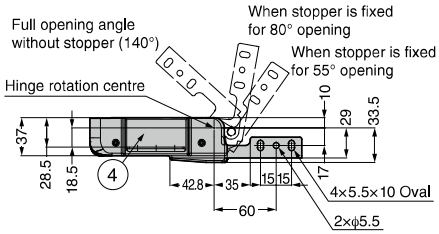
Sasuga-kun

Video Link



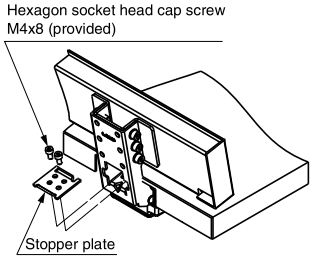


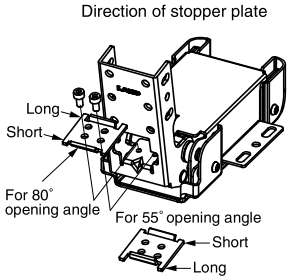
No.	Part Name	Material / Colour
①	Base A	Stainless Steel (SUS430)
②	Base B	
③	Case	
④	Cover	PP/Light Grey
⑤	Stopper Plate	Stainless Steel (SUS430)
–	Slider	POM
–	Spring	Steel (SWO)



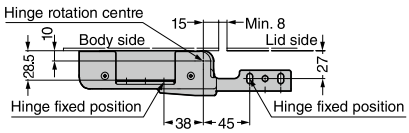
[Setting of Opening angle]

Opening angle can be limited to 55°or 80°with the included stopper plate.





[Installation]



RoHS	CAD	Item Code	Item Name	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-029-740	HG-PA210-9	9±10%	91±10%	770	1	12

Refer to 1 : P.43

STAINLESS STEEL LIFT-ASSIST HINGE HG-JH210

Lapcon INSTRUCTION SUS316



- Easy to lift heavy top-opening lid with spring tension (lift assist function).
- Supplied damper prevents top-opening lid from slamming shut. (Damper effective angle approx. 30° or more).
- Built-in helical torsion spring makes lid feel lighter when opening.

[Specifications]

- Assist torque: 20.58N・m (210kgf・cm) (when using 1 pc)
- Built-in damper max. load torque: 7N・m (71.4kgf・cm)
- Built-in damper operating temperature: 0℃~ 40℃
- Hinge operating angle: 0° ~ 110°

Selection Tool — Sasuga-kun

Video Link

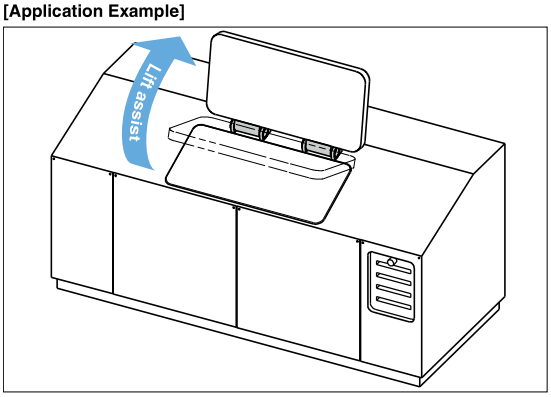
[Applications]

- Heavy top-opening lids of environmental equipment, testing equipment, etc.

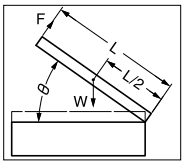
[Remarks]

- When installing, ensure that both hinge shafts are levelled and aligned.

[Application Example]



[Calculation Formula and Graph of Moment]



Lid moment $Mt = W \times \cos\theta \times \frac{L}{2}$

Hinge moment $Mh = Mm \times (1 - \frac{\theta}{115})$

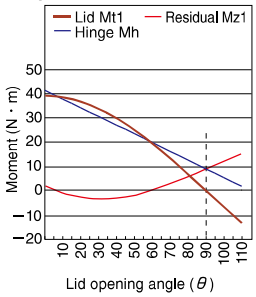
Residual moment $Mz = Mh - Mt$

Operating force $F = \frac{Mt - Mh}{L}$

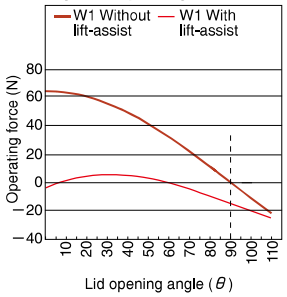
W : Weight at lid centre of gravity
θ : Lid opening angle
L : Lid length
Mm : Torque value of lift-assist hinge

The meaning of residual moment Mz= (Mh–Mt) is as follows.
・"–" means that the force is applied in the closing direction of lid.
・"+" means that the force is applied in the opening direction of lid.

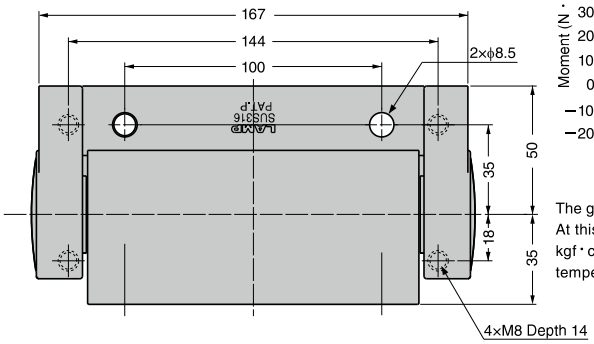
Relationship between lid opening angle and moments

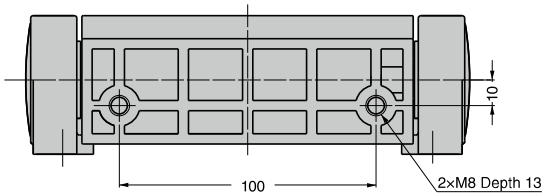


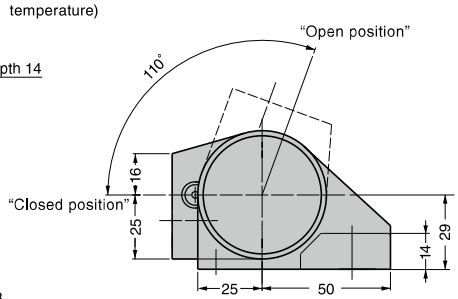
Relationship between lid opening angle and operating forces



The graph is an example when L=60cm, W1=12kg, and two HG-JH210 are used. At this time, the maximum load torque of built-in damper is 7×2=14N・m(142.8 kgf・cm).Damper works when the residual moment is 14N・m or less. (Room temperature)







RoHS	CAD	Item Code	Item Name	Material	Finish	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
–	3D	170-090-535	HG-JH210	Stainless Steel (SCS14)	Polished	110°	2350	1	6

※SCS14 is equivalent to SUS316.

SPRING-ASSIST TORQUE HINGE HG-TLAJ Torque Adjustment

Lift assist **Free stop** Passed 50,000 open/close private test



Hinge



Cover
(sold separately)

[Application]



- The built-in spring makes lids feel lighter to open and close. (The hinge is for top-opening lids.)
- The retaining torque is adjustable with a hex key. (0 to 3.5 N.m)
- Optional cover is sold separately.

[Specifications]
- Operating temperature: - 0°~40°.

[Application]
- Medical equipment, analytical instruments

[Remarks]
- Do not open/close the hinge before installation. The spring could accidentally pinch fingers.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Do not detach the torque adjustment nut.
- Do not tighten the torque adjustment nut with a force of over 10 N.m. It may damage the hinge.

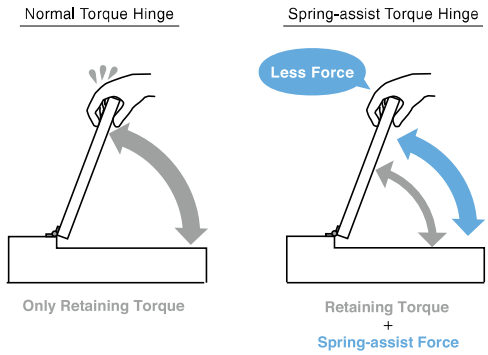
[Sold Separately]
- Cover

Selection Tool

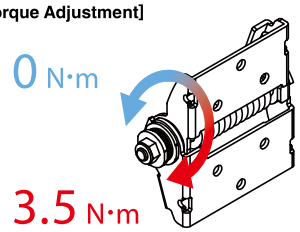
Sasuga-kun

Video Link

[Smoother than ever before]

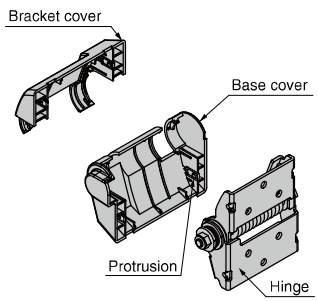


[Retaining Torque Adjustment]



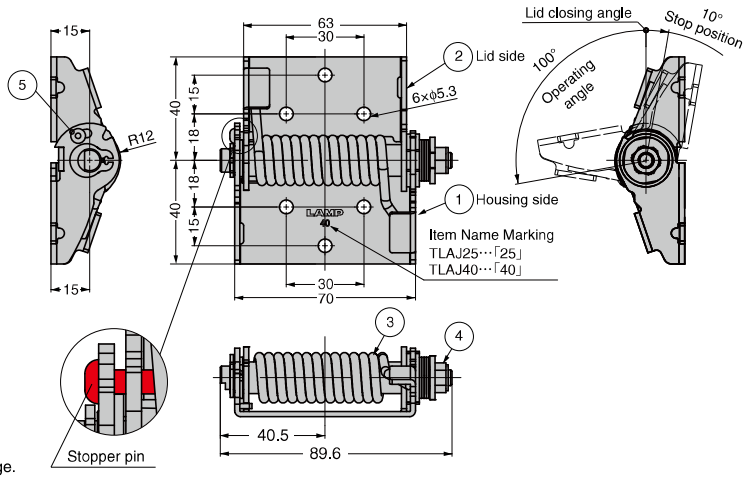
A hex key is needed (size: 10). 0 N.m is the factory preset.

[Component Parts]



[How to Attach the Covers]

1. Install the hinge to a lid.
2. Close the lid.
3. Attach the covers to the hinge.
4. Make sure the protrusion properly fits into the hinge.



The hinge is delivered with the pin attached.
It keeps the hinge open. Please do not detach it until the hinge is installed.

[Hinge]

RoHS	CAD	Item Code	Item Name	Spring-assist Force N·m	Spring-assist Force kgf·cm	Retaining Torque N·m	Retaining Torque kgf·cm	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-045-749	HG-TLAJ25	2.2 - 2.9	22 - 30	0~3.5	0~36	218	10	40
G	3D	170-045-750	HG-TLAJ40	3.5 - 4.4	36 - 45			222	10	40

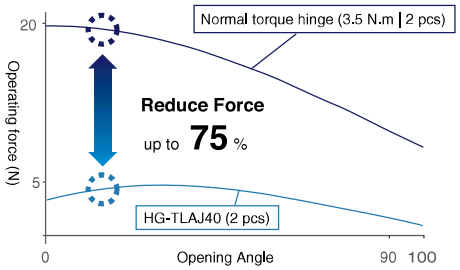
*Spring-assist force is not adjustable. Remaining torque is adjustable.

[Cover] Sold separately

RoHS	CAD	Item Code	Item Name	Material	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-043-831	HG-TLAJC	PBT	41	10	40

No.	Part Name	Material	Finish
①	Base	Stainless Steel (SUS304)	Barrel Polished
②	Bracket	Stainless Steel (SUS430)	
③	Spring	Stainless Steel	–
④	Torque Adjustment Nut M6	–	
⑤	Stopper Pin	Stainless Steel	

[Compare Required Force]

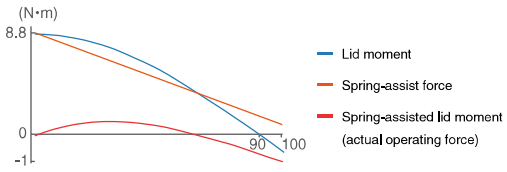


[Conditions]

- Height: 400 mm
- Weight: 4 kg
- Centre of gravity: centre of lid

[Lift Assist Mechanism]

The spring-assist force offsets the lid moment.

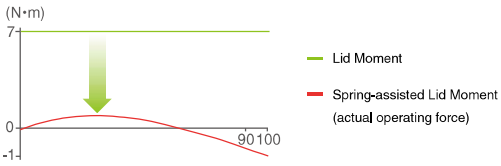


Force Formula

"Spring-assisted lid moment" = "Lid moment" – "Spring-assist force"

[Free-stop Mechanism]

The retaining torque keeps the lid in position.



Free-stop Formula

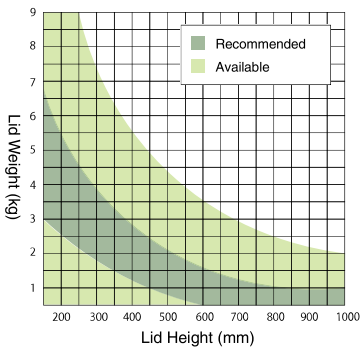
"Retaining Torque" – "Spring-assisted Lid Moment" > 0

Tips for Smoother Movement

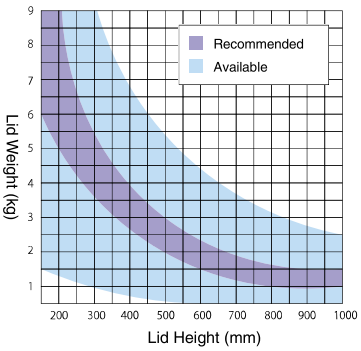
The closer retaining torque is to spring-assisted lid moment, the more lightly a lid moves. (The retaining torque is adjustable.)

[Available Lid Size]

HG-TLAJ25 (2 pcs)



HG-TLAJ40 (2 pcs)



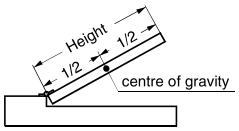
Available Range

- Free-stop: 0° to 100°

Recommended Range

- Free-stop: 0° to 100°
- Moves very llightly: 1° to 99°

* Spring-assisted lid moment is close to 0 N.m.



Calculation Condition:
The centre of gravity is at the centre of the lid.

Product Selection Tool Sasuga-kun

Access here

You can easily find suitable products on the webste.
This can simulate moment, force, and more.

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

LIFT-ASSIST HINGE HG-PA182-9 Outside Back Mount

INSTRUCTION

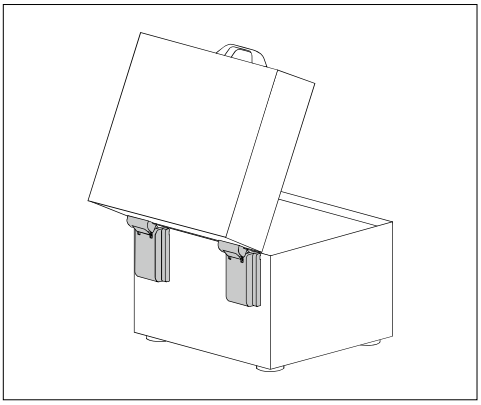


- Easy to lift heavy top-opening lids due to spring tension. (Lift-assist)
- The built-in damper prevents lids from slamming shut. (Soft-close)
- Torque is adjustable by turning the adjustment screw. (±11%)
- Comes with a cover to hide the mounting screws.
- Designed for use under the condition that lid's centre of gravity is at a higher position than the rotational centre. (The angle of torque peak is about 20°.)

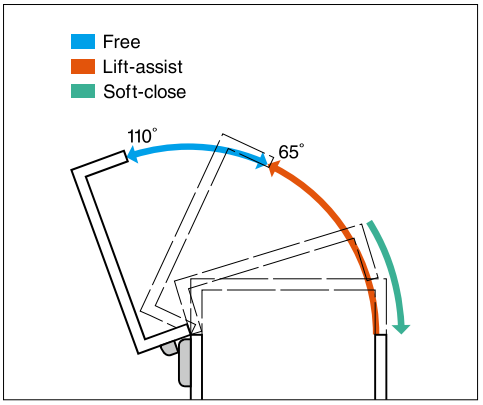
[Remarks]

- Be sure to read the "Cautions" 1.
- Please make sure that the lid will not fall backward when fully opened.

[Outside Back Mount]



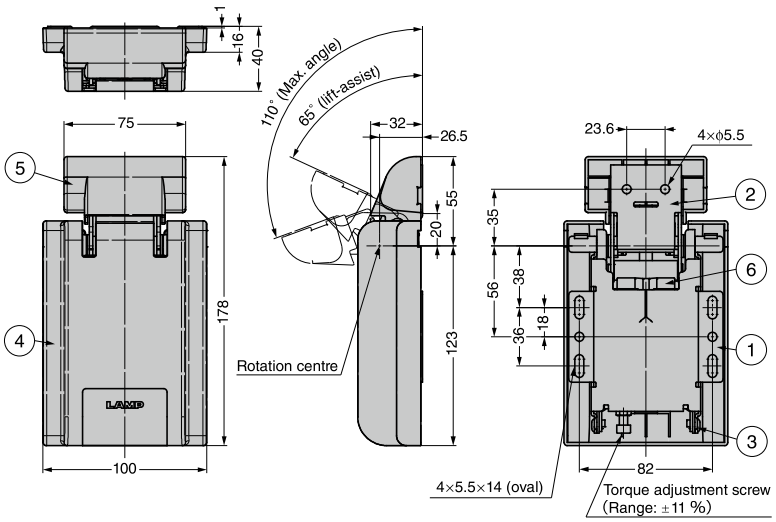
[Operating Range]



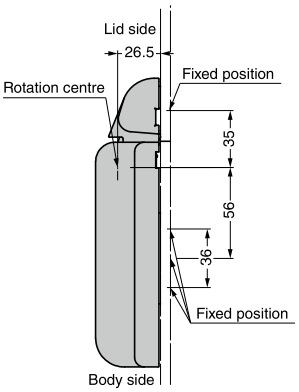
Video Link

Selection Tool

Sasuga-kun



[Installation]



No.	Part Name	Material/Colour
①	Base A	Stainless Steel (SUS430)
②	Base B	
③	Cover A	PBT/ Light Grey
④	Cover B	
–	Slider	POM
–	Spring	Steel (SWO)

RoHS	CAD	Item Code	Item Name	Torque N·m	Torque kgf·cm	Weight (g)	Box (pcs)	Carton (pcs)
GT	3D	170-045-364	HG-PA182-9	9±10%	91±10%	800	1	12

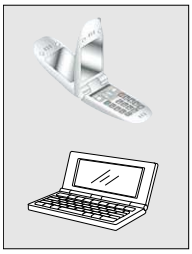
Refer to 1 : P.43

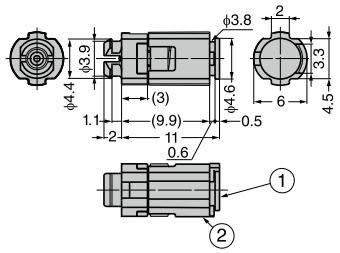
MICRO DETENT HINGE MPH-30 High Torque Type



- Ultra compact detent hinge suitable for clamshell type cell phones, PDA and other foldable devices.
- With the torque of a single hinge equal to that of two conventional hinges, you can design various casings as there is no need for hinge space on the other side.
- Designed for 160° opening, and detent catch in open and closed position.
- Easy snap-in for quick assembly.

[Application Example]





[Applications]
- Cell phone, PDA, remote control, gaming device, etc.

[Remarks]
- For clamshell type cell phones, with weight up to 55g when using one hinge.
- The boundary between the movable side and fixed side of casing shall be set near the hinge centre.
- For more details , please contact local representatives.

Video Link

No.	Part Name	Material	Finish
①	Spindle	Steel	Clear Zinc Chromate
②	Body	POM	Black

RoHS	CAD	Item Code	Item Name	Opening Angle	Weight (g)	Box (pcs)
G	3D	170-090-024	MPH-30	160°	0.98	4000

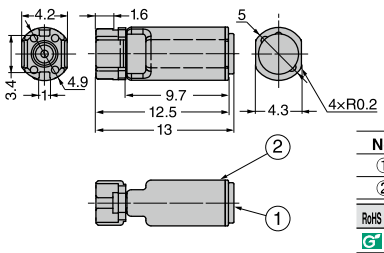
MICRO DETENT HINGE MPH-30-5TN High Torque Type



- Ultra compact detent hinge suitable for clamshell type cell phones, PDA and other foldable devices.
- With the torque of a single hinge equal to that of two conventional hinges, you can design various casings as there is no need for hinge space on the other side.
- Small outer diameter of ϕ5 realises space-saving and downsizing of casing.
- Designed for 160° opening, and detent catch in open and closed position.

[Application Example]





[Applications]
- Cell phone, PDA, remote control, gaming device, etc.

[Remarks]
- For clamshell type cell phones, with weight up to 55g when using one hinge.
- The boundary between the movable side and fixed side of casing shall be set near the hinge centre.
- For more details , please contact local representatives.

Video Link

No.	Part Name	Material	Finish
①	Spindle	Steel	Nickel
②	Body	Stainless Steel	–

RoHS	CAD	Item Code	Item Name	Opening Angle	Weight (g)	Box (pcs)
G	3D	170-097-888	MPH-30-5TN	160°	0.86	4000

※Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

DETENT HINGE HG-MPS2



- Holds at 3 positions: -10˚ , 120˚ and 170˚ .
- Can be used horizontally or vertically.

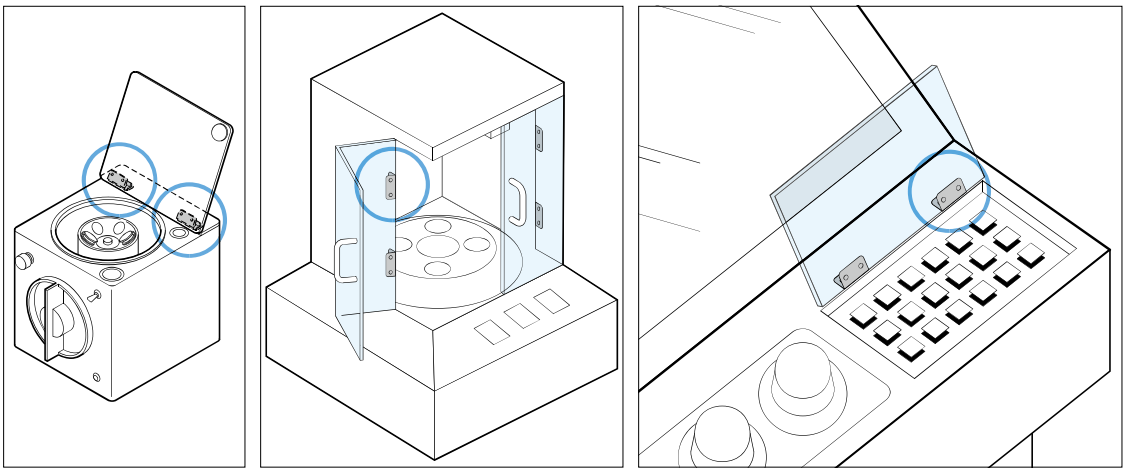
[Applications]
- Small and light doors of medical equipment, measuring equipment, analytical equipment, etc.

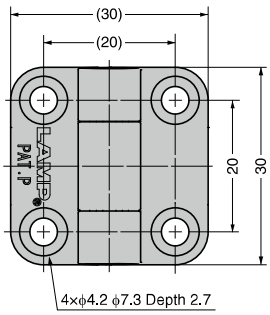
[Remarks]
- Additional stopper is recommended at 0˚ (fully closed) and 170˚ (fully opened).
- For indoor use only. Not suitable for wet applications.
- Do not use impact screwdriver for mounting.

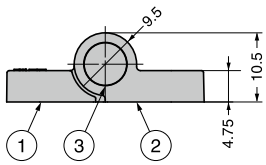
[Recommended Screws]
- Pan head screw M4 or pan head tapping screw 4

Video Link

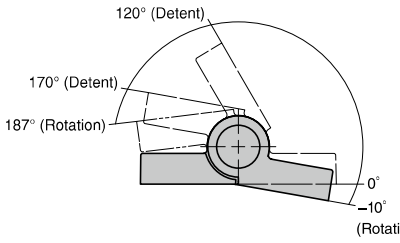
[Installation]

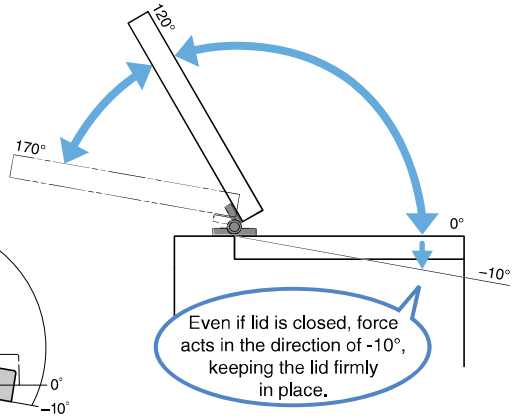






[Rotation and Detent Angle]





No.	Part Name	Material	Colour
①	Fixed Bracket	PBT	Black (BL), White (WT)
②	Movable Bracket		
③	Cap	ABS	

[Criterion of Door or Lid Size] Using 2 pcs vertically]

Width	Height	Weight
Max. 370	Max. 460	Max. 1.0kg

When using horizontally, design the door and lid sizes not to exceed the following torque.

RoHS	CAD	Item Code	Item Name	Colour	Retaining Torque -10˚, 170˚		Retaining Torque 120˚		Weight (g)	Box (pcs)	Carton (pcs)
					N·m/pc	kgf·cm/pc	N·m/pc	kgf·cm/pc			
G	3D	170-023-908	HG-MPS2-BL	Black	0.26	2.65	0.145	1.48	6.9	50	500
G	3D	170-023-909	HG-MPS2-WT	White						50	500

DETENT HINGE HG-YJ50

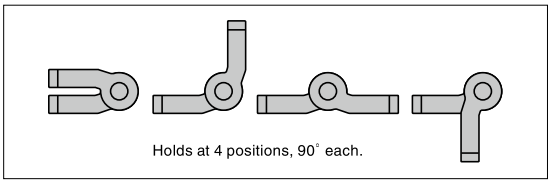


With cap.

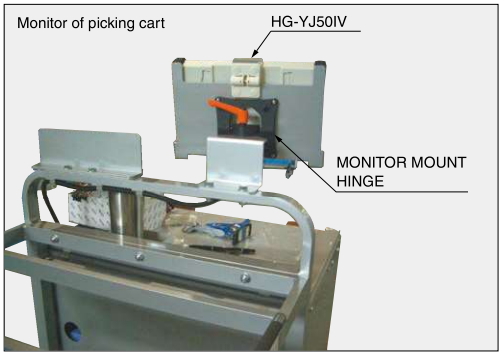
- Holds at 4 positions, 90° each.
- Lightweight plastic hinge.
- Plastic parts and metal parts can be separated for easy recycling.
- Caps for the screw holes are included. Caps (Ivory: KD-772-3I, Black: KD-772-3B) also available separately. 1

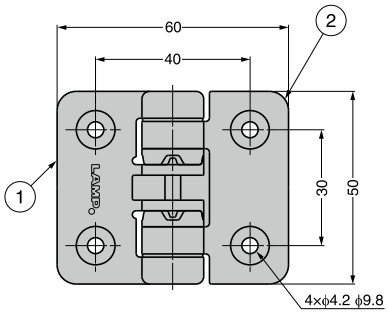
[Applications]

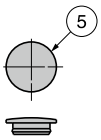
- Plastic doors or small metal doors of medical equipment, measuring equipment, food machinery, etc.

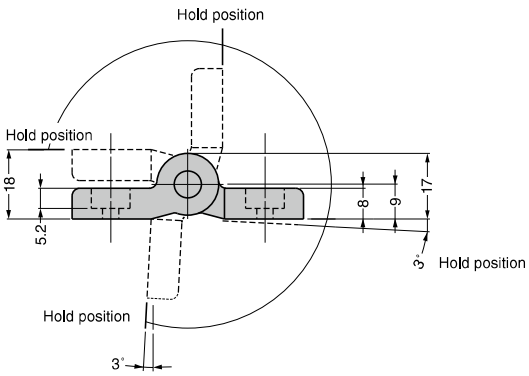


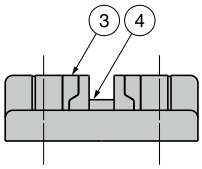
[Application Example]











No.	Part Name	Material	Finish / Colour
①	Body A	POM	Emboss/Ivory (IV), Black (BL)
②	Body B		
③	Stopper Plate	PA	
④	Shaft	Stainless Steel (SUS303)	–
⑤	Cap (included)	PP	Emboss/Ivory (IV), Black (BL)

[Criterion of Door Size] using 2 pcs vertically for plastic doors

Width	Height	Weight
Max. 400	Max. 500	Max. 1.2kg

RoHS	CAD	Item Code	Item Name	Colour	Retaining Torque N·m/pc	Retaining Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-000	HG-YJ50IV	Ivory	Approx. 0.49	Approx. 5	30	20	200
G	3D	170-090-002	HG-YJ50BL	Black				20	200

Refer to 1 : P.1004

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

ANGLE-ADJUSTABLE DETENT HINGE HG-CHJ70

INSTRUCTION



HG-CHJ70WT　　HG-CHJ70BL

- Holds at 4 angles: -3˚, -90˚, 90˚, and 177˚. (Factory setting)
- The holding angle of 90˚ can be switched to 45˚or 135˚.
- Can be used both vertically and horizontally.

[Applications]

- Environmental test equipment, laboratory equipment.

[Remarks]

- Adjustment of detent angles must be done when the hinge is open.
- The retaining torque may vary.

[Recommended Screw]

- Hexagon socket head bolt M5

[Without Covers]

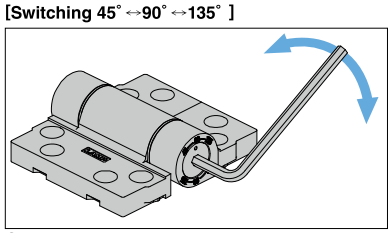


[Application Example]



Detent angle: 45˚

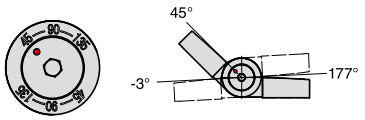
[Switching 45˚↔90˚↔135˚]



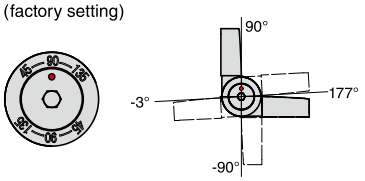
Can be adjusted by a hex key.

[Available Detent Angles]

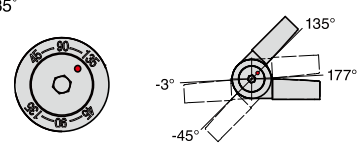
- 45˚

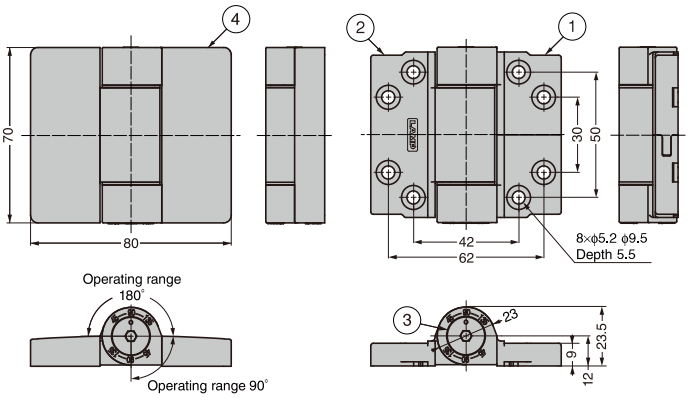


- 90˚ (factory setting)



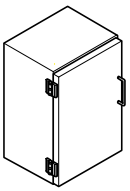
- 135˚





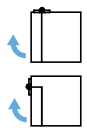
[Available Door Specs] When using two hinges

- Lateral opening



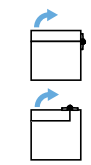
-Weight: Max. 8kg
-Width: Max. 500mm
-Height: Max. 1,000mm

- Upward opening



-Moment: Max. 1.7N·m
-Height: Max. 250mm

- Top opening



-Moment: Max. 2.4N·m
-Height: Max. 300mm

Video Link

No.	Part Name	Material
①	Fixed Bracket	POM
②	Movable Bracket	
③	Shaft	Stainless Steel
④	Cover	ABS

RoHS	CAD	Item Code	Item Name	Colour	Retaining Torque N·m/pc	Retaining Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-043-659	HG-CHJ70BL	Black	2	20.4	115	10	80
G	3D	170-043-660	HG-CHJ70WT	White				10	80

DETENT HINGE HG-FH128




Cover not shown

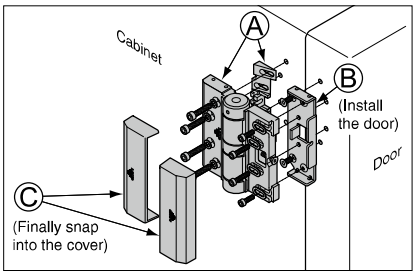
- Holds doors at 60˚ and 120˚ .
- Depth and horizontal adjustment can also be made after installation.
- Covers for the screw holes are included.
- Fluororesin washer at rotation part ensures smooth operation.

[Applications]
- Environmental test equipment, laboratory equipment, etc.

[Parts Included]
- Hexagon socket head cap screw M6×25 (SUS)
- Hexagon socket head cap screw M5×25 (SUS)
- Hexagon socket countersunk head screw M5×14 (SUS)
- Oval washer for M5 (SUS)
- Washer 6 (SUS)

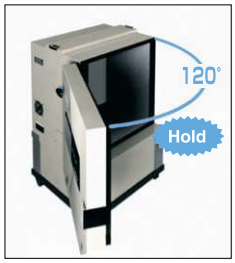
Video Link

[How to Install (Screws Included)]

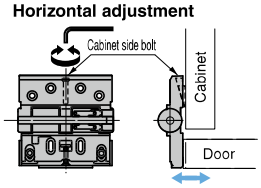


Install by steps Ⓐ～Ⓒ



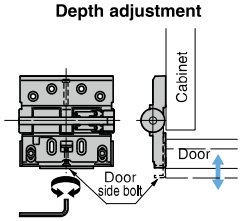


Horizontal adjustment



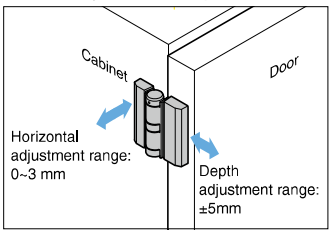
Horizontal adjustment of door can be made by rotating the cabinet-side bolt of hinge.

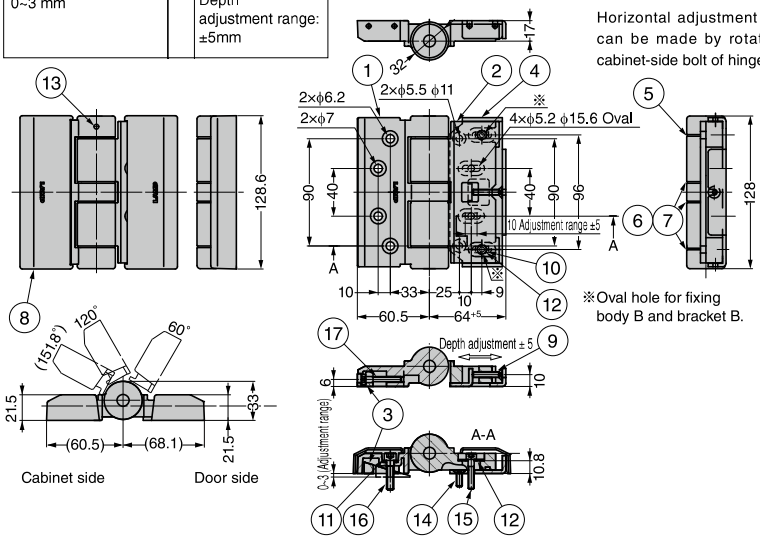
Depth adjustment



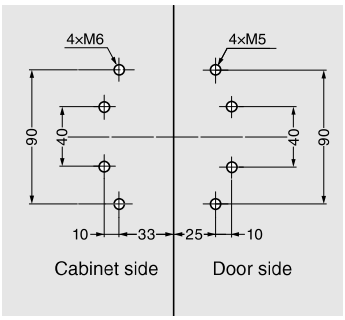
Depth adjustment of door can be made by rotating the door-side bolt of hinge.

[How to Adjust Position (With Cover Removed)]





[Cut Out Dimensions]

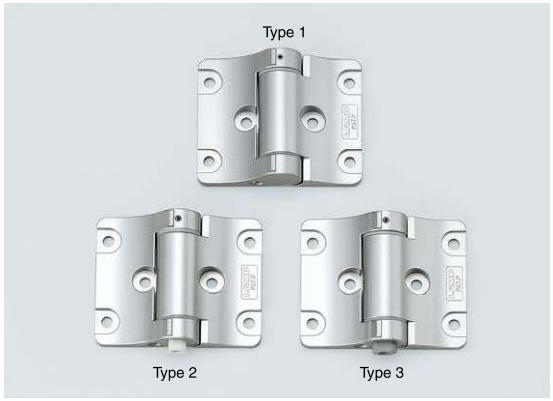


No.	Part Name	Material	Finish
①	Body A	Zinc Alloy (ZDC)	Dull Nickel + Clear Finish
②	Body B		
③	Bracket A		Nickel
④	Bracket B	Stainless Steel (SUS304)	Barrel Polished
⑤	Washer	PTFE	–
⑥		POM	
⑦		PS	
⑧	Cover	AES	Metallic Silver Paint

No.	Part Name	Material	Finish
⑨	Hexagon Socket Countersunk Head Screw M5×25	Stainless Steel	–
⑩	Hexagon Socket Head Cap Screw M5×12		
⑪	Washers 6		
⑫	Oval Washer for M5		
⑬	Spring Pin 4×32		
⑭	Hexagon Socket Countersunk Head Screw M5×14		
⑮	Hexagon Socket Head Cap Screw M5×25		
⑯	Hexagon Socket Head Cap Screw M6×25		
⑰	Hexagon Socket Low Head Screw M5×30		

RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Door Weight kg/Pair	Retaining Torque N·m/Pair	Retaining Torque kgf·m/Pair	Weight (g)	Box (pcs)	Carton (pcs)
GT	3D	170-090-317	HG-FH128	600~900	900~1200	Max. 40	10	102	1500	1	6

DETENT HINGE HG-CSH63 DIGEST

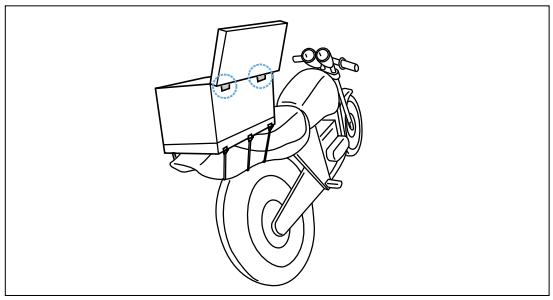


- Detent at both of 0˚and 100˚.
- Also available without damper type.
- Damper works clockwise or counterclockwise.
- Be sure to read the “Cautions” 1 .

Selection Tool

Sasuga-kun

[Installation]



Refer to 1 : P.43

DETENT HINGE HG-YC105

SUS



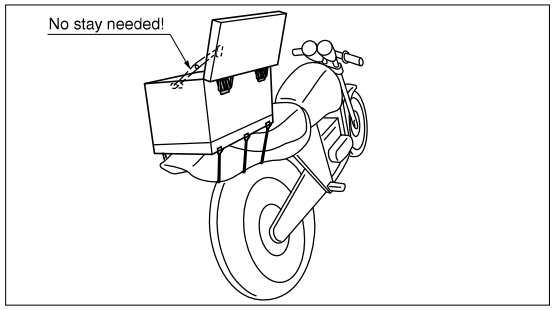
- Holds door open without secondary support.
- Easy installation and no damage to mounting surface with integrated back cover.

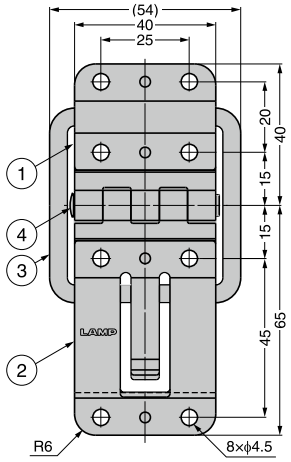
[Applications]
- Motorcycle carrying box, control box, etc.

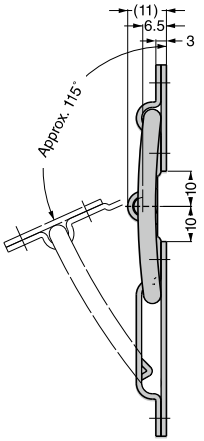
[Remarks]
- Retaining torque varies. Not guaranteed value.
- Confirm with actual item before use.



[Application Example]







No.	Part Name	Material	Finish
①	Body (Fixed Side)	Stainless Steel (SUS304)	Barrel Polished
②	Body (Movable Side)		
③	Stopper		–
④	Shaft		

RoHS	CAD	Item Code	Item Name	Retaining Torque N·m/pc	Retaining Torque kgf·m/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-099-093	HG-YC105	Approx. 1.18	Approx. 12	122	10	100

MULTI ANGLE STAY KA-60 With Locking Mechanism

INSTRUCTION



- Angle adjustment and locking is realised by simple button operation. Suitable for pipe joints for which angle adjustment is required.
- Angle can be adjusted from 0° ~180° by 10° increment.
- Completely locked when your hands are off the release button.

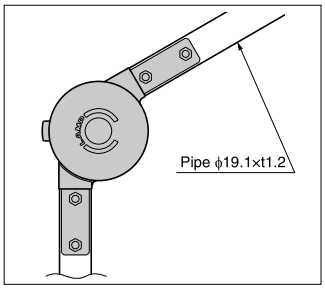
[Remarks]

- Do not forcibly apply force in the locked position.
- Pipe not included.

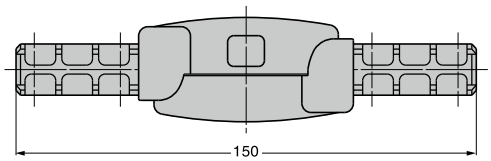
[Installation Example]

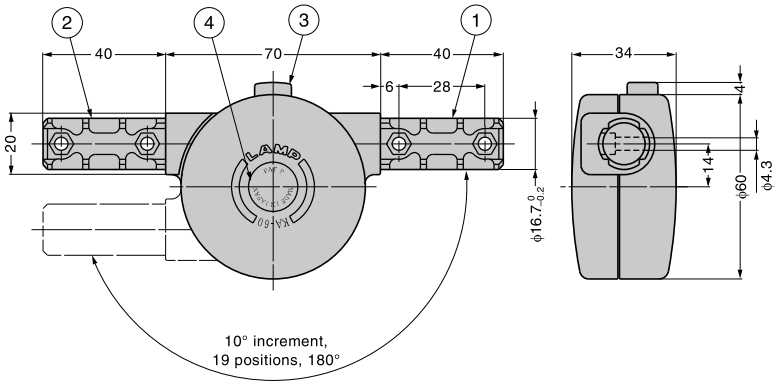




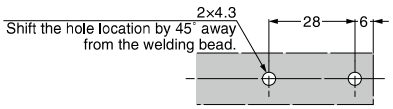


After releasing the lock by pushing the button, angle can be adjusted every 10° .





[Pipe Cut Out Dimensions]



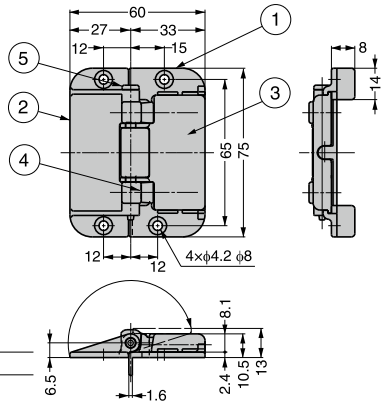
Pipe outer diameter : ϕ19.1
Pipe thickness : t1.2

No.	Part Name	Material	Finish
①	Body A	Aluminium Alloy	Enamel Finish/Ivory
②	Body B		
③	Release Button		Chrome
④	Cap	ABS	Black

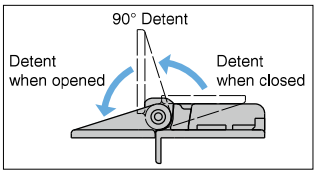
RoHS	CAD	Item Code	Item Name	Pipe	Load Capacity N·m/pc	Load Capacity kgf·m/pc	Weight (g)	Box (pcs)	Carton (pcs)
–	3D	170-890-570	KA-60	ϕ19.1×t1.2	14	1.4	170	6	60

CENTRE HINGE CH-75





- Cam and slide latch provide a detent function in opened and closed positions.
- Cushion function absorbs impact at full opening and unexpected external force.
- Removable hinge pin allows easy installation.
- AS Parts Set for installing to aluminium frame also available. Please contact local representative for more details.



No.	Part Name	Material	Finish / Colour
①	Body A	Zinc Alloy (ZDC)	Nickel (NI), Bronze (GB)
②	Body B		
③	Holder	POM	Brown
④	Latch		Black
⑤	Hinge Pin	Steel (SWCH)	Lubricant Coating/Black

RoHS	CAD	Item Code	Item Name	Finish	Weight (g)	Box (pcs)	Carton (pcs)
–	3D	250-129-208	CH-75NI	Nickel	101	42	168
–	3D	250-120-031	CH-75GB	Bronze	99	42	168

RATCHET HINGE WITH FRICTION HG-RCT12-C



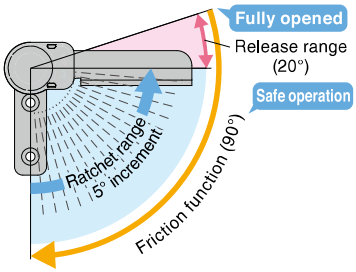
- Ratchet mechanism holds at angles in 5° increment from closed to opened position.
- Lift up to the fully open position to release the ratchet mechanism.
- The friction (resistance) function works even when released for safe operation.

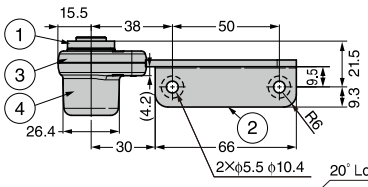
[Applications]

- For angle adjustment of folding table, touch panel, keyboard, etc.

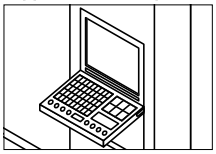
[Remarks]

- Use in pairs.
- Ensure the cabinet has enough rigidity. Otherwise, the ratchet mechanism may not function.
- When the mounting width of hinge is more than 400mm, the ratchet mechanisms may not work simultaneously on the left and right.

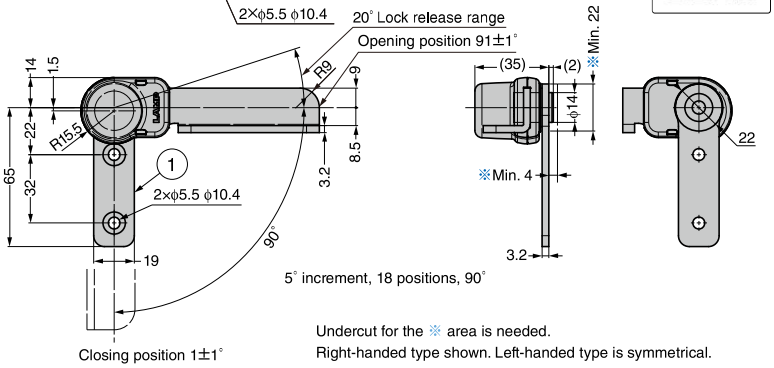




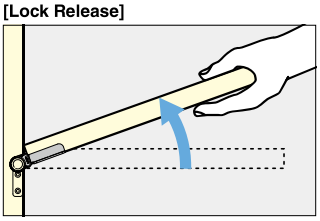
[Application Example]



Video Link



[Lock Release]



Undercut for the ※ area is needed.
Right-handed type shown. Left-handed type is symmetrical.

No.	Part Name	Material	Finish
①	Bracket	Steel (SPCC)	Nickel
②	Arm (Right-handed)		
③	Cover (Right-handed)	PC	Light Grey
④	Cover (Right-handed)		

RoHS	CAD	Item Code	Item Name	Allowable Moment N·m/pair	Allowable Moment kgf·cm/pair	Weight (g)	Box (pairs)	Carton (pairs)
–	3D	170-036-333	HG-RCT12-C	40	408	350	8	32

FOLDING HINGE HG-RCT1S-90 90° Locking

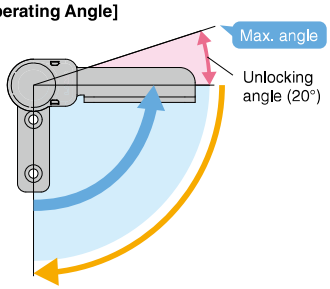


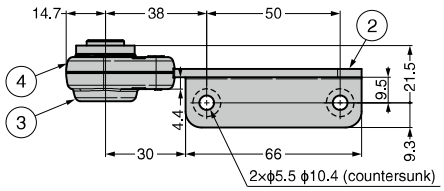
- Locks at 90° . Produces click sound when locked.
- Unlocks when the angle goes over 90° and can be folded.
- Ratchet mechanism allows for high load capacity.
- HG-RCT12-C ratchet hinge with multiple locking angles is also available. 1

[Application]
- Foldable tables and shelves.

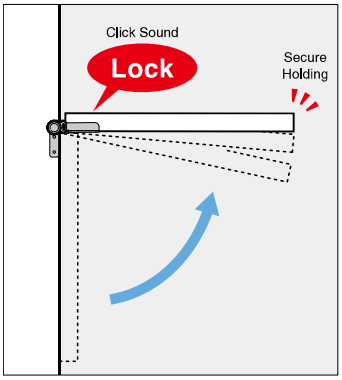
[Remarks]
- Used in pairs. (right and left)
- Make sure the housing has sufficient strength so that the ratchet mechanism can function properly.
- If the length between two hinges is more than 400 mm, the ratchets may not activate at the same time.
- The hinge does not have free-stop mechanism. Please hold a shelf with hands when closing.

[Operating Angle]

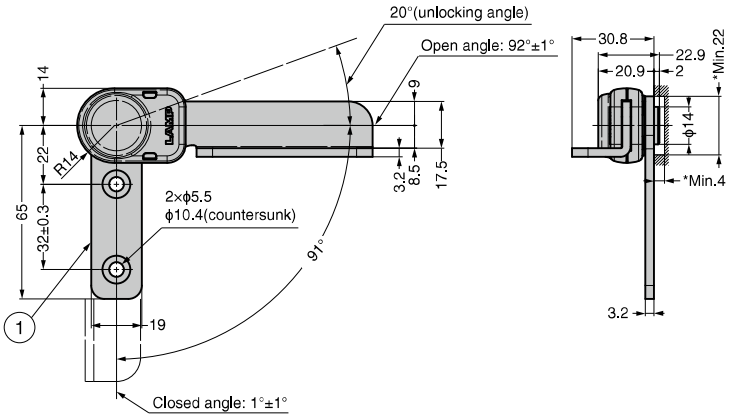




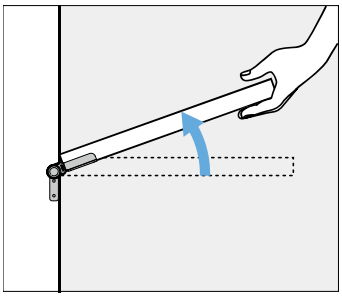
[Lock at 90°]



Provides click sound with ratchet mechanism.



[Unlock]



The lock will be released if the angle is more than 90° .

- Right-handed type is shown. Right and left handed types are symmetrical.
- Make space indicated by * marks when installing.

No.	Part Name	Material	Finish/Colour
①	Bracket	Steel	Nickel
②	Arm		
③	Upper Cover	Polycarbonate (PC)	Light Grey
④	Lower Cover		

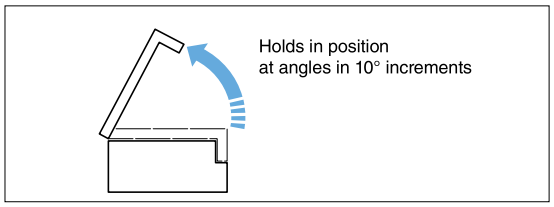
Sold in set of two hinges. (right and left)

RoHS	CAD	Item Code	Item Name	Moment Load Capacity / set		Weight (g)	Box (set)	Carton (set)
				N.m	kgf.cm			
G	3D	170-048-682	HG-RCT1S-90	40	408	310	10	40

Refer to 1: P.144

MULTI ANGLE LOCKING HINGE HG-MA95A





- Easily adjusts the flap angle by toggling the lever.
- Lock allows the hinge to be held in position from 0° to 180° in 10° increments.
- The flap is temporarily unlocked while the lever is pushed.
- The flap stays unlocked when the lever is lifted.
- Both hinge types can be used together.

[Applications]

- Medical equipment, analytical instruments, semiconductor equipment.

[Remarks]

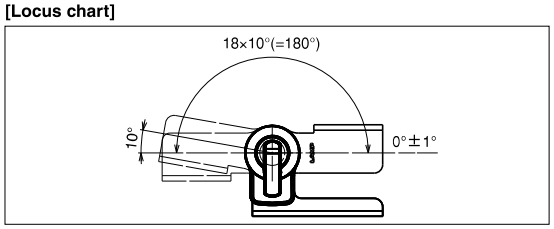
- Be sure to read the “Cautions” 1.

[Recommended screws]

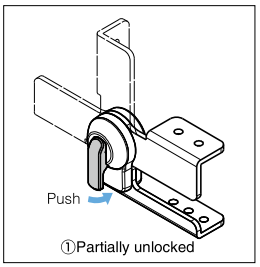
- M5 screw

Video Link

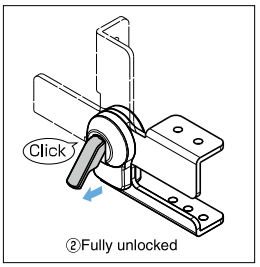
[Locus chart]



[Two ways to unlock]

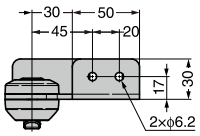


The flap is temporarily unlocked while the lever is pushed.

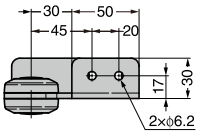


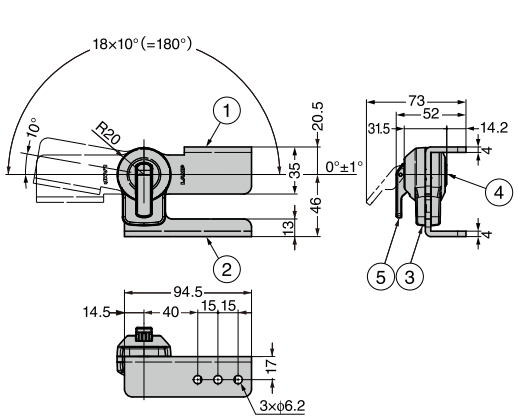
The flap stays unlocked when the lever is lifted.

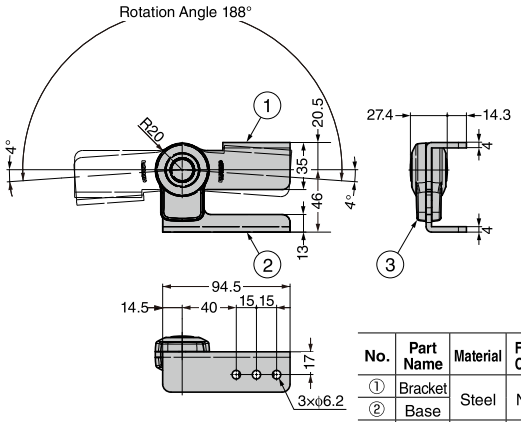
[HG-MA95A-L]



[HG-MA95AF-L]







Left-handed shown. Right-handed is symmetrical.

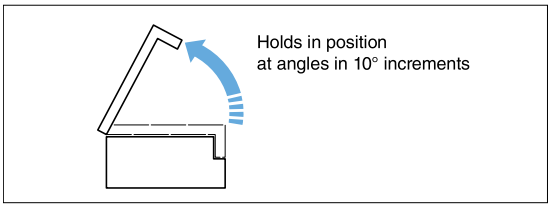
No.	Part Name	Material	Finish/ Colour
①	Bracket	Steel	Nickel
②	Base		
③	Plastic Cover	PC	Black
④	Pin	ABS	
⑤	Lever	PA	Light Gray

RoHS	CAD	Item Code	Item Name	Position	Type	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pc)	Carton (pc)
G	3D	170-043-818	HG-MA95A-R	Right-handed	With lever	Max. 45	Max. 459	351	5	20
G	3D	170-043-819	HG-MA95A-L	Left-handed				351	5	20
G	3D	170-043-822	HG-MA95AF-R	Right-handed	Without lever	–	–	351	5	20
G	3D	170-043-823	HG-MA95AF-L	Left-handed				351	5	20

Refer to 1 : P.43

MULTI ANGLE LOCKING HINGE HG-MA95B





- Easily adjusts the flap angle by toggling the lever.
- Lock allows the hinge to be held in position from 0° to 180° in 10° increments.
- The flap is temporarily unlocked while the lever is pushed.
- The flap stays unlocked when the lever is lifted.
- Both hinge types can be used together.

[Applications]

- Medical equipment, analytical instruments, semiconductor equipment.

[Remarks]

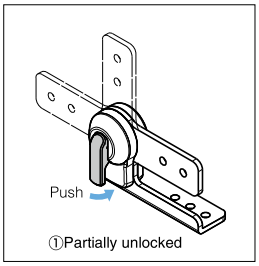
- Be sure to read the "Cautions" 1.

[Recommended screws]

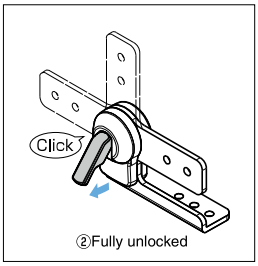
- M5 screw

Video Link

[Two ways to unlock]

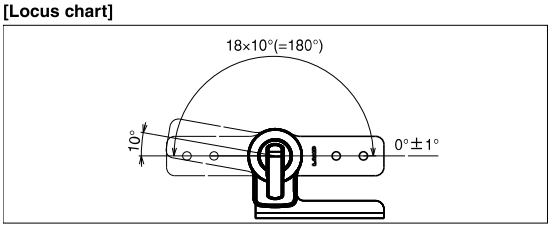


The flap is temporarily unlocked while the lever is pushed.

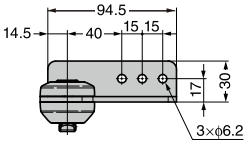


The flap stays unlocked when the lever is lifted.

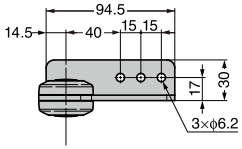
[Locus chart]

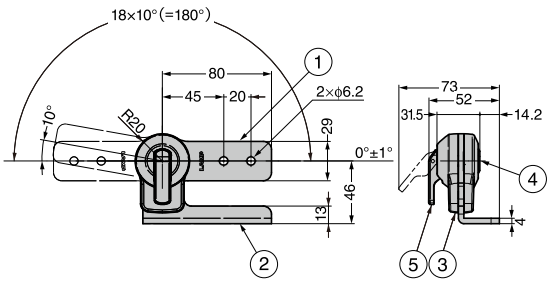


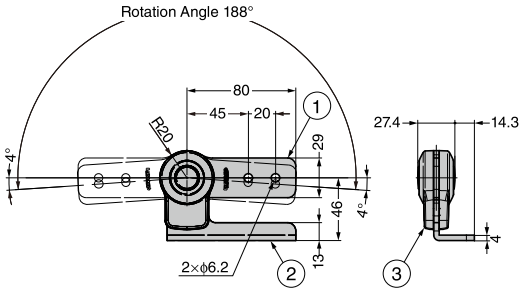
[HG-MA95B-L]



[HG-MA95BF-L]







Left-handed shown. Right-handed is symmetrical.

No.	Part Name	Material	Finish/Colour
①	Bracket	Steel	Nickel
②	Base		
③	Plastic Cover	PC	Black
④	Pin	ABS	
⑤	Lever	PA	Light Gray

RoHS	CAD	Item Code	Item Name	Position	Type	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pc)	Carton (pc)
G	3D	170-043-820	HG-MA95B-R	Right-handed	With lever	Max. 45	Max. 459	305	5	20
G	3D	170-043-821	HG-MA95B-L	Left-handed				305	5	20
G	3D	170-043-824	HG-MA95BF-R	Right-handed	Without lever	–	–	305	5	20
G	3D	170-043-825	HG-MA95BF-L	Left-handed				305	5	20

Refer to 1 : P.43

SWIVEL LOCK MECHANISM LNR Patented Mechanism LOCK'n ROLL Mechanism



Without Holder



With Holder

- Lock the rotation of the device at any angle.
- Just operate the release lever to unlock.
- The outer diameter of inner ring is ϕ60, enabling to make a cable-through-hole of about ϕ40.
- Can be locked and unlocked even during power outages because it is mechanical.
- The release lever can be operated more smoothly with the holder type.

[Specification]

- Shaft (inner ring) is not included.
- Operating temperature: 5°C~35°C
- Storage temperature: -10°C~50°C

[Applications]

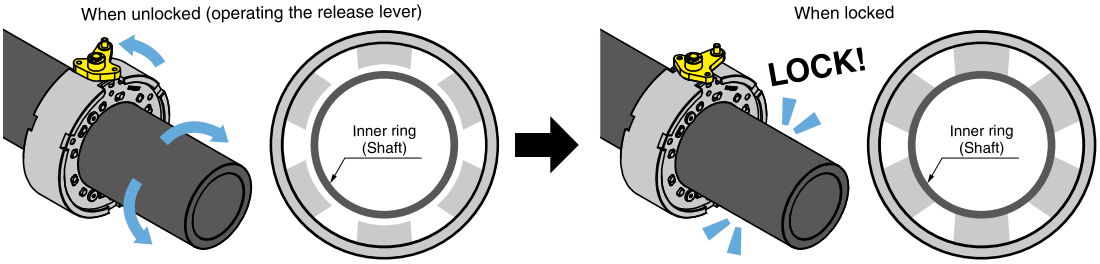
- Medical equipment, ultrasonic diagnostic equipment and devices requiring rotation locks, etc.

[Remarks]

- This mechanism stops the rotation of the shaft. Make sure that no radial thrust load is applied.
- Insert the shaft while unlocking with the release lever.
- Install the outer ring to be coaxial with the inner ring.
- When not using the release lever, return it to the initial position.
- Be sure oil and grease do not adhere to the surface.
- Customer should mount a holder separately when using no-holder type.

[LOCK'n ROLL Mechanism]

The mechanism stops rotation of the inner ring (Shaft).

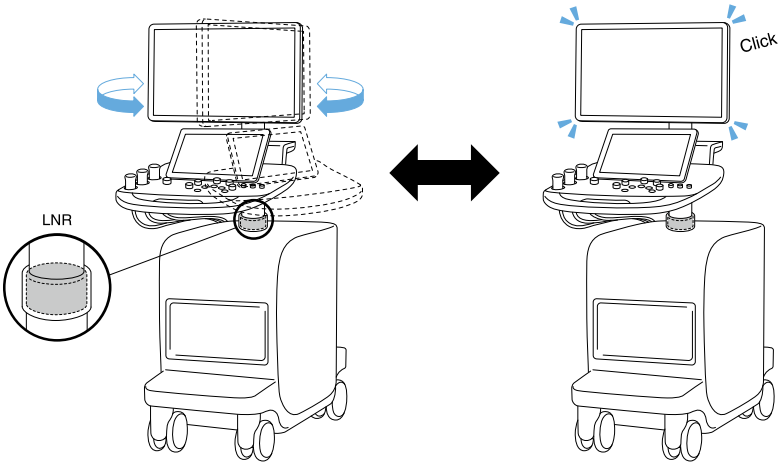


The inner mechanism locks the rotation by pressing.

[Usage Image]

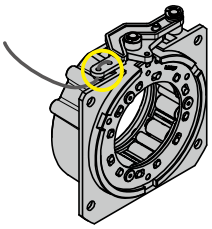
When unlocked: 360° rotates

When locked: be fixed firmly at any angle

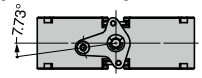


[With the wire attached]

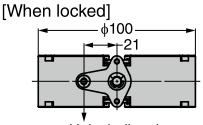
A hole for putting the wire through on the with-holder type.

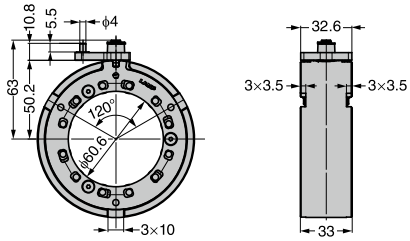


[When unlocked]

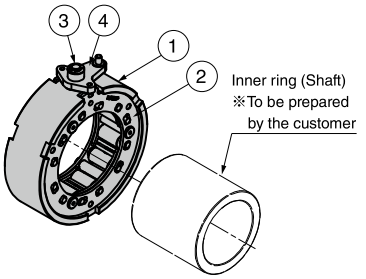


[When locked]



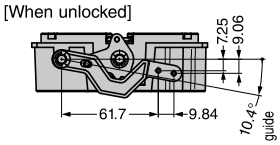


LNR-100-60-T70 (Body only/Without Holder)

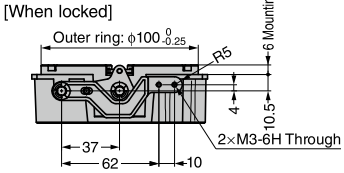


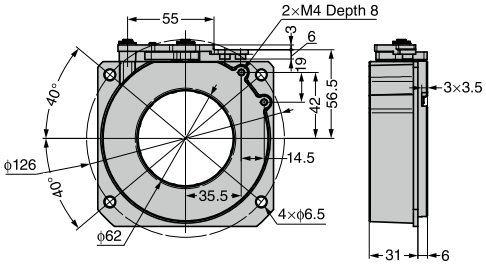
No.	Part Name	Material	Finish
①	Outer ring	Steel	–
②	Retainer	Stainless Steel	Plain
③	Release Lever Shaft		
④	Release Lever	Aluminium Alloy (ADC)	Alodined

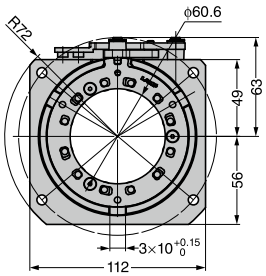
[When unlocked]



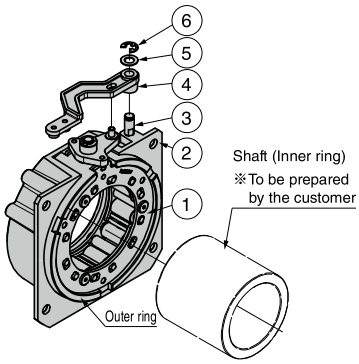
[When locked]







LNR-H100-60-T70 (Body With Holder)

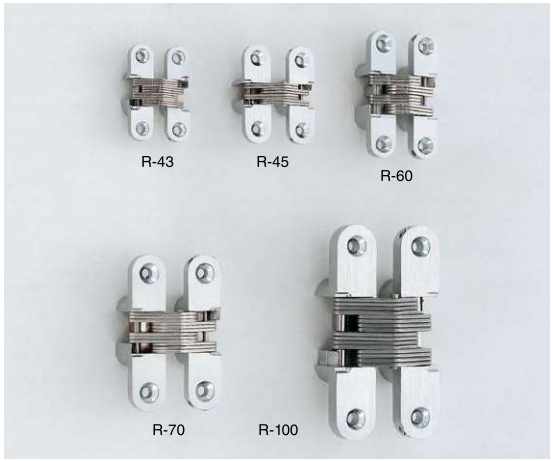


No.	Part Name	Material	Finish
①	Body	–	–
②	Holder	Aluminium Alloy (ADC)	
③	Release Lever Shaft	Stainless Steel	
④	Release Lever	Aluminium Alloy (ADC)	
⑤	Washer	Stainless Steel	Plain
⑥	E-type Retaining Ring Nominal 5		

RoHS	CAD	Item Code	Item Name	Type	Weight (g)
G	3D	170-049-927	LNR-100-60-T70	Without Holder	898
G	3D	170-049-928	LNR-H100-60-T70	With Holder	1075

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

CONCEALED HINGE R



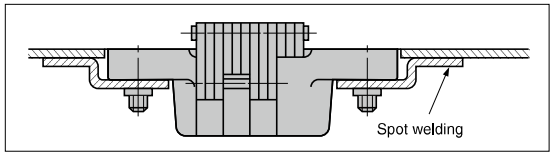
- Stainless steel (SUS304) arm has sufficient strength and superior corrosion resistance.
- R-100 adopts a roller as guide pin, making smooth movement even under high load.
- Can be widely used from wooden doors to sheet metal doors.
- Torque hinge types also available 1 .

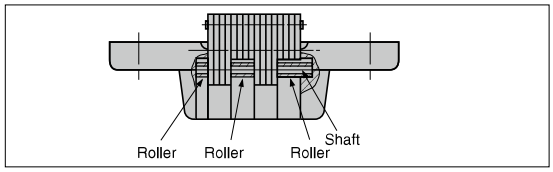
[Remarks]
- Distance to door edge must be less than Xmm.
- Roller is supplied to R-100 only.
- Recommended for use in pairs.

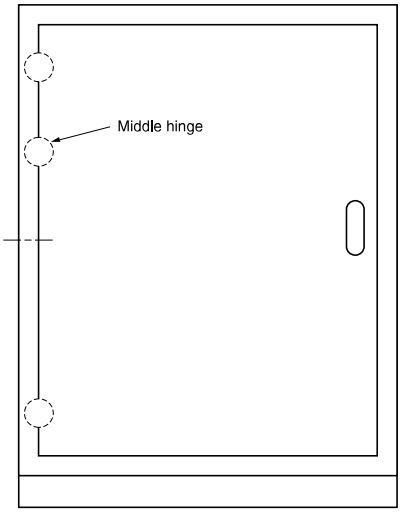
[Parts Included]
- Countersunk head wood screw (SUS)
- Countersunk head tapping screw (SUS) (R-70 only)

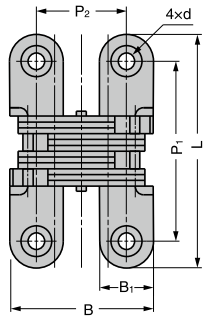
Video Link

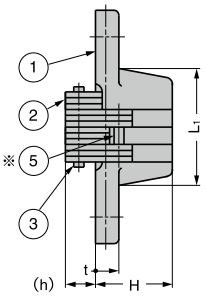
[Metal Door]

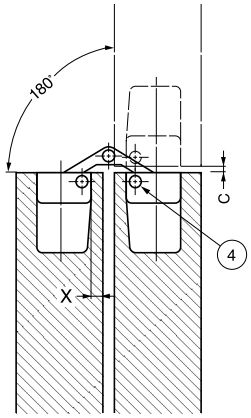












(Reference)
When hanging a door with 3 hinges, a large load is applied to the upper hinge, so the middle hinge is preferably set at about 1/2 of the distance from the midpoint of upper and lower hinges to the upper hinge.

No.	Part Name	Material					Finish
		R-43	R-45	R-60	R-70	R-100	
①	Body	Zinc Alloy					Satin Chrome
②	Arm	Stainless Steel (SUS304)					Plain
③	Shaft	Stainless Steel			Stainless Steel (SUS303)	Stainless Steel	
④	Shaft	Stainless Steel (SUS304)				Steel	
⑤	Shaft						
※	Roller (R-100 only)	–					Nickel

RoHS	CAD	Item Code	Item Name	L	L1	B	B1	P1	P2	H	h	t	d	C	X	Screw	Number of Arms	Door Width	Door Height	Door Weight kg/2 pcs	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-079	R-43	43	22	29	11	32	18	13	5	5	ϕ3.5 ϕ6.2	0.8	2.3	3.1×16	12	Max. 450	Max. 700	Max. 4	180°	37	30	300
G	3D	170-090-084	R-45	45	19	35.7	13		22.7	18.5	6		ϕ3.5 ϕ7		3	3.1×20	8					56	20	200
G	3D	170-090-081	R-60	60	33	35.2		47	22.2		6.5	6.5	ϕ4.3 ϕ8.3	1		3.5×20	12			Max. 7		94	10	100
G	3D	170-095-200	R-70	70	35	42.6	16.1	53	26.6	23	7.3	7	ϕ4.6 ϕ9.1	1.2	3.5	4×25						157	10	–
G	3D	170-095-201	R-100	100	52	53.2	20	80	33.2	27.5	9.5	9.5	ϕ5.3 ϕ10	1.8	4.8	4.5×32	16					342	10	60

Refer to 1 : P.82

CONCEALED HINGE RK-50

SUS



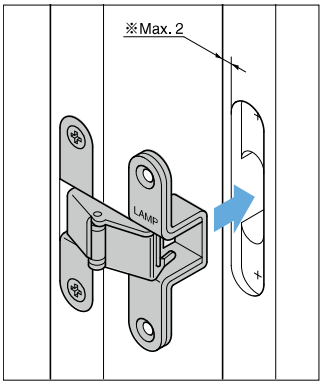
- High corrosion with stainless steel.
- For light door.

[Remarks]

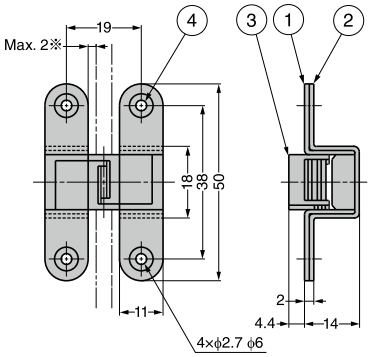
- When increasing the board thickness, be sure to keep the dimensions of ※ marked on bellow drawings and increase the remaining margins on the opposite side.
- Recommended for use in pairs.

[Parts Included]

- Countersunk head wood screw 2.4×13 (SUS)



※Distance to door edge must be less than 2mm.

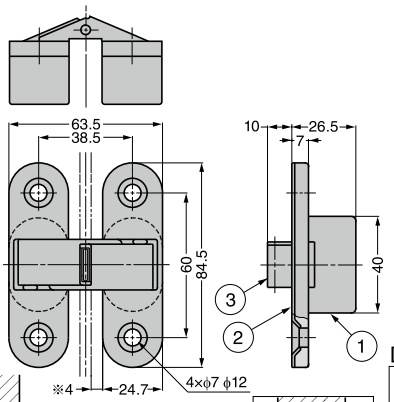


No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Satin
②	Cover		Plain
③	Arm		Satin
④	Eyelet		Plain
–	Other Shaft Parts		

RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Door Thickness	Door Weight kg/2 pcs	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-086	RK-50	Max. 450	Max. 700	Min. 15	Max. 2.6	180°	28	24	240

CONCEALED HINGE INO-66N





- Stainless steel front plate.

[Applications]

- Folding door or window, door of built-in furniture, etc.

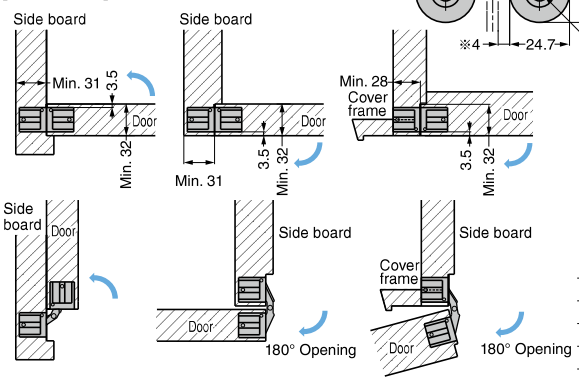
[Remarks]

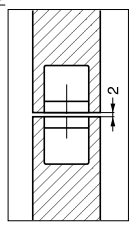
- When using three hinges, install the middle one 200mm below the upper hinge.
- ※Distance to door edge must be less than 4mm.

[Recommended Screws]

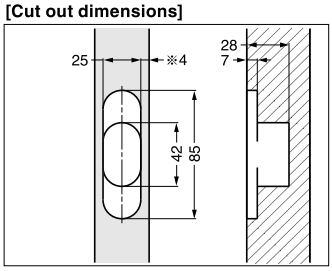
- Countersunk head wood screw 5.8

[Installation]





[Cut out dimensions]



No.	Part Name	Material	Finish
①	Body	PA	–
②	Front Plate	Stainless Steel (SUS304)	Satin
③	Arm		–

RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Door Weight kg/2 pcs	Door Weight kg/3 pcs	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-095-018	INO-66N	Max. 800	Max. 2100	Max. 30	Max. 50	180°	100	24	144

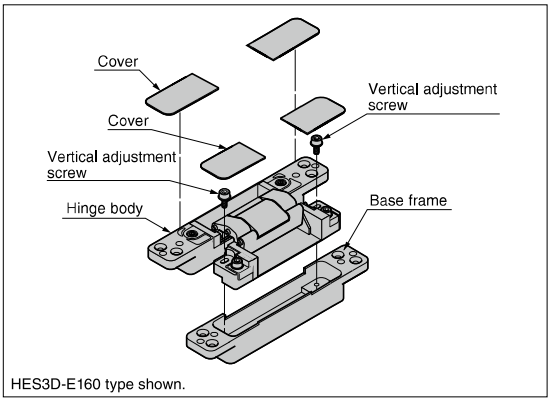
TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

CONCEALED HINGE HES® SERIES



- Hinge is completely hidden when the door is closed. Original design of the door is maintained with improved security.
- Products with 3-way adjustment function (vertical, horizontal, and depth adjustment) and products with temporary holding feature to allow easy door installation are available. Refer to list 1 for applicable products.
- Can be used together with a door damper.
  - ・LAPCON DOOR DAMPER LDD-V 2
  - ・LAPCON DOOR DAMPER LDD-S 3

a. Exploded View



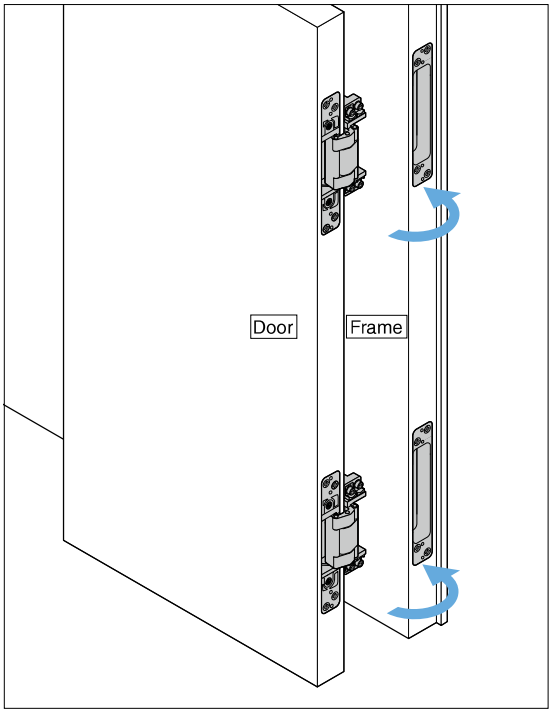
HES3D-E160 type shown.

[Installation and Adjustment Procedure Using Temporary Holding Feature]

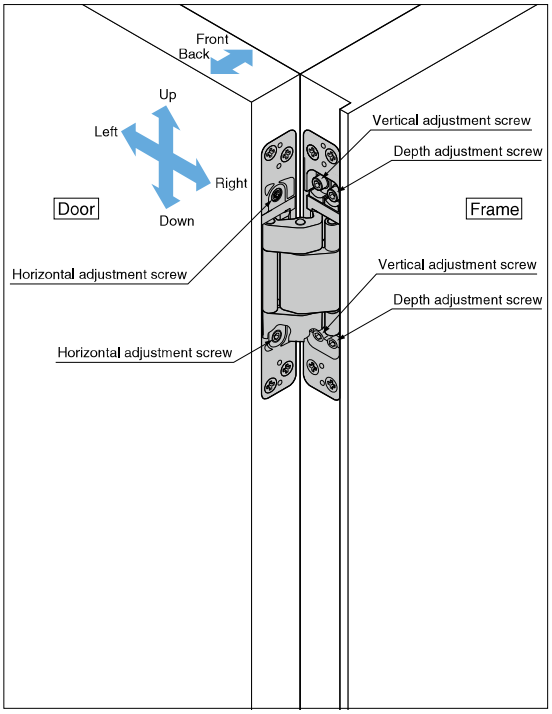
By using the temporary holding feature, you can easily install the door by one person.

1. Remove screw covers and vertical adjustment screws to split the hinge into the hinge body and base frame as shown in Fig.a.
2. Secure the hinge body (the side with LAMP logo) to the bored hole of the door and the base frame to the bored hole of the frame with mounting screws respectively
3. Push the hinge body horizontally into the base frame as shown in Fig. b. The temporary holding feature holds the door in the frame even if you loosen your hands after pushing it in.
4. Replace and temporarily tighten the vertical adjustment screws that were removed in step 1.
5. Adjust the door positions in order one by one.
6. Loosen the vertical adjustment screws by one turn, and adjust the vertical position of the door.
7. After adjusting the vertical position, tighten the vertical adjustment screws.
8. Loosen the depth adjustment screws by one turn, and adjust the depth position of the door.
9. After adjusting the depth position, tighten the depth adjustment screws.
10. Turn the horizontal adjustment screws to adjust the horizontal position of the door. To do this, turn the left and right adjustment screws little by little, respectively. Turning them by force may cause failure or damage.
11. Finally, replace the screw covers to complete.

b. Installation



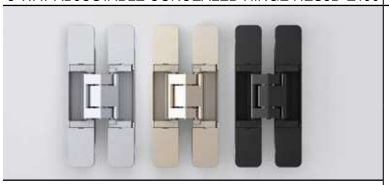
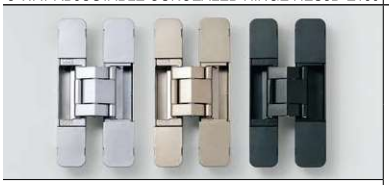
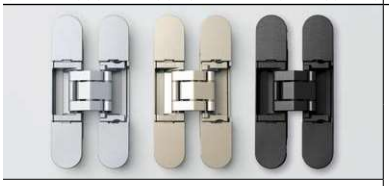
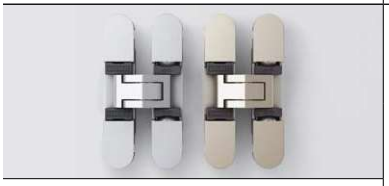
c. Adjustment screws



Refer to 1 : P.153, 2 : P.532, 3 : P.536

※ Adjustment directions are those when door is closed.

[HES Concealed Hinge Series Digest]

Picture, Item Name	Door Width	Door Height	Door Thickness	Door Weight	3-Way Adjustment Function	Temporary Holding Feature	Page
 3-WAY ADJUSTABLE CONCEALED HINGE HES3D-W190	Max. 915	Max. 2440	Min. 42	Max. 100 kg/ 2 pcs Max. 125kg/ 3 pcs	Yes	Yes	P.154
 3-WAY ADJUSTABLE CONCEALED HINGE HES3D-E190	Max. 900	Max. 2400	Min. 38	Max. 100 kg/ 2 pcs Max. 125kg/ 3 pcs	Yes	Yes	P.156
 3-WAY ADJUSTABLE CONCEALED HINGE HES3D-E160	Max. 900	Max. 2400	Min. 36	Max. 45kg/ 2 pcs Max. 60kg/ 3 pcs	Yes	Yes	P.157
 3-WAY ADJUSTABLE CONCEALED HINGE HES3D-120	Max. 900	Max. 2400	Min. 29	Max. 30kg/ 2 pcs Max. 40kg/ 3 pcs	Yes	Yes	P.158
 3-WAY ADJUSTABLE CONCEALED HINGE HES3D-90	Max. 600	Max. 1500	Min. 23	Max. 12kg/ 2 pcs Max. 16kg/ 3 pcs	Yes	Yes	P.161
 3-WAY ADJUSTABLE CONCEALED HINGE HES3D-70	Max. 600	Max. 1200	Min. 19	Max. 9kg /2pcs Max. 12kg /3pcs	Yes	Yes	P.163
 3-WAY ADJUSTABLE CONCEALED HINGE HES3D-V135LGR	Max. 900	Max. 2400	Min. 30	Max. 40kg/ 2 pcs Max. 55kg/ 3 pcs	Yes	Yes	P.164
 3-WAY ADJUSTABLE CONCEALED HINGE HES2S-140-A125	Max. 900	Max. 2700	Min. 38	Max. 50kg/ 2 pcs Max. 65kg/ 3 pcs	Yes	Yes	P.165

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

3-WAY ADJUSTABLE CONCEALED HINGE HES3D-W190 Wide Throw

INSTRUCTION HEX KEY


Silver Champagne Gold

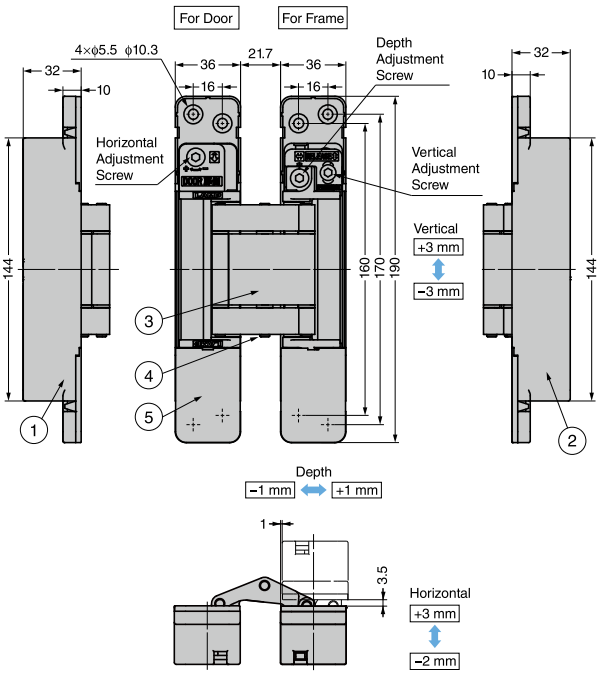

Black Nickel

- Has a long arm for a wider throw. This allows for use on clad and thick doors.
- The small bore depth allows for easy mortising of doors and frames.
- Vertical, horizontal and depth adjustments are available.
- Easy and quick installation features:
  - Can separate into two parts during installation.
  - Can be provisionally hung on doors before fixing screws.
- Custom colours are available.
- Replacement screw covers are also available. Please contact us.

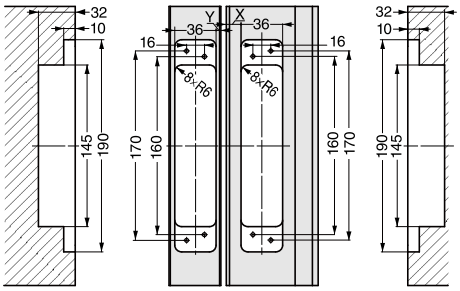
[Parts Included]
- Cross-recessed countersunk tapping screw 5 × 30 (8 pcs / hinge) stainless steel
- Hex key 4
- Cutout template

[Optional Parts]
- Installation jig HES3D-W190-TMP
- Stainless steel screw cover (made to order)

Selection Tool
Hinge Selection

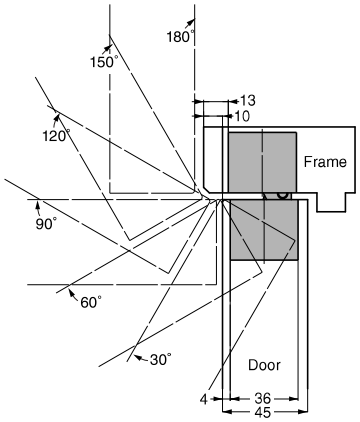


[Cut Out Dimension]



Please drill prepared holes for the tapping screws if the optional jig (HES3D-W190-TMP) is not used.

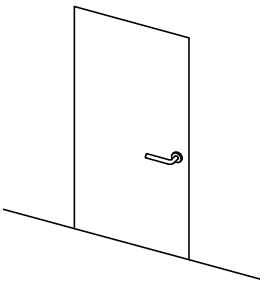
[Locus Chart]

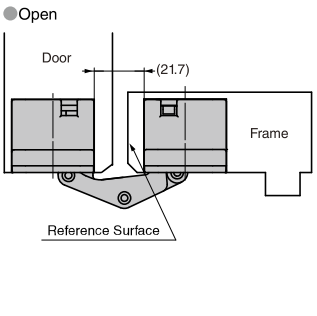


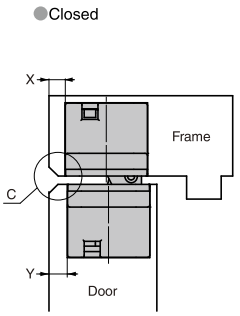
The example drawing shows the case that there is a step of 10 mm between the door and the frame.

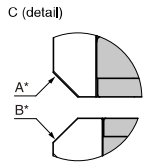
No.	Part Name	Material	Finish/Colour			
			DC	DN	BL	PN
①	Body	Zinc Alloy (ZDC)	Satin	Nickel	Enamel Black	Polished Nickel
②	Base Frame					
③	Arm	Aluminium Allloy				
④	Shaft	Stainless Steel	Plain	Plain	Plain	Plain
⑤	Screw Cover	ABS	Silver	Champagne Gold	Black	Polished Nickel

[Flush Installation]





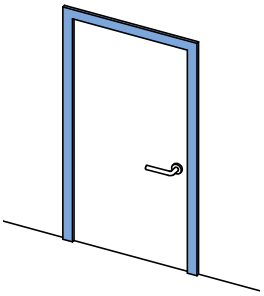




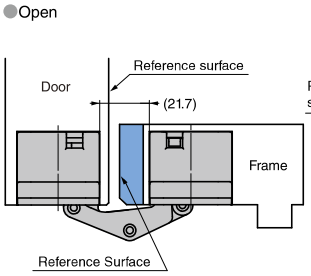
* Chamfering is required depending on clearance for proper door motion.

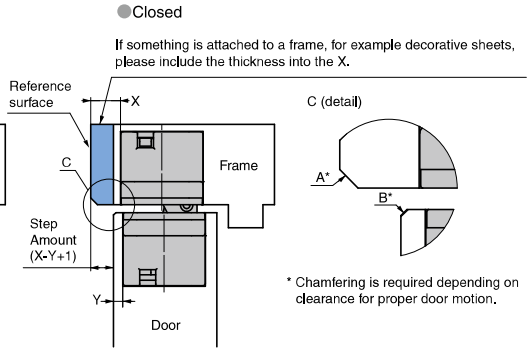
Y	B	X	A
Door Clearance	Door Chamfering	Frame Clearance	Frame Chamfering
4 and under	0	3 and under	0
5	1	4	1
6	2	5	2
7	3	6	3
8	4	7	4
9	6	8	6

[Cladded Installation]



Available on doors which are not aligned flush to the wall or frame.





* Chamfering is required depending on clearance for proper door motion.

Y	B	X	A	X-Y+1
Door Clearance	Door Chamfering	Frame Clearance	Frame Chamfering	Step Amount
3	0	3 to 12	0	1 to 10
		13	1	11
		14	2	12
		15	4	13
4	1	3 to 10	0	0 to 7
		11	1	8
		12	2	9
		13	3	10
		14	4	11
5	2	3 to 6	0	-1 to 2
		7	1	3
		8	2	4
		9	3	5
		10	4	6
	3	11	4	7
		12	5	8
		13	6	9

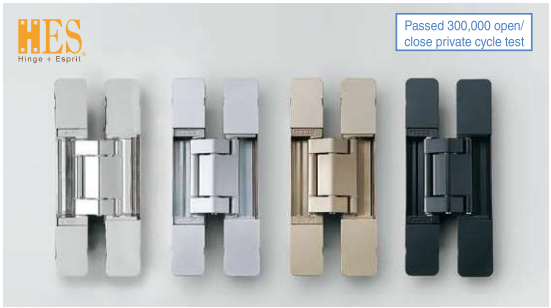
Y	B	X	A	X-Y+1
Door Clearance	Door Chamfering	Frame Clearance	Frame Chamfering	Step Amount
6	3	3 to 6	0	-2 to 1
		7	1	2
		8	2	3
	4	9	3	4
		10	4	5
		11	5	6
		12	6	7
7	5	3 to 6	0	-3 to 0
		7	1	1
		8	2	2
		9	3	3
		10	5	4
		11	7	5
8	6	3 to 6	0	-4 to -1
		7	1	0
		8	3	1
		9	5	2
		10	7	3

RoHS	CAD	Item Code	Item Name	Colour	Door Size			Load Capacity				Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
					Width	Height	Thickness	N/2pcs	kgf/2pcs	N/3pcs	kgf/3pcs				
G	3D	170-045-738	HES3D-W190DC	Silver	Max. 915	Max. 2440	Min. 42	981	100	1230	125	180°	-	2	12
G	3D	170-045-739	HES3D-W190DN	Champagne Gold										2	12
G	3D	170-045-740	HES3D-W190BL	Black										2	12
G	3D	170-047-904	HES3D-W190PN	Nickel										2	12

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

3-WAY ADJUSTABLE CONCEALED HINGE HES3D-E190

INSTRUCTION HEX KEY



- Max. Door Weight: 100kg with 2 pcs, 125kg with 3 pcs.
- Small bore depth for compact assembly.
- 3-way adjustment function allows vertical, horizontal, and depth adjustment after hinge installed.
- Easy installation: Hinge can be split into the door side and the frame side and has temporary door holding feature.
- Order-made colour available.

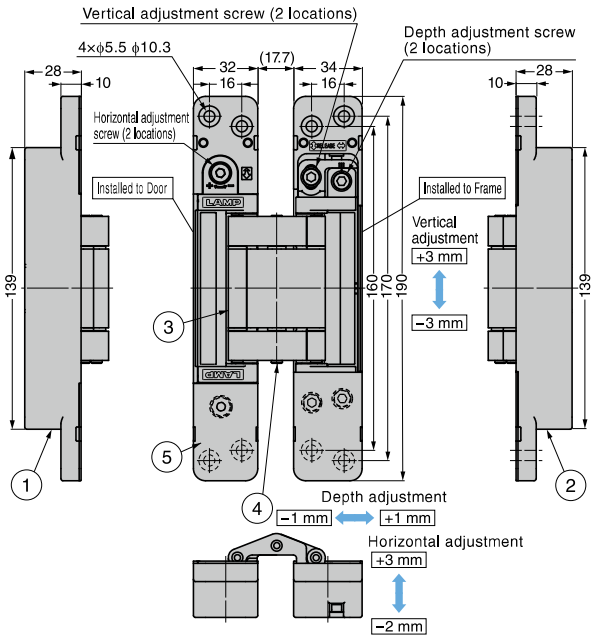
[Parts Included]
- Countersunk head tapping screw 5×30 (8 pcs/hinge) SUS
- Hex key 4

[Sold Separately]
- Installation template HES3D-E190-TMP 3

※ Can be reused, so door and frame can be easily cut out with a router.

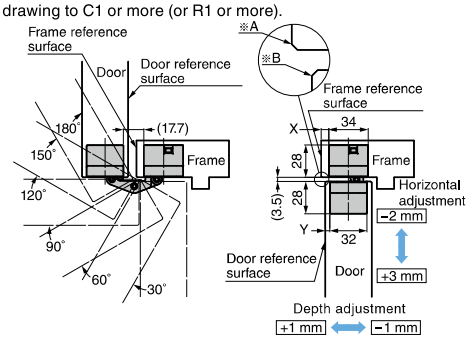
[Remarks]
- Can be used with Sugatsune door damper/door closer shown below. Please check and follow product specifications.
  - ・LAPCON DOOR DAMPER LDD-S 1
  - ・LAPCON DOOR DAMPER LDD-V 2
  - ・LAPCON DOOR CLOSER LDC-N2
- Using with other door closers might lead to hinge damage.
- For using Sugatsune door closer, please install it separately at the stop position.

Figure below shows the state with the upper screw covers removed.



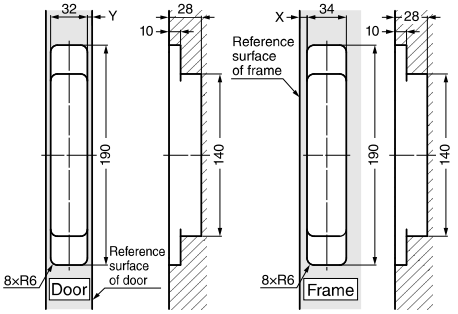
[Locus Chart]

Please process the part (corner of door/frame) of ※ marked on the drawing to C1 or more (or R1 or more).



Y: Door machining margin	B: Door chamfering	X: Frame machining margin	A: Frame chamfering
4 and under	1	6.5 and under	1
	2	7	2
		8	3
5	3	6.5 and under	2
		7	3
		8	4

[Cut Out Dimensions]



Selection Tool — Hinge Selection

Video Link

Video Link

No.	Part Name	Material	Finish / Colour			
			DC	DN	BL	NI
①	Body	Zinc Alloy (ZDC)	Satin Chrome	Satin Nickel	Black	Nickel
②	Base Frame					
③	Arm	Aluminium Alloy				
④	Shaft	Stainless Steel	Plain	Plain	Plain	Plain
⑤	Cover (2 pairs)	ABS	Silver	Champagne Gold	Black	Nickel

RoHS	CAD	Item Code	Item Name	Colour	Door Specs					Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
					Width	Height	Thickness	Weight kg/2pcs	Weight kg/3pcs				
G	3D	170-025-498	HES3D-E190DC	Silver	Max. 900	Max. 2400	Min. 38	Max. 100	Max. 125	180°	1100	2	12
G	3D	170-025-499	HES3D-E190DN	Champagne Gold								2	12
G	3D	170-025-539	HES3D-E190BL	Black								2	12
G	3D	170-033-568	HES3D-E190NI	Nickel								2	12

Refer to 1 : P.536, 2 : P.532, 3 : P.167

3-WAY ADJUSTABLE CONCEALED HINGE HES3D-E160

INSTRUCTION HEX KEY



- Shallow drilling depth enables easy drilling of the door and frame.
- Three-way adjustment feature enables fine adjustment up, down, left, right, forward and back.
- The hinge can be divided between the door and frame and the door can be temporarily fastened to the frame, making it easy to hang the door.
- The structure is designed to prevent the door from sagging.
- Screw covers can be purchased separately in the event that the original covers are broken or lost. Contact us for details.

[Remarks]

- Read all remarks on handling thoroughly before use.
- When using with a door damper and/or closer, select the LAPCON LDD-S Door Damper, LAPCON LDD-V Door Damper.
- Select a door weight within a range satisfying the conditions of both the hinge and the door damper and/or closer.
- Some closers may cause the door to move awkwardly or not close fully. Test the product before purchase.
- When using a closer with a stopper, be sure to use a door stopper too (floor mounting type, wall mounting type, etc.). Install the door stopper in a position further forward than the stopper of the closer, and between the centre and end of the door.

[Parts Included]

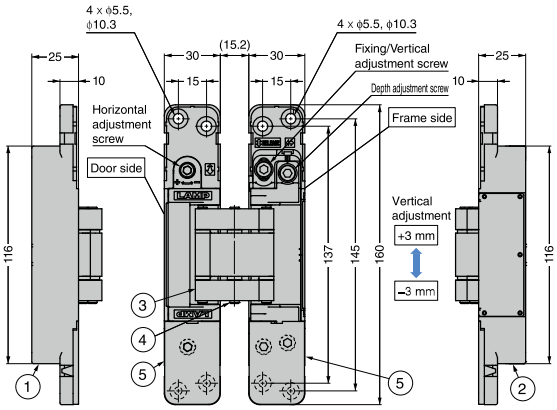
- Size 5 x 25 cross-recessed flat head tapping screws (stainless steel) (8 screws per hinge)
- Nominal size 4 hex bar spanner

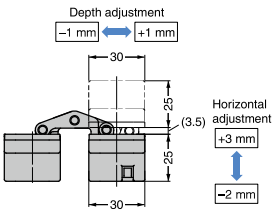
Selection Tool

Hinge Selection

Video Link

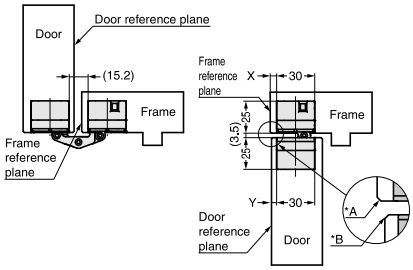
This figure shows this product with the upper screw cover removed.





No.	Part Name	Material	Finish/Colour		
			DC	DN	BL
①	Body	Zinc Alloy (ZDC)	Satin Chrome	Satin Nickel	Baked Enamel Finish/ Black
②	Base Frame				
③	Arm	Aluminium Alloy			
④	Shaft	Stainless Steel	Plain	Plain	Plain
⑤	Screw Covers	ABS	Silver	Champagne Gold	Black

[Installation Drawing]

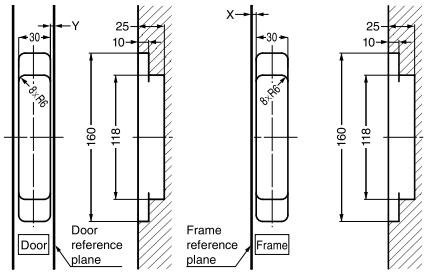


*The door and frame need to be chamfered based on the machining margin.

Y: Door machining margin	B: Door chamfering	X: Frame machining margin	A: Frame chamfering
4 and under	1	5 and under	1
4 and under	2	6	2
4 and under	2	7	3
5	3	5 and under	3
5	3	6	4

(Reference values)

[Cut Out Dimensions]



RoHS	CAD	Item Code	Item Name	Colour	Door Specs			Load Capacity				Opening Angle
					Width	Height	Thickness	N/2pcs	kgf/2pcs	N/3pcs	kgf/3pcs	
G	3D	170-041-454	HES3D-E160DC	Silver	Max. 900	Max. 2400	Min. 36	539	55	686	70	180°
G	3D	170-041-455	HES3D-E160DN	Champagne Gold								
G	3D	170-041-456	HES3D-E160BL	Black								

3-WAY ADJUSTABLE CONCEALED HINGE HES3D-120

INSTRUCTION HEX KEY



- Small bore depth for compact assembly.
- Black colour is newly launched.
- 3-way adjustment function allows vertical, horizontal, and depth adjustment after hinge installed.
- Easy installation: Hinge can be split into the door side and the frame side and has temporary door holding feature.
- Order-made colour available.

[Remarks]

- Can be used with Sugatsune door damper/door closer shown below. Please check and follow product specifications.
  - ・LAPCON DOOR DAMPER LDD-S 1
  - ・LAPCON DOOR DAMPER LDD-V 2
  - ・LAPCON DOOR CLOSER LDC-N2
- Using with other door closers might lead to hinge damage.
- We do not recommend to use with concealed door closer.
- When used in combination with door restrictors, please use HES3D-120-A100 instead. (New product catalogue page: F22)

[Parts Included]

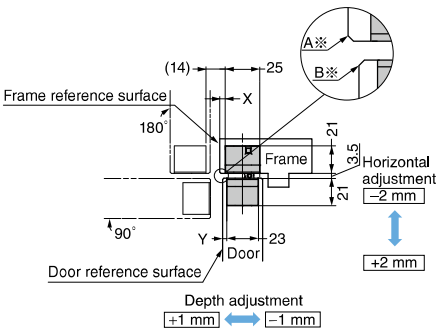
- Countersunk head tapping screw 5×20 (4 pcs/hinge) SUS
- Hex key 3
- Cutout template

[Sold Separately]

- Installation template HES3D-120-TMP 3
  ※Can be reused, so door and frame can be easily cut out with a router.

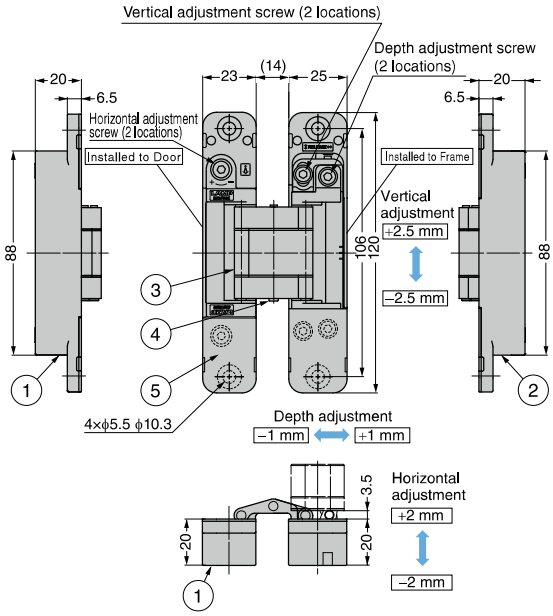
[Locus Chart]

Please process the part (corner of door/frame) of ※ marked on the drawing to C1 or more (or R1 or more).

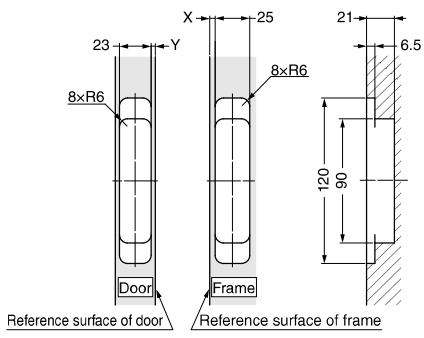


Y: Door machining margin	B: Door chamfering	X: Frame machining margin	A: Frame chamfering
4 and under	1	5 and under	1
	2	6	2
		7	
5	3	5 and under	3

Figure below shows the state with the upper screw covers removed.



[Cut Out Dimensions]



Selection Tool
Hinge Selection
Video Link

No.	Part Name	Material	Finish / Colour		
			DC	DN	BL
①	Body	Zinc Alloy (ZDC)	Satin Chrome	Dull Nickel	Black Enamel Finish
②	Base Frame				
③	Arm				
④	Shaft	Stainless Steel	–	–	–
⑤	Cover (2 pairs)	ABS	Satin Chrome	Satin Nickel	Black

RoHS	CAD	Item Code	Item Name	Colour	Door Width	Door Height	Door Thickness	Door Weight kg/2 pcs	Door Weight kg/3 pcs	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-022-086	HES3D-120DC	Silver	Max. 900	Max. 2400	Min. 29	Max. 30	Max. 40	180°	410	2	24
G	3D	170-022-087	HES3D-120DN	Champagne Gold							415	2	24
G	3D	170-022-088	HES3D-120BL	Black							403	2	12

Refer to 1 : P.536, 2 : P.532, 3 : P.167

GLASS DOOR BRACKET HES3D-G120BKT

INSTRUCTION

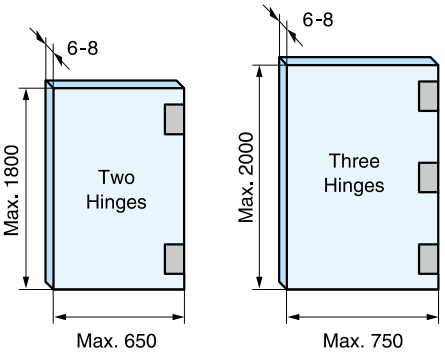


- Allows the HES3D-120 hinge 1 to be installed on glass doors.
- The silver and gold types come with screw covers in the same colours. For the black type, please use the ones included with HES3D-120BL.

[Parts Included]

- Hexagon scoket countersunk head screw M5 × 12
  Countersunk head screw M4 × 12
- Hex key (size: 3)

[Door Sizes and Number of Hinges]



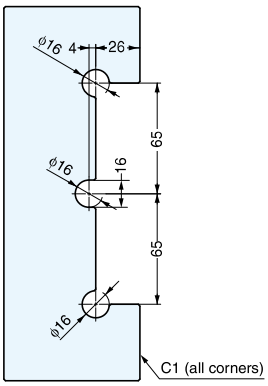
[Component Parts]

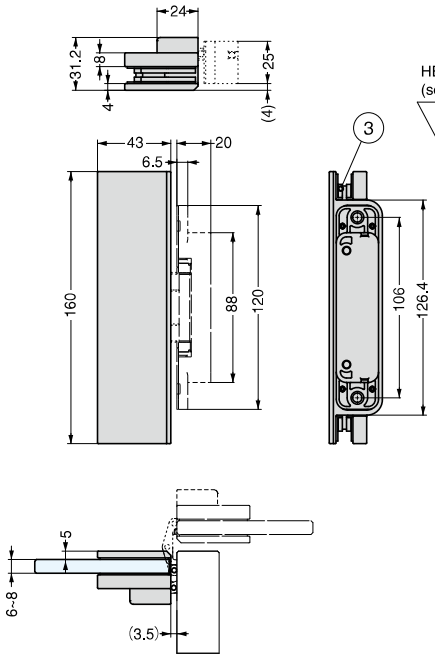


[Installation on Glass]



[Cut Out Dimensions]





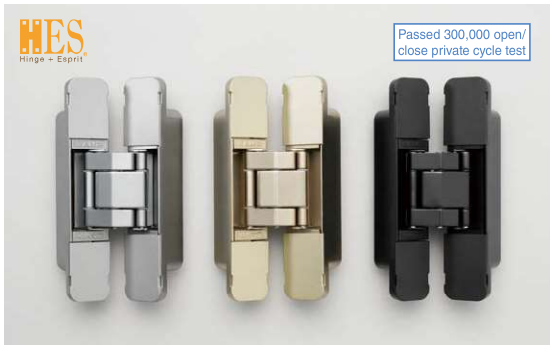
No.	Part Name	Material	Finish		
			CR	GP	BL
①	Body	Zinc Alloy (ZDC)	Chrome	24K Gold Plating	Black Enamel
②	Back Plate				
③	Gasket	Chloroprene Rubber (CR)	–	–	–
④	Screw Cover	ABS	Chrome	24K Gold Plating	–
⑤	Hexagon Socket Countersunk Head Screw M5 x 14	Steel			Black Paint

RoHS	CAD	Item Code	Item Name	Colour	Glass Thickness	Box (pcs)	Carton (pcs)
G	3D	170-043-469	HES3D-G120BKT-CR	Silver	6-8	2	12
G	3D	170-043-470	HES3D-G120BKT-GP	Gold		2	12
G	3D	170-043-471	HES3D-G120BKT-BL	Black		2	12

Refer to 1 : P.158

3-WAY ADJUSTABLE CONCEALED HINGE HES3D-120-A100 100˚ Opening

INSTRUCTION HEX KEY



- Can limit opening angle when used in combination with door restrictors.
- The small bore depth (21 mm) allows for easy mortising of doors and frames.
- Vertical, horizontal, and depth adjustments are available even post installation.
- Easy and quick installation features:
  - Can separate into two parts during installation. (One is for doors. The other is for frames.)
  - Can be provisionally hung on doors before fixing the screws.

[Remarks]

- Please use with door restrictors or door stoppers to prevent doors from opening over 100˚.
- When using with door dampers or door closers, please chose from the LDD-S, LDD-V, and LDC-N2. Please note that the door weight should meet moment conditions of both door closers and door dampers.
- Please note that there is a possibility that the hinge will be damaged or will not close fully depending on the door closers used. Please confirm in advance
- When using a concealed door closers, the HES3D-E160 is recommended.

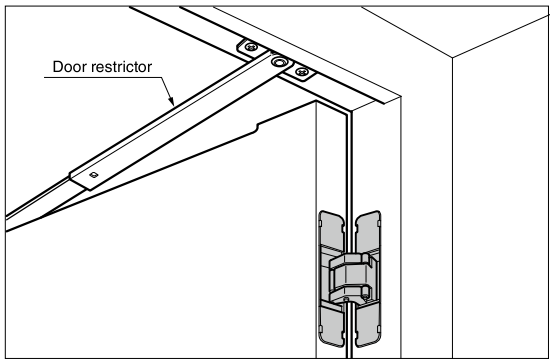
[Parts Included]

- Cross-recessed countersunk tapping screw 5×20 4 pcs (made of stainless steel)
- Hex key spanner 3

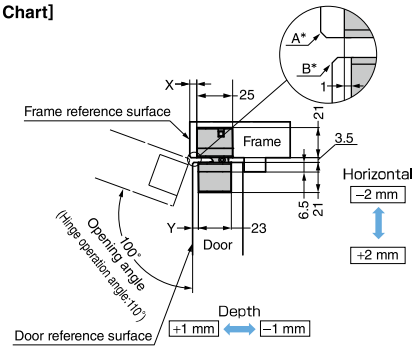
[Optional Parts]

- HES3D-120TMP, installation template 1
  (This reusable jig allows for easy mortising of doors and frames using routers.)
- HES3D-120BKT, bracket for sheet metal 2

[Using with a Door Restrictor]

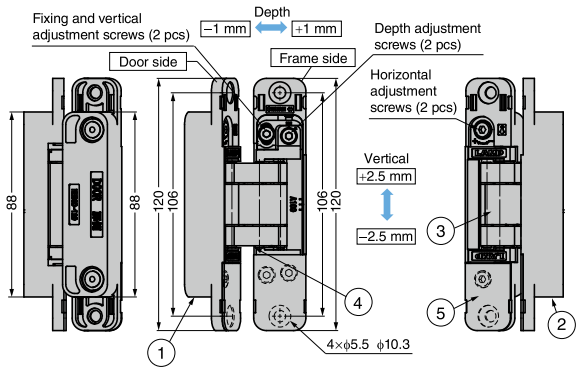


[Locus Chart]



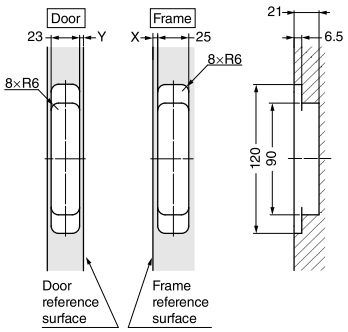
Y: Door Clearance	B: Door Chamfering	X: Frame Clearance	A: Frame Chamfering
4	1	5	1
	2	6	2
		7	3
5	3	5	

The table above shows the clearance and chamfering required for the door to open properly.



*The upper screw covers are removed in the drawing above.

[Cut Out Dimensions]



Selection Tool
Hinge Selection

Video Link

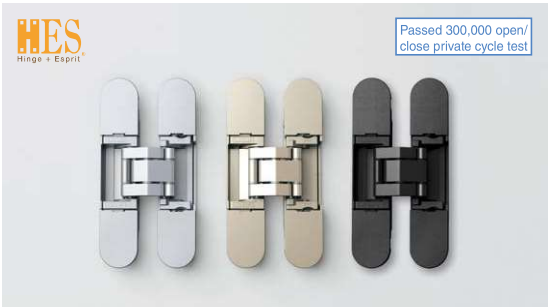
No.	Part Name	Material	Finish/Colour		
			DC	DN	BL
①	Body	Zinc Alloy (ZDC)	Satin Chrome	Satin Nickel	Black
②	Base Frame				
③	Arm				
④	Shaft	Stainless Steel	–	–	–
⑤	Screw Cover (Door side: 2 pcs) (Frame side: 2 pcs)	ABS	Satin Chrome	Satin Nickel	Black

RoHS	CAD	Item Code	Item Name	Finish	Door Specs			Load Capacity				Opening Angle	Box (pcs)	Carton (pcs)
					Width	Height	Thickness	N/2pcs	kgf/2pcs	N/3pcs	kgf/3pcs			
G	3D	170-044-569	HES3D-120-A100DC	Silver	Max. 900	Max. 2400	Min. 29	294	30	392	40	100˚	2	24
G	3D	170-044-570	HES3D-120-A100DN	Champagne Gold										
G	3D	170-044-571	HES3D-120-A100BL	Black										

Refer to 1: P.167, 2: P.166

3-WAY ADJUSTABLE CONCEALED HINGE HES3D-90

INSTRUCTION



Selection Tool

Hinge Selection

Video Link

- Small HES series can be applied with Min. door thickness of 23mm.
- Small bore depth, easy to cut out the door and frame.
- 3-way adjustment function allows vertical, horizontal, and depth adjustment after hinge installed.
- Hinge can be split into the door side and the frame side.
- Order-made colour available. For further details, please contact local representatives.

[Remarks]

- Can not be used with LAPCON DOOR DAMPER LDD 1 or LAPCON DOOR CLOSER LDC-N2.
- Can be used with DC-200 damper catch but can not be used with lid stays or other door damper.

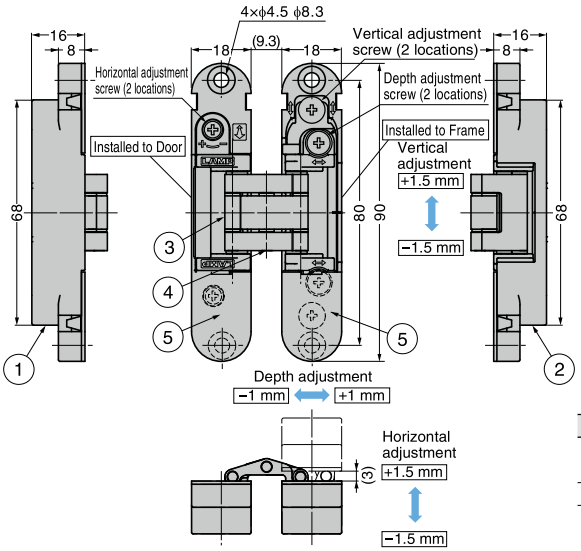
[Parts Included]

- Countersunk head tapping screw 4×20 (4 pcs/hinge) SUS
- Hex key 2

[Sold Separately]

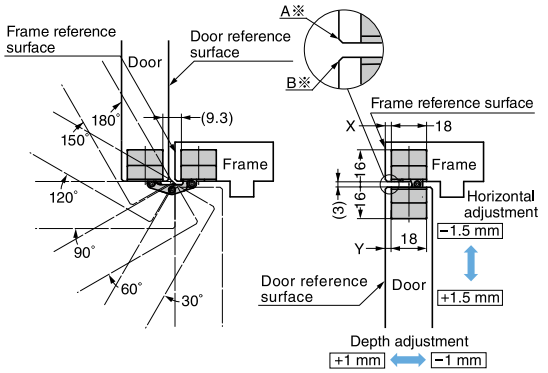
- Installation template HES3D-90-TMP
  ※Can be reused, so door and frame can be easily cut out with a router.

Figure below shows the state with the upper screw covers removed.



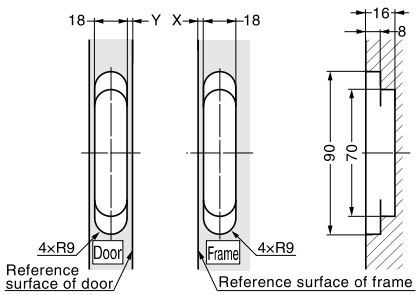
[Locus Chart]

Please process the part (corner of door/frame) of ※ marked on the drawing to C1 or more (or R1 or more).



Y: Door machining margin	B: Door chamfering	X: Frame machining margin	A: Frame chamfering
3 and under	1	3 and under	1
	2	4	2
3.5		3.5	

[Cut Out Dimensions]



No.	Part Name	Material	Finish		
			DC	DN	BL
①	Body	Zinc Alloy (ZDC)	Satin Chrome	Dull Nickel	Black Enamel Finish
②	Base Frame				
③	Arm				
④	Shaft	Stainless Steel	–	–	–
⑤	Cover (2 pairs)	ABS	Silver	Champagne Gold	Black

RoHS	CAD	Item Code	Item Name	Colour	Door Width	Door Height	Door Thickness	Door Weight kg/2 pcs	Door Weight kg/3 pcs	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-029-221	HES3D-90DC	Silver	Max. 600	Max. 1500	Min. 23	Max. 12	Max. 16	180°	195	2	48
G	3D	170-029-222	HES3D-90DN	Champagne Gold							195	2	48
G	3D	170-033-588	HES3D-90BL	Black							195	2	48

Refer to 1 : P.532, P.536

GLASS DOOR BRACKET HES3D-G90BKT

L=R INSTRUCTION



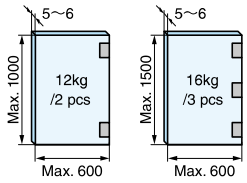
- Glass door bracket for HES3D-90 series.
- Screw covers match the bracket with the finish. For the black type, please use the covers which are included with the HES3D-90 hinge.

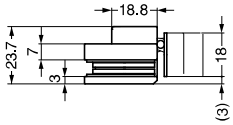
[Parts Included]
- Hexagon socket countersunk head screw M5 x 12
- Countersunk head screw M4×12
- Hex key size 3



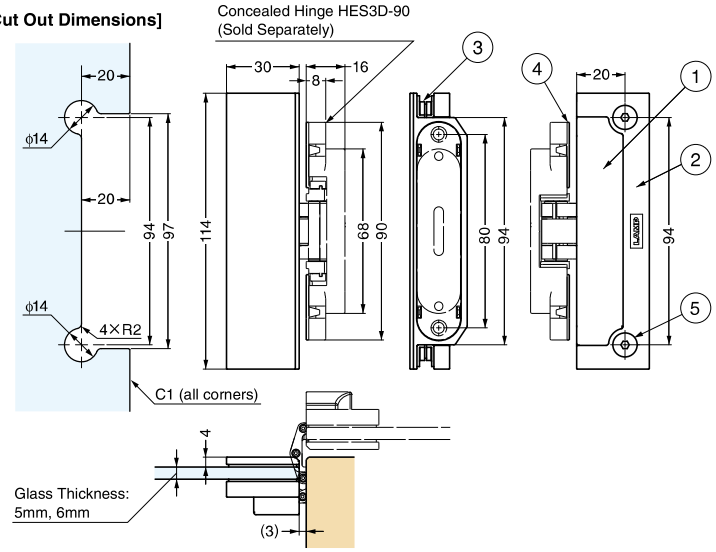


[Door Dimensions and Number of Hinges]





[Cut Out Dimensions]

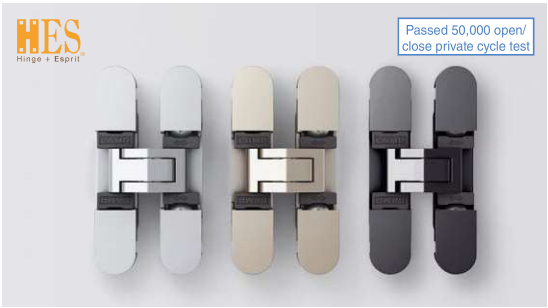


No.	Part Name	Material	Finish		
			CR	GP	BL
①	Body	Zinc Alloy (ZDC)	Chrome	24K Gold plating	Black Enamel Finish
②	Back Plate				
③	Gasket	Chloroprene Rubber (CR)	–	–	–
④	Screw Cover	ABS	Chrome	24K Gold plating	–
⑤	Hexagon Socket Countersunk Head Screw M5 x 12	Steel			Black Enamel Finish

RoHS	CAD	Item Code	Item Name	Colour	Weight g	Box pcs	Carton pcs
G	3D	170-035-802	HES3D-G90BKT-CR	Silver	245	2	24
G	3D	170-035-803	HES3D-G90BKT-GP	Gold	245	2	24
G	3D	170-035-804	HES3D-G90BKT-BL	Black	245	2	24

3-WAY ADJUSTABLE CONCEALED HINGE HES3D-70

INSTRUCTION



Selection Tool

Hinge Selection

Video Link

- Small HES series can be applied with Min. door thickness of 19mm.
- Small bore depth, easy to cut out the door and frame.
- 3-way adjustment function allows vertical, horizontal, and depth adjustment after hinge installed.
- Hinge can be split into the door side and the frame side.

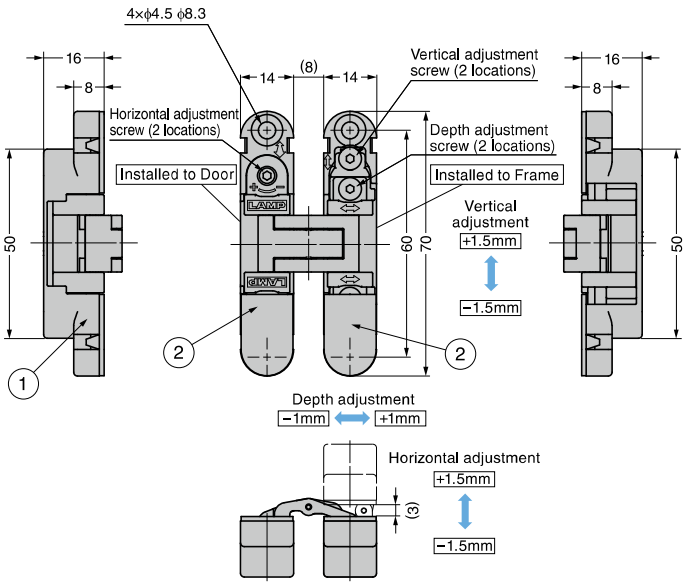
[Remarks]

- Can not be used with LAPCON DOOR DAMPER LDD 1 or LAPCON DOOR CLOSER LDC-N2.
- Use below opening angle 180˚ .
- Can not be used with lid stays or door damper.

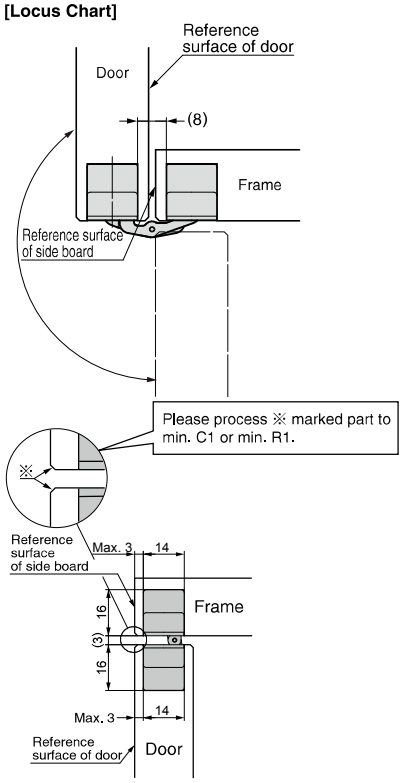
[Parts Included]

- Countersunk head tapping screw 4×20 (4 pcs/hinge) SUS
- Hex key 2

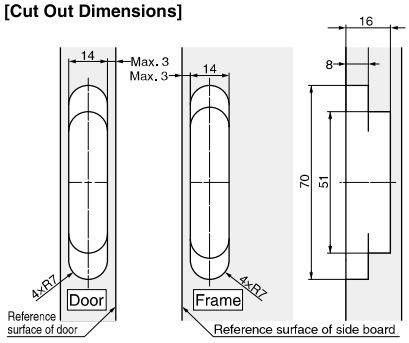
Figure below shows the state with the upper screw covers removed.



[Locus Chart]



[Cut Out Dimensions]



No.	Part Name	Material	Finish		
			DC	DN	BL
①	Body	Zinc Alloy (ZDC)	Satin Chrome	Dull Nickel	Black Paint
②	Cover (2 pairs)	ABS	Silver Paint	Champagne Gold Paint	Black

RoHS	CAD	Item Code	Item Name	Colour	Door Width	Door Height	Door Thickness	Door Weight kg/2pcs	Door Weight kg/3pcs	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-035-441	HES3D-70DC	Silver	Max. 600	Max. 1200	Min. 19	Max. 9	Max. 12	180˚	95	2	48
G	3D	170-035-442	HES3D-70DN	Champagne Gold								2	48
G	3D	170-035-443	HES3D-70BL	Black								2	48

Refer to 1 : P.532, P.536

3-WAY ADJUSTABLE CONCEALED HINGE HES3D-V135LGR

INSTRUCTION



- Small bore depth for compact assembly.
- 3-way adjustment function allows vertical, horizontal, and depth adjustment after hinge installed.
- Easy installation: Hinge can be split into the door side and the frame side and has temporary door holding feature.

[Remarks]

- Our original new link arm mechanism provides different locus from other products 1 of the same series. Please confirm the position where the door is opened by 90˚ on the left figure.
- Can be used with Sugatsune door damper/door closer shown below. Please check and follow product specifications.
  - ・LAPCON DOOR DAMPER LDD-S 2
  - ・LAPCON DOOR DAMPER LDD-V 3
  - ・LAPCON DOOR CLOSER LDC-N2
- Using with other door closers might lead to hinge damage.
- For using Sugatsune door closer, please install the door holder separately at the stop position.

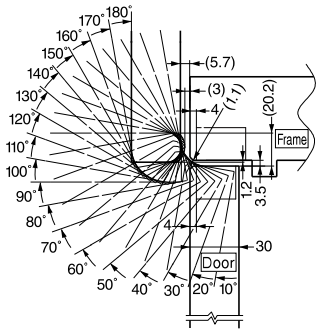
[Parts Included]

- Binding head tapping screw 5×15

[Sold Separately]

- Installation template HES3D-V135-TMP 4

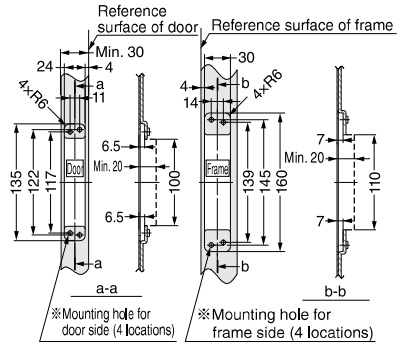
[Locus Chart]

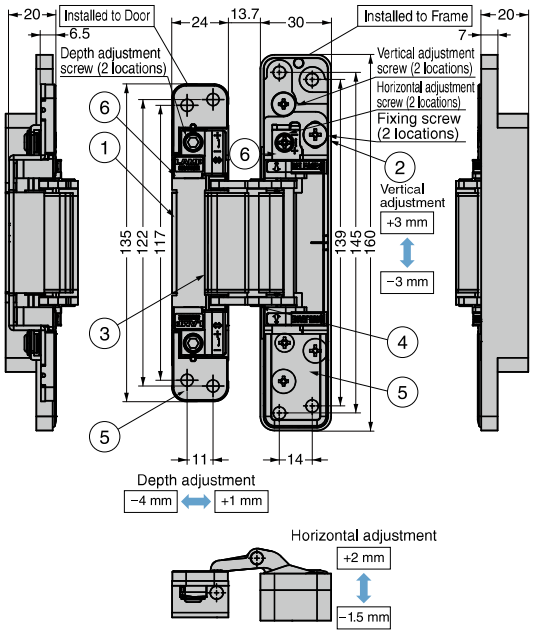


Selection Tool

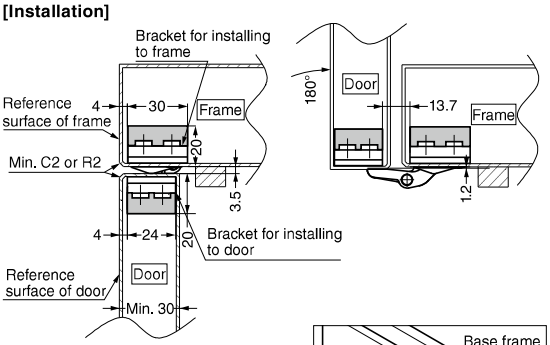
Hinge Selection

[Cut Out Dimensions]



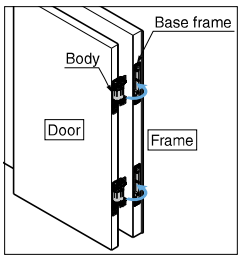


[Installation]



[Temporary Holding Feature]

1. Hinge can be split into the body and base frame. Install the body to the door and the base frame to the frame.
2. Push the hinge body horizontally into the base frame in the direction of the arrow. The door is held to the frame duo to the temporary holding feature.
3. Temporarily tighten the fixing screws and adjust the door position.
4. After adjustment, tighten the fixing screws completely to fix the hinge body.



No.	Part Name	Material	Finish / Colour
①	Body	Steel	Nickel
②	Base Frame	POM	Light Grey
③	Arm	Aluminium Alloy	Anodised Silver
④	Shaft	Steel	Nickel
⑤	Cover	POM	Light Grey
⑥	Adjustment Block	Zinc Alloy (ZDC)	Nickel

RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Door Thickness	Frame Thickness	Door Weight kg/2 pcs	Door Weight kg/3 pcs	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G	CAD	170-020-804	HES3D-V135LGR	Max. 900	Max. 2400	Min. 30	Min. 20	Max. 40	Max. 55	180˚	400	2	24

Refer to 1 : P.153, 2 : P.536, 3 : P.532, 4 : P.167

3-WAY ADJUSTABLE CONCEALED HINGE HES2S-140-A125 125° Opening

INSTRUCTION



Dark Grey Light Grey

Passed 300,000 open/ close private cycle test



Closed Back With cover and plate removed

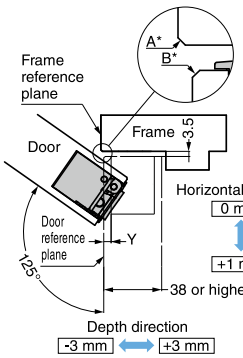
- Surface mount for door frame enables easy installation.
- 3-way adjustment function allows vertical, horizontal, and depth adjustment after hinge installed.

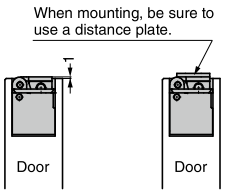
[Remarks]
- Use with a door stopper, etc. to prevent opening farther than 125°.
- The hinge cannot be divided between the door and frame.

[Parts included]
- Countersunk head tapping screw 4×20 (8 pcs/hinge) Steel
- Door side drilling/frame side mounting template

[Locus Chart]

Drill at the * mark in the figure (door/frame corner).

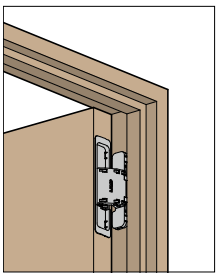




Hinge overhang from door edge (Without cover and distance plate)

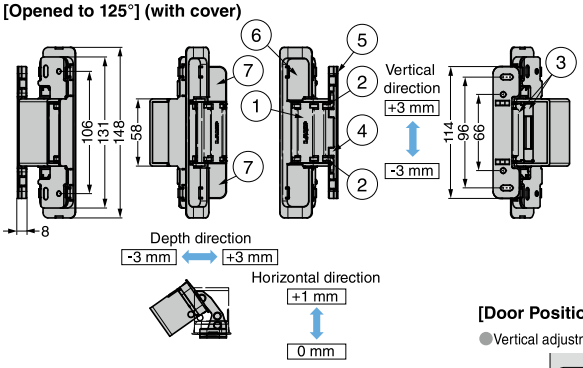
Y: Door Machining Margin	B: Door chamfering	A: Frame chamfering
4 or below	1 or higher	1 or higher
5		

[Usage Image]



With front screws not requiring frame side drilling, installation is simple.

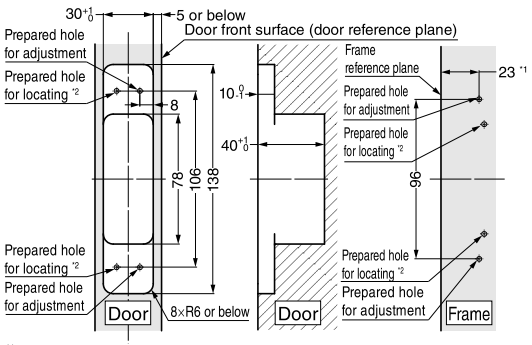
[Opened to 125°] (with cover)



No.	Part Name	Material	Finish / Colour
①	Body	POM	Dark Grey, Light Grey
②	Base Plate	SPCC	Nickel
③	Arm	Zinc Alloy (ZDC)	Chemical Treatment
④	Distance Plate	PBT	Dark Grey, Light Grey
⑤	Horizontal Adjustment Plate	POM	
⑥	Socket Cover	ABS	
⑦	Base Plate Cover		

[Cut Out Dimensions]

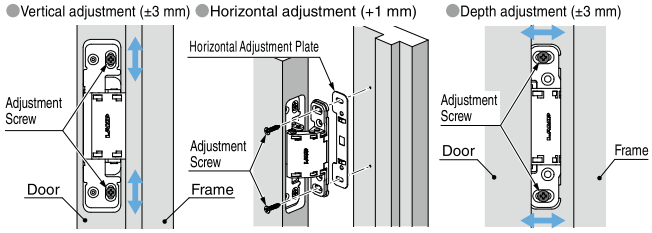
Drill pilot holes at the positions of the adjustment and locating screws.



*1 When door machining margin is 5 mm.
*2 The position of prepared hole for locating changes according to adjustment.

[Door Position Adjustment]

- Vertical adjustment (±3 mm)
- Horizontal adjustment (+1 mm)
- Depth adjustment (±3 mm)

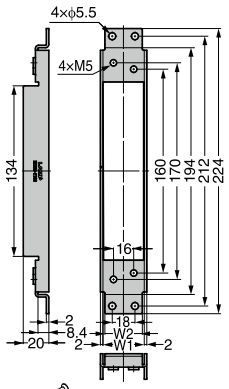


Adjust in the vertical/depth directions with oval hole screws and in the horizontal direction with the plate.

RoHS	CAD	Item Code	Item Name	Colour	Door Width	Door Height	Door Thickness	Door Weight kgf/2 pcs	Door Weight kgf/3 pcs	Opening Angle
—	3D	170-053-252	HES2S-140-A125-DGR	Dark Grey	Max. 900	Max. 2700	Min. 38	50	65	125°
—	3D	170-053-253	HES2S-140-A125-LGR	Light Grey						

BRACKET FOR SHEET METAL HES3D-E190BKT For Hinge HES3D-E190





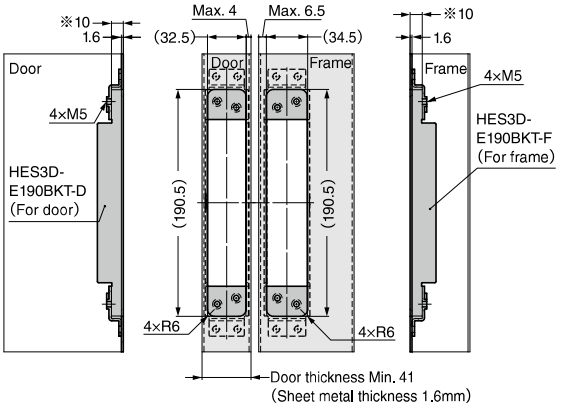
●Brackets for installing HES3D-E190 1 to steel door (SD) and steel frame.

[Remarks]

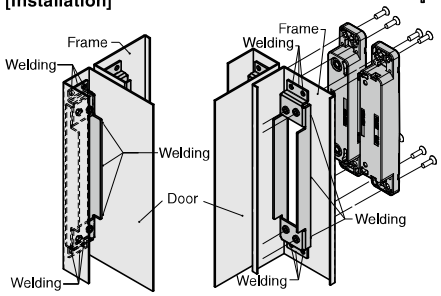
●When the sheet metal thickness of the installation side is 1.6 mm, screw cover surface becomes flush with cabinet surface. The surface may slightly protrude or retract, depending on the board thickness of the installation side.

●As a general-purpose bracket, additional processing may be required for the door and frame of the installation side and the bracket when installation.

[Cut Out Dimensions] ※Dimensions in case of 1.6 mm thick sheet metal.



[Installation]

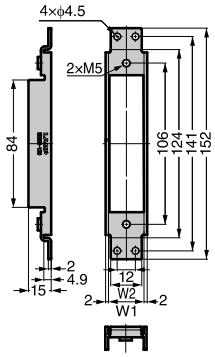


RoHS	CAD	Item Code	Item Name	Description	Material	Finish	W1	W2	Weight (g)	Box (pcs)
G	3D	170-032-741	HES3D-E190BKT-D	For Door	Steel (SPCC)	Coloured Zinc Chromate (Trivalent)	32.3	29.5	142	50
G	3D	170-032-742	HES3D-E190BKT-F	For Frame			34.3	31.5	144	50

Refer to 1 : P.156

BRACKET FOR SHEET METAL HES3D-120BKT For Hinge HES3D-120





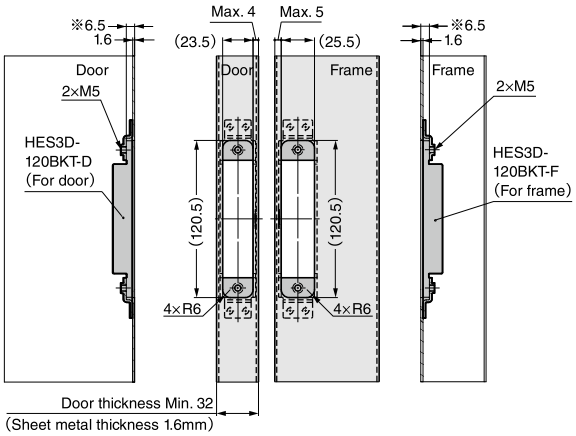
●Brackets for installing HES3D-120 1 to steel door (SD) and steel frame.

[Remarks]

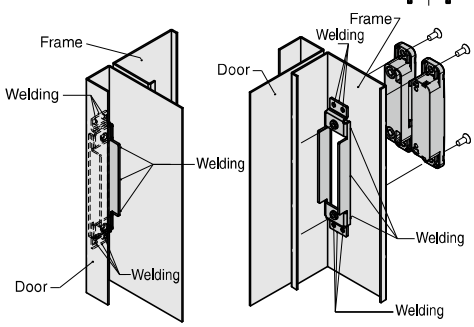
●When the sheet metal thickness of the installation side is 1.6 mm, screw cover surface becomes flush with cabinet surface.The surface may slightly protrude or retract, depending on the board thickness of the installation side.

●As a general-purpose bracket, additional processing may be required for the door and frame of the installation side and the bracket when installation.

[Cut Out Dimensions] ※Dimensions in case of 1.6 mm thick sheet metal.



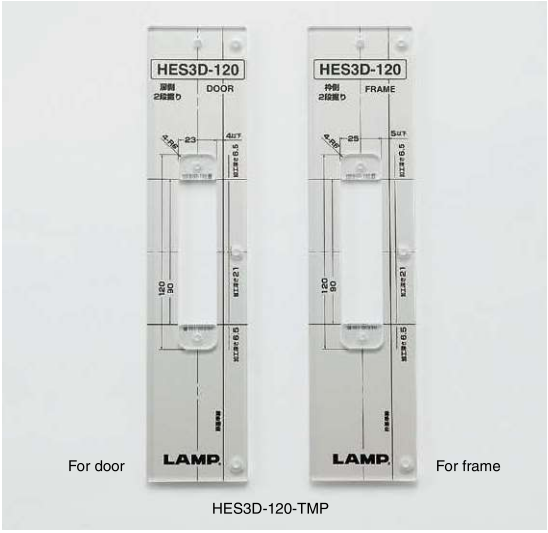
[Installation]



RoHS	CAD	Item Code	Item Name	Description	Material	Finish	W1	W2	Weight (g)	Box (pcs)
G	3D	170-032-739	HES3D-120BKT-D	For Door	Steel (SPCC)	Coloured Zinc Chromate (Trivalent)	23.3	20.5	66	50
G	3D	170-032-740	HES3D-120BKT-F	For Frame			25.3	22.5	68	50

Refer to 1 : P.158

INSTALLATION TEMPLATE HES3D-TMP For Hinge HES3D



HES3D-120-TMP

- Installation template for hinge HES3D included.
- Easy to cut out door and frame with a router.
- Can be reused due to acrylic resin material.

[Remarks]

- The HES3D-120-TMP, HES3D-E190-TMP and HES3D-V135-TMP are sold in pairs, one for the door and one for the frame.
- The HES3D-70-TMP, HES3D-90-TMP, HES3D-E160-TMP and HES3D-W190-TMP are sold singly, because they can be used on both the door and frame.
- Recommended working tool is a straight bit with guide bearings of which guide diameter and bit diameter are the same.

[Parts Included]

- Parts for 2-step grooving (Each 2 pcs for door and for frame)

Video Link

RoHS	CAD	Item Code	Item Name	Applicable Hinge (Page)	Material	Colour	Weight (g)
G	–	170-040-988	HES3D-70-TMP	HES3D-70 1	PMMA	Clear	–
G	–	170-029-034	HES3D-90-TMP	HES3D-90 2			–
G	–	170-024-569	HES3D-120-TMP	HES3D-120 3			186
G	–	170-047-841	HES3D-E160-TMP	HES3D-E160 4			–
G	–	170-028-808	HES3D-E190-TMP	HES3D-E190 5			238
G	–	170-047-842	HES3D-W190-TMP	HES3D-W190 6			–
G	–	170-024-572	HES3D-V135-TMP	HES3D-V135LGR 7			220

Refer to 1 : P.163, 2 : P.161, 3 : P.158, 4 : P.157, 5 : P.156, 6 : P.154, 7 : P.164

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

STAINLESS STEEL CONCEALED HINGE HGS3D-S160SH With 3-way Adjustable Function

INSTRUCTION SUS HEX KEY

Passed 300,000 open/close private cycle test





With square screw cover (optional)

- Stainless steel structure with excellent corrosion resistance.
- With three-way adjustment function (vertical, horizontal, depth).
- The hinge can be split between the door and frame. The door can be temporarily fastened to the frame, making door hanging easy.

[Application]

- Residential doors, fire doors, facility doors, etc.

[Parts Included]

- Flat head tapping screw 5×40 (stainless steel)
- Hex key 4, 2.5
- Drilling template

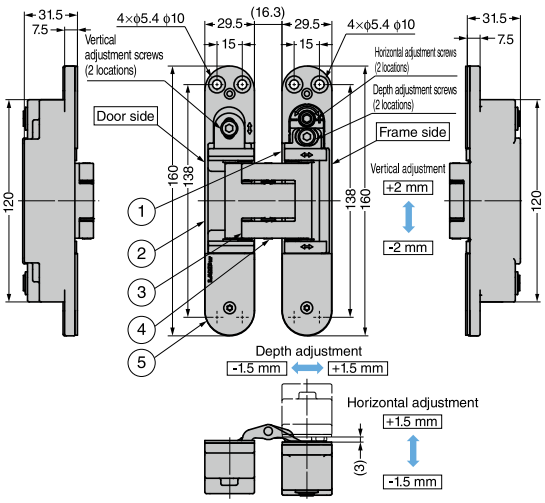
[Optional Parts]

- Square screw cover: Order when cut out is square (steel fittings, etc.).

[Remarks]

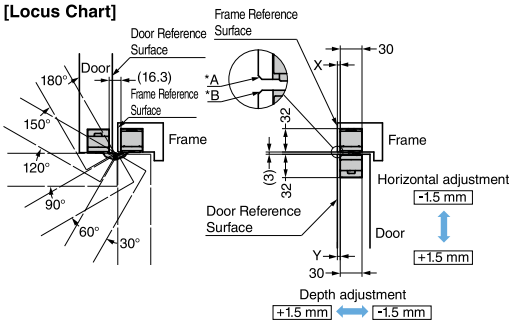
- Be sure to read the "Cautions" 1.
- When using with a door damper and/or closer, select the Lapcon damper LDD-S 2, Lapcon door damper LDD-V 3, or Lapcon closer LDC-N2. Select a door weight within a range satisfying the conditions of both the hinge and the door damper and/or closer.
- Some closers may damage the hinges or prevent the door from closing fully. Confirm before purchase.
- When using a closer with a stopper, be sure to use a door stopper as well (floor mounting type, wall mounting type, etc.). Install the door stopper further forward than the closer stopper, between the centre and edge of the door.
- If noise is generated during use, apply lubricant (grease) as needed.

Figure shows top screw cover removed.



No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Plain
②	Base frame		
③	Arm		
④	Rotating Shaft		
⑤	Screw Cover (round type)		Satin

[Locus Chart]



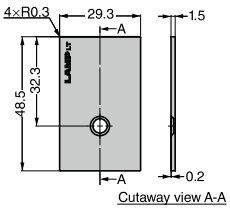
*The door and frame must be chamfered in accordance with the machining margin, in order to open and close the door.

Y: Door machining margin	B: Door chamfering	X: Frame machining margin	A: Frame chamfering
4 or below	1	5 or below	1
	2	6	2
		7	3
5	3	5 or below	
		6	4

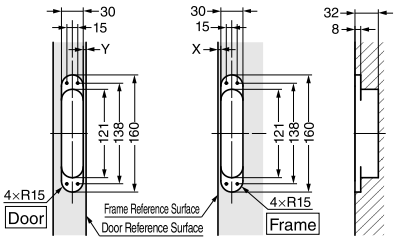
(Reference values)

[Square Screw Cover] Optional Parts





[Cut Out Dimensions]



Selection Tool

Hinge Selection

*When using the optional square screw cover, drill the first oval hole in both the door and the frame as a square hole of width 30 × length 160 × depth 8.

[Body]

RoHS	CAD	Item Code	Item Name	Finish	Door width	Door height	Door thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Opening Angle
G	3D	170-050-961	HGS3D-S160SH	Satin	Max. 900	Max. 2400	Min. 36	784	80	180°

*The selection tool can be used outside catalogue conditions as well.

[Square Screw Cover] Optional Parts

Sold as a set (4 pcs).

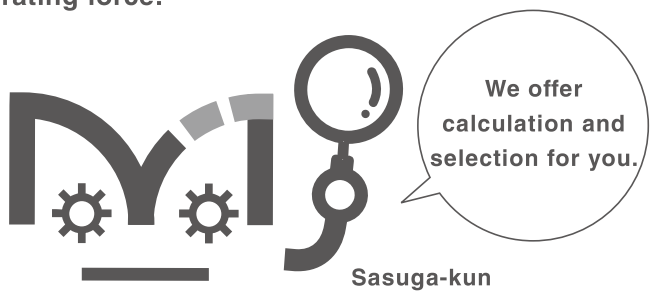
RoHS	CAD	Item Code	Item Name	Material	Finish
G	3D	170-050-962	HGS3D-S160SH-SQCOVER	Stainless Steel (SUS304)	Satin

Refer to 1: P.43, 2: P.536, 3: P.532

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

Product Selection Tool Sasuga-kun

Just inputting the dimensions and weight of the flap/door, you can select suitable Motion Design Tech products or simulate (graphically display) moment and operating force.



Access from here | Sasuga-kun | Search

https://cont.sugatsune.co.jp/motion/en/

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
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PIANO HINGES
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LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

A NEW STEP FOR HINGE TECHNOLOGY

OLYMPIA

360 POWERED BY Lapcon



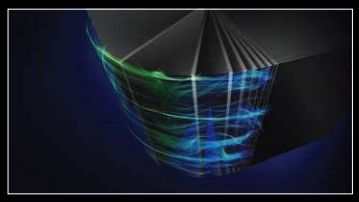
5-speed adjustable soft close.
The first Sugatsune concealed hinge ever built
with Lapcon technology.

Video Link

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
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SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

concept.01





5-speed adjustable soft close. The first Sugatsune concealed hinge ever built with Lapcon technology.

The first time Sugatsune's unique Lapcon technology has ever been used inside a concealed hinge. The innovative rotary damper is not only extremely compact, for sleek overall design, its force can also be adjusted in 5 steps for a perfect match regardless of the door size or weight.

concept.02



Successfully passed 200,000 cycles test.

For a piece of furniture to last a lifetime, the hinge must perform flawlessly the whole time. Despite official requirements by JIS (Japanese Standards) asking for only 40,000 cycles, the Olympia hinge has cleared 5 times as many to ensure that you will always be able to open and close your doors without worry.
(The H360 successfully passed 100,000 private cycle test)

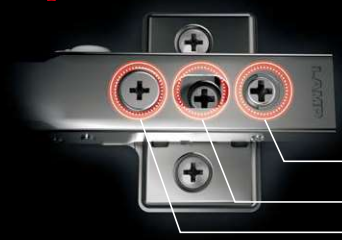
concept.03



Smooth assembly for a time-saving installation.

Using an original design of the Turn-Lock system, Olympia can be installed by simply pushing it from the top. This simplifies the installation compared to a traditional Front-First installation, especially in cases where multiple hinges are used.

concept.04



One screwdriver for a one-handed 3D adjustment.

Depth, vertical, horizontal adjustment screws are all located on top. This was made possible because of our original damper.

Depth adjustment +1.5 mm, -2.5 mm (For standard doors, 360) / +1.7 mm, -2.8 mm (For thick doors, H360)

Vertical adjustment ±2.5 mm

Overlay (horizontal adjustment) +0 mm, -4 mm

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
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PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

Thick doors(ϕ40) | 85°angle | Sprung-open | Glass door face plate are also available solutions.

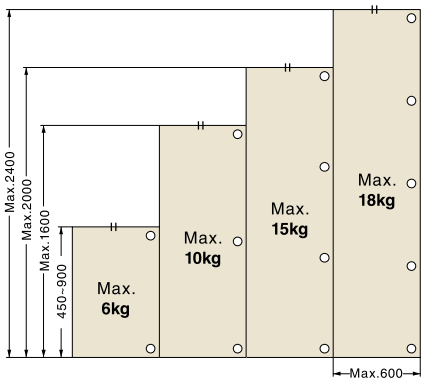
Application				Installation		Type		Item code	Item name	Page
Overlay	Thickness	Opening angle	Overlay range	Cup size	Cup depth	Damper	Catch			
Standard door ϕ35										
19mm	Wood door 15~20 Glass door 4~6	105°	15~19 *1	ϕ35	11	○		160-026-840	360-D26-19T	P.174
								160-026-836	360-26-19T	
							○	160-026-832	360-C26-19T	
								160-042-389	360- U26-19T (Sprung-open)	
		85°				○		160-034-889	360-D26-19T85	
								160-034-886	360-26-19T85	
							○	160-034-883	360-C26-19T85	
14mm		105°	10~14 *1			○		160-026-841	360-D26-14T	P.175
								160-026-837	360-26-14T	
							○	160-026-833	360-C26-14T	
								160-042-390	360-U26-14T (Sprung-open)	
		85°				○		160-034-890	360-D26-14T85	
								160-034-887	360-26-14T85	
							○	160-034-884	360-C26-14T85	
9mm		105°	5~9 *1			○		160-026-842	360-D26-9T	P.176
								160-026-838	360-26-9T	
							○	160-026-834	360-C26-9T	
								160-042-391	360-U26-9T (Sprung-open)	
		85°				○		160-034-891	360-D26-9T85	
								160-034-888	360-26-9T85	
							○	160-034-885	360-C26-9T85	
Inset		93°	Inset			○		160-026-843	360-D26-0T	P.177
								160-026-839	360-26-0T	
							○	160-026-835	360-C26-0T	
								160-042-392	360-U26-0T (Sprung-open)	
Thick door ϕ40										
26mm	Wood door 18~30	100°	22~26 *2	ϕ40	15	○		160-029-084	H360-D26-26T	P.178
								160-029-081	H360-26-26T	
							○	160-029-078	H360-C26-26T	
16mm			12~16 *2			○		160-029-085	H360-D26-16T	P.179
								160-029-082	H360-26-16T	
							○	160-029-079	H360-C26-16T	
Inset		93°	Inset			○		160-029-086	H360-D26-0T	P.180
								160-029-083	H360-26-0T	
							○	160-029-080	H360-C26-0T	

*1 For a Bore Distance (C) of 5mm. *2 For a Bore Distance (C) of 8mm.

Mounting plates  P.181
Glass door face plate GH-360FP P.184
Installation jig 360-JIG P.185
85° Angle limiter 360-85 P.186
Countersunk head tapping screw 3.5×15NI *Sold in boxes of 400 pieces P.807

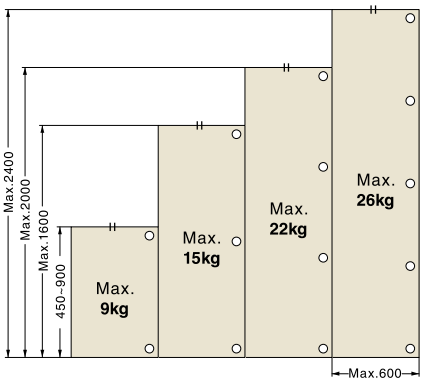
Door size and recommended hinge quantity

■Standard wood doors 360



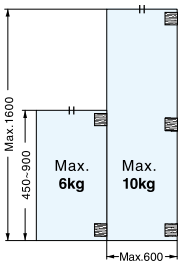
Door width	Door thickness	Material density	Installation pitch
Max. 600	Max. 20	Max. 0.6	Min. 300

■Thick wood doors H360



Door width	Door thickness	Material density	Installation pitch
Max. 600	Max. 30	Max. 0.6	Min. 300

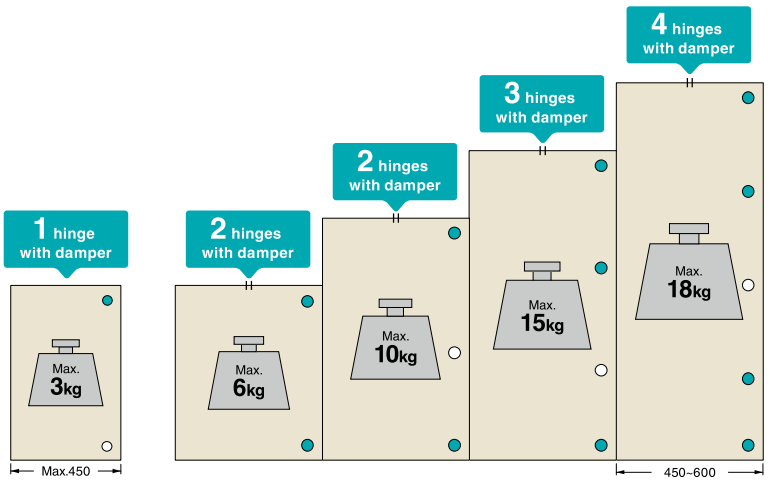
■Glass doors 360 and GH-360FP



Glass thickness	Installation pitch
4 - 6	Min. 300

Recommended type of damper per installation

● With damper
○ With catch



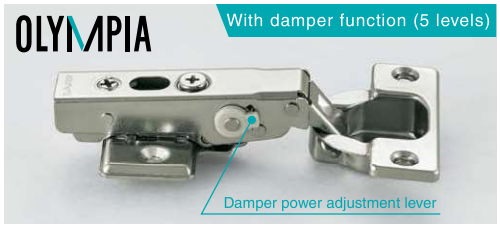
* The table on the right is for 360 hinge. Please contact us for the H360 hinge.
* Please refer to the table above for door sizes.

●Please set the door center of gravity as the door center. ●If you want to increase the door width, please increase the number of hinges accordingly. ●Attach the upper and lower hinges within 100 mm from the edge of the door. When using three or more, install at regular intervals. ●Figures shown in the tables above are only indicative. Please always test before finalizing your design. ●Please contact us for any other configuration. ●The dimensions of the door and the number of hinges mounted are the results of tests made according to the JIS standard. ●All screw holes should be used.

105°, 85° Opening | **19mm Overlay** | **Overlay 15~19mm (When Bore Distance is 5 mm)** | **Cup Dia ϕ35 Bore Depth 11mm Recommended Door Thickness 15~20mm** | **Mounting Plate 1 OLYMPIA Series**

CONCEALED HINGE 360 19mm overlay / 105°opening, 85°opening

Lajcon



The picture above shows a combination of a concealed hinge (with damper) and a mounting plate (sold separately).

[Specifications]
- Overlay: 15~19 mm (when bore distance is 5 mm.)
- Cup size: ϕ35 / Bore Depth: 11 mm / Door Thickness: 15~20 mm
- 3D adjustment: Depth: +1.5, -2.5 mm, Vertical: ±2.5 mm, Overlay: +0, -4 mm

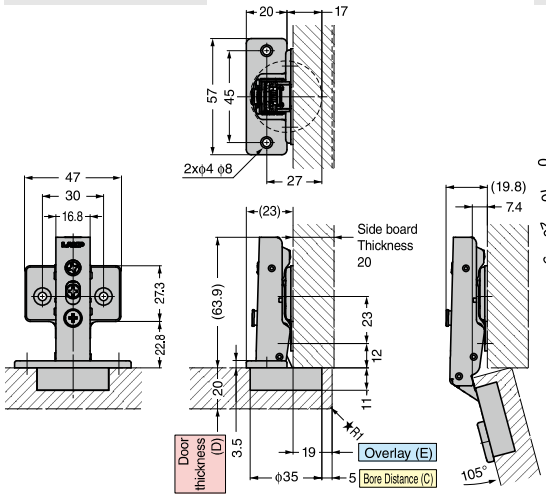
[Sold Separately]
- Mounting plates, Glass door face plate, Countersunk head tapping screw 3.5 × 15NI, etc.

[Recommended Screws]
- Countersunk head wood/tapping screw 3.5

RoHS	CAD	Item Code	Item Name	Opening Angle	Type	Material	Finish	Box (pcs)
G	3D	160-026-840	360-D26-19T	105°	With damper (5 levels)	Steel	Nickel	100
G	3D	160-026-836	360-26-19T		Without catch			200
G	3D	160-026-832	360-C26-19T		With catch			200
G	3D	160-042-389	360-U26-19T		Sprung-open			200
G	3D	160-034-889	360-D26-19T85	85°	With damper (5 levels)			100
G	3D	160-034-886	360-26-19T85		Without catch			200
G	3D	160-034-883	360-C26-19T85		With catch			200

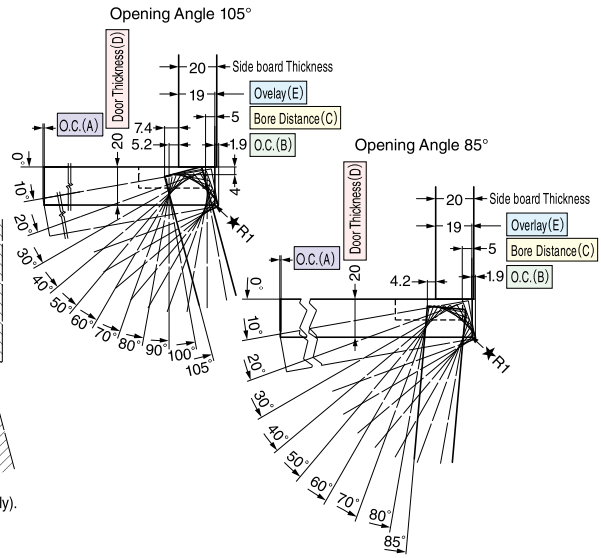
▶ The installation drawing and locus chart shown are for a 20 mm thick door and side board, 19mm overlay and a 5mm bore distance.

Installation drawing



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Locus chart S≒1/4



Opening Clearance (O.C.)

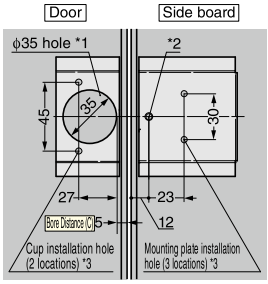
Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)		
	3	4	5
15	0.6	0.6	0.6
16	0.8	0.8	0.8
17	1.0	1.0	1.0
18	1.4	1.3	1.3
19	1.7	1.6	1.6
20	2.0	2.0	1.9
21*	2.5	2.4	2.3
22*	2.9	2.8	2.7
	O.C. (B)		

• The table above shows O.C. (B) for ★R1 chamfering.
* Please refer to the locus chart if door thickness is over 20mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

Cut out dimensions (steel doors)



*1: Please set the bottom of the cup at a depth of 11mm.
*2: Please chamfer this mounting hole. (ϕ5.1)
*3: Internal threads need to be made by welding nut or burning.

Bore distance (C) and overlay (E) relationship

Bore Distance (C)	3	4	5
Overlay (E)	17	18	19

Overlay can be decreased by up to 4mm by turning the overlay adjustment screw.

Refer to 1: P.181~P.182

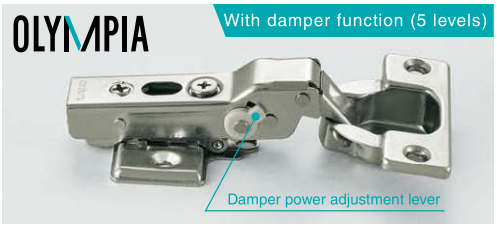
Opening clearance (A) and door width relationship (for 20mm thick door)

Door Width	300	400	500	600
O.C. (A)	0.13	0.09	0.07	0.06

105°, 85° Opening | 14mm Overlay | Overlay 10~14mm (When Bore Distance is 5 mm) | Cup Dia ϕ35 Bore Depth 11mm Recommended Door Thickness 15~20mm | Mounting Plate 1 OLYMPIA Series

CONCEALED HINGE 360 14mm overlay / 105°opening, 85°opening

Lapcon



The picture above shows a combination of a concealed hinge (with damper) and a mounting plate (sold separately).

[Specifications]
- Overlay: 10~14 mm (when bore distance is 5 mm.)
- Cup size: ϕ35 / Bore Depth: 11 mm / Door Thickness: 15~20 mm
- 3D adjustment: Depth: +1.5, -2.5 mm, Vertical: ±2.5 mm, Overlay: +0, -4 mm

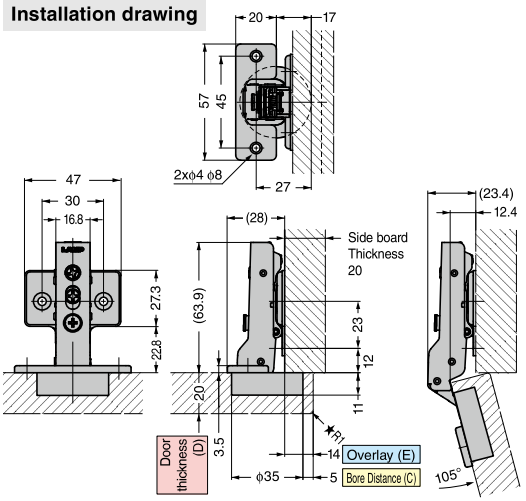
[Sold Separately]
- Mounting plates, Glass door face plate, Countersunk head tapping screw 3.5 × 15NI, etc.

[Recommended Screws]
- Countersunk head wood/tapping screw 3.5

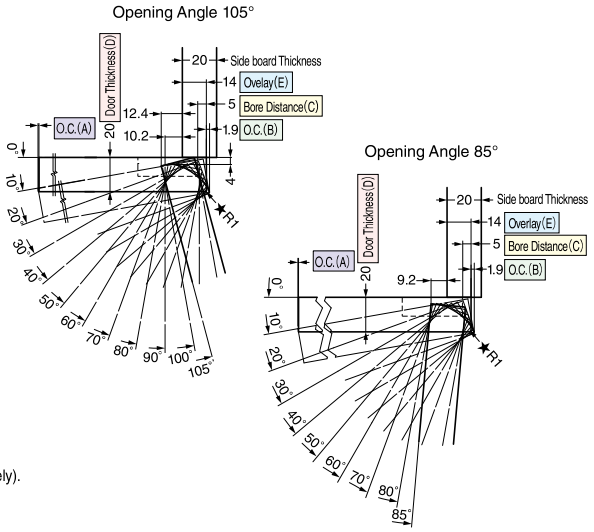
RoHS	CAD	Item Code	Item Name	Opening Angle	Type	Material	Finish	Box (pcs)
G	3D	160-026-841	360-D26-14T	105°	With damper (5 levels)	Steel	Nickel	100
G	3D	160-026-837	360-26-14T		Without catch			200
G	3D	160-026-833	360-C26-14T		With catch			200
G	3D	160-042-390	360-U26-14T		Sprung-open			200
G	3D	160-034-890	360-D26-14T85	85°	With damper (5 levels)			100
G	3D	160-034-887	360-26-14T85		Without catch			200
G	3D	160-034-884	360-C26-14T85		With catch			200

▶ The installation drawing and locus chart shown are for a 20 mm thick door and side board, 14mm overlay and a 5mm bore distance.

Installation drawing



Locus chart S≒1/4



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Opening Clearance (O.C.)

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

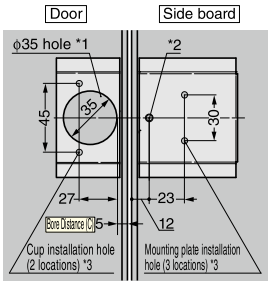
Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)		
	3	4	5
15	0.6	0.6	0.6
16	0.8	0.8	0.8
17	1.0	1.0	1.0
18	1.4	1.3	1.3
19	1.7	1.6	1.6
20	2.0	2.0	1.9
21*	2.5	2.4	2.3
22*	2.9	2.8	2.7
	O.C. (B)		

• The table above shows O.C. (B) for ★R1 chamfering.

* Please refer to the locus chart if door thickness is over 20mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

Cut out dimensions (steel doors)



*1: Please set the bottom of the cup at a depth of 11mm.
*2: Please chamfer this mounting hole. (ϕ5.1)
*3: Internal threads need to be made by welding nut or burning.

Bore distance (C) and overlay (E) relationship

Bore Distance (C)	3	4	5
Overlay (E)	12	13	14

Overlay can be decreased by up to 4mm by turning the overlay adjustment screw.

Refer to 1: P.181~P.182

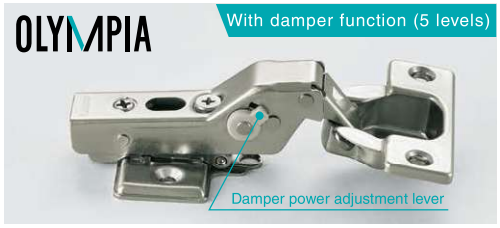
Opening clearance (A) and door width relationship (for 20mm thick door)

Door Width	300	400	500	600
O.C. (A)	0.13	0.09	0.07	0.06

105°, 85° Opening | **9mm Overlay** | **Overlay 5~9mm (When Bore Distance is 5 mm)** | **Cup Dia ϕ35 Bore Depth 11mm Recommended Door Thickness 15~20mm** | **Mounting Plate 1 OLYMPIA Series**

CONCEALED HINGE 360 9mm overlay / 105°opening, 85°opening

Lajcon



The picture above shows a combination of a concealed hinge (with damper) and a mounting plate (sold separately).

[Specifications]
- Overlay: 5~9 mm (when bore distance is 5 mm.)
- Cup size: ϕ35 / Bore Depth: 11 mm / Door Thickness: 15~20 mm
- 3D adjustment: Depth: +1.5, -2.5 mm, Vertical: ±2.5 mm, Overlay: +0, -4 mm

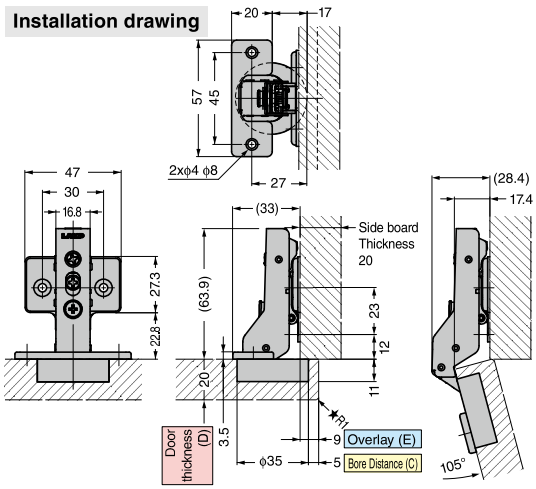
[Sold Separately]
- Mounting plates, Glass door face plate, Countersunk head tapping screw 3.5 × 15NI, etc.

[Recommended Screws]
- Countersunk head wood/tapping screw 3.5

RoHS	CAD	Item Code	Item Name	Opening Angle	Type	Material	Finish	Box (pcs)
G	3D	160-026-842	360-D26-9T	105°	With damper (5 levels)	Steel	Nickel	100
G	3D	160-026-838	360-26-9T		Without catch			200
G	3D	160-026-834	360-C26-9T		With catch			200
G	3D	160-042-391	360-U26-9T		Sprung-open			200
G	3D	160-034-891	360-D26-9T85	85°	With damper (5 levels)			100
G	3D	160-034-888	360-26-9T85		Without catch			200
G	3D	160-034-885	360-C26-9T85		With catch			200

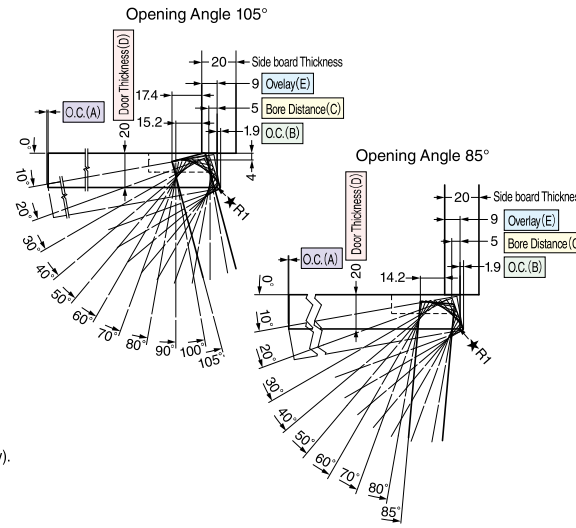
▶ The installation drawing and locus chart shown are for a 20 mm thick door and side board, 9mm overlay and a 5mm bore distance.

Installation drawing



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Locus chart S≒1/4



Opening Clearance (O.C.)

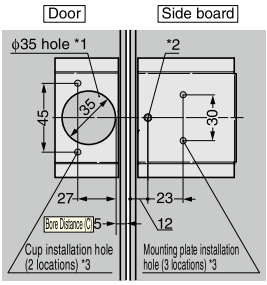
Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)		
	3	4	5
15	0.6	0.6	0.6
16	0.8	0.8	0.8
17	1.0	1.0	1.0
18	1.4	1.3	1.3
19	1.7	1.6	1.6
20	2.0	2.0	1.9
21*	2.5	2.4	2.3
22*	2.9	2.8	2.7
	O.C. (B)		

- The table above shows O.C. (B) for ★R1 chamfering.
* Please refer to the locus chart if door thickness is over 20mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

Cut out dimensions (steel doors)



*1: Please set the bottom of the cup at a depth of 11mm.
*2: Please chamfer this mounting hole. (ϕ5.1)
*3: Internal threads need to be made by welding nut or burning.

Bore distance (C) and overlay (E) relationship

Bore Distance (C)	3	4	5
Overlay (E)	7	8	9

Overlay can be decreased by up to 4mm by turning the overlay adjustment screw.

Refer to 1: P.181~P.182

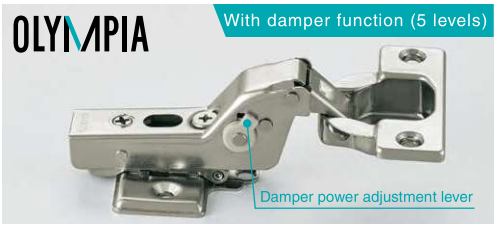
Opening clearance (A) and door width relationship (for 20mm thick door)

Door Width	300	400	500	600
O.C. (A)	0.13	0.09	0.07	0.06

93° Opening | **Inset** | **Cup Dia ϕ35 Bore Depth 11mm Recommended Door Thickness 15~20mm** | **Mounting Plate 1 OLYMPIA Series**

CONCEALED HINGE 360 Inset / 93°opening

Lapcon



The picture above shows a combination of a concealed hinge (with damper) and a mounting plate (sold separately).

[Specifications]
- Cup size: ϕ35 / Bore Depth: 11 mm / Door Thickness: 15~20 mm
- 3D adjustment: Depth: +1.5, -2.5 mm, Vertical: ±2.5 mm, Overlay: +0, -4 mm

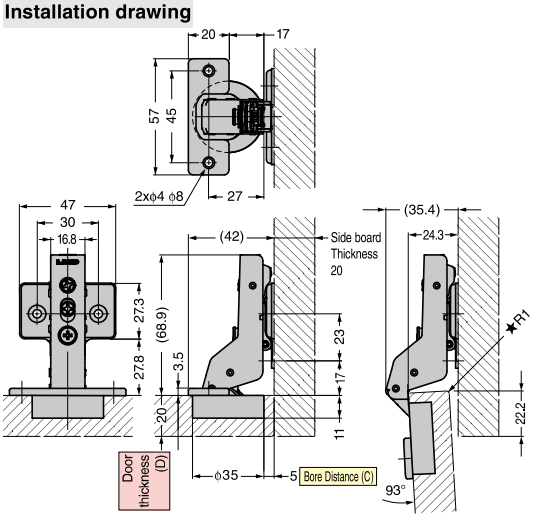
[Sold Separately]
- Mounting plates, Glass door face plate, Countersunk head tapping screw 3.5 × 15NI, etc.

[Recommended Screws]
- Countersunk head wood/tapping screw 3.5

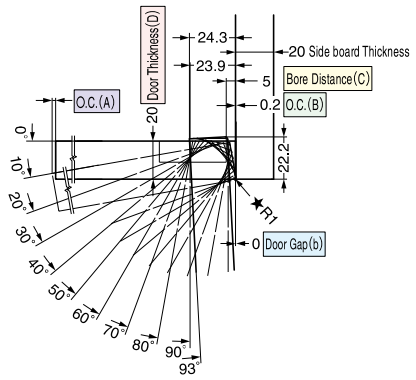
RoHS	CAD	Item Code	Item Name	Opening Angle	Type	Material	Finish	Box (pcs)
G	3D	160-026-843	360-D26-0T	93°	With damper (5 levels)	Steel	Nickel	100
G	3D	160-026-839	360-26-0T		Without catch			200
G	3D	160-026-835	360-C26-0T		With catch			200
G	3D	160-042-392	360-U26-0T		Sprung-open			200

▶ The installation drawing and locus chart shown are for a 20 mm thick door and side board, a 5mm bore distance and inset installation.

Installation drawing



Locus chart S≒1/4



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Opening Clearance (O.C.)

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

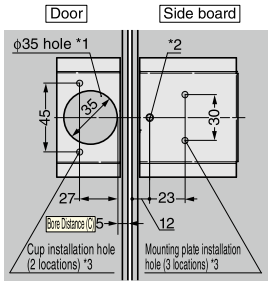
Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)		
	3	4	5
15	0	0	0
16	0	0	0
17	0	0	0
18	0.1	0	0
19	0.1	0.1	0.1
20	0.3	0.3	0.3
21*	0.6	0.5	0.4
22*	1.5	1	0.7
	O.C. (B)		

• The table above shows O.C. (B) for ★R1 chamfering.

* Please refer to the locus chart if door thickness is over 20mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

Cut out dimensions (steel doors)



*1: Please set the bottom of the cup at a depth of 11mm.
*2: Please chamfer this mounting hole. (ϕ5.1)
*3: Internal threads need to be made by welding nut or burning.

Bore distance (C) and Door Gap (b) relationship

Bore Distance (C)	3	4	5
Door Gap (b)	2	1	0

Door Gap (b) adjustment (+4mm) by turning the overlay adjustment screw. Please check required O.C. (B) at the table below.

Refer to 1: P.181~P.182

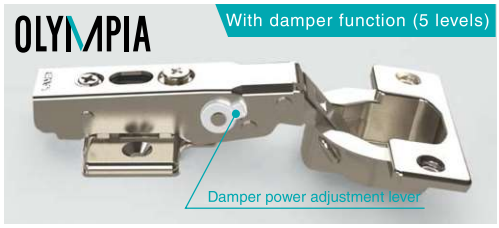
Opening clearance (A) and door width relationship (for 20mm thick door)

Door Width	300	400	500	600
O.C. (A)	0.44	0.32	0.25	0.21

105°, 85° Opening | **26mm Overlay** | **Overlay 22~26mm (When Bore Distance is 8 mm)** | **Cup Dia ϕ40 Bore Depth 15mm Recommended Door Thickness 18~30mm** | **Mounting Plate 1 OLYMPIA Series**

CONCEALED HINGE H360 Thick Doors / 26mm overlay / 100°opening

Lajcon



The picture above shows a combination of a concealed hinge (with damper) and a mounting plate (sold separately).

[Specifications]
- Overlay: 22~26 mm (when bore distance is 8 mm.)
- Cup size: ϕ40 / Bore Depth: 15 mm / Door Thickness: 18~30 mm
- 3D adjustment: Depth: +1.7, -2.8 mm, Vertical: ±2.5 mm, Overlay: +0, -4 mm

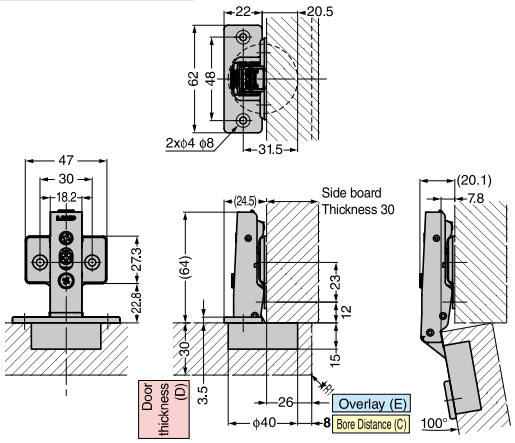
[Sold Separately]
- Mounting plates, Glass door face plate, Countersunk head tapping screw 3.5 × 15NI, etc.

[Recommended Screws]
- Countersunk head wood/tapping screw 3.5

RoHS	CAD	Item Code	Item Name	Opening Angle	Type	Material	Finish	Box (pcs)
G	3D	160-029-084	H360-D26-26T	100°	With damper (5 levels)	Steel	Nickel	100
G	3D	160-029-081	H360-26-26T		Without catch			100
G	3D	160-029-078	H360-C26-26T		With catch			100

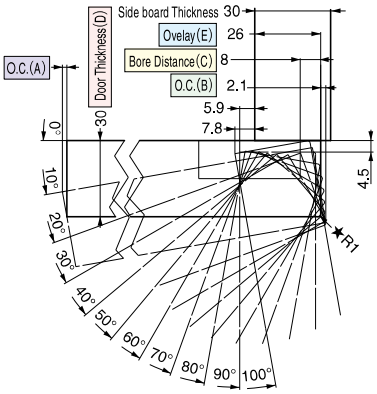
▶ The installation drawing and locus chart shown are for a 30 mm thick door and side board, 26mm overlay and a 8mm bore distance.

Installation drawing



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Locus chart



Opening Clearance (O.C.)

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

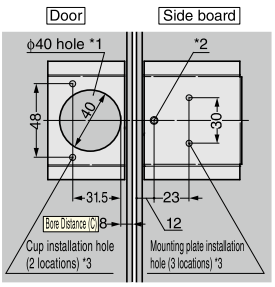
Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)					
	3	4	5	6	7	8
18	0.1	0.1	0.1	0.1	0.1	0.1
20	0.3	0.3	0.3	0.3	0.3	0.3
22	0.5	0.5	0.5	0.5	0.5	0.5
24	0.8	0.8	0.8	0.8	0.8	0.8
26	1.3	1.2	1.2	1.2	1.1	1.1
28	3.6	2.6	1.6	1.6	1.6	1.5
30	6.0	5.0	4.0	3.0	2.1	2.1
32*	8.4	7.4	6.4	5.4	4.4	3.4
34*	10.8	9.8	8.8	7.8	6.8	5.8
	O.C. (B)					

• The table above shows O.C. (B) for ★R1 chamfering.

* Please refer to the locus chart if door thickness is over 30mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

Cut out dimensions (steel doors)



*1: Please set the bottom of the cup at a depth of 11mm.
*2: Please chamfer this mounting hole. (ϕ5.1)
*3: Internal threads need to be made by welding nut or burning.

Bore distance (C) and overlay (E) relationship

Bore Distance (C)	3	4	5	6	7	8
Overlay (E)	21	22	23	24	25	26

Overlay can be decreased by up to 4mm by turning the overlay adjustment screw.

Opening clearance (A) and door width relationship (for 30mm thick door)

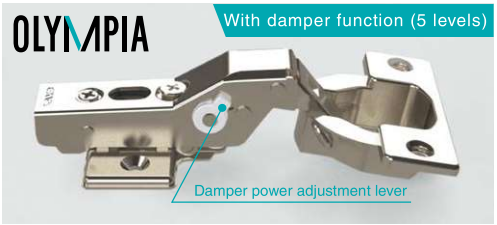
Door Width	300	400	500	600
O.C. (A)	0.35	0.25	0.19	0.16

Refer to 1: P.181~P.182

105°, 85° Opening | 16mm Overlay | Overlay 12~16mm (When Bore Distance is 8 mm) | Cup Dia ϕ40 Bore Depth 15mm Recommended Door Thickness 18~30mm | Mounting Plate 1 OLYMPIA Series

CONCEALED HINGE H360 Thick Doors / 16mm overlay / 100°opening

Lapcon



The picture above shows a combination of a concealed hinge (with damper) and a mounting plate (sold separately).

[Specifications]
- Overlay: 12~16 mm (when bore distance is 8 mm.)
- Cup size: ϕ40 / Bore Depth: 15 mm / Door Thickness: 18~30 mm
- 3D adjustment: Depth: +1.7, -2.8 mm, Vertical: ±2.5 mm, Overlay: +0, -4 mm

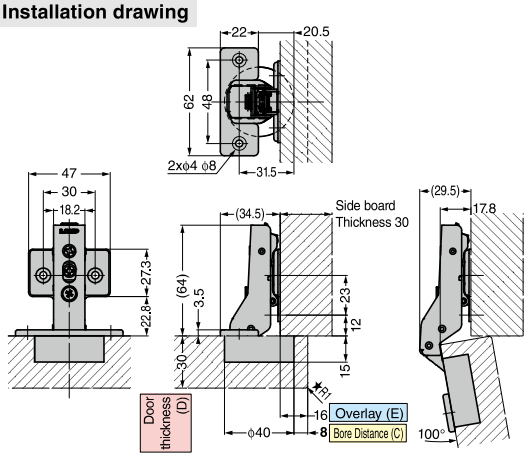
[Sold Separately]
- Mounting plates, Glass door face plate, Countersunk head tapping screw 3.5 × 15NI, etc.

[Recommended Screws]
- Countersunk head wood/tapping screw 3.5

RoHS	CAD	Item Code	Item Name	Opening Angle	Type	Material	Finish	Box (pcs)
G	3D	160-029-085	H360-D26-16T	100°	With damper (5 levels)	Steel	Nickel	100
G	3D	160-029-082	H360-26-16T		Without catch			100
G	3D	160-029-079	H360-C26-16T		With catch			100

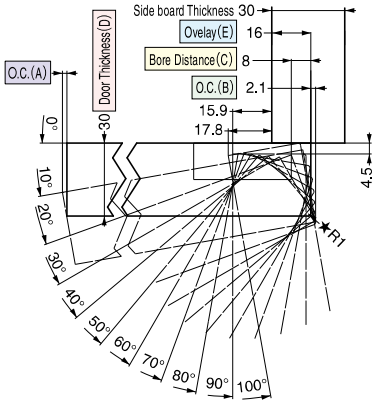
The installation drawing and locus chart shown are for a 30 mm thick door and side board, 16mm overlay and a 8mm bore distance.

Installation drawing



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Locus chart



Opening Clearance (O.C.)

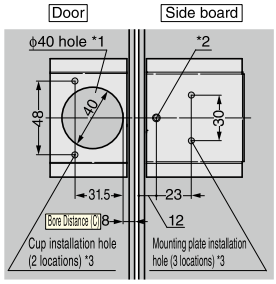
Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)					
	3	4	5	6	7	8
18	0.1	0.1	0.1	0.1	0.1	0.1
20	0.3	0.3	0.3	0.3	0.3	0.3
22	0.5	0.5	0.5	0.5	0.5	0.5
24	0.8	0.8	0.8	0.8	0.8	0.8
26	1.3	1.2	1.2	1.2	1.1	1.1
28	3.6	2.6	1.6	1.6	1.6	1.5
30	6.0	5.0	4.0	3.0	2.1	2.1
32*	8.4	7.4	6.4	5.4	4.4	3.4
34*	10.8	9.8	8.8	7.8	6.8	5.8
	O.C. (B)					

- The table above shows O.C. (B) for ★R1 chamfering.
- * Please refer to the locus chart if door thickness is over 30mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

Cut out dimensions (steel doors)



*1: Please set the bottom of the cup at a depth of 11mm.
*2: Please chamfer this mounting hole. (ϕ5.1)
*3: Internal threads need to be made by welding nut or burning.

Bore distance (C) and overlay (E) relationship

Bore Distance (C)	3	4	5	6	7	8
Overlay (E)	11	12	13	14	15	16

Overlay can be decreased by up to 4mm by turning the overlay adjustment screw.

Refer to 1: P.181~P.182

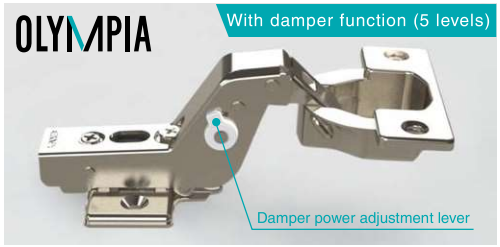
Opening clearance (A) and door width relationship (for 30mm thick door)

Door Width	300	400	500	600
O.C. (A)	0.35	0.25	0.19	0.16

93° Opening | **Inset** | **Cup Dia ϕ40 Bore Depth 15mm Recommended Door Thickness 18~30mm** | **Mounting Plate 1 OLYMPIA Series**

CONCEALED HINGE H360 Thick Doors / Inset / 93°opening

Lapcon



The picture above shows a combination of a concealed hinge (with damper) and a mounting plate (sold separately).

[Specifications]
- Cup size: ϕ40 / Bore Depth: 15 mm / Door Thickness: 18~30 mm
- 3D adjustment: Depth: +1.7, -2.8 mm, Vertical: ±2.5 mm, Overlay: +0, -4 mm

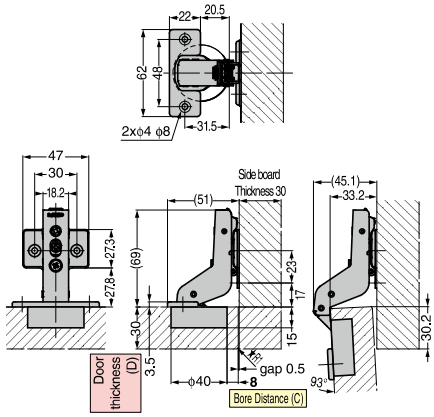
[Sold Separately]
- Mounting plates, Glass door face plate, Countersunk head tapping screw 3.5 × 15NI, etc.

[Recommended Screws]
- Countersunk head wood/tapping screw 3.5

RoHS	CAD	Item Code	Item Name	Opening Angle	Type	Material	Finish	Box (pcs)
G	3D	160-029-086	H360-D26-0T	93°	With damper (5 levels)	Steel	Nickel	100
G	3D	160-029-083	H360-26-0T		Without catch			100
G	3D	160-029-080	H360-C26-0T		With catch			100

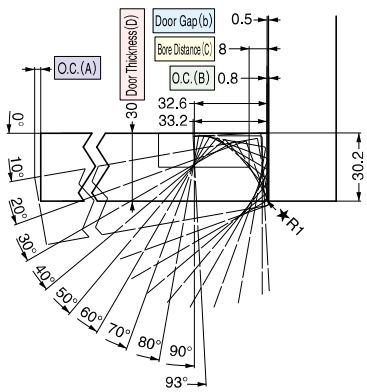
▶ The installation drawing and locus chart shown are for a 30 mm thick door and side board, a 8mm bore distance and inset installation.

Installation drawing



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Locus chart



Opening Clearance (O.C.)

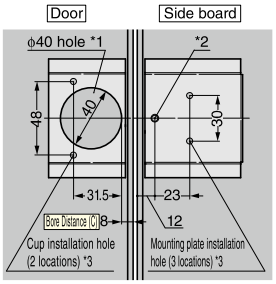
Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)					
	3	4	5	6	7	8
18	0	0	0	0	0	0
20	0	0	0	0	0	0
22	0	0	0	0	0	0
24	0.1	0.1	0.1	0.1	0.1	0.1
26	0.3	0.3	0.3	0.3	0.3	0.3
28	1.7	0.9	0.5	0.5	0.5	0.5
30	3.9	2.9	4.0	3.3	2.7	2.2
32*	5.9	4.9	4.0	3.3	2.7	2.2
34*	8.1	7.1	6.1	5.2	4.6	4.0
	O.C. (B)					

- The table above shows O.C. (B) for ★R1 chamfering.
- * Please refer to the locus chart if door thickness is over 30mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

Cut out dimensions (steel doors)



*1: Please set the bottom of the cup at a depth of 11mm.
*2: Please chamfer this mounting hole. (ϕ5.1)
*3: Internal threads need to be made by welding nut or burning.

Bore distance (C) and Door Gap (b) relationship

Bore Distance (C)	3	4	5	6	7	8
Door Gap (b)	5.5	4.5	3.5	2.5	1.5	0.5

Door Gap (b) adjustment (+4mm) by turning the overlay adjustment screw. Please check required O.C. (B) at the table below.

Refer to 1: P.181~P.182

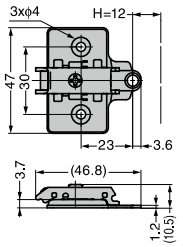
Opening clearance (A) and door width relationship (for 30mm thick door)

Door Width	300	400	500	600
O.C. (A)	0.78	0.55	0.43	0.35

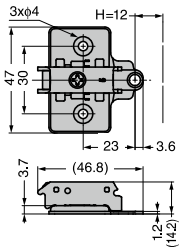
MOUNTING PLATE 360-P4W-30T System 30



Standard

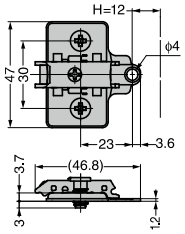


+5mm





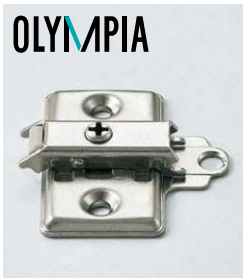
Pre-mounted screw (holes φ5, min. 8.5 depth)



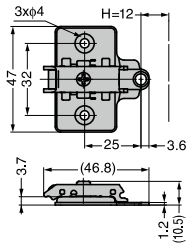
- Value of H for inset installation is "door thickness + 17 mm".
- When using with the GH-360FP, value of H is "door thickness + 19 mm".

RoHS	CAD	Item Code	Item Name	Type	Height Adjustment	Material	Finish	Box (pcs)
G	3D	160-026-844	360-P4W-30T	Standard	±2.5mm	Steel	Nickel	400
G	3D	160-035-077	360-P4W-30T+5	+5mm				400
G	3D	160-042-394	360-P4W-30T-DS	Pre-mounted screw				400

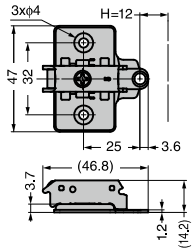
MOUNTING PLATE 360-P4W-32T System 32



Standard

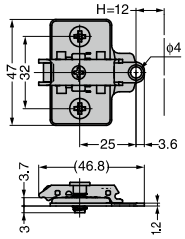


+5mm





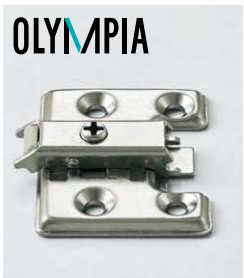
Pre-mounted screw (holes φ5, min. 8.5 depth)



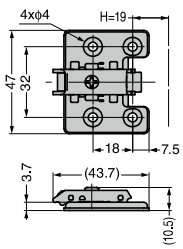
- Value of H for inset installation is "door thickness + 17 mm".
- When using with the GH-360FP, value of H is "door thickness + 19 mm".

RoHS	CAD	Item Code	Item Name	Type	Height Adjustment	Material	Finish	Box (pcs)
G	3D	160-026-845	360-P4W-32T	Standard	±2.5mm	Steel	Nickel	400
G	3D	160-035-078	360-P4W-32T+5	+5mm				400
G	3D	160-042-395	360-P4W-32T-DS	Pre-mounted screw				400

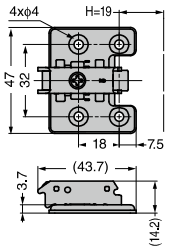
MOUNTING PLATE 360-P6WT System 32 with 4 holes



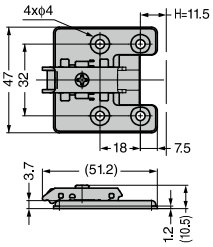
Standard



+5mm



+7.5mm



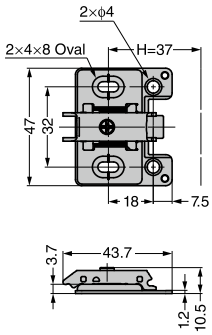
- For the standard and +5mm types:
  - Value of H for inset installation is "door thickness + 24 mm".
  - When using with the GH-360FP, value of H is "door thickness + 26 mm".
- For the +7.5mm type:
  - Value of H for inset installation is "door thickness + 16.5 mm".
  - When using with the GH-360FP, value of H is "door thickness + 18.5 mm".

RoHS	CAD	Item Code	Item Name	Type	Height Adjustment	Material	Finish	Box (pcs)
G	3D	160-026-846	360-P6WT	Standard	±2.5mm	Steel	Nickel	400
G	3D	160-035-079	360-P6WT+5	+5mm				400
G	3D	160-042-393	360-P6W-30-32T	+7.5mm				400

MOUNTING PLATE 360-P6WT-NA 8mm Depth Adjustment Type

OLYMPIA





[Specifications]
- Vertical adjustment (±3 mm), depth adjustment (±2 mm)
- Thickness: 0 mm (standard thickness)
- For inset specifications, the H dimension door thickness is +42 mm.
- When using GH-360FP 1, the door thickness is +44 mm.

[Sold Separately]
- Raised countersunk head tapping screws 3.5×15

[Optional Parts]
- Mounting Plate Mounting Jig 360-JIG 2

[Remarks]
- Fix the slot and then fix the round hole after adjustment.

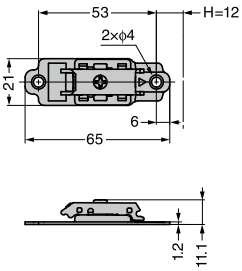
RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-050-436	360-P6WT-NA	Steel	Nickel	26	400

Refer to 1: P.184, 2: P.185

MOUNTING PLATE 360-P3W-53T Straight Type

OLYMPIA





- The slim design gives a sleek look.

[Specification]
- Vertical adjustment : ± 2.5 mm
- Standard height : 0 mm
- Value of H : door thickness + 17 mm in case of inset.
- Value of H : door thickness + 19 mm in use of GH-360FP. 1

[Remarks]
- When using with two H360 hinges, door spec should be as below:
  - Door width : max. 450 mm
  - Door weight : max. 7 kg

[Sold Separately]
- Raised countersunk head tapping screw 3.5 x 15

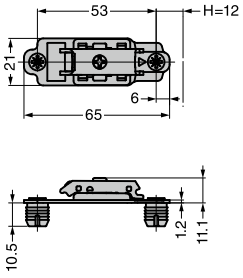
RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	—	160-046-697	360-P3W-53T	Steel	Nickel Plating	20	400

Refer to 1: P.184

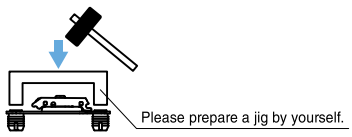
MOUNTING PLATE 360-P3W-53T-D10 Straight Type / With Dowels

OLYMPIA





[Installation]



- The slim design gives a sleek look.
- Pre-attached with press-in dowels.

[Specification]
- Vertical adjustment : ± 2.5 mm
- Standard height : 0 mm
- Value of H : door thickness + 17 mm in case of inset.
- Value of H : door thickness + 19 mm in use of GH-360FP. 1
- Mounting hole : φ10 (depth: 11mm and more)

[Remarks]
- Press in the dowels at the same time.
- When using with two H360 hinges, door spec should be as below:
  - Door width : max. 450 mm
  - Door weight : max. 7 kg

RoHS	CAD	Item Code	Item Name	Material	Finish	Dowel Material	Weight (g)	Box (pcs)
G	—	160-046-698	360-P3W-53T-D10	Steel	Nickel Plating	Polyamide (PA)	24	400

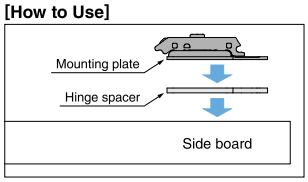
Refer to 1: P.184

HINGE SPACER 360-DP2-P4 2 mm Thick / 2 Holes / OLYMPIA Series

OLYMPIA



[How to Use]



Set the spacer between the mounting plate and side board.

- Decreases overlay of outset doors by 2 mm.
- Increases clearance of inset doors by 2 mm.
- Can be doubled for 4 mm thickness.

[Available Mounting Plate]

- 360-P4W-30T
- 360-P4W-30T+5
- 360-P4W-32T
- 360-P4W-32T+5

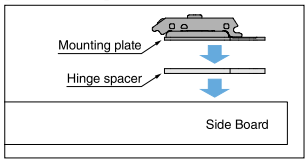
RoHS	CAD	Item Code	Item Name	Material	Colour	Weight (g)	Pack (pcs)	Box (pcs)
G	3D	160-046-075	360-DP2-P4	POM	Grey	2.6	50	500

HINGE SPACER 360-DP2-P6-NA 2 mm Thick / OLYMPIA Series

OLYMPIA



[How to Use]



Set the spacer between the mounting plate and side board.

- Decreases overlay of outset doors by 2 mm.
- Increases clearance of inset doors by 2 mm.
- Can be doubled for 4 mm thickness.

[Available Mounting Plates]

- 360-P6WT
- 360-P6WT+5
- 360-P6WT-NA

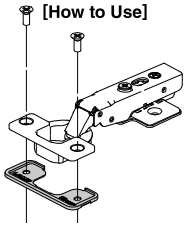
RoHS	CAD	Item Code	Item Name	Material	Colour	Weight (g)	Pack (pcs)	Box (pcs)
G	3D	160-050-437	360-DP2-P6-NA	POM	Grey	2.9	50	500

HINGE SPACER FOR SHEET METAL 360-BCS OLYMPIA Series

OLYMPIA



[How to Use]

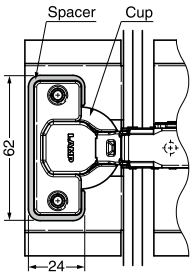


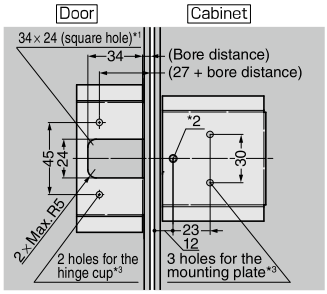
- Allows for easier mount on sheet metal of the Olympia hinges. (Cup diameter: 35 mm)

[Specification]

- The thickness is 0.7 mm.

[Installation]

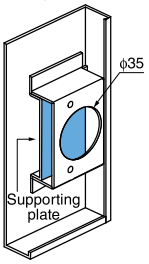




*1: No supporting plates for hinge cups are needed.
*2: Please process chamfering on the holes. (ϕ 5.1)
*3: Female threading is required including nut welding and burring process. (Recommended size: M4)

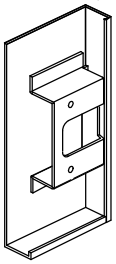
[Easier Mount on Sheet Metal Door]

- Without the spacer



Supporting plates are required at the depth of 11 mm below the hinge cup.

- With the spacer

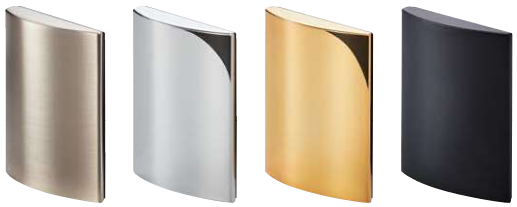


No supporting plates are needed.

RoHS	CAD	Item Code	Item Name	Material	Box (pcs)
G	3D	160-045-368	360-BCS	POM	500

GLASS DOOR FACE PLATE GH-360FP

OLYMPIA



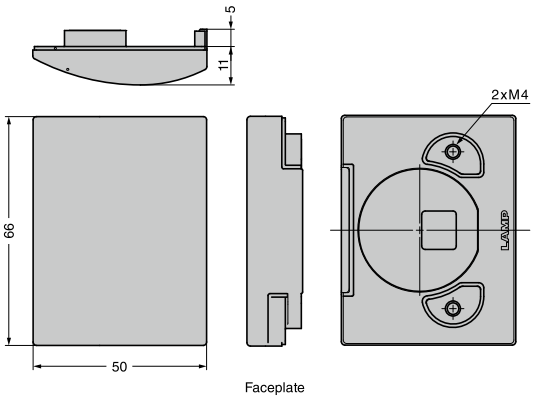
GH-360FP-SN GH-360FP-CR GH-360FP-GP GH-360FP-BL

- Glass door face plate designed specifically for the Olympia hinge. (Not suitable for the H360 hinge).
- For tempered glass doors.
- Use the screws supplied and tighten to 0.75~1.5N.m

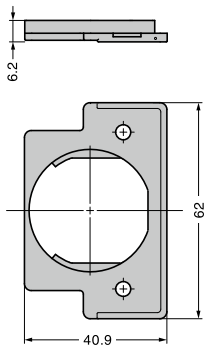
[Parts included]

- Cross Recessed Flat Head Machine Screw M4×14

RoHS	CAD	Item Code	Item Name	Finish / Colour	Material
G	3D	160-043-631	GH-360FP-CR	Chrome plating	Zinc Alloy (ZDC) Polyacetal (POM)
G	3D	160-043-632	GH-360FP-SN	Satin nickel	
G	3D	160-043-724	GH-360FP-GP	24K Gold plating	
G	3D	160-043-633	GH-360FP-BL	Black	



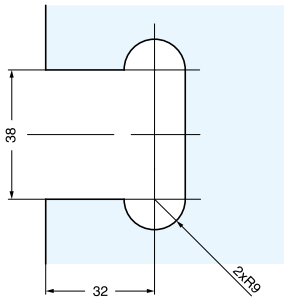
Faceplate



Socket spacer

[Cut Out Dimensions]

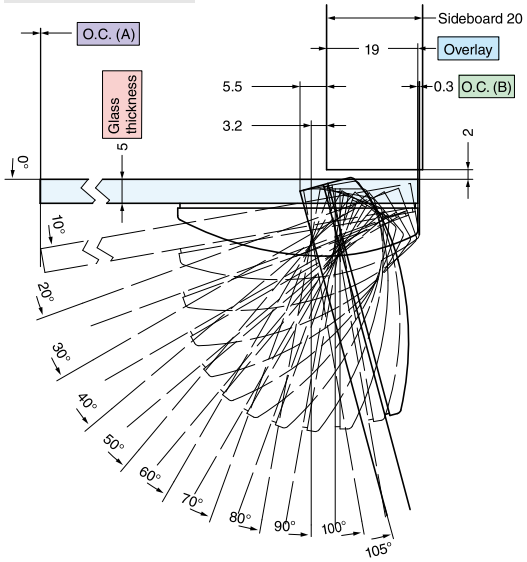
- Please use 4 ~ 6mm tempered glass.
- Use of shatterproof film is recommended.



Side board and face plate relationship

▶ For a 5mm door, 20mm sideboard and 19 overlay.

Locus chart S≒7/10 Overlay (19mm)



Opening clearance (O.C.)

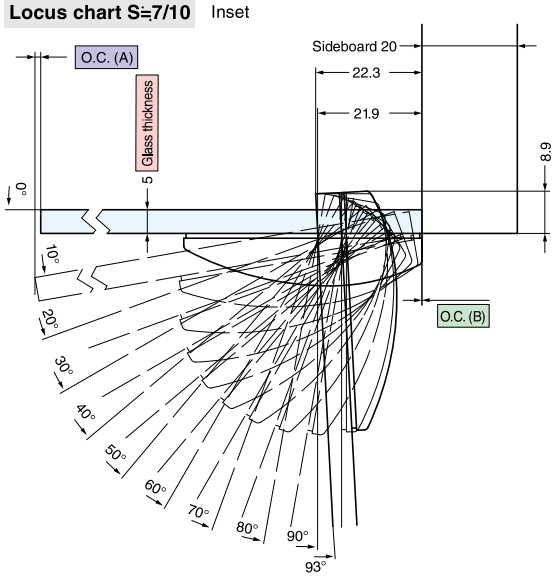
Glass thickness	4	5	6
O.C. (B)	0.2	0.3	0.5

Opening clearance (A) and door width relationship (for 5mm door)

Glass width	300	400	500	600
O.C. (A)	0.07	0.05	0.04	0.03

▶ For a 5mm door, 20mm sideboard and inset installation.

Locus chart S≒7/10 Inset



Opening clearance (O.C.)

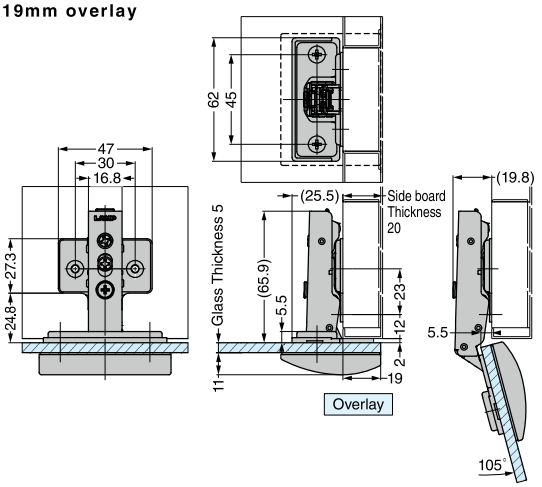
Glass thickness	4	5	6
O.C. (B)	0	0	0

Opening clearance (A) and door width relationship (for 5mm door)

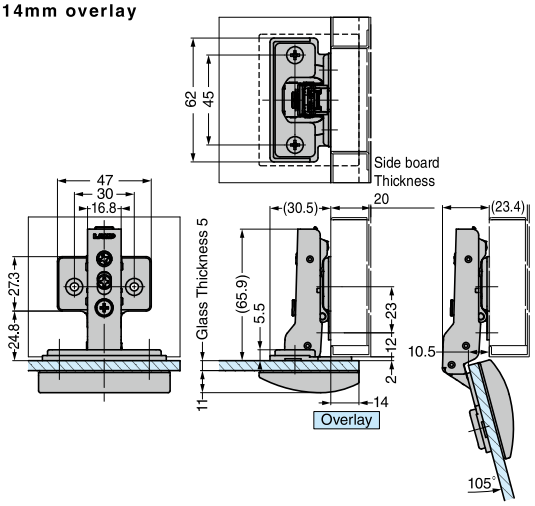
Glass width	300	400	500	600
O.C. (A)	0.34	0.25	0.19	0.16

Installation drawing

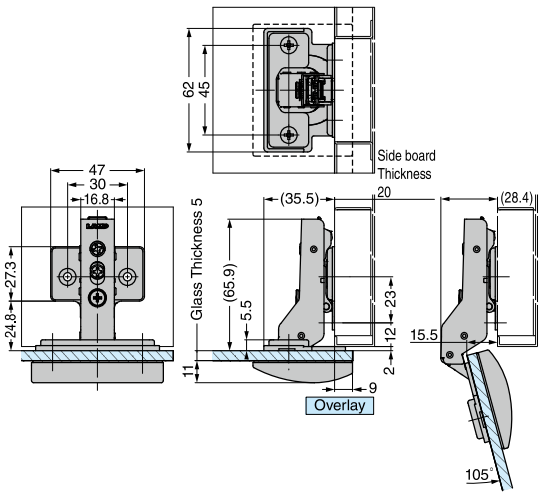
19mm overlay



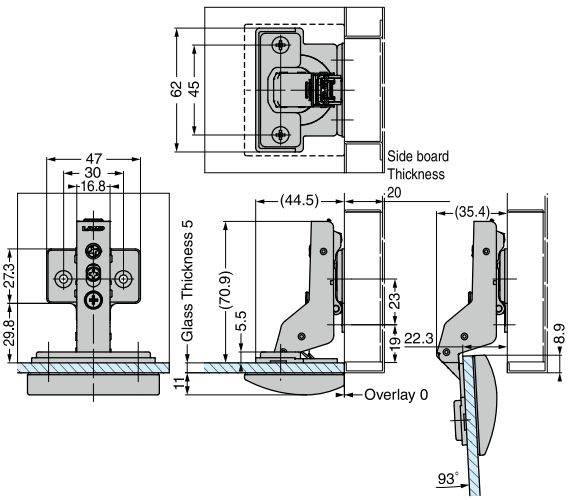
14mm overlay



9mm overlay



Inset



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

INSTALLATION JIG 360-JIG Overlay installation



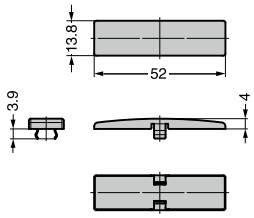
- For easy installation and alignment of the Olympia hinge mounting plate.
- Cannot be used in combination with 360-P6W-30-32T and pre-mounted screw mounting plates.

RoHS	CAD	Item Code	Item Name	Box (pcs)	Carton (pcs)
G	3D	160-042-396	360-JIG	50	500

BODY COVER 360HC-19H26-NI For 19 and 26 mm Overlay

OLYMPIA





- Hides screws for a sleek look.

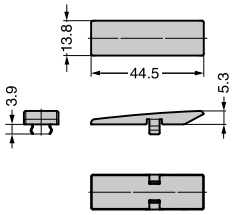
[Available Hinge]
- 360 (19 mm overlay type)
- H360 (26 mm overlay type)

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-046-883	360HC-19H26-NI	Steel	Nickel Plating	2.6	400

BODY COVER 360HC-9H16-NI For 9 and 16 mm Overlay

OLYMPIA





- Hides screws for a sleek look.

[Available Hinge]
- 360 (9 mm overlay type)
- H360 (16 mm overlay type)

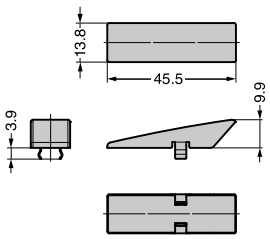
[Remarks]
- Cannot be used in 14 mm overlay installation.

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-046-884	360HC-9H16-NI	Steel	Nickel Plating	2.2	400

BODY COVER 360HC-0H0-NI For Inset

OLYMPIA





- Hides screws for a sleek look.

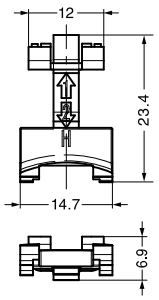
[Available Hinge]
- 360 (inset type)
- H360 (inset type)

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-046-885	360HC-0H0-NI	Steel	Nickel Plating	2.7	400

85° ANGLE LIMITER H360-85 For Thick Doors

OLYMPIA

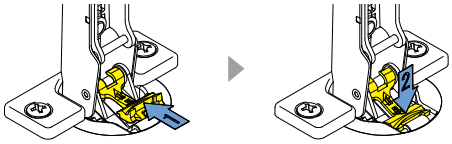




- Limits the opening angle from 100° to 85° of the H360 hinge. (The H360 is a thick door model of OLYMPIA hinge series.)

[Remarks]
- Not available for inset use.

[How to Use]

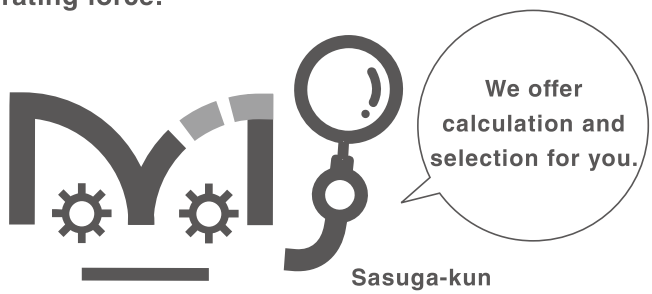


RoHS	CAD	Item Code	Item Name	Material	Colour	Box (pcs)
G	3D	160-044-151	H360-85	PBT	Grey	1,000

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

Product Selection Tool Sasuga-kun

Just inputting the dimensions and weight of the flap/door, you can select suitable Motion Design Tech products or simulate (graphically display) moment and operating force.



Access from here | Sasuga-kun | Search

https://cont.sugatsune.co.jp/motion/en/

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

HEAVY DUTY CONCEALED HINGE J95

Max. Door Weight : 25 kg with 2 pcs, 40 kg※ with 3 pcs. ※35kg for glass doors

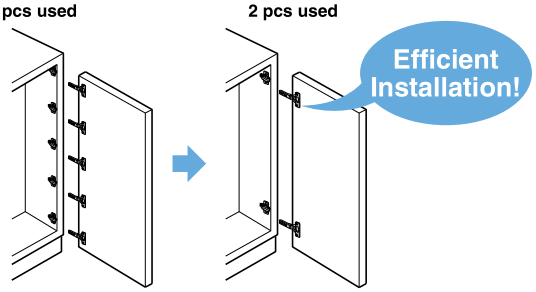
[Application Example] Chemical storage cabinets, etc.
Operating temperature of J95: -10˚C ~ 40˚C





[Normal Concealed Hinges] **5 pcs used**

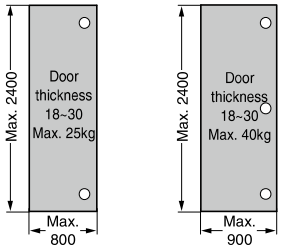
[J95] **2 pcs used**



Less usage compared with normal concealed hinges, reducing construction and installation time and providing clean appearance.

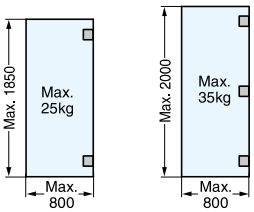
[Door Dimensions and Number of Hinges]

In case of sheet metal door

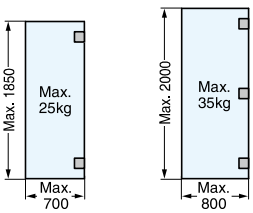


In case of glass door

Glass thickness 8mm



Glass thickness 10 mm



Install the upper and lower hinges within 200mm from the door end.Set equal installation pitch when using 3 pcs.

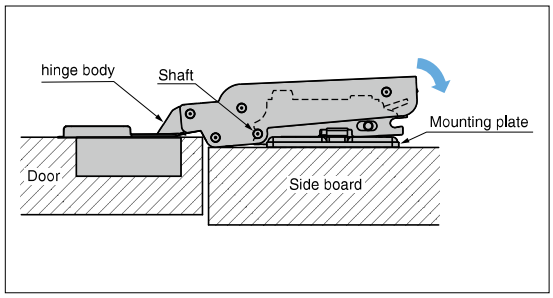
Simple Installation and Detachment by One-Touch.

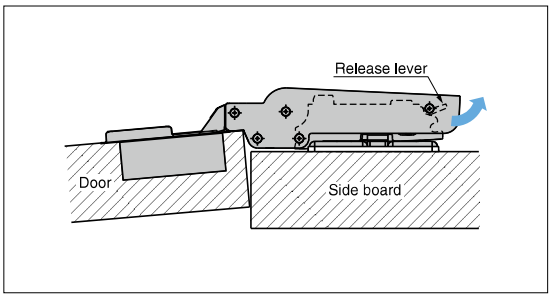
[How to Install]

Align shaft of hinge body with front end of mounting plate, and press down back end of hinge body until it snaps into place.

[How to Detach]

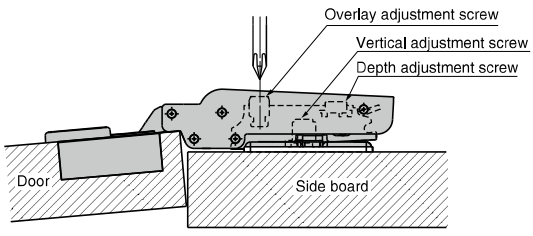
Push up release level in ↷ direction, and remove hinge body from mounting plate.





Check if hinge body is properly installed on mounting plate.

Easy and Fast Adjustment

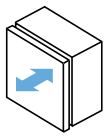
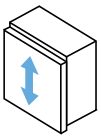


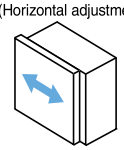
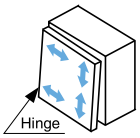
※Use a ⊕ No.2 screwdriver in the above adjustment.

With the eccentric cam mechanism, the door can be freely adjusted by only turning depth and vertical adjustment screws. Door position is easy to adjust without the need of loosening the adjustment screw, positioning and fixing.Overlay and tilting are adjustable by turning overlay adjustment screw.

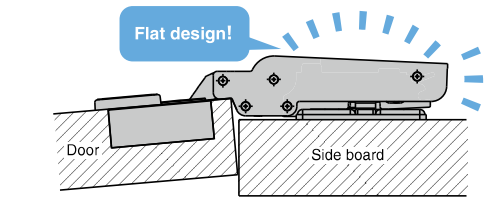
[Remarks]
Be sure to use a manual screwdriver to fine tune adjustment screws within the adjustment range. Do not use pneumatic, electric or rechargeable screwdriver. Otherwise, the adjustment range may be exceeded and damage and malfunction of adjusting mechanism may occur.

[Adjustment Directions, Amount and Method]

Depth adjustment 	+1.5 mm, –2.5 mm	Turning the depth adjustment screw counterclockwise ↺ to move the door forwards and clockwise ↻ to move the door backwards.
Vertical adjustment 	±3 mm	In case of right-hanging, turning the vertical adjustment screw counterclockwise ↺ to move the door upwards and clockwise ↻ to move the door downwards. ※In case of left-hanging, door moves in the opposite direction.

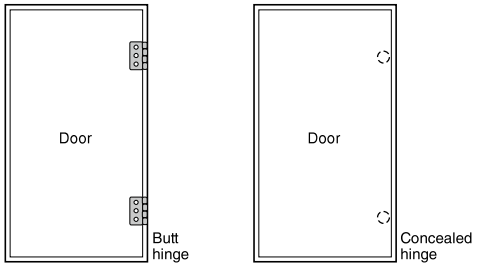
Overlay adjustment (Horizontal adjustment) 	+0 mm, –4 mm	Turning the overlay adjustment screw clockwise ↻ to decrease and counterclockwise ↺ to increase the overlay.
Tilting Adjustment 	–	Turning the overlay adjustment screw counterclockwise or clockwise to adjust.

Flat Design



Flat design with no projections such as adjustment screws on the top of body. It is safe because the release level does not protrude from the back of body.

Without Impairing Design



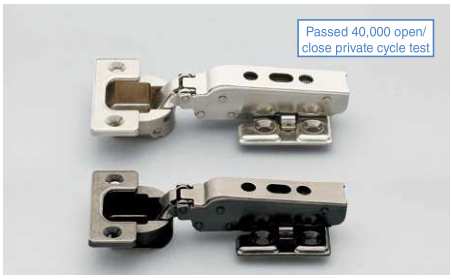
Since the hinge is not visible from outside when door is closed, it does not impair the design of cabinet.

[Remarks]
- When using concealed hinge J95 for glass and metal door, applicable door size varies.
- Door weight has priority over door size.
- Set door centre of gravity at door centre.
- Maximise the hinge installation pitch. Set equal installation pitch when using 3 pcs. Besides, the warpage of door shall be considered.
- Door dimensions and number of hinges 1 are for reference only. Please check in actual installation.
- Lubricate regularly during use.
- Watch your hands during handling before door installation.
- Do not repeatedly open and close with a single concealed hinge before installation.Otherwise, it may be damaged.
- Scattering prevention film is recommended for tempered glass.

Refer to 1 : P.188

95° Opening | **25mm Overlay** | **Overlay 21~25mm (When Bore Distance is 8 mm)** | **Cup Dia ϕ40 Bore Depth 15mm Door Thickness 18~30mm/Glass Thickness 8, 10mm** | **Mounting Plate 1 J95-P6T**

HEAVY DUTY CONCEALED HINGE J95



Picture above is the combination of concealed hinge and mounting plate (sold separately).

RoHS	CAD	Item Code	Item Name	Type	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-026-905	J95-24/25T	Without Catch	Body/Steel, Cup/Zinc Alloy (ZDC)	Nickel	134	100
G	3D	160-026-731	J95-C24/25T	With Catch			146	100
G	3D	160-034-919	J95-24/25T BN	Without Catch		Black	134	100
G	3D	160-034-916	J95-C24/25T BN	With Catch		Nickel	146	100

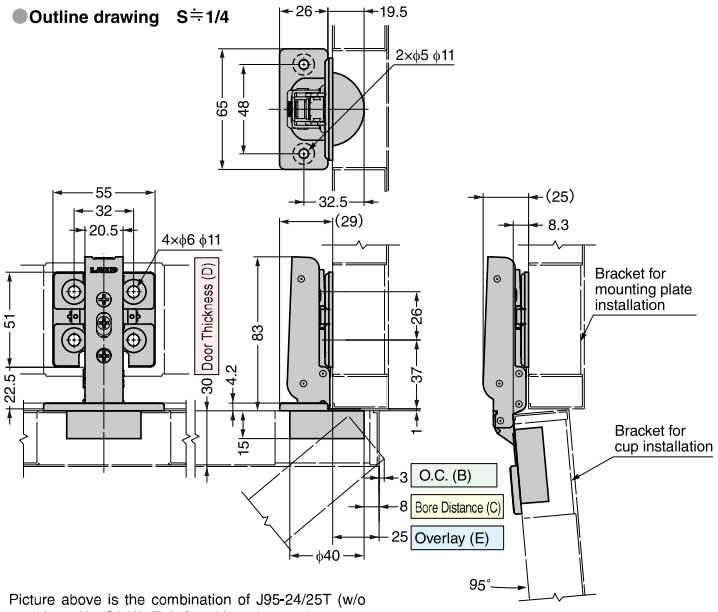
A mounting plate (sold separately) is required for installation. Please order separately.

[Sold Separately]
- Mounting plate J95-P6T 1
- Face plate for glass door GH-J95FP 2
- Safety cover J95SC-25GR 3
- Cover for mounting plate J95ZC-GR 4

[Recommended Screws]
- M5 countersunk head screw, M5 raised countersunk head screw

In case of sheet metal door

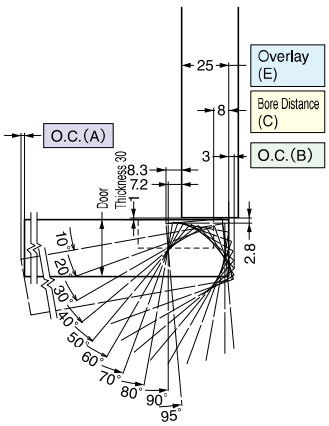
Outline drawing S≒1/4



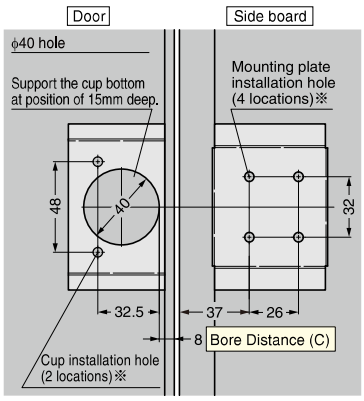
Picture above is the combination of J95-24/25T (w/o catch) or J95-C24/25T (w/catch) and mounting plate J95-P6T (sold separately).

Locus chart S≒1/4

(How to Use the Locus Chart 5)



Cut Out Dimensions



※Internal threads need to be made by welding nut or burring.

[Bore Distance (C)] Table-1

Bore Distance (C)	3	4	5	6	7	8
Overlay (E)	20	21	22	23	24	25

Overlay adjustment (Max. -4mm) by turning the Overlay adjustment screw.

[Opening Clearance (O.C.)]

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

[O.C.(B)] Table-2

Door Thickness (D)	Bore Distance (C) 3	4	5	6	7	8
18	0.3	0.3	0.3	0.3	0.3	0.3
20	0.5	0.5	0.5	0.5	0.5	0.5
22	0.8	0.8	0.8	0.7	0.7	0.7
24	1.1	1.1	1.1	1.1	1.1	1.0
26	1.7	1.6	1.6	1.5	1.5	1.5
28	3.2	2.8	2.5	2.2	2.1	2.0
30	5.0	4.5	4.0	3.6	3.3	3.0
32※	6.8	6.2	5.7	5.2	4.8	4.4
34※	8.6	8.0	7.5	6.9	6.5	6.0
	O.C. (B)					

※Please refer to the locus chart if door thickness is over 30 mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) or C chamfering (chamfer plane) on the door)

[O.C.(A)] Table-3

Door Thickness (D)	Door Width 300	400	500	600	700	800	900
30	0.5	0.3	0.3	0.2	0.2	0.2	0.2
	O.C. (A)						

[Door Dimensions and Number of Hinges] 6

Video Link

Refer to 1 4 : P.197, 2 : P.199, 3 : P.198, 5 : P.201, 6 : P.188

[How to Select Products]

Necessary Parts

In case of sheet metal door

In case of glass door





- Concealed hinge 1
- Mounting plate 2
- Face plate for glass door 3

Optional Parts

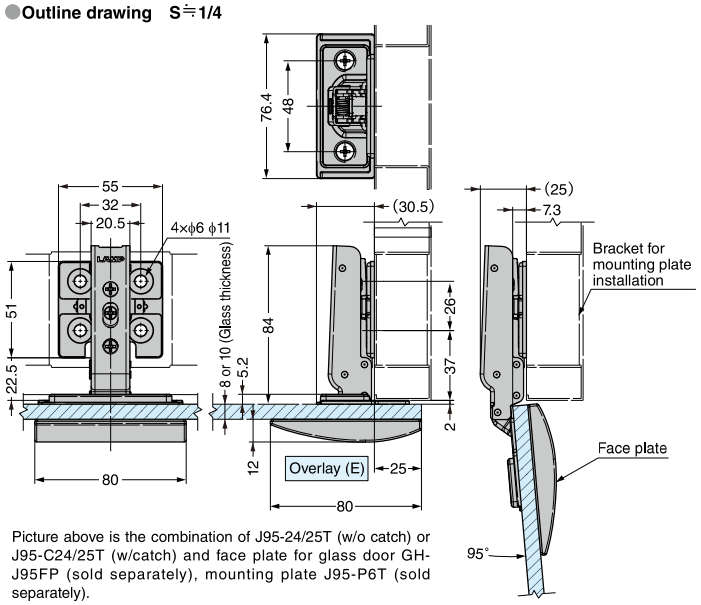




- Safety cover J95SC-25GR 4
- Cover for mounting plate 5

■In case of glass door

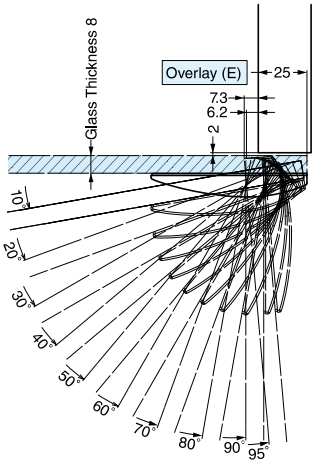
●**Outline drawing S≒1/4**



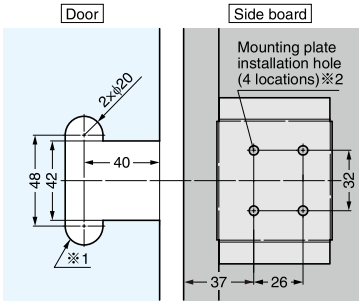
Picture above is the combination of J95-24/25T (w/o catch) or J95-C24/25T (w/catch) and face plate for glass door GH-J95FP (sold separately), mounting plate J95-P6T (sold separately).

●**Locus chart S≒1/4**

(How to Use the Locus Chart 6)



●**Cut out dimensions**



※1: Use tempered glass. Scattering prevention film is recommended.

※2: Internal threads need to be made by welding nut or burring.

[Opening Clearance (O.C.)]

When using a concealed hinge, although door edge O.C.(A) and hinge side O.C.(B) are required, but for glass door, hinge side O.C.(B) is 0 (zero) because the door thickness (glass thickness) is much thinner than that of the wooden door.Besides, O.C.(A) is identical to Table-3 7 .

[Door Dimensions and Number of Hinges] 8

Refer to 1 7 : P.190, 2 5 : P.197, 3 : P.199, 4 : P.198, 6 : P.201, 8 : P.188

95° Opening | **16mm Overlay** | **Overlay 12~16mm (When Bore Distance is 8 mm)** | **Cup Dia ϕ40 Bore Depth 15mm Door Thickness 18~30mm/Glass Thickness 8, 10mm** | **Mounting Plate 1 J95-P6T**

HEAVY DUTY CONCEALED HINGE J95



Picture above is the combination of concealed hinge and mounting plate (sold separately).

RoHS	CAD	Item Code	Item Name	Type	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-033-658	J95-24/16T	Without Catch	Body/Steel, Cup/Zinc Alloy (ZDC)	Nickel	143	50
G	3D	160-033-657	J95-C24/16T	With Catch			155	50
G	3D	160-034-920	J95-24-16T BN	Without Catch		Black	143	50
G	3D	160-034-917	J95-C24-16T BN	With Catch		Nickel	155	50

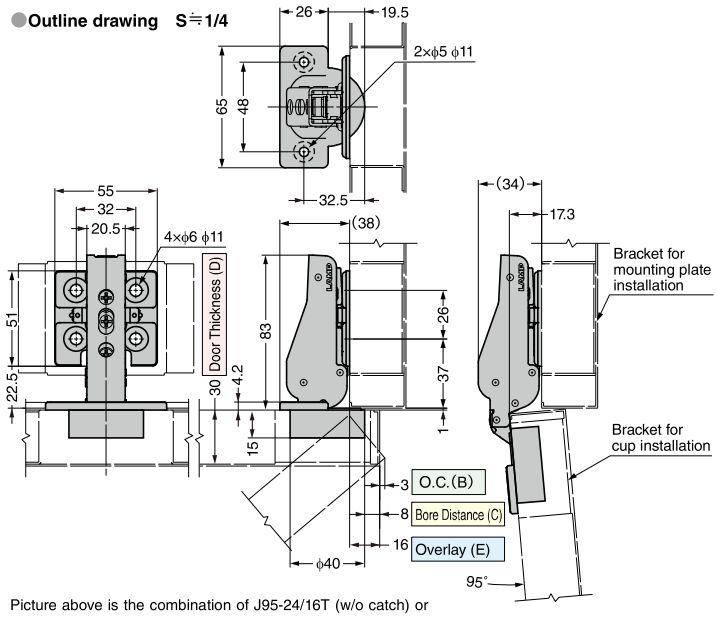
A mounting plate (sold separately) is required for installation. Please order separately.

[Sold Separately]
- Mounting plate J95-P6T 1
- Face plate for glass door GH-J95FP 2
- Safety cover J95SC-16GR 3
- Cover for mounting plate J95ZC-GR 4

[Recommended Screws]
- M5 countersunk head screw, M5 raised countersunk head screw

In case of sheet metal door

Outline drawing S≒1/4



Picture above is the combination of J95-24/16T (w/o catch) or J95-C24/16T (w/catch) and mounting plate J95-P6T (sold separately).

[Bore Distance (C)] Table-1

Bore Distance (C)	3	4	5	6	7	8
Overlay (E)	11	12	13	14	15	16

Overlay adjustment (Max. -4 mm) by turning the Overlay adjustment screw.

[Opening Clearance (O.C.)]

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

[O.C.(B)] Table-2

Door Thickness (D)	Bore Distance (C) 3	4	5	6	7	8
18	0.3	0.3	0.3	0.3	0.3	0.3
20	0.5	0.5	0.5	0.5	0.5	0.5
22	0.8	0.8	0.8	0.7	0.7	0.7
24	1.1	1.1	1.1	1.1	1.1	1.0
26	1.7	1.6	1.6	1.5	1.5	1.5
28	3.2	2.8	2.5	2.2	2.1	2.0
30	5.0	4.5	4.0	3.6	3.3	3.0
32※	6.8	6.2	5.7	5.2	4.8	4.4
34※	8.6	8.0	7.5	6.9	6.5	6.0
	O.C. (B)					

※Please refer to the locus chart if door thickness is over 30 mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) or C chamfering (chamfer plane) on the door)

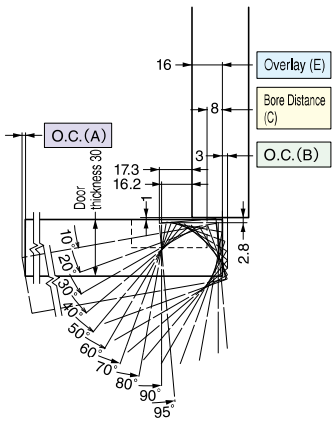
[O.C.(A)] Table-3

Door Thickness (D)	Door Width 300	400	500	600	700	800	900
30	0.5	0.3	0.3	0.2	0.2	0.2	0.2
	O.C. (A)						

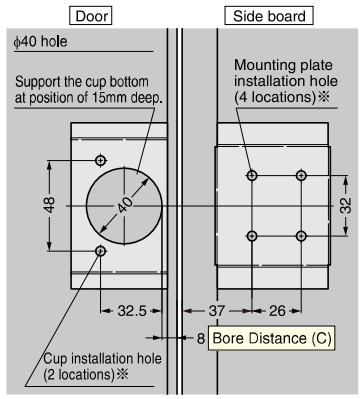
[Door Dimensions and Number of Hinges] 6

Locus chart S≒1/4

(How to Use the Locus Chart 5)



Cut out dimensions



※ Internal threads need to be made by welding nut or burring.

Video Link

Refer to 1 4 : P.197, 2 : P.199, 3 : P.198, 5 : P.201, 6 : P.188

[How to Select Products]

Necessary Parts

In case of sheet metal door

In case of glass door





- Concealed hinge 1
- Mounting plate 2
- Face plate for glass door 3

Optional Parts



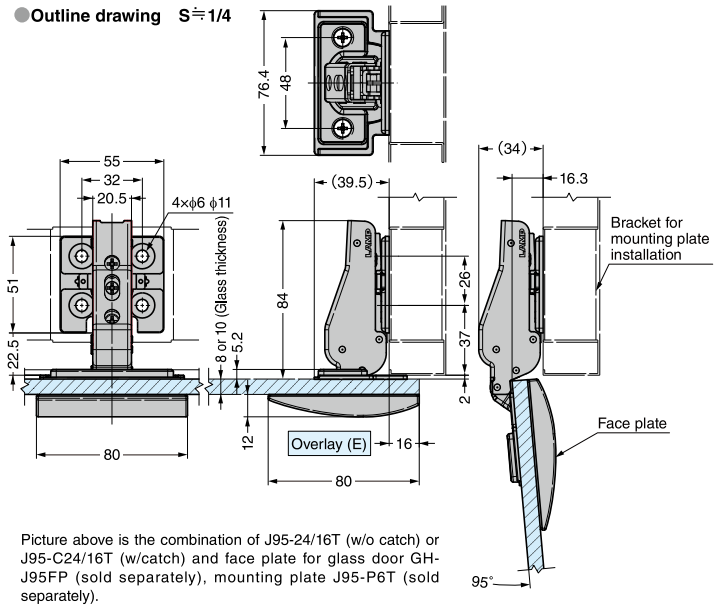
- Safety cover J95SC-16GR 4



- Cover for mounting plate 5

In case of glass door

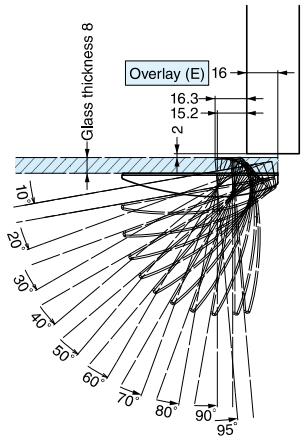
Outline drawing S≒1/4



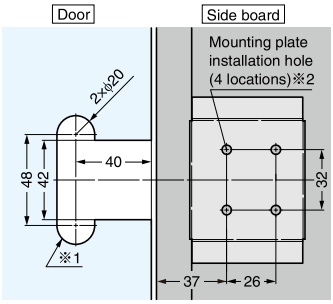
Picture above is the combination of J95-24/16T (w/o catch) or J95-C24/16T (w/catch) and face plate for glass door GH-J95FP (sold separately), mounting plate J95-P6T (sold separately).

Locus chart S≒1/4

(How to Use the Locus Chart 6)



Cut out dimensions



※1: Use tempered glass. Scattering prevention film is recommended.

※2: Internal threads need to be made by welding nut or burring.

[Opening Clearance (O.C.)]

When using a concealed hinge, although door edge O.C.(A) and hinge side O.C.(B) are required, but for glass door, hinge side O.C.(B) is 0 (zero) because the door thickness (glass thickness) is much thinner than that of the wooden door.Besides, O.C.(A) is identical to Table-3 7 .

[Door Dimensions and Number of Hinges] 8

Refer to 1 7 : P.192, 2 5 : P.197, 3 : P.199, 4 : P.198, 6 : P.201, 8 : P.188

93° Opening | **Inset** | **Cup Dia ϕ40 Bore Depth 15mm Door Thickness 18~30mm/Glass Thickness 8, 10mm** | **Mounting Plate 1 J95-P6T**

HEAVY DUTY CONCEALED HINGE J95



Picture above is the combination of concealed hinge and mounting plate (sold separately).

RoHS	CAD	Item Code	Item Name	Type	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-033-660	J95-24/0T	Without Catch	Body/Steel, Cup/Zinc Alloy (ZDC)	Nickel	148	50
G	3D	160-033-659	J95-C24/0T	With Catch			160	50
G	3D	160-034-921	J95-24-0T BN	Without Catch		Black	148	50
G	3D	160-034-918	J95-C24-0T BN	With Catch		Nickel	160	50

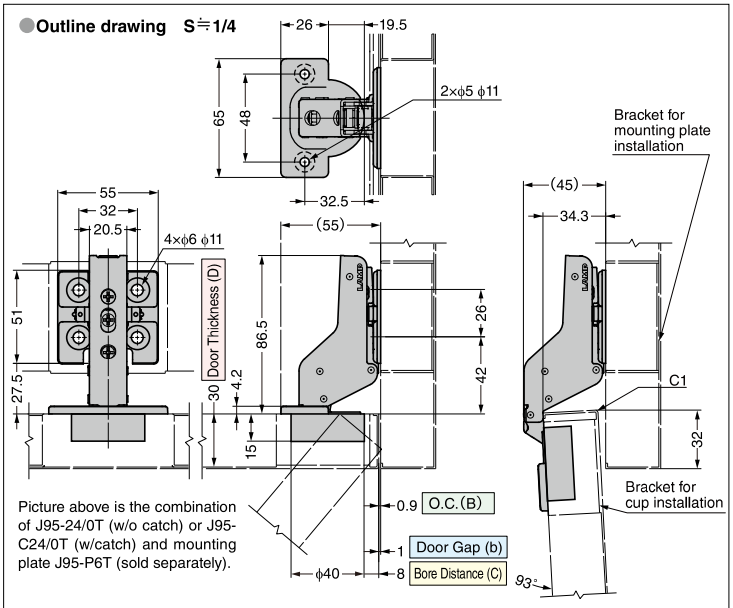
A mounting plate (sold separately) is required for installation. Please order separately.

[Sold Separately]
- Mounting plate J95-P6T 1
- Face plate for glass door GH-J95FP 2
- Safety cover J95SC-0GR 3
- Cover for mounting plate J95ZC-GR 4

[Recommended Screws]
- M5 countersunk head screw, M5 raised countersunk head screw

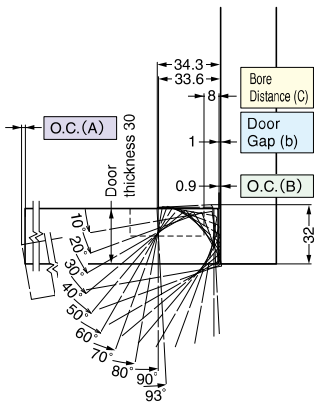
In case of sheet metal door

Outline drawing S≒1/4

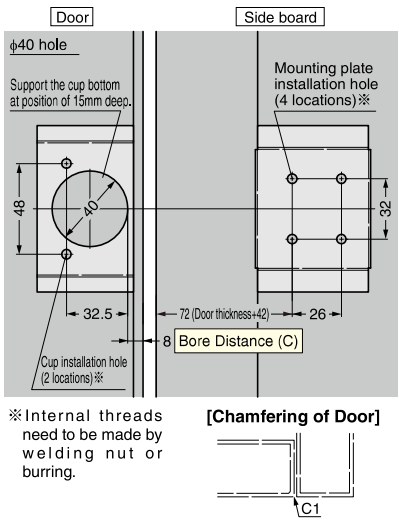


Picture above is the combination of J95-24/0T (w/o catch) or J95-C24/0T (w/catch) and mounting plate J95-P6T (sold separately).

Locus chart S≒1/4
(How to Use the Locus Chart 5)



Cut out dimensions



※Internal threads need to be made by welding nut or burring.

[Chamfering of Door]

[Bore Distance (C)] Table-1

Bore Distance (C)	3	4	5	6	7	8
Door Gap (b)	6	5	4	3	2	1

Door gap can be adjusted by turning the overlay adjustment screw.

[Opening Clearance (O.C.)]

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C).Refer to locus chart and tables below when designing cabinets.

[O.C.(B)] Table-2

Door Thickness (D)	Bore Distance (C) 3	4	5	6	7	8
18	0	0	0	0	0	0
20	0	0	0	0	0	0
22	0.1	0.1	0.1	0.1	0	0.1
24	0.1	0.1	0.1	0.1	0.1	0.1
26	0.3	0.3	0.3	0.3	0.3	0.3
28	1.7	1.1	0.6	0.5	0.5	0.5
30	3.5	2.9	2.3	1.8	1.0	0.9
32※	5.4	4.7	4.1	3.6	3.0	2.5
34※	7.3	6.6	6.0	5.4	4.8	4.3
	O.C. (B)					

※Please refer to the locus chart if door thickness is over 30 mm.(O.C. (B) can be made smaller by R chamfering (round chamfer) or C chamfering (chamfer plane) on the door)

[O.C.(A)] Table-3

Door Thickness (D)	Door Width 300	400	500	600	700	800	900
30	0.9	0.6	0.5	0.4	0.4	0.3	0.3
	O.C. (A)						

[Door Dimensions and Number of Hinges] 6

Video Link

Refer to 1 4 : P.197, 2 : P.199, 3 : P.198, 5 : P.201, 6 : P.188

[How to Select Products]

Necessary Parts

In case of sheet metal door

In case of glass door





- Concealed hinge 1
- Mounting plate 2
- Face plate for glass door 3

Optional Parts



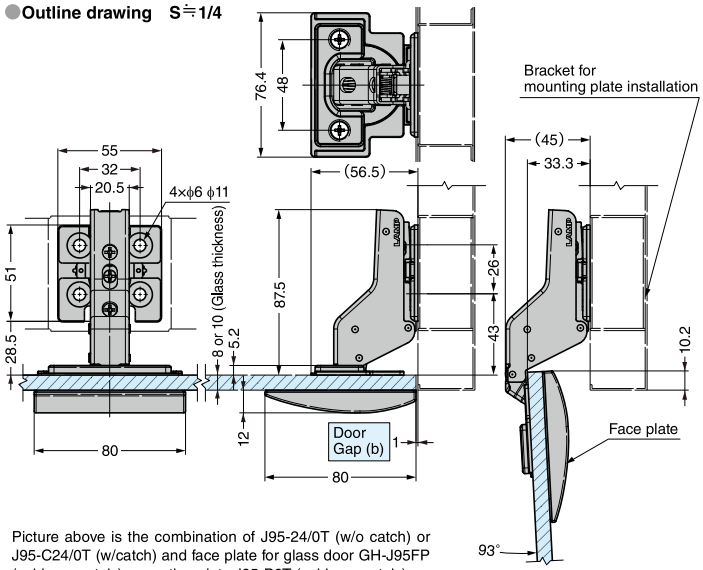
- Safety cover J95SC-0GR 4



- Cover for mounting plate 5

■In case of glass door

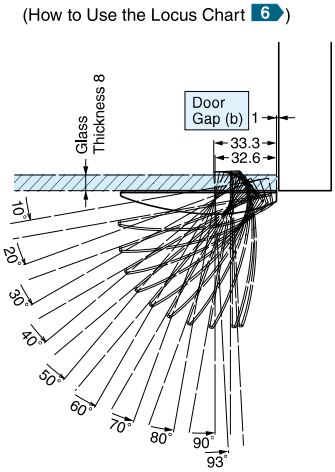
●Outline drawing S≒1/4



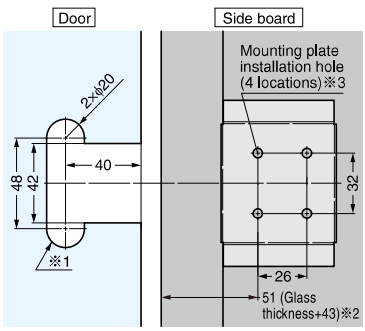
Picture above is the combination of J95-24/0T (w/o catch) or J95-C24/0T (w/catch) and face plate for glass door GH-J95FP (sold separately), mounting plate J95-P6T (sold separately).

●Locus chart S≒1/4

(How to Use the Locus Chart 6)



●Cut out dimensions



※1: Use tempered glass.Scattering prevention film is recommended.

※2: The size is 53 when using 10mm thick glass door.

※3: Internal threads need to be made by welding nut or burring.

[Opening Clearance (O.C.)]

When using a concealed hinge, although door edge O.C.(A) and hinge side O.C.(B) are required, but for glass door, hinge side O.C.(B) is 0 (zero) because the door thickness (glass thickness) is much thinner than that of the wooden door.Besides, O.C.(A) is identical to Table-3 7 .

[Door Dimensions and Number of Hinges] 8

Refer to 1 7 : P.194, 2 5 : P.197, 3 : P.199, 4 : P.198, 6 : P.201, 8 : P.188

160° Opening | **25mm Overlay** | **Overlay 21~25mm (When Bore Distance is 8 mm)** | **Door Thickness 18~36mm**

WIDE-ANGLE HEAVY-DUTY CONCEALED HINGE J160 Built-in Damper



- The built-in damper allows doors to close slowly providing premium door motion.
- Comes with a mounting plate and screw covers.

[Specification]

- 3-way adjustment of door position is available as below:
  - Depth : +1.5 mm / -2.5 mm
  - Vertical : ±3 mm
  - Overlay (horizontal) : +0 mm / -4 mm

[Remarks]

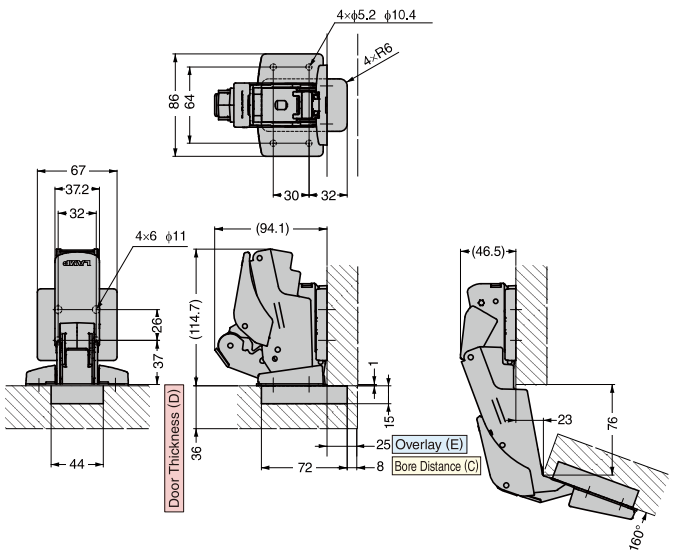
- Comes with a red holding pin which holds the hinge angle. Please do not detach it until the hinge is installed
- Please do not open and close the hinge while the holding pin is attached.

[Parts Included]

- Cross-recessed raised countersunk tapping screw 5×18

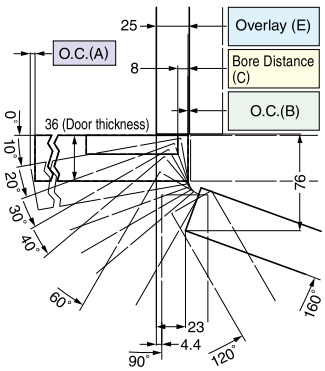
RoHS	CAD	Item Code	Item Name	Specification	Material	Finish	Weight (g)	Carton (pcs)
G	3D	160-044-973	J160-D22-25T-NI	Built-in Damper	Steel, Zinc Alloy (ZDC), Glass Filled Polyamide (PA)	Nickel	710	50
G	3D	160-044-974	J160-D22-25T-BN			Black Nickel	710	50

[Drawing]



[Locus Chart]

(How to use the locus chart 1)



[Bore Distance (C)]

Table-1

Bore Distance (C)	3	4	5	6	7	8
Overlay (E)	20	21	22	23	24	25

Overlay adjustment (Max. -4mm) by turning the overlay adjustment screw.

[Opening Clearance (O.C.)]

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

[O.C. (B)]

Table-2

Door Thickness (D)	Bore Distance (C)					
	3	4	5	6	7	8
34 and under	0.1 and under					
36	0.2	0.2	0.2	0.2	0.2	0.2
38*	0.5	0.5	0.5	0.5	0.6	0.6
40*	1.0	1.0	1.1	1.2	1.3	1.4
	O.C. (B)					

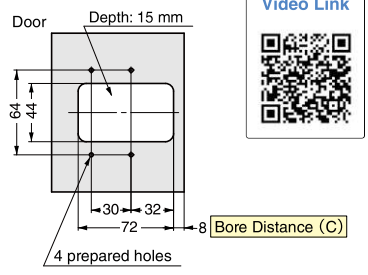
*Please refer to the locus chart if door thickness is over 36 mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) or C chamfering (chamfer plane) on the door)

[O.C. (A)]

Table-3

Door Thickness (D)	Door Width						
	300	400	500	600	700	800	900
20	1.6	1.2	1.0	0.8	0.7	0.6	0.5
30	1.9	1.4	1.2	1.0	0.8	0.7	0.7
36	1.9	1.5	1.2	1.0	0.8	0.7	0.7
	O.C. (A)						

[Cut Out Dimensions]

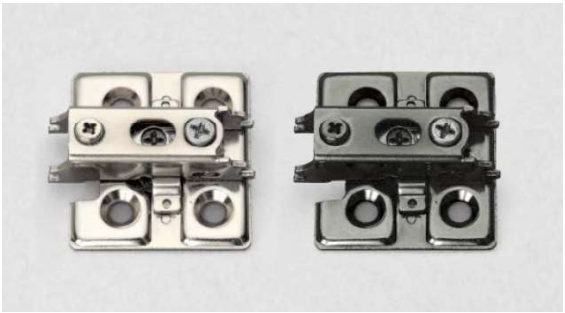


Video Link

[Door Dimensions and Number of Hinges] 2

Refer to 1 : P.201, 2 : P.188

MOUNTING PLATE J95-P6T For Heavy Duty Concealed Hinge J95



- Depth adjustment: +1.5, -2.5mm
- Vertical adjustment: ±3mm
- Overlay (horizontal) adjustment: +0, -4mm
- Value of H: Door thickness +42mm in use of INSET type.

[Sold Separately]

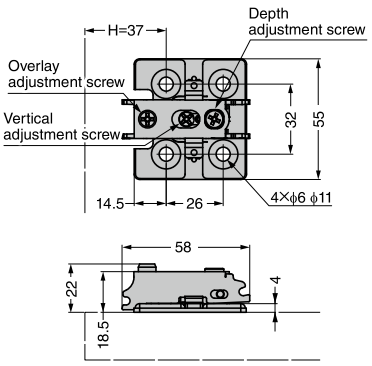
- Cover for mounting plate J95ZC-GR 1
- Raised countersunk head tapping screw 5×18

[Recommended Screws]

- Size 5 countersunk head, or raised countersunk head tapping screw or wood screw.

[Screw] Sold Separately





[Mounting Plate]

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-026-732	J95-P6T	Steel/Zinc Alloy (ZDC)	Nickel	94	100
G	3D	160-034-927	J95-P6T BN		Black Nickel	94	100

[Screw] Sold Separately

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	–	160-032-356	TAP518NI	Steel	Nickel	–	600
G	–	160-043-496	TAP518BN		Black Nickel	–	600

Refer to 1 : P.197

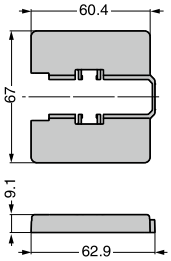
COVER FOR MOUNTING PLATE J95ZC For Heavy Duty Concealed Hinge J95 Series



- For hiding screw holes of mounting plate 1 .
- Mounting plate adjustable horizontally, vertically and in depth even after installation.

[Remarks]

- Do not bend by force. Otherwise, it may be damaged.



[With Safety Cover and Mounting Plate Cover]





Picture above is for 25mm overlay.

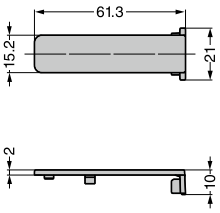
RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-032-766	J95ZC-GR	ABS	Grey	9	500
G	–	160-034-743	J95ZC-NI		Nickel	9	500
G	3D	160-044-252	J95ZC-BC		Black Chrome	9	500

Refer to 1 : P.197

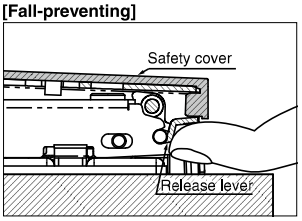
SAFETY COVER J95SC-25 For Heavy Duty Concealed Hinge J95 25mm Overlay



- Nickel plating finish is newly launched.
- For hiding screw holes.



[Fall-preventing]



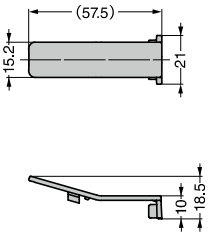
Safety cover can lock the release lever of J95 body, preventing door from falling-off due to misoperation.

RoHS	CAD	Item Code	Item Name	Material	Finish / Colour	Weight (g)	Box (pcs)
G	3D	160-032-763	J95SC-25GR	ABS	Grey	3	500
G	3D	160-034-673	J95SC-25NI		Nickel	3	500
G	3D	160-044-249	J95SC-25BC		Black Chrome	3	500

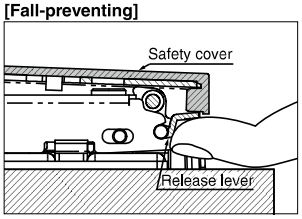
SAFETY COVER J95SC-16 For Heavy Duty Concealed Hinge J95 16mm Overlay



- Nickel plating finish is newly launched.
- For hiding screw holes.



[Fall-preventing]



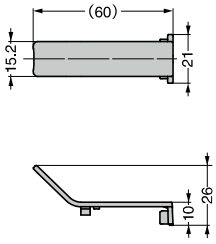
Safety cover can lock the release lever of J95 body, preventing door from falling-off due to misoperation.

RoHS	CAD	Item Code	Item Name	Material	Finish / Colour	Weight (g)	Box (pcs)
G	3D	160-032-764	J95SC-16GR	ABS	Grey	3	500
G	3D	160-034-674	J95SC-16NI		Nickel	3	500
G	3D	160-044-250	J95SC-16BC		Black Chrome	3	500

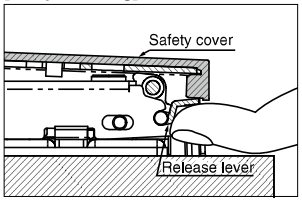
SAFETY COVER J95SC-0 For Heavy Duty Concealed Hinge J95 Inset



- Nickel plating finish is newly launched.
- For hiding screw holes.



[Fall-preventing]



Safety cover can lock the release lever of J95 body, preventing door from falling-off due to misoperation.

RoHS	CAD	Item Code	Item Name	Material	Finish / Colour	Weight (g)	Box (pcs)
G	3D	160-032-765	J95SC-0GR	ABS	Grey	3	500
G	3D	160-034-675	J95SC-0NI		Nickel	3	500
G	3D	160-044-251	J95SC-0BC		Black Chrome	3	500

CUP COVER J95CC For J95 Concealed Hinges



- Special cover for J95 hinges to hide the screws.
- Comes with a double-sided tape to bond the cover and hinge.

[Remarks]

- Please make sure that the surface is clean before taping.

[No Visible Screws]

The following optional covers are used:



The J95 hinge above is the 25 mm overlay model. (Nickel colour)

RoHS	CAD	Item Code	Item Name	Material	Finish/Colour	Weight (g)	Box (pcs)
G	3D	160-045-369	J95CC-GR	ABS	Gray	3.2	50
G	3D	160-045-370	J95CC-NI		Nickel		50
G	3D	160-045-371	J95CC-BC		Black Nickel		50

HINGE SPACER J95-DP2 2 mm Thickness / For J95 Concealed Hinges



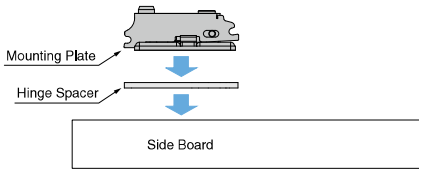
- Decreases overlay of outset doors by 2 mm.
- Increases clearance of inset doors by 2 mm.
- Can be doubled for 4 mm thickness.

[Available Mounting Plate]
- J96-P9T

[Sold Seperately]
- Raised Countersunk Head Tapping Screw 5 x 25

[Recommended Screw]
- Countersunk Screw 5 x 25 / Raised Countersunk Head Tapping Screw / Wood Screw (nominal dia. 5.1)

[How to Use]



Set the spacer between the mounting plate and side board.

RoHS	CAD	Item Code	Item Name	Material	Colour	Weight (g)	Pack (pcs)	Carton (pcs)
G	3D	160-048-095	J95-DP2	POM	Grey	5	100	600

[Tapping Screw 5 x 25] Sold Seperately

RoHS	CAD	Item Code	Item Name	Material	Finish
G	–	160-048-096	TAP525NI	Steel	Nickel
G	–	160-048-097	TAP525BN		Black Nickel

FACE PLATE FOR GLASS DOOR GH-J95FP For Heavy Duty Concealed Hinge J95

INSTRUCTION TEMPERED GLASS


GH-J95FP-CR


GH-J95FP-SN


GH-J95FP-BL

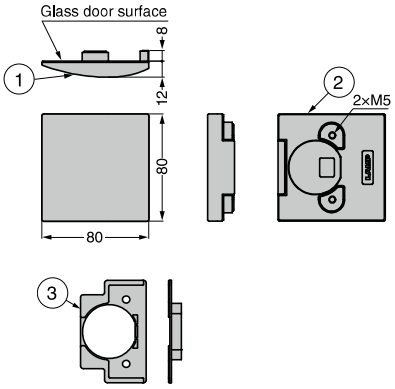
[Application Example]



- Used for installing J95 1 to glass door.

[Remarks]
- Use supplied screws and tighten with 1.5 N・m or more for installation.

[Parts Included]
- Countersunk head screw M5×18



No.	Part Name	Material	Finish/Colour
①	Face Plate	Zinc Alloy (ZDC)	Chrome/Satin Nickel
②	Face Plate Spacer	POM	Black
③	Socket Spacer		

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	160-032-418	GH-J95FP-CR	Zinc Alloy (ZDC)	Chrome	320	1	20
G	3D	160-033-893	GH-J95FP-SN		Satin Nickel		1	20
G	3D	160-043-378	GH-J95FP-BL		Black		1	20

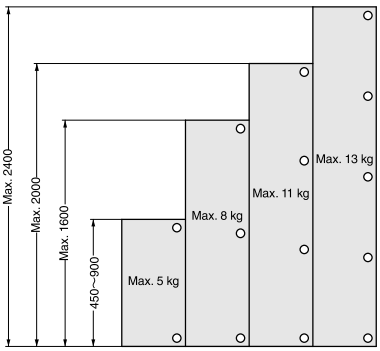
Refer to 1 : P.188~P.195

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

DOOR DIMENSIONS AND NUMBER OF HINGES

[100 SERIES HINGES]

- Set door centre of gravity at door centre 1.
- Install the upper and lower hinges within 100mm from the door ends.
  Set equal installation pitch when using 3 hinges or more.
- The figure on the right is for reference only. Please check in actual installation.
- Lubricate regularly during use.
- If the conditions in the right figure, above or in the table below are not met, please contact local representatives.



Door Width	Door Thickness	Door Specific Gravity	Installation pitch
Max. 450	Max. 20	Max. 0.6	Min. 300

Refer to 1 : P.204~P.206

How to Use the Locus Chart

If you wish to use a specification other than the recommended one, please draw the specification on the locus chart. If some problems can be solved in this way, you can use various specifications. Following is an example.

For Overlay Door

●When using a door above recommended thickness (100˚ Opening)

Here, 100-46/19 SUS304B is used, and a specification of door thickness 28mm and overlay 19mm is considered. On the door part with the maximum opening angle and the opening angle of 10˚ to 30˚ where the opening clearance (O.C.) becomes maximum, draw a door with the door thickness increased by 8 mm (colour line in Fig.1). At that time, there may be the following two problems, i.e. (a) and (b).

(a) The edge of door conflicts with the edge of side board, thus door cannot reach the maximum opening angle. (A)

(b) O.C. is very large, so you should be careful when using a continuous door specification and a door close to a wall. (B)

A. As a way to solve (a), as shown in Fig. 2, if corner rounding or chamfering on the edge of the door, the door can reach the maximum opening angle. This method also serves as a solution to (b), and O.C. can be reduced (Fig.3). Besides, you may also leave a gap between door and side board (Fig.4).

B. To solve (b), take the above method or increase side board thickness to eliminate O.C. (Fig. 4), or reduce overlay.

●When using a door above recommended thickness (160˚ and 170˚ Opening)

Here, 170-34/19 is used, and a specification of door thickness 24mm and overlay 19mm is considered. As same as 100˚ opening, on the door part with the maximum opening angle and the opening angle of 50˚ where the opening clearance (O.C.) becomes maximum, draw a door with the door thickness increased by 4mm (colour line in Fig.5). The problem here is increased opening clearance and, in the continuous door specification, colliding with the next door at the maximum opening angle. The problem of opening clearance may be solved by using the same method as 100˚ opening hinge. As for the problem of colliding with the next door, it may be solved by reducing overlay, or increasing the side board thickness to greatly increase clearance between doors and limit the maximum opening angle to 130˚ or 150˚ , etc.

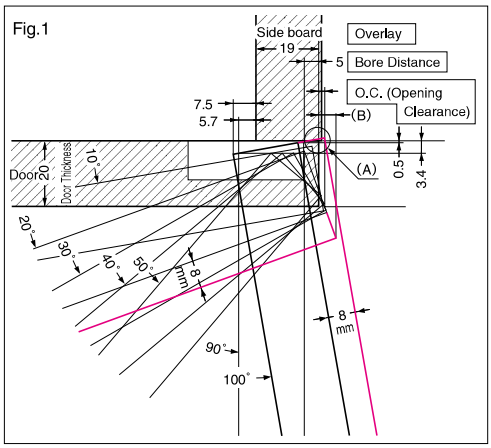
For Inset Door

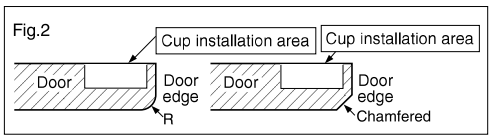
●When using a door above recommended thickness

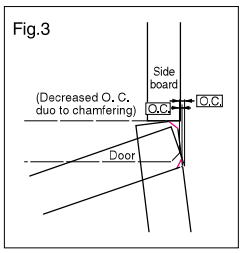
Again draw the actual door thickness. The problem here is also increased opening clearance. For inset door, door conflicts with side board and cannot be opened. This problem may be solved by providing a gap between door and side board (Fig.7), or corner rounding or chamfering on door edge (Fig.2) (Fig.8).

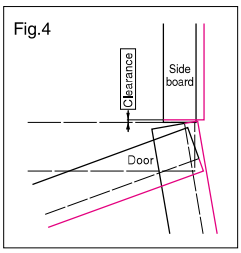
Actual dimensions for solving the problem can be tracked to some extent from the drawing.

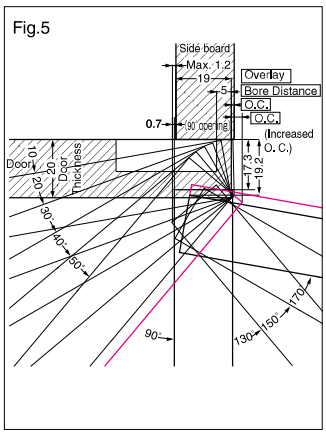
For further details, please contact local representatives.

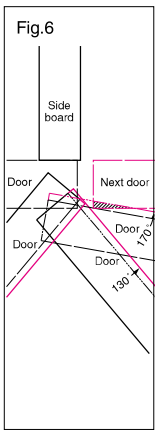


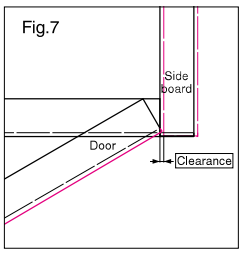


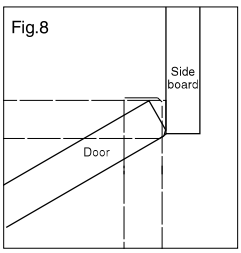








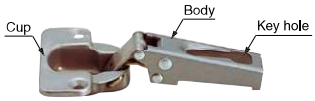




CONCEALED HINGE 100 SERIES

Part Names

[Concealed Hinge 1]



[Mounting Plate 2]

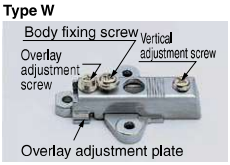
Mounting Plate



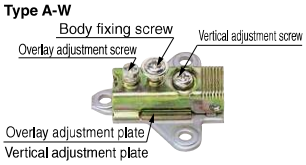
Type A



Type W



Type A-W



[Spacer 3]

Standard type



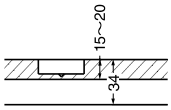
System type



Body	Install to mounting plate.
Cup	Cut out a ϕ35 (or ϕ26, ϕ40) hole on the door, and install concealed hinge.
Key hole	When fixing to the mounting plate, insert body fixing screw in this hole and tighten.
Mounting plate	First install to the side board, then insert and tighten the body.
Body fixing screw	Used to fix the body to the mounting plate.It can also be used for door depth adjustment.
Overlay adjustment screw	Used to adjust overlay of door.
Overlay adjustment plate	(In case of type A or type A-W mounting plate) Turning overlay adjustment screw can adjust door overlay without affecting door depth and vertical adjustment.
Vertical adjustment screw	(In case of type W or type A-W mounting plate) Used for vertical adjustment of door.
Vertical adjustment plate	(In case of type W or type A-W mounting plate) Turning door vertical adjustment screw can move the door vertically.
Spacer	Used for decreasing door overlay, or increasing door gap for inset type.

Suitable for Various Door Thickness

100 Series are suitable for door thickness 15mm~34mm. Besides, performance can be maximised by using locus chart.



Full Range of Mounting Plates

Nearly 20 different mounting plates are available for 100 series to meet diversified installation requirements. Each one can be installed quickly, accurately and reliably.

Superior Corrosion Resistance

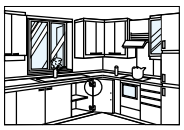
[All Stainless Steel]

The world's first stainless steel (SUS304) concealed hinge. Stainless steel features superior corrosion resistance, suitable for damp places like combined kitchen and washroom, etc. It can also be used for fields such as medical, laboratory and ship, etc.

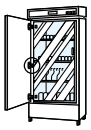
[Satin Chrome]

Plated type is highly corrosion-resistant thanks to satin chrome finish of main metal parts. And metallic silver colour makes high-tech furniture more eye-catching. (Nickel plating type also available by made to order)

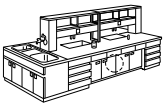
<Main Purpose of Stainless Steel Concealed Hinge>



Kitchen equipment



Medical warehouse



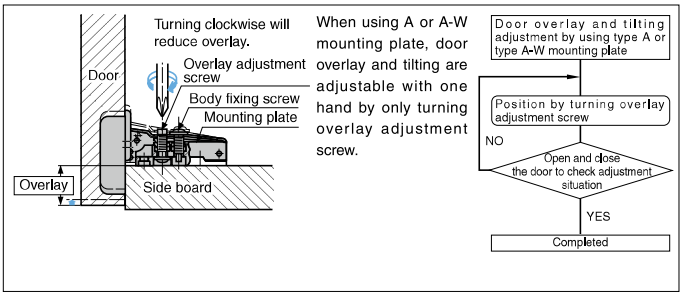
Laboratory



Marine

Easy and Fast Adjustment TYPE A, A-W MOUNTING PLATE

[100 Series Concealed Hinge Type A, A-W Mounting Plate]



Note) Be sure to use a manual screwdriver to fine tune adjustment screws within the adjustment range. Do not use a pneumatic, electric or rechargeable screwdriver, or excessive tightening torque may damage thread and cause malfunction.

Refer to 1 : P.204~P.206, 2 : P.207, P.215~P.218, 3 : P.219

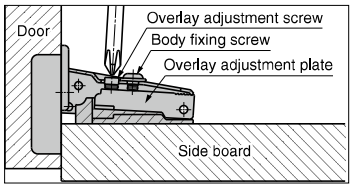
How to Adjust

Door Adjustment by Using Type A or Type A-W Mounting Plate

[Type A]

100-02A-30, 100-03A, 100-04A-30, 100-04A-32-3, 100-06A, 100-P3A, 100-P4A-30

Type A



Depth Adjustment

Loosen the body fixing screw, move the door back and forth to select appropriate position, and then tighten the screw.

Overlay Adjustment (Horizontal Adjustment)

Turning the overlay adjustment screw clockwise ↻ to decrease and counterclockwise ↺ to increase the overlay.
Operate with the body fixing screw tightened.

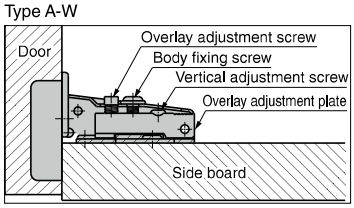
Tilting Adjustment

Turn the overlay adjustment screw. Operate with the body fixing screw tightened.

[Type A-W]

100-04A-W-30, 100-04A-W-30-2, 100-04A-W-32, 100-06AW

Type A-W



Depth Adjustment | Overlay Adjustment | Tilting Adjustment are the same as type A.

Vertical Adjustment

Loosen the vertical adjustment screw, move the door up and down to select appropriate position, and then tighten the screw.

Door Adjustment by Using Mounting Plate Other Than Type A and Type A-W

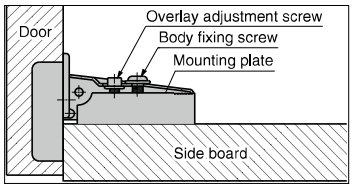
[100-01, 100-02-30, 100-03, 100-04-30, 100-06, 100-P6]

Depth Adjustment

Loosen the body fixing screw, move the door back and forth to select appropriate position, and then tighten the screw.

Overlay Adjustment (Horizontal Adjustment)

Loosen the body fixing screw first. Turn the overlay adjustment screw to determine appropriate position. Turning the overlay adjustment screw clockwise ↻ to increase and counterclockwise ↺ to decrease the overlay. Finally tighten the body fixing screw.

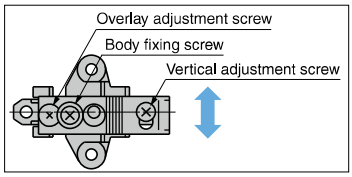


Tilting Adjustment

Loosen the body fixing screw first. Turn the overlay adjustment screw to determine appropriate position, and finally tighten the body fixing screw securely.

[Type W]

100-04W-30



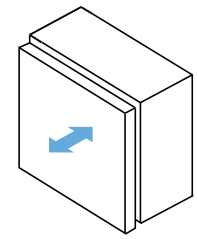
Depth Adjustment | Overlay Adjustment | Tilting Adjustment are the same as the above method.

Vertical Adjustment

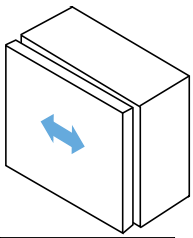
Loosen the vertical adjustment screw, move the door up and down to select appropriate position, and then tighten the screw.

[Remarks]

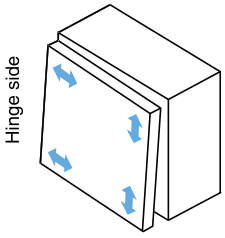
Body fixing screw may become loose due to door opening and closing.
Regularly check and tighten to prevent the door from falling off.



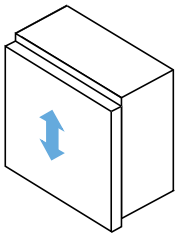
Depth Adjustment



Overlay Adjustment
(Horizontal Adjustment)



Tilting Adjustment



Vertical Adjustment

100° Opening | **19mm Overlay** | **Overlay 15~19mm** | **Cup Dia ϕ35 Bore Depth 11mm Door Thickness 15~20mm** | **Stainless Steel Mounting Plate 1 100 Series**

CONCEALED HINGE (STAINLESS STEEL) 100

NSF SUS



Picture above is the combination of concealed hinge and mounting plate (sold separately).

[Sold Separately]

- Stainless steel 100 series mounting plate 1

[Recommended Screws]

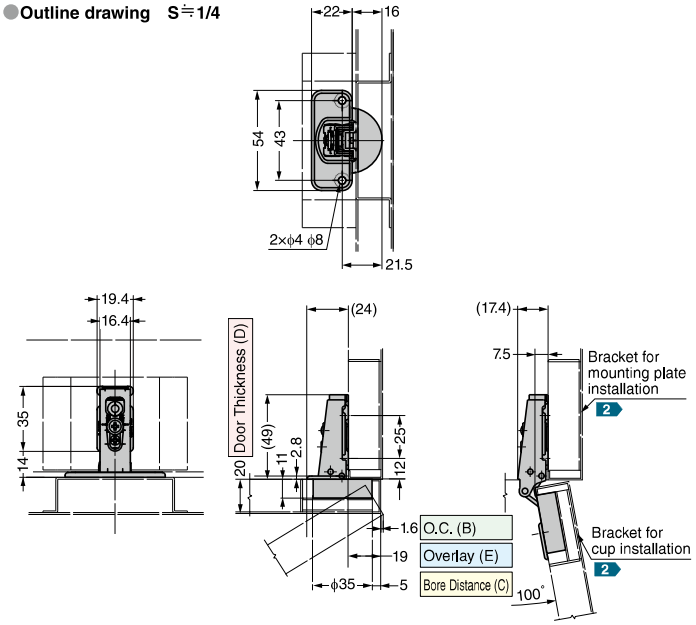
- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-865	100-46/19 SUS304B	Without Catch	Stainless Steel (SUS304)	Polished	39.1	200
G	3D	160-073-870	100-C46/19 SUS304B	With Catch			44.1	200

A mounting plate (sold separately) is required for installation. Please order separately.

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

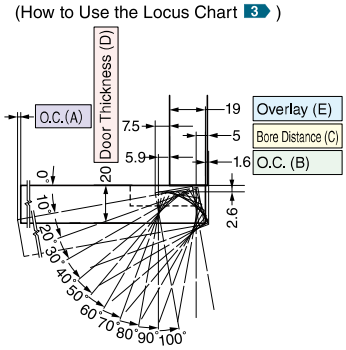
Outline drawing S≒1/4



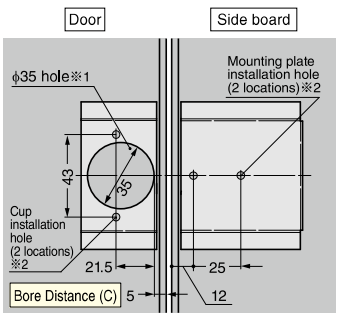
Picture above is the combination of 100-46/19 or 100-C46/19 (w/catch) and mounting plate 100-P3A (sold separately).

Locus chart S≒1/4

(How to Use the Locus Chart 3)



Cut out dimensions For metal door



※1: Support the cup bottom at position of 11mm deep.
※2: Internal threads need to be made by welding nut or burring.

[Bore Distance (C)] Table-1

Bore Distance (C)	3	4	5
Overlay (E)	17	18	19

For standard type shown in the table above mounting plate 0mm thickness.
Turning the overlay adjustment screw or using spacer (2mm thickness) to adjust overlay (Max. -6mm).

[Opening Clearance (O.C.)]

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

[O.C.(B)] Table-2

Door Thickness (D)	Bore Distance (C) 3	4	5
15	0.5	0.5	0.4
16	0.6	0.6	0.6
17	0.9	0.8	0.8
18	1.1	1.1	1.0
19	1.4	1.3	1.3
20	1.7	1.6	1.6
21※	2.1	2.0	1.9
22※	2.5	2.4	2.3
	O.C. (B)		

※Please refer to the locus chart if door thickness is over 20mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

[O.C.(A)] Table-3

Door Thickness (D)	O.C. (A) Door Width 300	Door Width 400	Door Width 500	Door Width 600
20	0.2	0.1	0.1	0.1

[Door Dimensions and Number of Hinges] 4

Refer to 1 : P.207, 2 : P.221, 3 : P.201, 4 : P.200

100° Opening | **14mm Overlay** | **Overlay 10~14mm** | **Cup Dia ϕ35 Bore Depth 11mm Door Thickness 15~20mm** | **Stainless Steel Mounting Plate 1 100 Series**

CONCEALED HINGE (STAINLESS STEEL) 100

NSF SUS



Picture above is the combination of concealed hinge and mounting plate (sold separately).

[Sold Separately]

- Stainless steel 100 series mounting plate 1

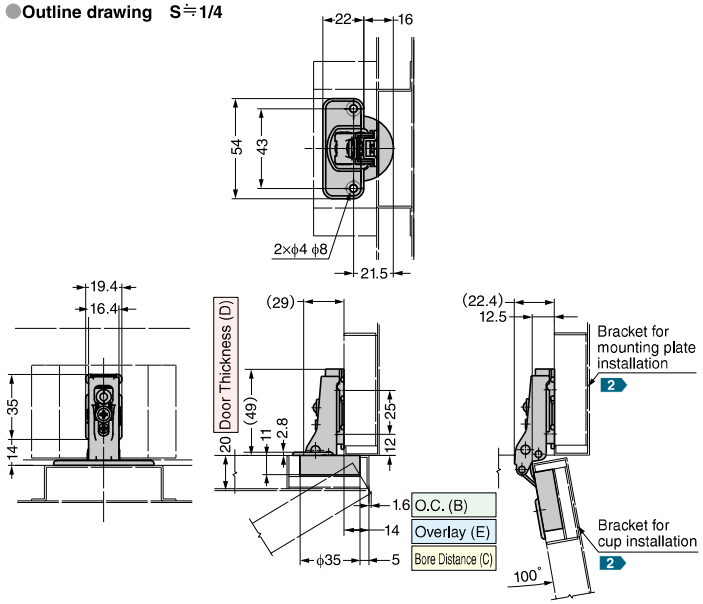
[Recommended Screws]

- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-875	100-46/14SUS304B	Without Catch	Stainless Steel (SUS304)	Polished	39.8	200
G	3D	160-073-880	100-C46/14SUS304B	With Catch			44	200

A mounting plate (sold separately) is required for installation. Please order separately.

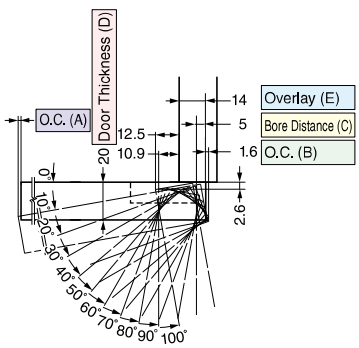
Outline drawing S≒1/4



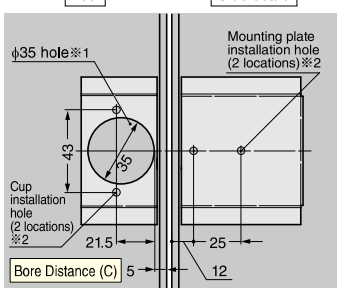
Picture above is the combination of 100-46/14 or 100-C46/14 (w/catch) and mounting plate 100-P3A (sold separately).

Locus chart S≒1/4

(How to Use the Locus Chart 3)



Cut out dimensions For metal door



※1: Support the cup bottom at position of 11mm deep.

※2: Internal threads need to be made by welding nut or burring.

[Bore Distance (C)] Table-1

Bore Distance (C)	3	4	5
Overlay (E)	12	13	14

For standard type shown in the table above mounting plate 0mm thickness.
Turning the overlay adjustment screw or using spacer (2mm thickness) to adjust overlay (Max. -6mm).

[Opening Clearance (O.C.)]

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

[O.C.(B)] Table-2

Door Thickness (D)	Bore Distance (C) 3	4	5
15	0.5	0.5	0.4
16	0.6	0.6	0.6
17	0.9	0.8	0.8
18	1.1	1.1	1.0
19	1.4	1.3	1.3
20	1.7	1.6	1.6
21※	2.1	2.0	1.9
22※	2.5	2.4	2.3
	O.C. (B)		

※Please refer to the locus chart if door thickness is over 20mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.)

[O.C.(A)] Table-3

Door Thickness (D)	O.C. (A) Door Width 300	Door Width 400	Door Width 500	Door Width 600
20	0.2	0.1	0.1	0.1

[Door Dimensions and Number of Hinges] 4

Refer to 1 : P.207, 2 : P.221, 3 : P.201, 4 : P.200

100° Opening | **9mm Overlay** | Overlay 5~9mm | Cup Dia ϕ35 Bore Depth 11mm Door Thickness 15~20mm | Stainless Steel Mounting Plate 1 100 Series

CONCEALED HINGE (STAINLESS STEEL) 100



Picture above is the combination of concealed hinge and mounting plate (sold separately).

[Sold Separately]

- Stainless steel 100 series mounting plate 1

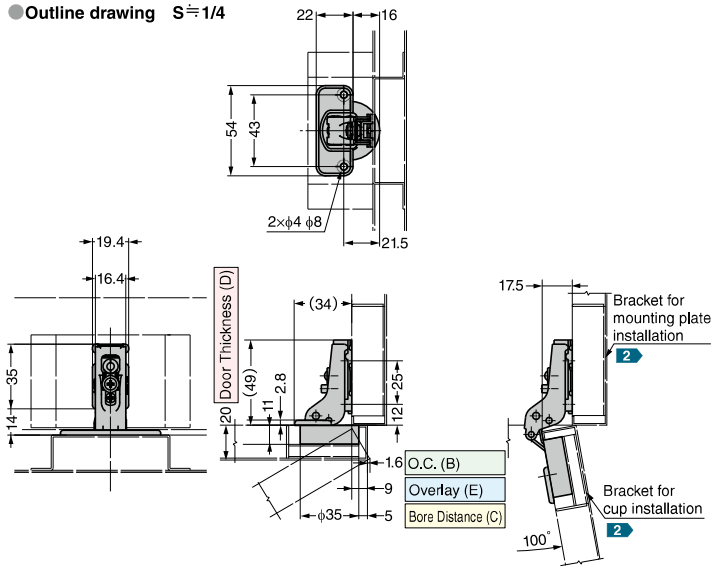
[Recommended Screws]

- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-883	100-46/9 SUS304B	Without Catch	Stainless Steel (SUS304)	Polished	41.3	200
G	3D	160-073-884	100-C46/9 SUS304B	With Catch			45.9	200

A mounting plate (sold separately) is required for installation. Please order separately.

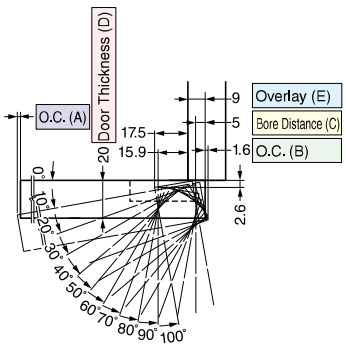
Outline drawing S≒1/4



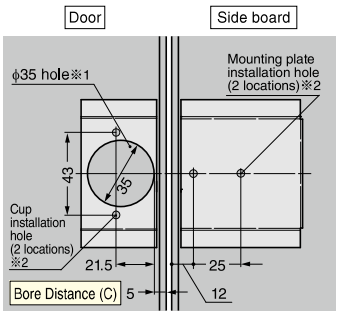
Picture above is the combination of 100-46/9 or 100-C46/9 (w/catch) and mounting plate 100-P3A (sold separately).

Locus chart S≒1/4

(How to Use the Locus Chart 3)



Cut out dimensions For metal door



※1: Support the cup bottom at position of 11mm deep.
※2: Internal threads need to be made by welding nut or burring.

[Bore Distance (C)] Table-1

Bore Distance (C)	3	4	5
Overlay (E)	7	8	9

For standard type shown in the table above mounting plate 0mm thickness.
Turning the overlay adjustment screw or using spacer (2mm thickness) to adjust overlay (Max. -6mm).

[Opening Clearance (O.C.)]

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

[O.C.(B)] Table-2

Door Thickness (D)	Bore Distance (C) 3	4	5
15	0.5	0.5	0.4
16	0.6	0.6	0.6
17	0.9	0.8	0.8
18	1.1	1.1	1.0
19	1.4	1.3	1.3
20	1.7	1.6	1.6
21※	2.1	2.0	1.9
22※	2.5	2.4	2.3
	O.C. (B)		

※Please refer to the locus chart if door thickness is over 20mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.)

[O.C.(A)] Table-3

Door Thickness (D)	O.C. (A) Door Width 300	Door Width 400	Door Width 500	Door Width 600
20	0.2	0.1	0.1	0.1

[Door Dimensions and Number of Hinges] 4

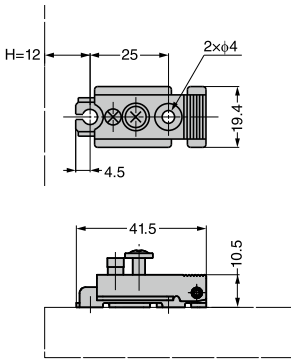
Refer to 1 : P.207, 2 : P.221, 3 : P.201, 4 : P.200

STANDARD TYPE

STAINLESS STEEL MOUNTING PLATE 100-P3A-SUS304B

SUS





- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]
- M4 binding head screw

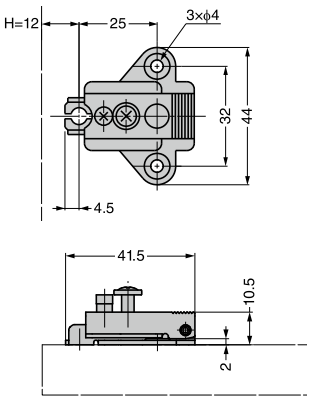
RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-074-155	100-P3A-SUS304B	Stainless Steel (SUS304)	Barrel Polished	21.3	400

SYSTEM 37, 32 TYPE

STAINLESS STEEL MOUNTING PLATE 100-P4A-32-SUS304B

SUS





- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

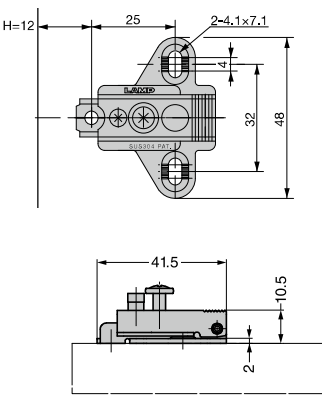
[Recommended Screws]
- M4 binding head screw

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-074-149	100-P4A-32-SUS304B	Stainless Steel (SUS304)	Barrel Polished	26	400

STAINLESS STEEL MOUNTING PLATE 100-P4A/32-3WAY-SUS304B

SUS





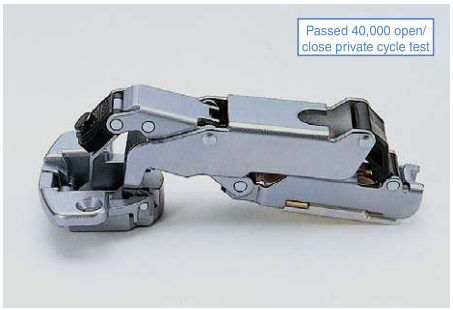
- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]
- M4 binding head screw

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-079-044	100-P4A/32-3WAY-SUS304B	Stainless Steel (SUS304)	Barrel Polished	40	400

170° Opening | **19mm Overlay** | **Overlay 15~20mm** | **Cup Dia ϕ35 Bore Depth 11mm Door Thickness 15~20mm** | **Mounting Plate 1 100 Series**

CONCEALED HINGE 170



Picture above is the combination of concealed hinge and mounting plate (sold separately).

- Opening angle can be adjusted 140° ~ 170° degrees by turning the adjustment dial on the hinge.

[Sold Separately]

- 100 series mounting plate 1

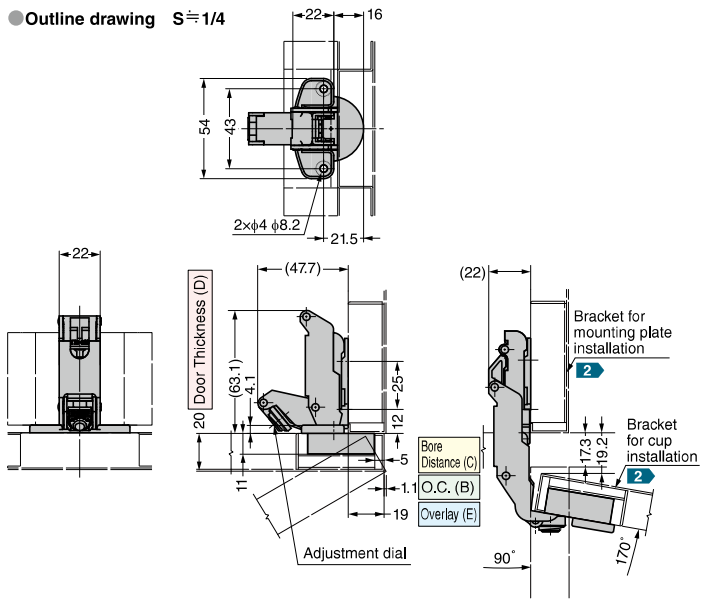
[Recommended Screws]

- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-390	170-34/19	Without Catch	Body/Steel, Cup/	Satin	117	100
G	3D	160-073-400	170-C34/19	With Catch	Zinc Alloy (ZDC)	Chrome	125.7	100

A mounting plate (sold separately) is required for installation. Please order separately.

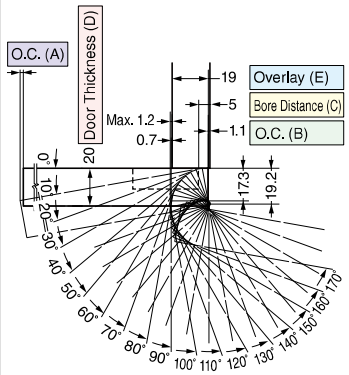
- **Outline drawing** S≒1/4



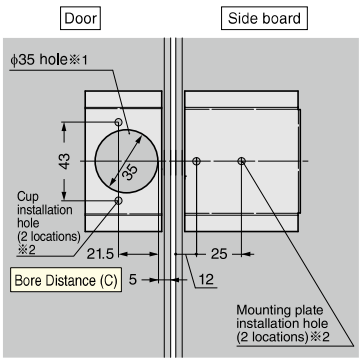
Picture above is the combination of 170-34/19 or 170-C34/19 (w/catch) and mounting plate 100-03A (sold separately).

- **Locus chart** S≒1/4

(How to Use the Locus Chart 3)



- **Cut out dimensions** For metal door



※1: Support the cup bottom at position of 11mm deep.
※2: Internal threads need to be made by welding nut or burring.

[Bore Distance (C)] Table-1

Bore Distance (C)	3	4	5	6
Overlay (E)	17	18	19	20

For standard type shown in the table above mounting plate 0mm thickness.
Turning the overlay adjustment screw or using spacer (2mm thickness) to adjust overlay (Max. -6mm).

[Opening Clearance (O.C.)]

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

[O.C.(B)] Table-2

Door Thickness (D)	Bore Distance (C) 3	4	5	6
15	0	0	0	0
16	0	0	0	0
17	0.1	0.1	0.1	0.1
18	0.1	0.1	0.1	0.1
19	1.1	0.8	0.3	0.1
20	2.5	1.7	1.1	0.6
21※	3.5	2.7	2.0	1.5
22※	4.5	3.7	2.9	2.3
	O.C. (B)			

※The above table is O.C. (B) for 0~90° opening. Please refer to the locus chart if door thickness is over 20mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door).

[O.C.(A)] Table-3

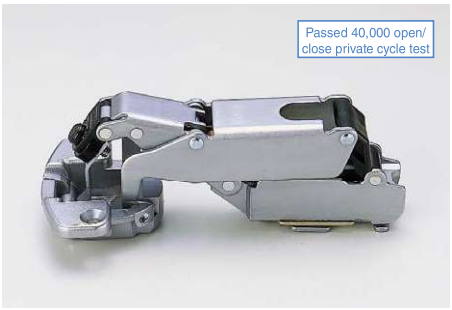
Door Thickness (D)	O.C. (A) Door Width 300	Door Width 400	Door Width 500
15	0.7	0.6	0.5
20	0.7	0.6	0.5
22	0.7	0.6	0.5

[Door Dimensions and Number of Hinges] 4

Refer to 1 : P.215~P.218, 2 : P.221, 3 : P.201, 4 : P.200

170° Opening | **9mm Overlay** | **Overlay 5~10mm** | **Cup Dia ϕ35 Bore Depth 11mm Door Thickness 15~20mm** | **Mounting Plate 1 100 Series**

CONCEALED HINGE 170



Picture above is the combination of concealed hinge and mounting plate (sold separately).

●Opening angle can be adjusted 140° ~ 170° degrees by turning the adjustment dial on the hinge.

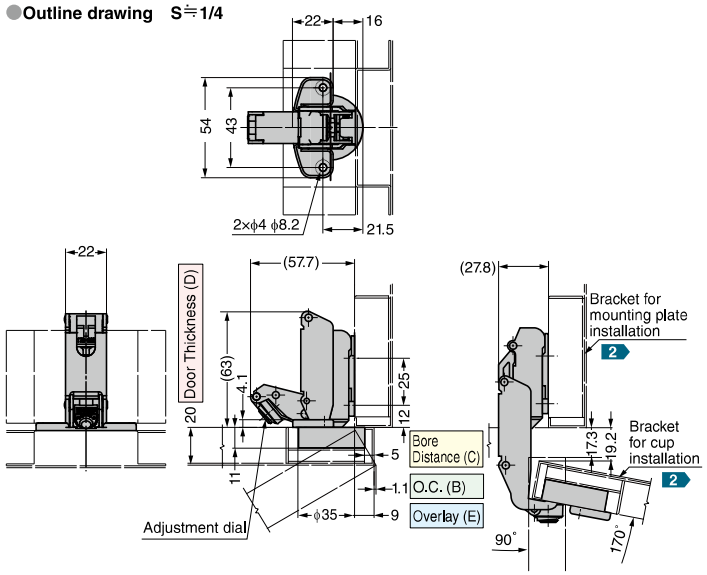
[Sold Separately]
●100 series mounting plate 1

[Recommended Screws]
●M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-392	170-34/9	Without Catch	Zinc Alloy	Satin	132.8	100
G	3D	160-073-402	170-C34/9	With Catch	(ZDC)	Chrome	140.6	100

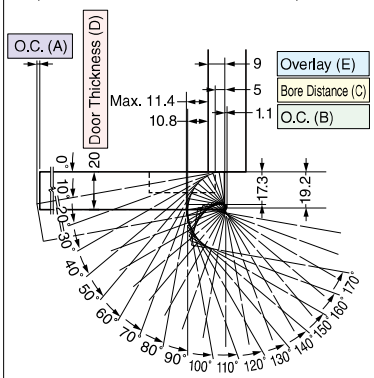
A mounting plate (sold separately) is required for installation. Please order separately.

●**Outline drawing S≒1/4**

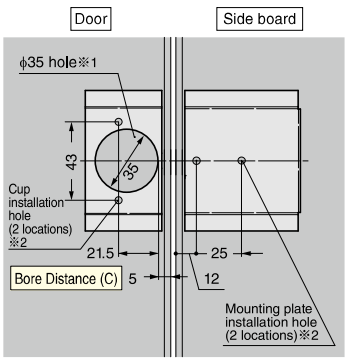


Picture above is the combination of 170-34/9 or 170-C34/9 (w/catch) and mounting plate 100-03A (sold separately).

●**Locus chart S≒1/4**
(How to Use the Locus Chart 3)



●**Cut Out Dimensions For metal door**



※1: Support the cup bottom at position of 11mm deep.
※2: Internal threads need to be made by welding nut or burring.

[Bore Distance (C)] Table-1

Bore Distance (C)	3	4	5	6
Overlay (E)	7	8	9	10

For standard type shown in the table above mounting plate 0mm thickness.
Turning the overlay adjustment screw or using spacer (2mm thickness) to adjust overlay (Max. -6mm).

[Opening Clearance (O.C.)]
Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

[O.C.(B)] Table-2

Door Thickness (D)	Bore Distance (C) 3	4	5	6
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	0.1	0.1	0	0
19	1.0	0.6	0.2	0
20	2.3	1.7	1.1	0.6
21※	3.5	2.6	2.0	1.5
22※	4.4	3.5	2.9	2.2
	O.C. (B)			

※The above table is O.C. (B) for 0~90° opening. Please refer to the locus chart if door thickness is over 20mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door).

[O.C.(A)] Table-3

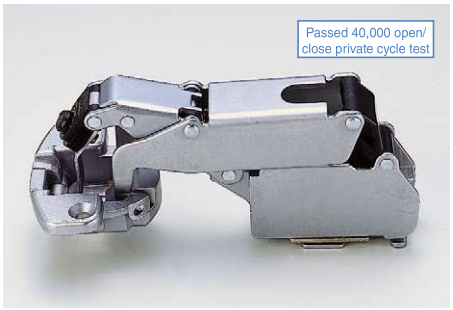
Door Thickness (D)	O.C. (A) Door Width 300	Door Width 400	Door Width 500
15	0.7	0.5	0.5
20	0.7	0.5	0.5
22	0.7	0.5	0.5

[Door Dimensions and Number of Hinges] 4

Refer to 1 : P.215~P.218, 2 : P.221, 3 : P.201, 4 : P.200

170° Opening | **Inset** | **Cup Dia ϕ35 Bore Depth 11mm Door Thickness 15~20mm** | **Mounting Plate 1 100 Series**

CONCEALED HINGE 170



Picture above is the combination of concealed hinge and mounting plate (sold separately).

- Opening angle can be adjusted 140° ~ 170° degrees by turning the adjustment dial on the hinge.

[Sold Separately]

- 100 series mounting plate 1

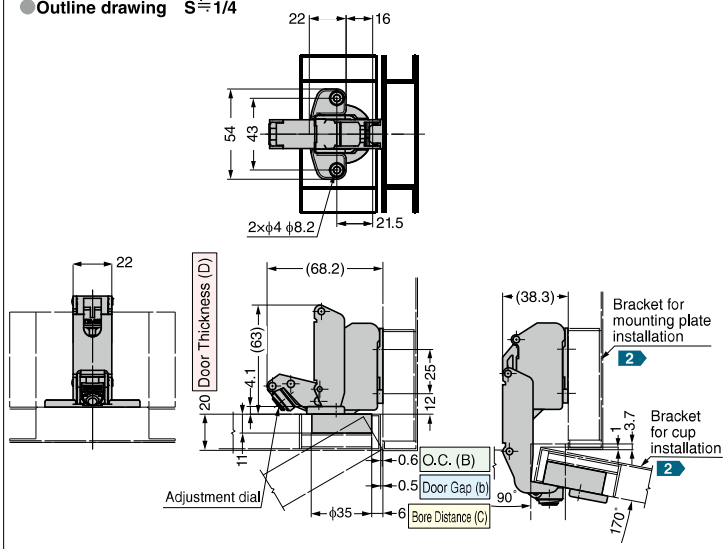
[Recommended Screws]

- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-393	170-34/0	Without Catch	Zinc Alloy	Satin	152	100
G	3D	160-073-403	170-C34/0	With Catch	(ZDC)	Chrome	159.5	100

A mounting plate (sold separately) is required for installation. Please order separately.

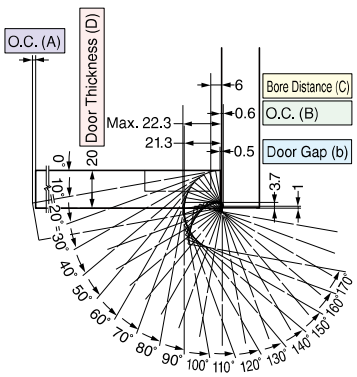
Outline drawing S≒1/4



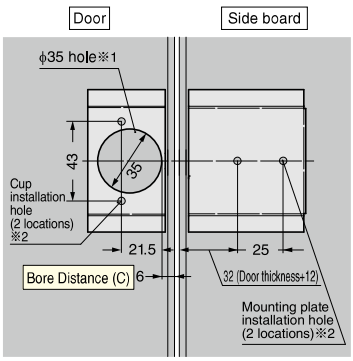
Picture above is the combination of 170-34/0 or 170-C34/0 (w/catch) and mounting plate 100-03A (sold separately).

Locus chart S≒1/4

(How to Use the Locus Chart 3)



Cut Out Dimensions For metal door



※1: Support the cup bottom at position of 11mm deep.
※2: Internal threads need to be made by welding nut or burring.

[Bore Distance (C)] Table-1

Bore Distance (C)	3	4	5	6
Door Gap (b)	3.5	2.5	1.5	0.5

For standard type shown in the table above mounting plate 0mm thickness.
Turning the overlay adjustment screw to adjust the gap.

[Opening Clearance (O.C.)]

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

[O.C.(B)] Table-2

Door Thickness (D)	Bore Distance (C) 3	4	5	6
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	0.1	0.1	0	0
19	1.0	0.6	0.2	0
20	2.3	1.7	1.1	0.6
21※	3.5	2.6	2.0	1.5
22※	4.4	3.5	2.9	2.2
	O.C. (B)			

※The above table is O.C. (B) for 0~90° opening. Please refer to the locus chart if door thickness is over 20mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.)

[O.C.(A)] Table-3

Door Thickness (D)	O.C. (A) Door Width 300	Door Width 400	Door Width 500
15	0.7	0.5	0.5
20	0.7	0.5	0.5
22	0.7	0.5	0.5

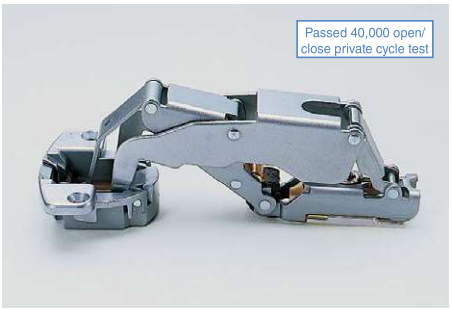
[Door Dimensions and Number of Hinges] 4

Refer to 1 : P.215~P.218, 2 : P.221, 3 : P.201, 4 : P.200

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

160° Opening | **28mm Overlay** | Overlay 19~28mm | Cup Dia ϕ40 Bore Depth 15mm Door Thickness 18~34mm | Mounting Plate 1 100 Series

CONCEALED HINGE H160 For Thick Door



Picture above is the combination of concealed hinge and mounting plate (sold separately).

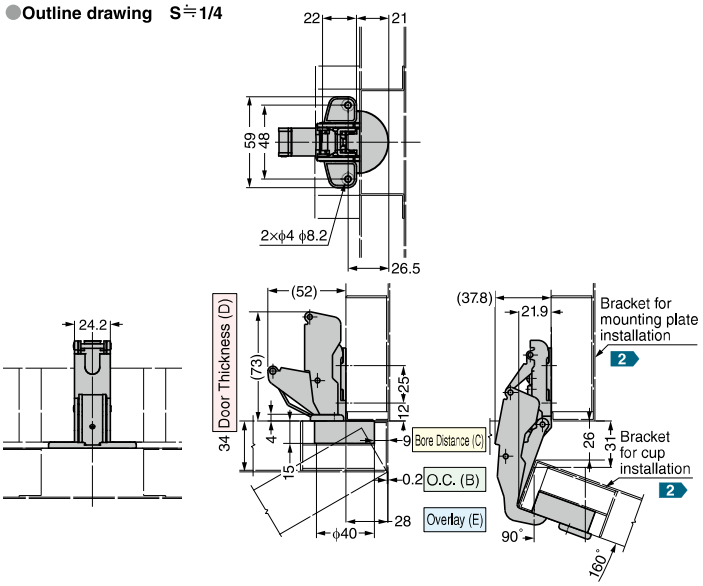
[Sold Separately]
- 100 series mounting plate 1

[Recommended Screws]
- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-620	H160-34/28	Without Catch	Body/Steel, Cup/	Satin	181.4	100
G	3D	160-073-630	H160-C34/28	With Catch	Zinc Alloy (ZDC)	Chrome	194.4	100

A mounting plate (sold separately) is required for installation. Please order separately.separately.

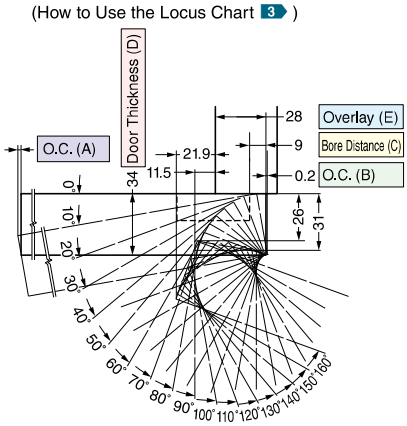
Outline drawing S≒1/4



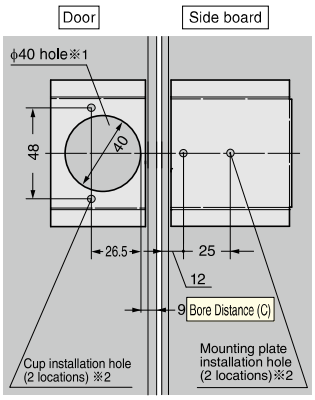
Picture above is the combination of H160-34/28 or H160-C34/28 (w/catch) and mounting plate 100-03A (sold separately).

Locus chart S≒1/4

(How to Use the Locus Chart 3)



Cut Out Dimensions For metal door



※1: Support the cup bottom at position of 15mm deep.
※2: Internal threads need to be made by welding nut or burring.

[Bore Distance (C)] Table-1

Bore Distance (C)	3	4	5	6	7	8	9
Overlay (E)	22	23	24	25	26	27	28

For standard type shown in the table above mounting plate 0mm thickness.
Turning the overlay adjustment screw or using spacer (2mm thickness) to adjust overlay (Max. -6mm).

[Opening Clearance (O.C.)]

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

[O.C.(B)] Table-2

Door Thickness (D)	Bore Distance (C) 3	4	5	6	7	8	9
Max. 33	Max. 0.1						
34	0.2	0.2	0.2	0.2	0.2	0.2	0.2
35※	0.3	0.3	0.3	0.3	0.3	0.3	0.3
36※	2.0	1.6	1.5	1.4	1.0	0.7	0.5
37※	3.7	3.1	2.7	2.4	2.0	1.4	0.9
38※	5.0	4.4	3.8	3.3	2.8	2.2	1.7
39※	6.2	5.4	4.9	4.3	3.7	3.0	2.6
40※	7.2	6.4	5.7	5.3	4.6	3.9	3.4
	O.C. (B)						

※The above table is O.C. (B) for 0~90° opening.Please refer to the locus chart if door thickness is over 34mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.)

[O.C.(A)] Table-3

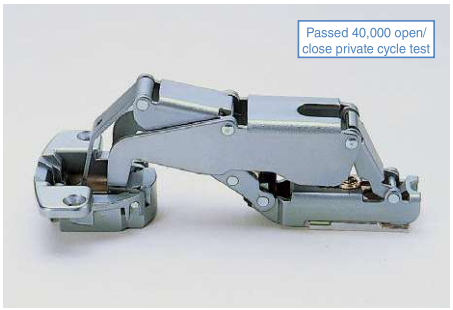
Door Thickness (D)	O.C. (A) Door Width 300	Door Width 400	Door Width 500	Door Width 600
20	1.6	1.1	1.0	0.9
30	2.2	1.4	1.1	1.0
34	2.2	1.5	1.1	1.0

[Door Dimensions and Number of Hinges] 4

Refer to 1 : P.215~P.218, 2 : P.221, 3 : P.201, 4 : P.200

160° Opening | **23mm Overlay** | **Overlay 14~23mm** | **Cup Dia ϕ40 Bore Depth 15mm Door Thickness 18~34mm** | **Mounting Plate 1 100 Series**

CONCEALED HINGE H160 For Thick Door



Picture above is the combination of concealed hinge and mounting plate (sold separately).

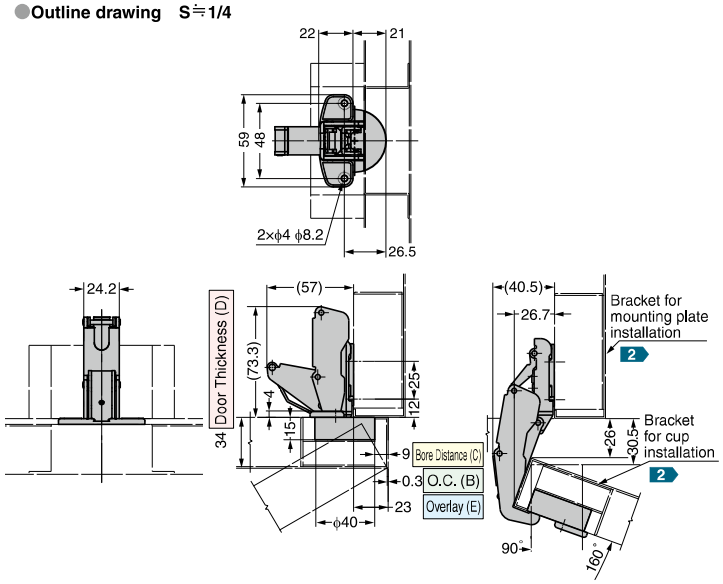
[Sold Separately]
- 100 series mounting plate 1

[Recommended Screws]
- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-621	H160-34/23	Without Catch	Body/Steel, Cup/	Satin	185.4	100
G	3D	160-073-631	H160-C34/23	With Catch	Zinc Alloy (ZDC)	Chrome	197.9	100

A mounting plate (sold separately) is required for installation. Please order separately.

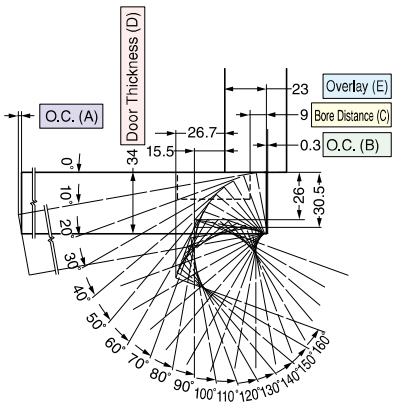
Outline drawing S≒1/4



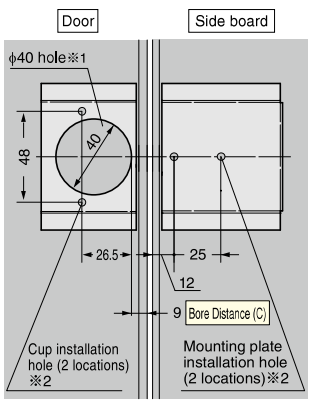
Picture above is the combination of H160-34/23 or H160-C34/23 (w/catch) and mounting plate 100-03A (sold separately).

Locus chart S≒1/4

(How to Use the Locus Chart 3)



Cut Out Dimensions For metal door



※1: Support the cup bottom at position of 15mm deep.
※2: Internal threads need to be made by welding nut or burring.

[Bore Distance (C)] Table-1

Bore Distance (C)	3	4	5	6	7	8	9
Overlay (E)	17	18	19	20	21	22	23

For standard type shown in the table above mounting plate 0mm thickness.
Turning the overlay adjustment screw or using spacer (2mm thickness) to adjust overlay (Max. -6mm).

[Opening Clearance (O.C.)]

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

[O.C.(B)] Table-2

Door Thickness (D)	Bore Distance (C) 3	4	5	6	7	8	9
Max. 33	Max. 0.2						
34	0.3	0.3	0.3	0.3	0.3	0.3	0.3
35※	0.7	0.7	0.7	0.7	0.7	0.6	0.5
36※	3.2	3.0	2.7	2.3	1.6	1.3	0.9
37※	5.0	4.4	3.8	3.2	2.6	2.1	1.6
38※	6.2	5.5	4.8	4.2	3.5	2.9	2.4
39※	7.2	6.4	5.7	5.1	4.4	3.9	3.3
40※	8.3	7.3	6.6	6.0	5.4	4.7	4.2
	O.C. (B)						

※The above table is O.C. (B) for 0~90° opening. Please refer to the locus chart if door thickness is over 34mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.)

[O.C.(A)] Table-3

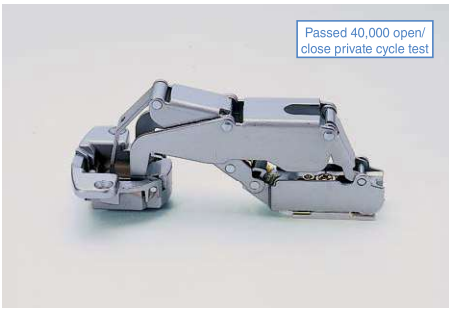
Door Thickness (D)	O.C. (A) Door Width 300	Door Width 400	Door Width 500	Door Width 600
20	1.4	1.1	0.8	0.7
30	1.8	1.3	1.0	0.8
34	1.8	1.3	1.0	0.8

[Door Dimensions and Number of Hinges] 4

Refer to 1 : P.215~P.218, 2 : P.221, 3 : P.201, 4 : P.200

160° Opening | **18mm Overlay** | Overlay 9~18mm | Cup Dia ϕ40 Bore Depth 15mm Door Thickness 18~34mm | Mounting Plate 1 100 Series

CONCEALED HINGE H160 For Thick Door



Picture above is the combination of concealed hinge and mounting plate (sold separately).

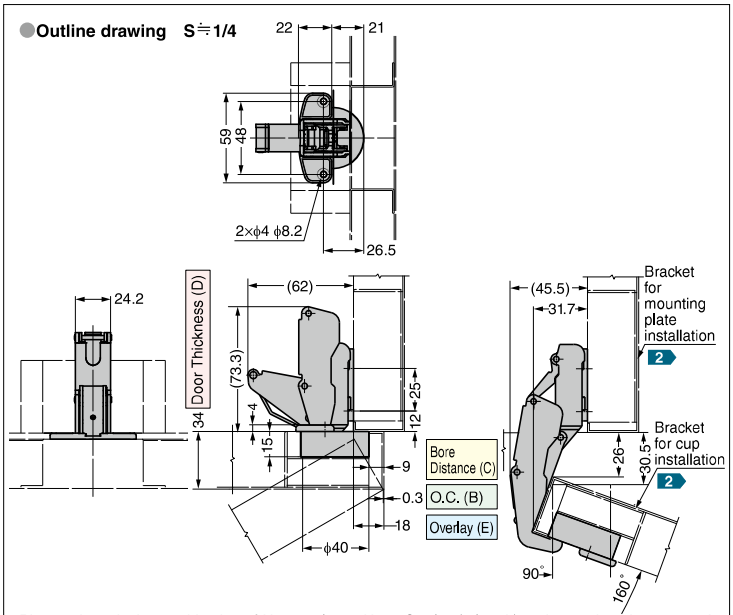
[Sold Separately]
- 100 series mounting plate 1

[Recommended Screws]
- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-622	H160-34/18	Without Catch	Zinc Alloy	Satin	191	100
G	3D	160-073-632	H160-C34/18	With Catch	(ZDC)	Chrome	203.5	100

A mounting plate (sold separately) is required for installation. Please order separately.

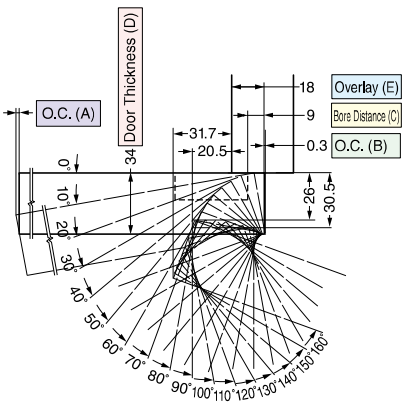
Outline drawing S≒1/4



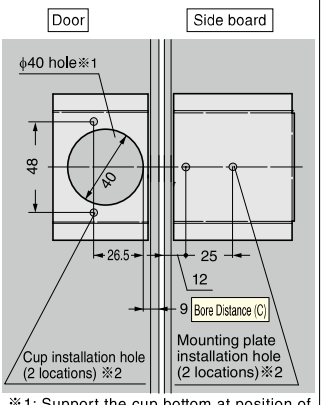
Picture above is the combination of H160-34/18 or H160-C34/18 (w/catch) and mounting plate 100-03A (sold separately).

Locus chart S≒1/4

(How to Use the Locus Chart 3)



Cut Out Dimensions For metal door



※1: Support the cup bottom at position of 15mm deep.
※2: Internal threads need to be made by welding nut or burring.

[Bore Distance (C)] Table-1

Bore Distance (C)	3	4	5	6	7	8	9
Overlay (E)	12	13	14	15	16	17	18

For standard type shown in the table above mounting plate 0mm thickness.
Turning the overlay adjustment screw or using spacer (2mm thickness) to adjust overlay (Max. -6mm).

[Opening Clearance (O.C.)]

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

[O.C.(B)] Table-2

Door Thickness (D)	Bore Distance (C) 3	4	5	6	7	8	9
Max. 33	Max. 0.2						
34	0.3	0.3	0.3	0.3	0.3	0.3	0.3
35※	0.7	0.7	0.7	0.7	0.7	0.6	0.5
36※	3.2	3.0	2.7	2.3	1.6	1.3	0.9
37※	5.0	4.4	3.8	3.2	2.6	2.1	1.6
38※	6.2	5.5	4.8	4.2	3.5	2.9	2.4
39※	7.2	6.4	5.7	5.1	4.4	3.9	3.3
40※	8.3	7.3	6.6	6.0	5.4	4.7	4.2
	O.C. (B)						

※The above table is O.C. (B) for 0~90° opening. Please refer to the locus chart if door thickness is over 34mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.)

[O.C.(A)] Table-3

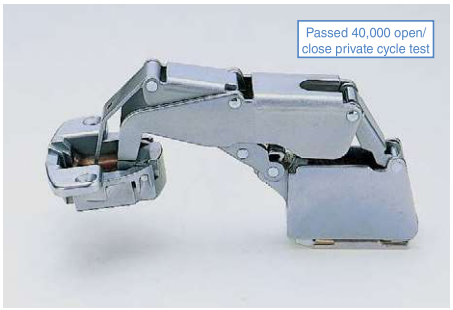
Door Thickness (D)	O.C. (A) Door Width 300	Door Width 400	Door Width 500	Door Width 600
20	1.4	1.1	0.8	0.7
30	1.8	1.3	1.0	0.8
34	1.8	1.3	1.0	0.8

[Door Dimensions and Number of Hinges] 4

Refer to 1 : P.215~P.218, 2 : P.221, 3 : P.201, 4 : P.200

160° Opening | **Inset** | **Cup Dia ϕ40 Bore Depth 15mm Door Thickness 18~34mm** | **Mounting Plate 1 100 Series**

CONCEALED HINGE H160 For Thick Door



Picture above is the combination of concealed hinge and mounting plate (sold separately).

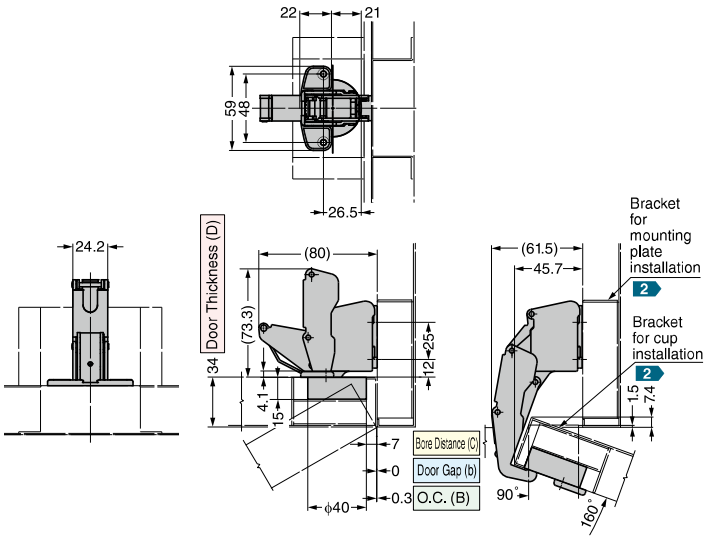
[Sold Separately]
- 100 series mounting plate 1

[Recommended Screws]
- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-623	H160-34/0	Without Catch	Zinc Alloy	Satin	230.9	100
G	3D	160-073-633	H160-C34/0	With Catch	(ZDC)	Chrome	244.1	100

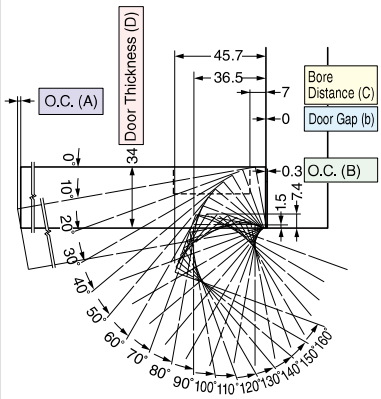
A mounting plate (sold separately) is required for installation. Please order separately.

Outline drawing S≒1/4

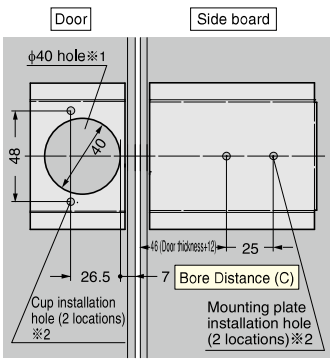


Picture above is the combination of H160-34/0 or H160-C34/0 (w/catch) and mounting plate 100-03A (sold separately).

Locus chart S≒1/4
(How to Use the Locus Chart 3)



Cut Out Dimensions For metal door



※1: Support the cup bottom at position of 15mm deep.
※2: Internal threads need to be made by welding nut or burring.

[Bore Distance (C)] Table-1

Bore Distance (C)	3	4	5	6	7
Door Gap (b)	4	3	2	1	0

For standard type shown in the table above mounting plate 0mm thickness.
Turning the overlay adjustment screw to adjust the gap.

[Opening Clearance (O.C.)]
Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

[O.C.(B)] Table-2

Door Thickness (D)	Bore Distance (C) 3	4	5	6	7
Max. 30	Max. 0.1				
31	0.1	0.1	0.1	0.1	0.1
32	0.2	0.2	0.2	0.2	0.2
33	0.2	0.2	0.2	0.2	0.2
34	0.3	0.3	0.3	0.3	0.3
35※	0.9	0.9	0.9	0.8	0.8
36※	3.4	3.1	2.8	2.2	1.6
	O.C. (B)				

※The above table is O.C. (B) for 0~90° opening. Please refer to the locus chart if door thickness is over 34mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.)

[O.C.(A)] Table-3

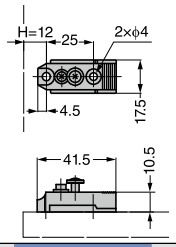
Door Thickness (D)	O.C. (A) Door Width 300	Door Width 400	Door Width 500	Door Width 600
20	1.4	1.1	0.8	0.7
30	1.7	1.3	1.0	0.8
34	1.7	1.3	1.0	0.8

[Door Dimensions and Number of Hinges] 4

Refer to 1 : P.215~P.218, 2 : P.221, 3 : P.201, 4 : P.200

MOUNTING PLATE 100-01





- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

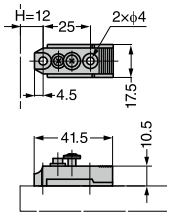
- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Colour	Weight (g)	Box (pcs)
G	3D	160-074-070	100-01	PA	Ivory	7.3	800

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

MOUNTING PLATE 100-03





- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

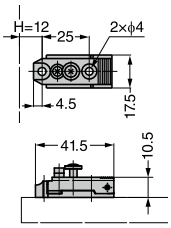
- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-074-079	100-03	Zinc Alloy (ZDC)	Satin Chrome	22.3	800

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

MOUNTING PLATE 100-03A





- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

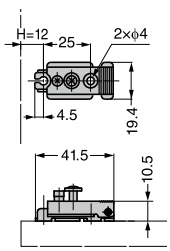
[Recommended Screws]

- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-074-083	100-03A	Zinc Alloy (ZDC)/Steel	Nickel/Coloured Zinc Chromate	27.8	800

MOUNTING PLATE 100-P3A





- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-074-244	100-P3A	Steel	Satin Chrome/Coloured Zinc Chromate	21.4	800

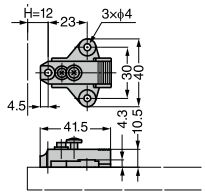
※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

SYSTEM 30 TYPE

MOUNTING PLATE 100-02-30





- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

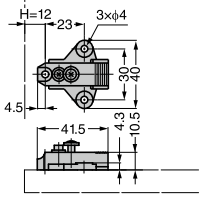
- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Colour	Weight (g)	Box (pcs)
G'	3D	160-074-071	100-02-30	PA	Ivory	8.3	400

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

MOUNTING PLATE 100-04-30





- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

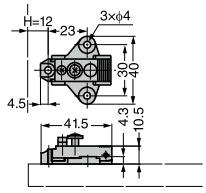
- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G'	3D	160-074-085	100-04-30	Zinc Alloy (ZDC)	Satin Chrome	28.3	400

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

MOUNTING PLATE 100-02A-30





- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

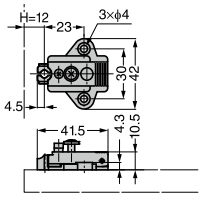
- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Finish / Colour	Weight (g)	Box (pcs)
G'	3D	160-074-074	100-02A-30	PA/Steel	Ivory/Coloured Zinc Chromate	17	400

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

MOUNTING PLATE 100-04A-30





- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

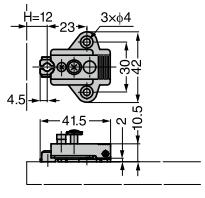
- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G'	3D	160-074-087	100-04A-30	Zinc Alloy (ZDC)/Steel	Satin Chrome/Coloured Zinc Chromate	30.7	400

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

MOUNTING PLATE 100-P4A-30





- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

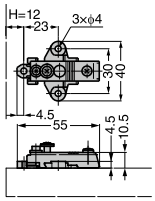
RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G'	3D	160-074-161	100-P4A-30	Steel	Satin Chrome/Coloured Zinc Chromate	26.6	400

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

SYSTEM 30 TYPE

MOUNTING PLATE 100-04W-30





- Height adjustable (±1.5).
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Remarks]

- When using a concealed hinge with wide angle opening, vertical adjustment screw is difficult to adjust.

[Recommended Screws]

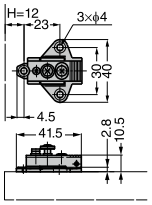
- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	160-074-095	100-04W-30	Zinc Alloy (ZDC)/Steel	Satin Chrome	35.4	200	800

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

MOUNTING PLATE 100-04A-W-30





- Height adjustable (±1.5).
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

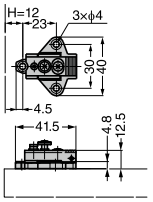
- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	160-074-115	100-04A-W-30	Steel	Satin Chrome/Coloured Zinc Chromate	32.1	200	800

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

MOUNTING PLATE 100-04A-W-30-2





- Overlay and height adjustable (±1.5).
- Height: 2mm
- Used to make overlay 2mm smaller.
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

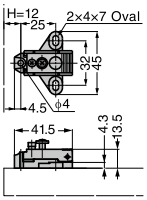
RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	160-074-158	100-04A-W-30-2	Zinc Alloy (ZDC)/Steel	Satin Chrome/Coloured Zinc Chromate	35	200	800

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

SYSTEM 32 TYPE

MOUNTING PLATE 100-04A-32-3





- Overlay adjustable.
- Height: 3mm
- Used to make overlay 3mm smaller.
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

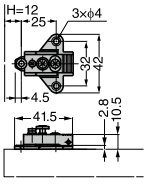
- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-074-089	100-04A-32-3	Zinc Alloy (ZDC)/Steel	Satin Chrome/Coloured Zinc Chromate	37.2	400

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

MOUNTING PLATE 100-04A-W-32





- Overlay and height adjustable (±1.5).
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

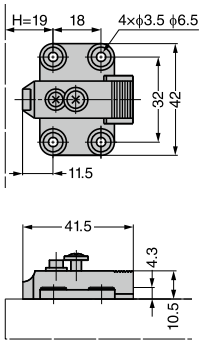
- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	160-074-116	100-04A-W-32	Steel	Satin Chrome/Coloured Zinc Chromate	32.4	200	800

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

MOUNTING PLATE 100-06





- Standard height: 0mm
- Value of H: Door thickness + 24mm in use of INSET type (Door thickness + 19mm in use of INSET type of H160 or 170 hinge).

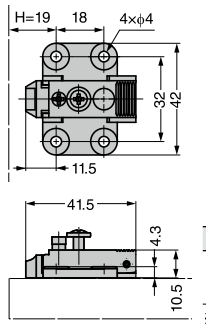
[Recommended Screws]
- Size 3.1 countersunk head screw

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G'	3D	160-074-110	100-06	Zinc Alloy (ZDC)	Satin Chrome	28.5	400

※Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

MOUNTING PLATE 100-06A





- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 24mm in use of INSET type (Door thickness + 19mm in use of INSET type of H160 or 170 hinge).

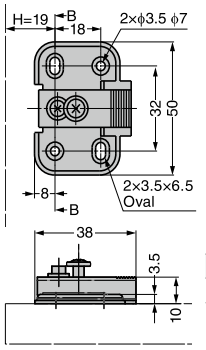
[Recommended Screws]
- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G'	3D	160-074-111	100-06A	Zinc Alloy (ZDC)/Steel	Satin Chrome/ Coloured Zinc Chromate	36.1	400

※Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

MOUNTING PLATE 100-P6





- Standard height: 0mm
- Value of H: Door thickness + 24mm in use of INSET type (Door thickness + 19mm in use of INSET type of H160 or 170 hinge).

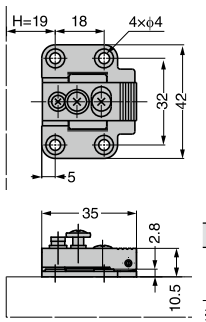
[Recommended Screws]
- Size 3.1 countersunk head screw

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G'	3D	160-074-160	100-P6	Steel	Satin Chrome	23	400

※Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

MOUNTING PLATE 100-06AW





- Overlay and height adjustable (±1.5).
- Standard height: 0mm
- Value of H: Door thickness + 24mm in use of INSET type (Door thickness + 19mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]
- Size 3.5 tapping screw or wood screw (do not use countersunk head screws)

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G'	3D	160-074-171	100-06AW	Steel	Satin Chrome/ Coloured Zinc Chromate	36.7	400

※Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

SPACER FOR 100 SERIES MOUNTING PLATE 100-DP2 2mm Thickness



●Used to make overlay 2mm smaller.

Use with the following mounting plates:

100-01　　100-03
100-03A　　100-P3A
100-P3A-SUS304B

RoHS	CAD	Item Code	Item Name	Material	Colour	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	160-074-100	100-DP2	PA	Ivory	1.2	800	3200

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

SPACER FOR 100 SERIES MOUNTING PLATE 100-DP2-30 2mm Thickness



●Used to make overlay 2mm smaller.

Use with the following mounting plates:

100-02-30　　100-02A-30
100-04-30　　100-04A-30
100-04W-30　　100-P4A-30
100-04A-W-30　　100-04A-W-30-2
100-P4A-30-SUS304B

RoHS	CAD	Item Code	Item Name	Material	Colour	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	160-074-105	100-DP2-30	PA	Ivory	1.5	800	3200

※ Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

SPACER FOR 100 SERIES MOUNTING PLATE 100-DP2-32 2mm Thickness



●Used to make overlay 2mm smaller.

Use with the following mounting plates:

100-04A-32-3　　100-04A-W-32
100-P4A-32-SUS304B

RoHS	CAD	Item Code	Item Name	Material	Colour	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	160-074-107	100-DP2-32	PA	Ivory	1.5	800	3200

SPACER FOR 100 SERIES MOUNTING PLATE 100-DP2-06 2mm Thickness



●Used to make overlay 2mm smaller.

[Remarks]
●When used for 100-06AW, it may partially protrude.

Use with the following mounting plates:

100-06　　100-06AW
100-06A

RoHS	CAD	Item Code	Item Name	Material	Colour	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	160-074-145	100-DP2-06	PA	Ivory	2.1	800	3200

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

JIG FOR MOUNTING PLATE FOR 100 SERIES For Wooden Overlay Door



Use with the following mounting plates:

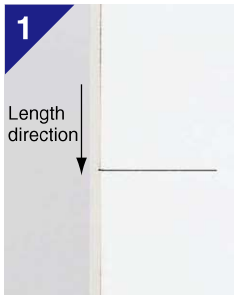
100-01	100-3
100-03A	100-02-30
100-04-30	100-02A-30
100-04A-30	100-04A-W-30
100-04A-W-30-2	100-04A-32-3
100-04A-W-32	

(Cannot be used for inset type mounting plates.)

RoHS	CAD	Item Code	Item Name	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	160-074-109	JIG	8.5	50	500

※Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

[How to Install]



●Draw a line at the centre of the mounting plate installation position (length direction) on side board etc.
If you want to erase the line later, drawing on the edge of side board is recommended.



●Align the V-groove of the jig with the line.



●Insert the mounting plate into the jig for correct installation position.
Optionally, insert the mounting plate into the jig and then align with the line (in reverse order of ② and ③).



●Hold the jig while fixing the mounting plate with a screw.

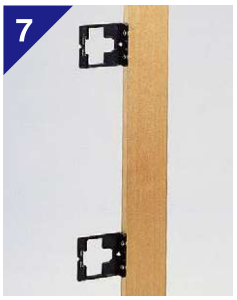
[Other Examples]



●Can also be used with mounting plates designed for system type.



●Mark the holes for easy installation.



●Attach the jig to a bar when installing several mounting plates at the same time.



●The bar will help you decide the correct distance between the plates.

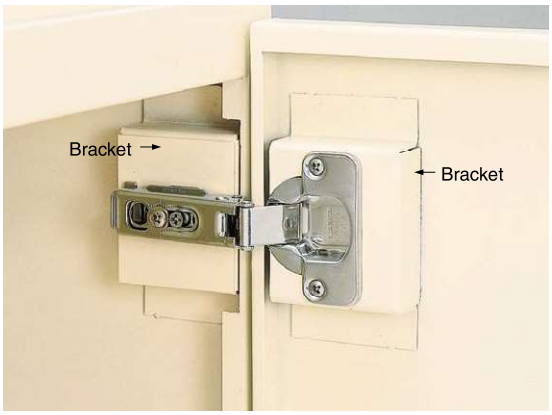
Examples of installation to sheet metal (Brackets not included)

Concealed hinges can also be used for metal cabinets.

170 (19 mm Overlay)



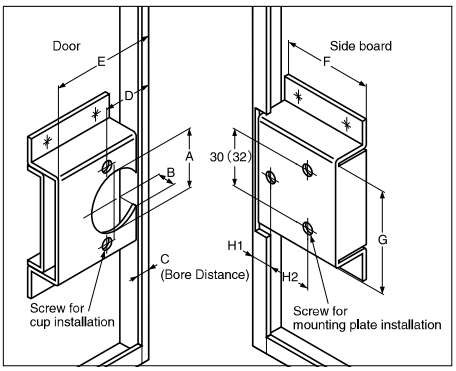
100 (19 mm Overlay)



[Bracket Installation]

Refer to this example and install brackets to the inner side of door and cabinet side board.

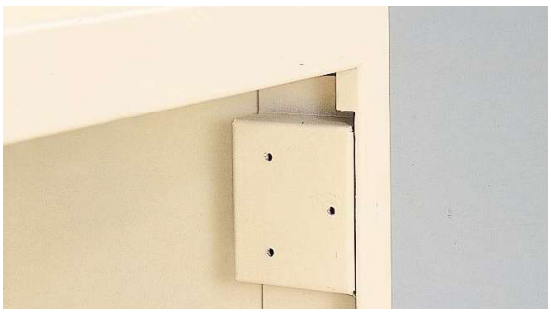
Customer should provide brackets.



Size A: Cup diameter (ϕ26, ϕ35, or ϕ40)
Size B: Bore depth (Be sure to support cup bottom)
Size C: Bore distance
Size D: Distance from door edge to cup mounting screw
Size E: More than distance from door edge to tip of cup flange.
●For details, refer to the content page of each hinge.

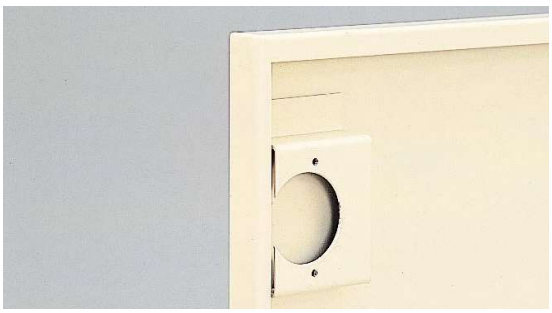
Size F: More than total length of mounting plate.
Size G: More than width of mounting plate.
Size H_1, H_2: Installation position size from edge of mounting plate.
●For details, refer to the content page of the mounting plate of hinge used.

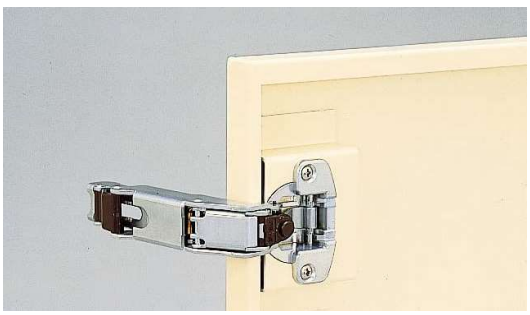
Bracket for Mounting Plate Installation





Bracket for Cup Installation





CONCEALED HINGE (CLIP-ON) HT160THV2



- Sheet metal door can be quickly installed and removal.
- Spacers on the slide arms reduce arm wear and door sagging.
- Door opens without interfering with side cabinets or wall.
- For more details , please contact local representatives.

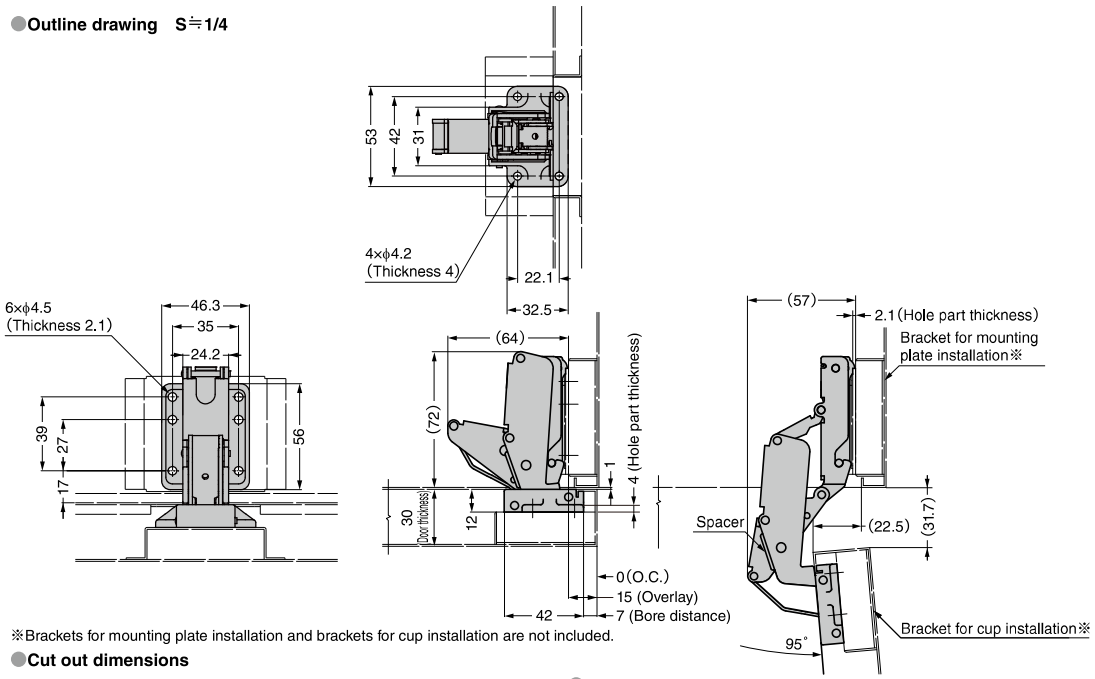
[Applications]

- Small vending machines, ticket vending machines, contiguous doors, door of cabinet embedded in the wall, etc.

[Sold Separately]

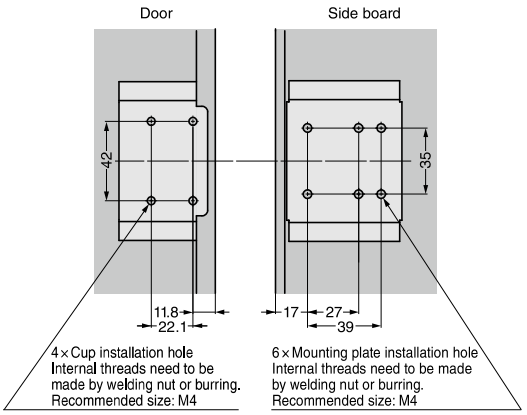
- Mounting plate HT160TZ

Outline drawing S≒1/4



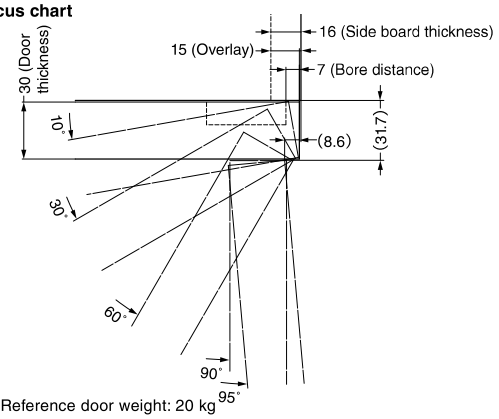
※Brackets for mounting plate installation and brackets for cup installation are not included.

Cut out dimensions



Drawing above is Bore Distance 7 mm, Door Thickness 30 mm and 15 mm Overlay.

Locus chart



Reference door weight: 20 kg
(In case of door size W450×H800, installation pitch 550, using 2 pcs vertically)

[Hinge Body]

RoHS	CAD	Item Code	Item Name	Material	Finish / Colour	Weight (g)	Box (pcs)
G	3D	160-070-327	HT160THV2-G	Body/Steel, Cup/Zinc Alloy (ZDC), Spacer/POM	Body・Cup/Nickel, Spacer/Black	204.6	100

[Mounting Plate] Sold Separately

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-070-391	HT160TZ	Steel	Nickel	69.1	200

※Use in combination of hinge body and mounting plate (sold separately).

CONCEALED HINGE HT160V2 With Mounting Plate



- For sheet metal doors.
- Overlay adjustment (Max. $^{+0}_{-3mm}$) by turning the overlay adjustment screw.
- Spacer on the slide arms reduces arm wear and door sagging.
- Door opens without interfering with side cabinets or wall.
- For more details, please contact local representatives.

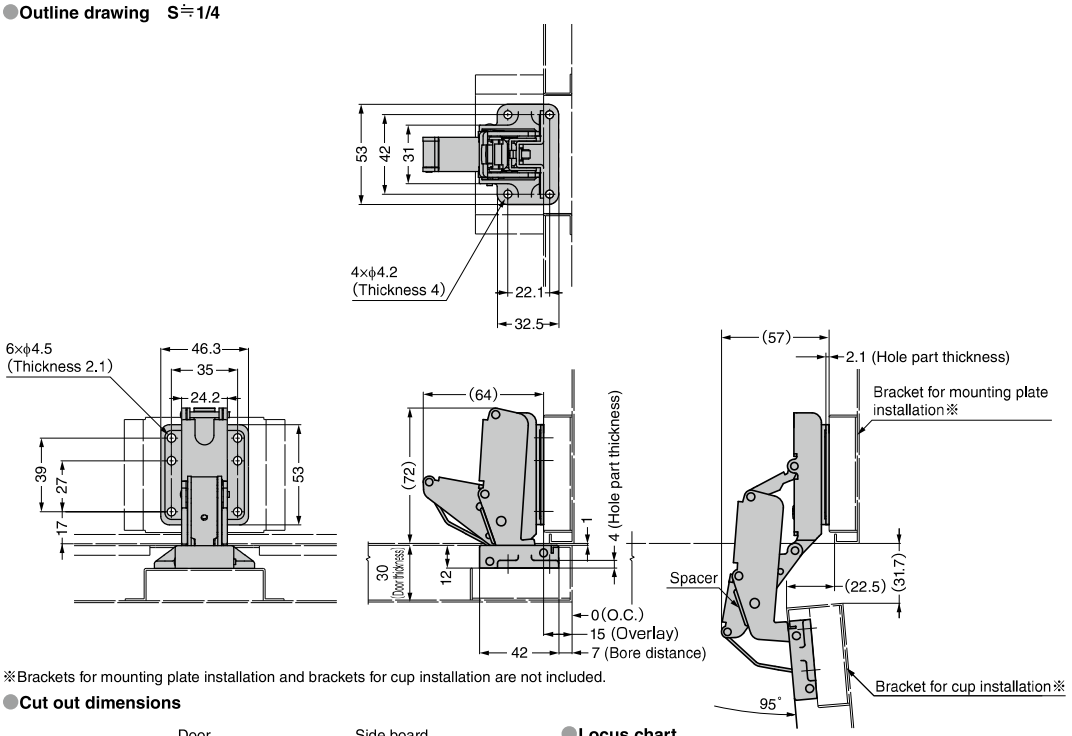
[Applications]

- Small vending machines, ticket vending machines, contiguous doors, door of cabinet embedded in the wall, etc.

[Parts Included]

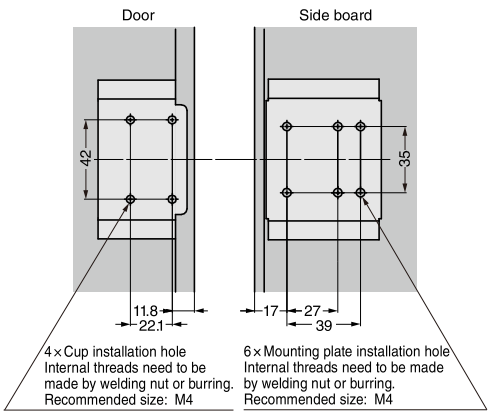
- Mounting plate

Outline drawing S≒1/4



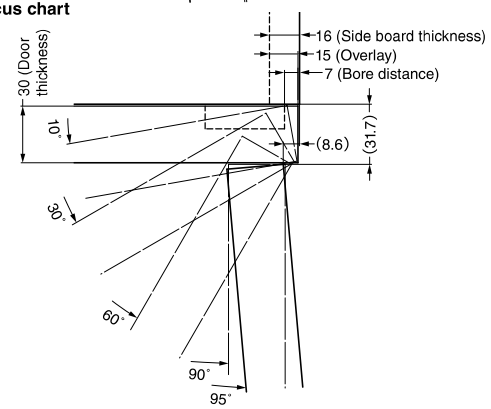
※Brackets for mounting plate installation and brackets for cup installation are not included.

Cut out dimensions



Drawing above is Bore Distance 7 mm, Door Thickness 30 mm and 15 mm Overlay.

Locus chart



Reference door weight: 20 kg
(In case of door size W450×H800, installation pitch 550, using 2 pcs vertically)

RoHS	CAD	Item Code	Item Name	Material	Finish / Colour	Weight (g)	Box (pcs)
G	3D	160-070-393	HT160V2	Body/Steel, Cup/Zinc Alloy (ZDC), Spacer/POM	Body • Cup/Nickel, Spacer/Black	252.6	50

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

TORQUE CONCEALED HINGE H95TSH-F



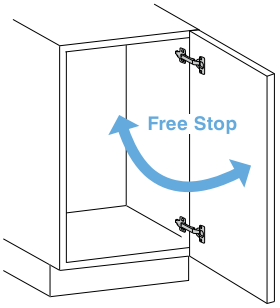
- Has free-stop torque mechanism with 95° opening.
- Gives no spring-back and backlash.
  When the angle is near 0°, the torque will be released.
- Easy installation and detachment.
- Hinge can be easily fixed onto the mounting plate by pressing down.
- Less interference with adjacent objects due to wide throw opening.
- The safety pin prevents accidental unlocking of the lock lever.

[Application]
- Vending machines, ticket machines, contiguous doors, small cabinet door embedded in the walls.

[Sold Separately]
- Mounting Plate H95TSZ

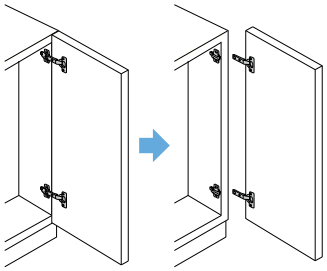
[Remarks]
- When the angle is near 0°, the torque will be released.

[Torque Mechanism]



Holds in position even if the door is inclined.

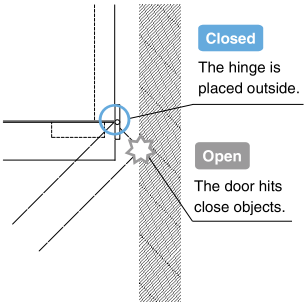
[Easy Installation and Detachment]



[Door Locus Comparison]

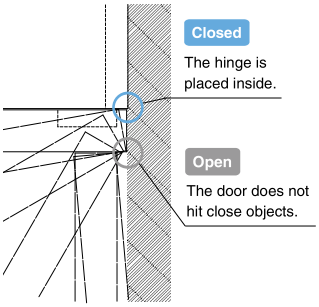


Butt Hinge

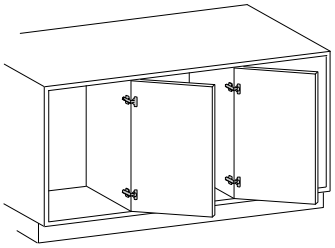




Concealed Hinge

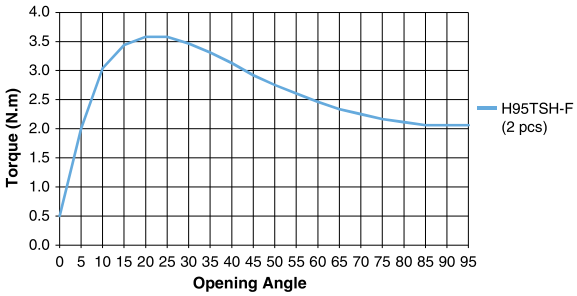


[Alternative Installations]



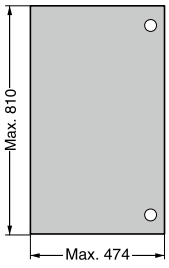
Can be used on doors lined up side by side.

[Torque Graph]



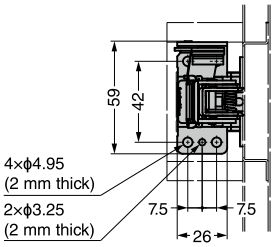
Although the torque will be released to prevent "spring-back" at a nearly closed angle, the door will not be firmly kept closed. If detent function is needed, please use with catches.

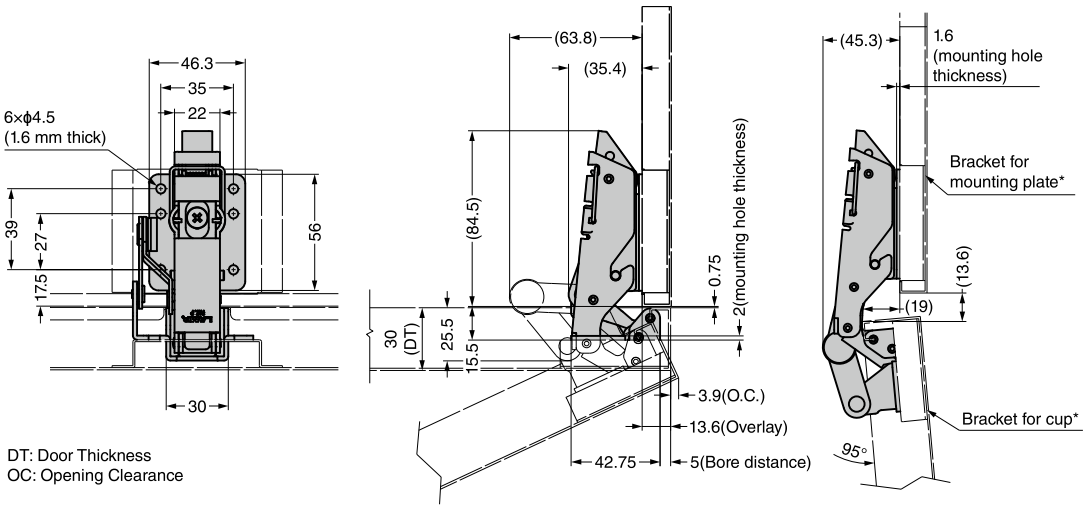
[Example Door Spec]



- Height : Max. 810 mm
- Width : Max. 474 mm
- Thickness : Max. 92 mm
- Weight : Max. 20 kg

* 2 hinges used

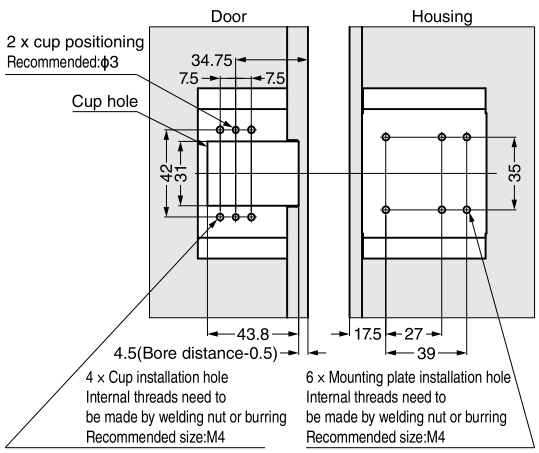




DT: Door Thickness
OC: Opening Clearance

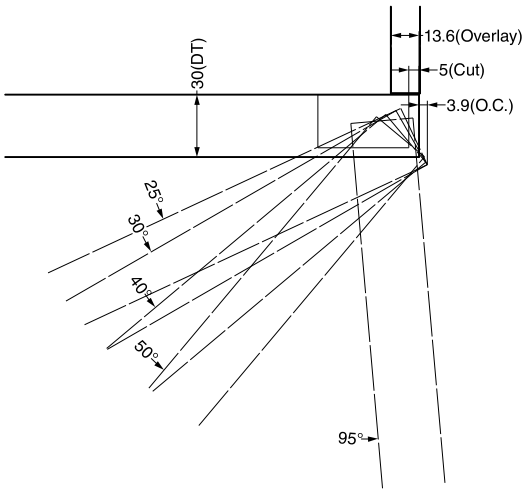
* Please prepare "Bracket for mounting plate" and "Bracket for cup" by yourself.

[Cut Out Dimensions]



The drawing shows the installation position in the conditions below:
- Bore distance : 5 mm
- Door thickness : 30 mm
- Overlay : 13.6 mm

[Locus Chart]



Reference door weight: 20 kg
(In case of door size W450 x H800, pitch 550, vertical use)

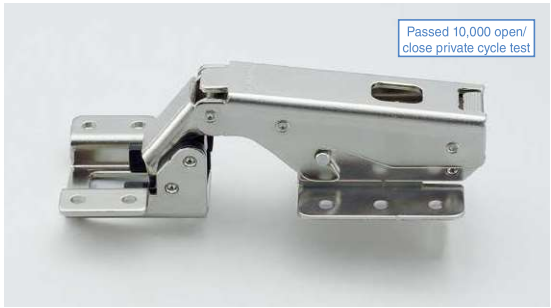
[Hinge Body]

RoHS	CAD	Item Code	Item Name	Main Material	Finish	Weight (g)	Box (pcs)
G	3D	160-046-391	H95TSH-F	Steel	Nickel	180	60

[Mounting Plate] Sold Separately

RoHS	CAD	Item Code	Item Name	Main Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-591	H95TSZ	Steel	Nickel	94	100

CONCEALED HINGE (CLIP-ON) H95TMH



- Compact design for space saving.
- Simple one-touch installation and detachment.
- Door opens without interfering with side cabinets or wall.
- For more details, please contact local representatives.

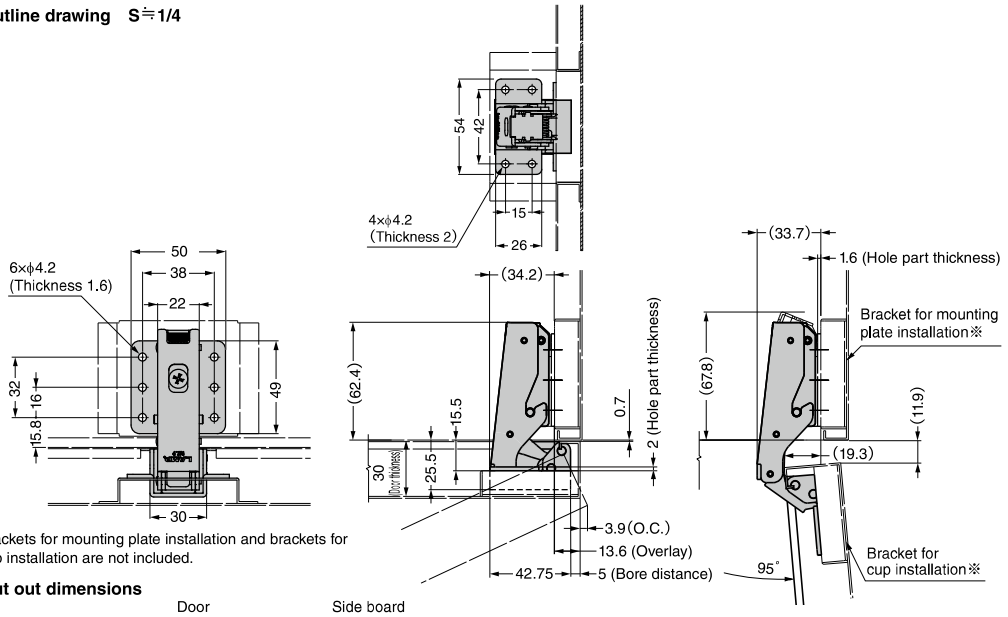
[Applications]

- Small vending machines, ticket vending machines, contiguous doors, door of cabinet embedded in the wall, etc.

[Sold Separately]

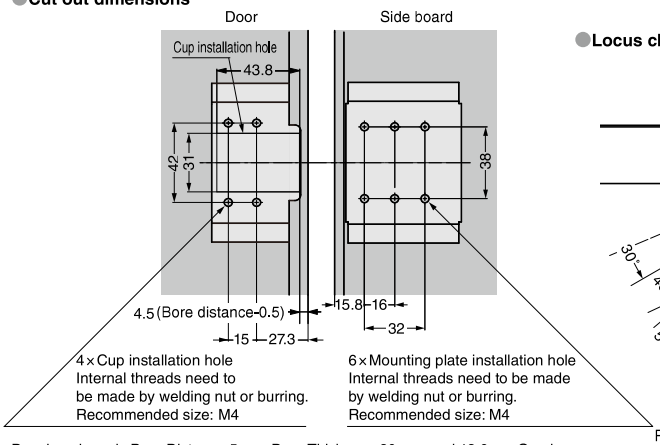
- Mounting plate H95TMZ

Outline drawing S≒1/4

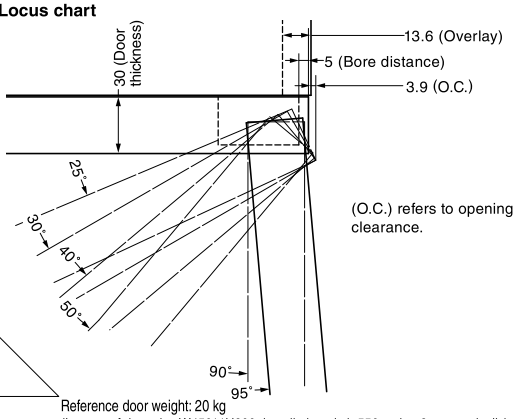


※Brackets for mounting plate installation and brackets for cup installation are not included.

Cut out dimensions



Locus chart



Drawing above is Bore Distance 5mm, Door Thickness 30 mm and 13.6mm Overlay.

Reference door weight: 20 kg
(In case of door size W450×H800, installation pitch 550, using 2 pcs vertically)

[Hinge Body]

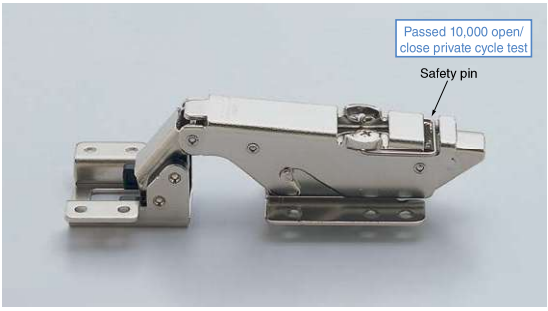
RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-070-101	H95TMH	Steel	Nickel	138	100

[Mounting Plate] Sold Separately

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-070-102	H95TMZ	Steel	Nickel	80.8	100

※Use in combination of hinge body and mounting plate (sold separately).

CONCEALED HINGE (CLIP-ON) H95TSH



- Simple installation and detachment by one-touch.
- Door opens without interfering with side cabinets or wall.
- With a safety pin on the lock lever.
- For more details, please contact local representatives.

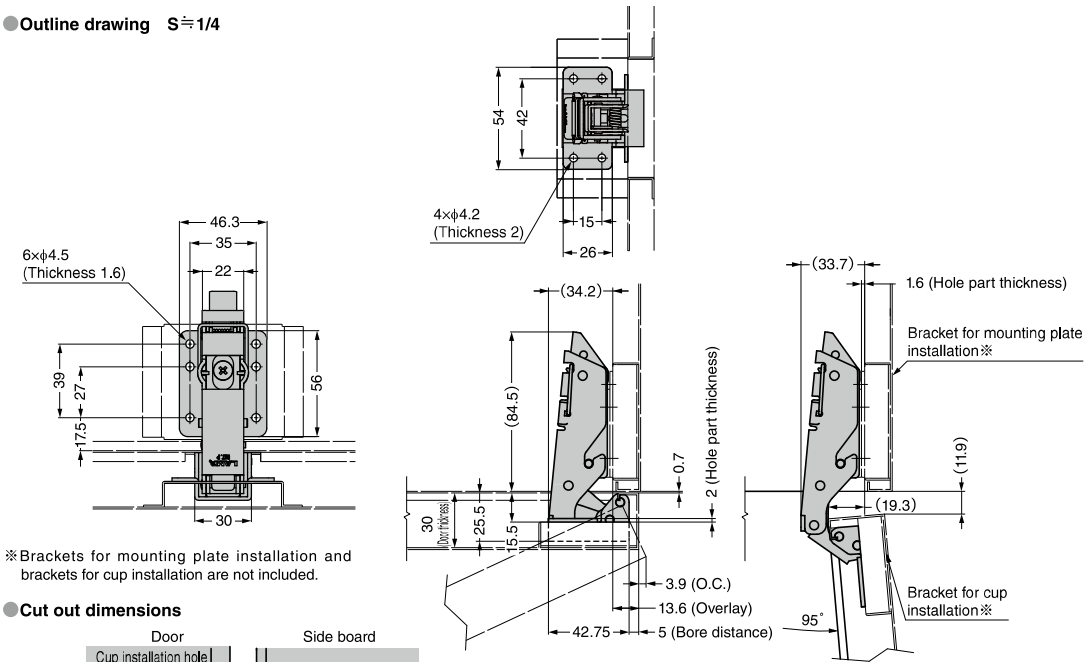
[Applications]

- Small vending machines, ticket vending machines, contiguous doors, door of cabinet embedded in the wall, etc.

[Sold Separately]

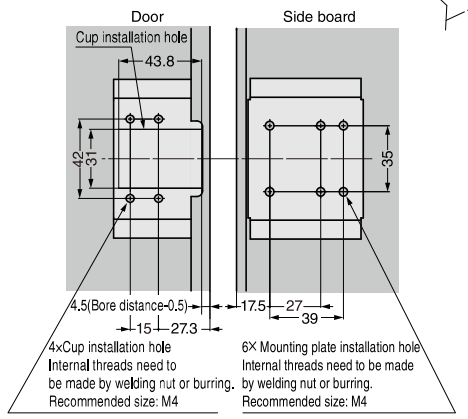
- Mounting plate H95TSZ

Outline drawing S≒1/4



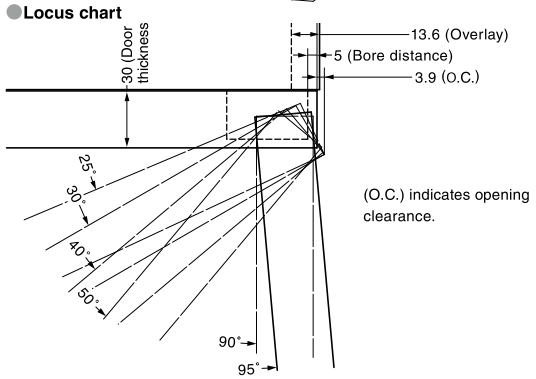
※Brackets for mounting plate installation and brackets for cup installation are not included.

Cut out dimensions



Drawing above is Bore Distance 5mm, Door Thickness 30 mm and 13.6mm Overlay.

Locus chart



Reference door weight: 20 kg
(In case of door size W450×H800, installation pitch 550, using 2 pcs vertically)

[Hinge Body]

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-590	H95TSH	Steel	Nickel	150	100

[Mounting Plate] Sold Separately

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-591	H95TSZ	Steel	Nickel	94	100

※Use in combination of hinge body and mounting plate (sold separately).

CONCEALED HINGE (SURFACE MOUNT) T-90-200 For Both Overlay And Inset Doors



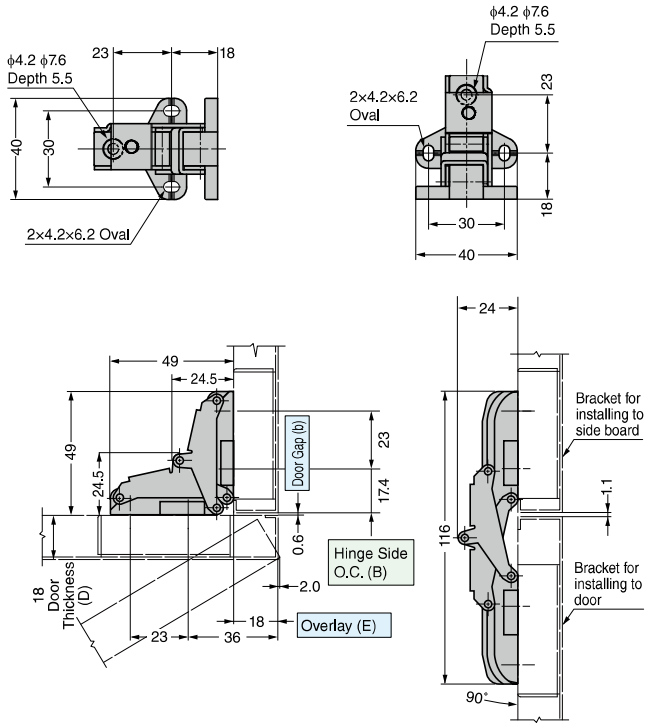
●Can be used for overlay and inset.

[Recommended Screws]
●Binding head screw M4
●Pan head tapping screw 4

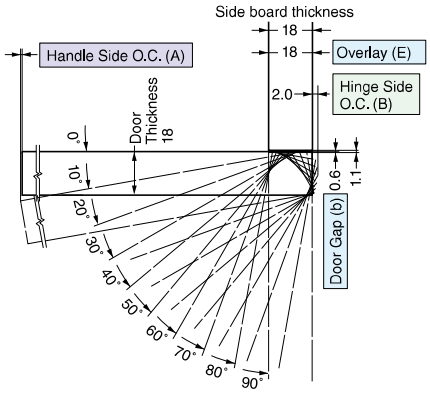
Part Name	Material	Finish / Colour
Body	PA	Ivory
Arm	Steel (SPCC)	Chrome

RoHS	CAD	Item Code	Item Name	Description	Overlay	Door Thickness	Opening Angle	Weight (g)	Box (pcs)
G	3D	170-090-090	T-90-200	Without Catch	15~18	15~18	90°	42	200

●**Outline drawing** S≒1/3



●**Locus chart** S≒1/3 (How to Use the Locus Chart 1)



Drawing above is door thickness 18mm, side board thickness 18mm and 18mm overlay.

Refer to 1 : P.201

[Opening Clearance (O.C.) and Door Gap(b)]
Handle side O.C. (A), hinge side O.C. (B) and Door Gap (b) are necessary (see the locus chart and outline drawing). Pay full attention to it in door design.

[Hinge Side O.C. (B)] Table -1

Door Thickness (D)	Hinge Side O.C. (B) Overlay (E) 15	Overlay (E) 16	Overlay (E) 17	Overlay (E) 18
15	1.1	0.5	0	0
16	2.0	1.4	0.8	0.2
17	2.9	2.3	1.7	1.1
18	3.8	3.2	2.6	2.0

※Please refer to How to Use the Locus Chart 1 if door thickness is over 18mm

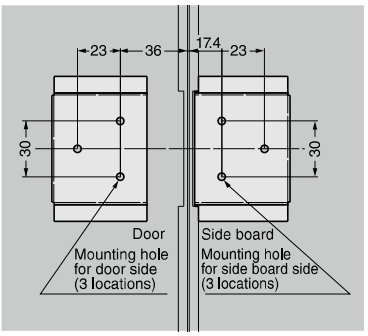
[Handle Side O.C.(A)] Table -2

Door Thickness (D)	Handle Side O.C. (A) Door Width 300	Door Width 400	Door Width 500
15	0.5	0.4	0.3
16	0.5	0.4	0.4
17	0.5	0.4	0.4
18	0.5	0.4	0.4

[Overlay (E)] Table -3

Overlay (E)	Door Gap (b)
15	0.2
16	0.3
17	0.5
18	0.6

[Cut Out Dimensions] For metal door

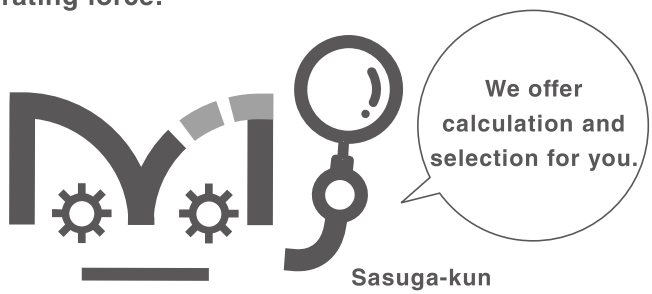


Drawing above is door thickness 18mm, side board thickness 18mm and 18mm overlay.

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

Product Selection Tool Sasuga-kun

Just inputting the dimensions and weight of the flap/door, you can select suitable Motion Design Tech products or simulate (graphically display) moment and operating force.



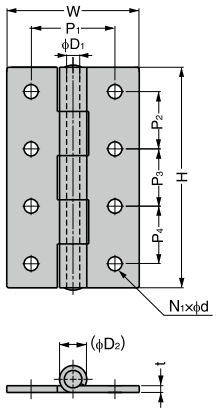
Access from here | Sasuga-kun | Search

https://cont.sugatsune.co.jp/motion/en/

BUTT HINGE LSA, LSB

SUS





●All parts made of polished stainless steel. Made to order available.

[Remarks]

●Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

RoHS	CAD	Item Code	Item Name	Holes	Material	Finish	H	W	P1	P2	P3	P4	t	d	D1	D2	N1	Load Capacity N / 2 pcs	Load Capacity kgf / 2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-730	LSA-40	Without screw holes	Stainless Steel (SUS304)	Mirror	40	35	–	–	–	–	1.5	–	3	6.3	–	69	7	25	100	400
G	3D	170-090-731	LSA-50				50											88	9	30	100	400
G	3D	170-090-718	LSA-65				65	50					2		4.5	8.8		157	16	66	50	200
G	3D	170-090-719	LSA-75				75											186	19	76	40	160
G	3D	170-090-734	LSA-90				90	60					3		6	12.3		333	34	190	10	80
G	3D	170-090-735	LSA-100				100											363	37	200	10	60
G	3D	170-090-724	LSB-40	With screw holes			40	35	22	26	–	–	1.5	3.2	3	6.3	4	69	7	25	100	400
G	3D	170-090-725	LSB-50				50			34				4.3				88	9	30	100	400
G	3D	170-090-716	LSB-65				65	50	30	23	23		2		4.5	8.8	6	157	16	64	50	200
G	3D	170-090-717	LSB-75				75			27	27			5.3				186	19	74	40	160
G	3D	170-090-728	LSB-90				90	60	38	35	35		3	6.4	6	12.3	8	333	34	180	10	80
G	3D	170-090-729	LSB-100				100			26	26	26						363	37	195	10	60

Refer to 1 : P.43

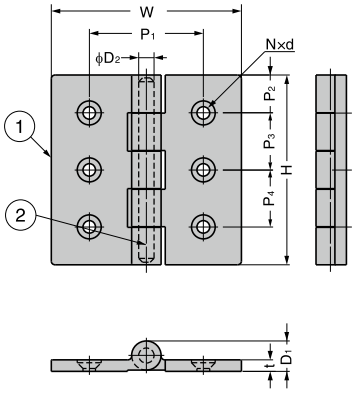
BUTT HINGE LSF

NSF SUS316



[Remarks]

●Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



No.	Part Name	Material	Finish
①	Body	Stainless Steel (SCS14)	Mirror
②	Shaft	Stainless Steel (SUS316)	–

※SCS14 is equivalent to SUS316.

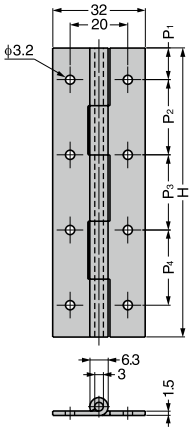
RoHS	CAD	Item Code	Item Name	H	W	P1	P2	P3	P4	t	D1	D2	Knuckles	N	d	Load Capacity N / 2 pcs	Load Capacity kgf / 2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-720	LSF-50	50	50	35	15	20	–	5	14	6	3	4	Counterbore for M4	275	28	110	20	100
G	3D	170-090-721	LSF-65	65	65	40		35							Counterbore for M5	353	36	190	20	80
G	3D	170-090-722	LSF-75	75	75	50	17.5	40		6	16	8			Counterbore for M6	500	51	305	10	50
G	3D	170-090-723	LSF-100	100	100	60	20	30	30				5	6		667	68	500	10	30

Refer to 1 : P.43

BUTT HINGE KHA

SUS





- Various sizes available.
- Steel hinge also available on order.For further details, please contact local representatives.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

Material	Finish
Stainless Steel (SUS304)	Polished

[With Mounting Holes]

RoHS	CAD	Item Code	Item Name	H	P1	P2	P3	P4	Knuckles	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-091-180	KHA-25C	25	6	13	–	–	3	49	5	13	200	800
G	3D	170-091-181	KHA-30C	30	7	16				59	6	16	200	800
G	3D	170-091-182	KHA-40C	40	8	24				69	7	21	150	600
G	3D	170-091-183	KHA-50C	50	10	30				88	9	26	100	400
G	3D	170-091-184	KHA-60C	60	8	22	22	–	5	108	11	31	100	400
G	3D	170-091-185	KHA-65C	65	8.5	24	24			118	12	34	100	400
G	3D	170-091-186	KHA-75C	75	9.5	28	28			137	14	39	50	200
G	3D	170-091-187	KHA-80C	80	10	30	30			147	15	42	50	200
G	3D	170-091-188	KHA-90C	90		35	35			167	17	47	50	200
G	3D	170-091-189	KHA-100C	100	11	26	26	26		186	19	52	50	200

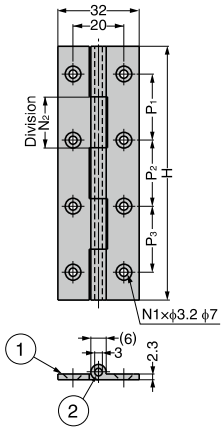
[Without Mounting Holes]

RoHS	CAD	Item Code	Item Name	H	Knuckles	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-091-170	KHA-25CN	25	3	49	5	13	200	800
G	3D	170-091-171	KHA-30CN	30		59	6	16	200	800
G	3D	200-091-172	KHA-40CN	40		69	7	21	150	600
G	3D	170-091-191	KHA-50CN	50		88	9	26	100	400
G	3D	170-091-192	KHA-60CN	60	5	108	11	31	100	400
G	3D	170-091-193	KHA-65CN	65		118	12	34	100	400
G	3D	170-091-194	KHA-75CN	75		137	14	39	50	200
G	3D	170-091-195	KHA-80CN	80		147	15	42	50	200
G	3D	170-091-196	KHA-90CN	90		167	17	47	50	200
G	3D	170-091-179	KHA-100CN	100		186	19	52	50	200

Refer to 1 : P.43

BUTT HINGE KHB





- Drawing material, with small shaft diameter.
- Various sizes available.

[Applications]

- Ship, vehicle, kitchen equipment

[Remarks]

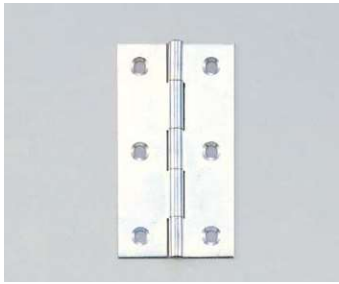
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

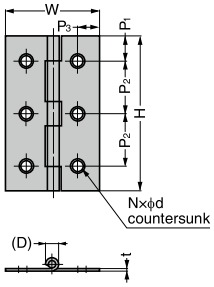
No.	Part Name	Material	Finish
①	Body	Brass	Chrome
②	Shaft		–

RoHS	CAD	Item Code	Item Name	H	P1	P2	P3	N1	N2	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-091-226	KHB-25CR	25	13	–	–	4	3	49	5	17	200	800
G	3D	170-091-227	KHB-30CR	30	16					59	6	20	150	600
G	3D	170-091-228	KHB-40CR	40	24					78	8	28	100	400
G	3D	170-091-229	KHB-50CR	50	30					98	10	35	100	400
G	3D	170-091-230	KHB-60CR	60	22	22	–	6	5	118	12	41	60	240
G	3D	170-091-231	KHB-65CR	65	24	24				127	13	43	60	240
G	3D	170-091-232	KHB-75CR	75	28	28				147	15	52	60	240
G	3D	170-091-233	KHB-80CR	80	30	30				157	16	54	60	240
G	3D	170-091-234	KHB-90CR	90	35	35				177	18	63	50	200
G	3D	170-091-235	KHB-100CR	100	26	26	26	8		206	21	68	50	200

Refer to 1 : P.43

BUTT HINGE F-A





- No hole type or different finish (bronze plating, melamine enamel finish, plain) are available on order. For further details, please contact local representatives.

[Remarks]
- Product movement varies. Please check with actual item.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

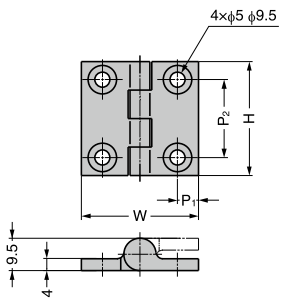
RoHS	CAD	Item Code	Item Name	Material	Finish	H	W	P1	P2	P3	t	D	N	d	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-282	F-25A	Steel (SPCC)	Clear Zinc Chromate	25	20	3.5	18	3.5	0.8	3.8	4	3.4	20	2	4.4	120	4800
G	3D	170-090-283	F-32A			32	22	4	24	4							6.1	120	4800
G	3D	170-090-284	F-38A			38	26	5	28	4.5		4.2			29	3	8.9	60	3600
G	3D	170-090-285	F-51A			51	30	6	39	5.5				3.7	39	4	13.2	60	2400
G	3D	170-090-287	F-64A			64	33	6.5	25.5	6.5	1	4.4	6	3.9	59	6	19.4	24	1200
G	3D	170-090-286	F-76A			76	41	8	30	8		5.3		4.4	69	7	32.5	24	720

Refer to 1 : P.43

BUTT HINGE 28300, 28400

SUS316





[Remarks]
- Recommended for use in pairs.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

RoHS	CAD	Item Code	Item Name	Material	Finish	H	W	P1	P2	Door Width	Door Height	Door Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-096-004	28300	Stainless Steel (SCS14)	Polished	38	39	7	26	Max.	Max.	Max.	167	17	55	20	100
G	3D	170-096-005	28400			50	50	7.5	34	450	700	21	226	23	90	20	–

Refer to 1 : P.43

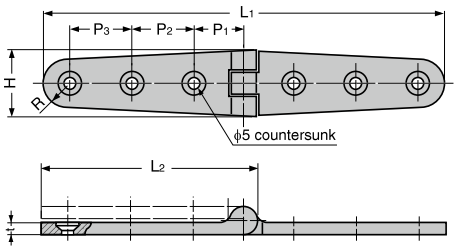
※SCS14 is equivalent to SUS316.

BUTT HINGE 50704, 50706

SUS316



[Remarks]
- Recommended for use in pairs.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



RoHS	CAD	Item Code	Item Name	Holes	Material	Finish	L1	L2	H	R	P1	P2	P3	t	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-096-000	50704	4	Stainless Steel (SCS14)	Polished	105	57	26.5	9	17.5	25	–	4	118	12	75	20	100
G	3D	170-096-001	50706	6			158	84			19.5		25				115	20	100

Refer to 1 : P.43

※SCS14 is equivalent to SUS316.

BUTT HINGE D-S-A

SUS

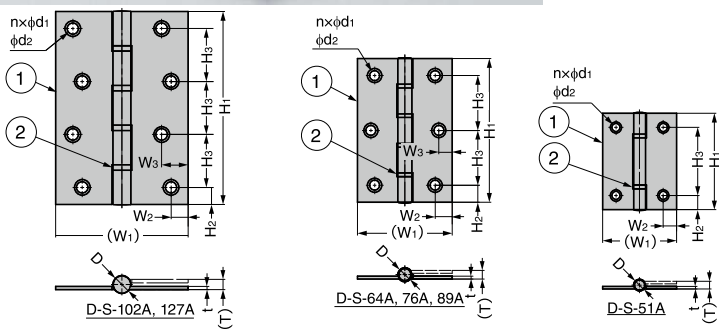


[Remarks]

- When installing this hinge to sheet metal, be sure to perform thread relief processing (chamfering) on the mounting surface side (cabinet side). In this way, screw head will not protrude when the hinge is fixed.
- Product movement and edge processing vary. Please check with actual item.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

[Parts Included]

- Countersunk head wood screw (SUS)



No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Satin
②	Washer	PA	–

RoHS	CAD	Item Code	Item Name	H1	H2	H3	W1	W2	W3	D	t	T	d1	d2	Knuckles	Washer	Holes n	Screw	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-265	D-S-51A	51	7.5	36	39	7	–	6.2	1.3	4	4.2	6	3	2	4	2.7×16	78	8	27.4	20	1000
G	3D	170-090-266	D-S-64A	64	7	25	42.5	8	6				5	7	5	4	6	3.1×16	98	10	36.5	20	800
G	3D	170-090-267	D-S-76A	76	9	29	50	9	7	7.4	1.5	4.5	5.2	7.5				3.5×22	137	14	59.5	20	480
G	3D	170-090-268	D-S-89A	89	10.5	34	56.5	10.5	7.5	9.1	1.8	5.5	5.4	8.3				3.8×25	196	20	91.6	10	280
G	3D	170-090-269	D-S-102A	102	9	28	70	9	14	9.5			6				8		226	23	132.5	10	200
G	3D	170-090-270	D-S-127A	127	11	35	82	10.5	16	11.3		6		9				4.1×25	284	29	231.5	6	120

Refer to 1 : P.43

BUTT HINGE D-S-B

SUS

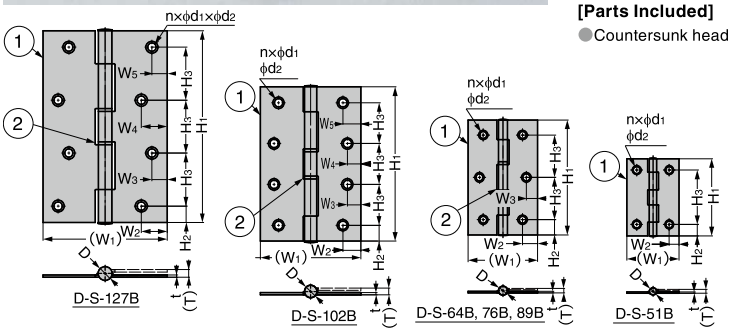


[Remarks]

- Dimensions in the following drawing are for reference. Please confirm with actual item when installing.
- When installing this hinge to sheet metal, be sure to perform thread relief processing (chamfering) on the mounting surface side (cabinet side). In this way, screw head will not protrude when the hinge is fixed.
- Product movement and edge processing vary. Please check with actual item.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

[Parts Included]

- Countersunk head wood screw (SUS)



No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS430)	Polished
②	Washer	PA	–

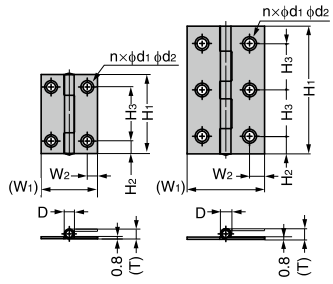
RoHS	CAD	Item Code	Item Name	H1	H2	H3	W1	W2	W3	W4	W5	D	t	T	d1	d2	Knuckles	Washer	Holes n	Screw	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-271	D-S-51B	51	7.5	36	34.5	6.5	–			4.8	0.8	2.5	4.4	5.8			4	2.7×13	49	5	15.2	20	1200
G	3D	170-090-272	D-S-64B	64	8	24	40	9	5.5	–	–			3	4.2		5	0		2.7×16	59	6	23.8	20	1000
G	3D	170-090-273	D-S-76B	76	10	28	46	10	7.5			6	1.0		4.5	6.2			6	2.9×20	88	9	37.8	20	700
G	3D	170-090-274	D-S-89B	89	9.5	35	56	12	8			7	1.2	4		7.5		2		3.5×22	127	13	63.6	10	400
G	3D	170-090-275	D-S-102B	102	10.5	27	66.5		9	9	12	8.2		4.5	5.5				8		186	19	96.4	10	300
G	3D	170-090-276	D-S-127B	127	11	35	82	10	17	10	17	9.2	1.5	5		8				3.8×25	235	24	161.5	6	180

Refer to 1 : P.43

BUTT HINGE D-S-C

SUS





D-S-25C, 32C, 38C　　D-S-51C, 64C

[Remarks]

- Dimensions in the following drawing are for reference. Please confirm with actual item when installing.
- When installing this hinge to sheet metal, be sure to perform thread relief processing (chamfering) on the mounting surface side (cabinet side). In this way, screw head will not protrude when the hinge is fixed.
- Product movement and edge processing vary. Please check with actual item.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

[Parts Included]

- Countersunk head wood screw (SUS)

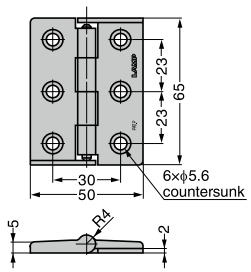
RoHS	CAD	Item Code	Item Name	Material	Finish	H1	H2	H3	W1	W2	D	T	d1	d2	Knuckles	Holes n	Screw	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-277	D-S-25C	Stainless Steel (SUS430)	Polished	25.5	5	15.5	21	3.5	3.8	3.8	3.5	5.1	3	4	2.4×10	20	2	4.4	100	3000
G	3D	170-090-278	D-S-32C			31.5		21.5	22.5	4								29	3	5.7	100	3000
G	3D	170-090-279	D-S-38C			38	5.5	27	26	5	3.9	3.9	3.8							7.7	50	2000
G	3D	170-090-280	D-S-51C			51	7	18.5	31	6	4.2	4.2	4	5.6	5	6	2.7×13	49	5	12.9	50	1500
G	3D	170-090-281	D-S-64C			64	9	23	33	6.2							2.7×16	59	6	19.4	50	1000

Refer to 1 : P.43

BUTT HINGE HG-BF1

SUS





- Rim on edges may reduce load.
- Rim on edges may reduce warpage and increase strength.
- Rim on edges prevents shaft from falling off.

[Remarks]

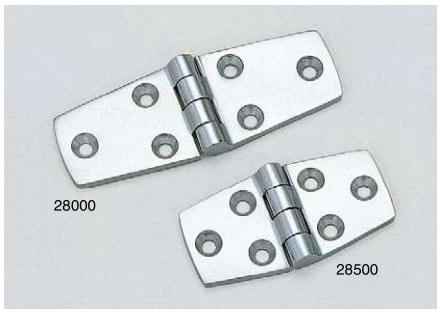
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

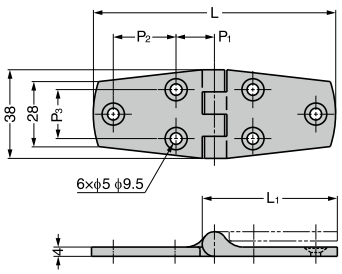
RoHS	CAD	Item Code	Item Name	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-091-560	HG-BF1	Stainless Steel (SUS304)	Barrel Polished	157	16	63	20	120

Refer to 1 : P.43

BUTT HINGE 28000, 28500

SUS316





[Remarks]

- Recommended for use in pairs.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

RoHS	CAD	Item Code	Item Name	Material	Finish	L	L1	P1	P2	P3	Door Width	Door Height	Door Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-096-002	28500	Stainless Steel (SCS14)	Polished	74	42	13	17	20	Max. 450	Max. 700	Max. 21	167	17	85	20	100
G	3D	170-096-003	28000			104	57	16.5	27	21						115	20	100

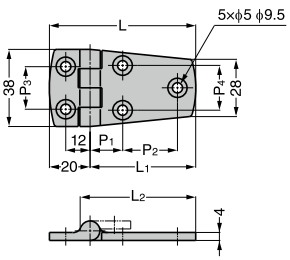
Refer to 1 : P.43

※SCS14 is equivalent to SUS316.

BUTT HINGE 27800, 27900

SUS316





[Remarks]
- Recommended for use in pairs.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

RoHS	CAD	Item Code	Item Name	Material	Finish	L	L1	L2	P1	P2	P3	P4	Door Width	Door Height	Door Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-096-008	27900	Stainless Steel (SCS14)	Polished	58	38	42	13.5	16.5	21	20	Max.	Max.	Max.	167	17	70	20	100
G	3D	170-096-007	27800			72	52	57	16	27	22	21	450	700	21			85	20	100

Refer to 1 : P.43

※SCS14 is equivalent to SUS316.

BUTT HINGE SYR140

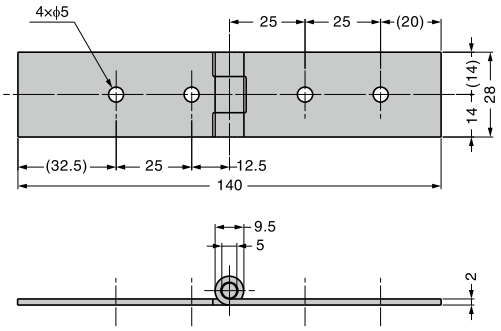
SUS



Selection Tool

Hinge Selection

[Remarks]
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



RoHS	CAD	Item Code	Item Name	Material	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Finish	Weight (g)	Carton (pcs)
G	3D	170-099-045	SYR140	Stainless Steel (SUS304)	69	7	Plain	74	300

Refer to 1 : P.43

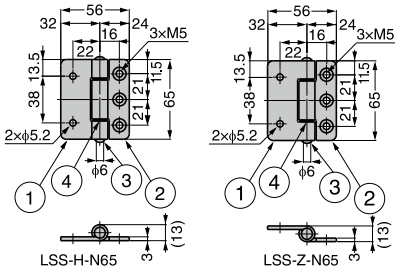
BUTT HINGE LSS

SUS



No.	Part Name	Material	Finish
①	Body A	Stainless Steel (SUS304)	Satin
②	Body B		
③	Shaft		–
④	Washer		

[Remarks]
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



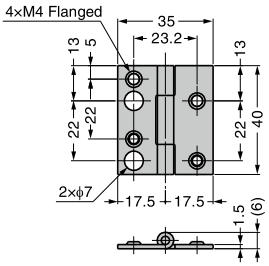
RoHS	CAD	Item Code	Item Name	Holes	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-542	LSS-H-A65	Without screw holes	245	25	125	30	120
G	3D	170-090-545	LSS-H-N65	With screw holes				30	120
G	3D	170-090-548	LSS-Z-A65	Without screw holes				30	120
G	3D	170-090-547	LSS-Z-N65	With screw holes				30	120

Refer to 1 : P.43

BUTT HINGE SBR40

SUS





- Hinge will not be in contact with screw heads while closing.
- Hinge is internal threaded.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

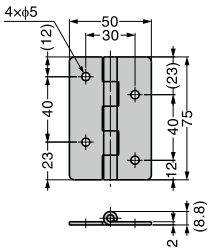
RoHS	CAD	Item Code	Item Name	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)
G	3D	170-099-088	SBR40	Stainless Steel (SUS304)	Plain	69	7	21	20

Refer to 1 : P.43

BUTT HINGE SR75

SUS





[Applications]

- Measuring instruments, precision instruments, etc.

[Remarks]

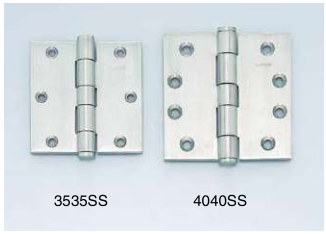
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

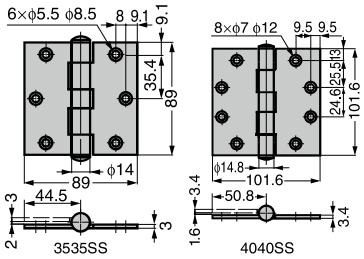
RoHS	CAD	Item Code	Item Name	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Carton (pcs)
G	3D	170-099-086	SR75	Stainless Steel (SUS304)	Plain	186	19	76	250

Refer to 1 : P.43

BUTT HINGE 3535SS, 4040SS

NSF SUS





[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .
- Countersinking is required for cabinet when installing to metal sheet.

[Parts Included]

- 3535SS : Countersunk head wood screw 4.5×25
- 4040SS : Countersunk head tapping screw 5.5×32

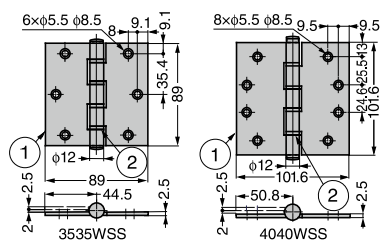
RoHS	CAD	Item Code	Item Name	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-920-181	3535SS	Stainless Steel (SUS304)	Satin	333	34	145	2	100
G	3D	170-920-182	4040SS			431	44	195	2	100

Refer to 1 : P.43

BUTT HINGE (W/WASHER) 3535WSS, 4040WSS

SUS





- Plastic washer prevents metal-to-metal contact and metal powder scattering.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .
- Countersinking is required for cabinet when installing to metal sheet.

[Parts Included]

- Countersunk head tapping screw 4×25

RoHS	CAD	Item Code	Item Name	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-029-834	3535WSS	245	25	195	2	100
G	3D	170-029-835	4040WSS	294	30	250	2	50

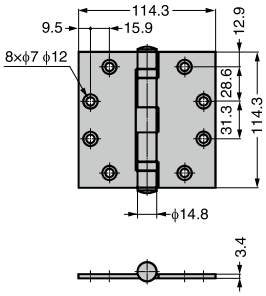
No.	Part Name	Material	Finish / Colour
①	Body	Stainless Steel (SUS304)	Satin
②	Washer	PA	White

Refer to 1 : P.43

BUTT HINGE (W/ BALL BEARING) 4545BSS

SUS





- Ball bearing provides smooth movement.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .
- Countersinking is required for cabinet when installing to metal sheet.

[Parts Included]

- Countersunk head tapping screw 5.5×32

RoHS	CAD	Item Code	Item Name	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-920-184	4545BSS	Stainless Steel (SUS304)	Satin	481	49	420	2	50

Refer to 1 : P.43

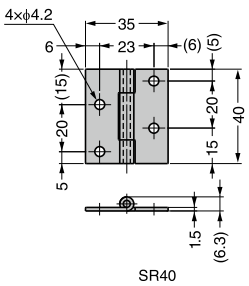
BUTT HINGE SR

SUS

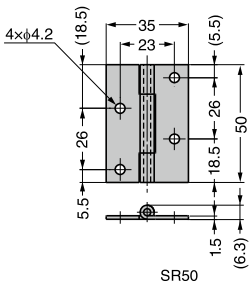


[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



SR40



SR50

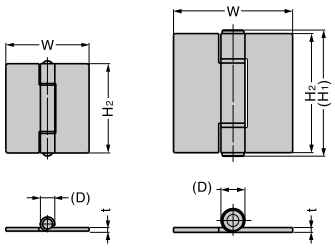
RoHS	CAD	Item Code	Item Name	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Carton (pcs)
G	3D	170-099-044	SR40	Stainless Steel (SUS304)	Plain	69	7	22	500
G	3D	170-099-042	SR50			88	9	27	500

Refer to 1 : P.43

BUTT HINGE FHS

SUS





FHS-50, FHS-60, FHS-75

FHS-100, FHS-125, FHS-150

[Applications]

- Ship, kitchen equipment

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

RoHS	CAD	Item Code	Item Name	Material	Finish	H1	H2	W	D	t	Knuckles	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-479	FHS-50	Stainless Steel (SUS304)	Satin	–	50	50	12	3	3	186	19	90	–	–
G	3D	170-090-478	FHS-60				60	64				226	23	130	–	–
G	3D	170-090-477	FHS-75				75	70				275	28	170	–	–
G	3D	170-090-476	FHS-100			110	100	100	20	4	5	490	50	520	–	40
G	3D	170-090-475	FHS-125			135	125					569	58	635	–	–
G	3D	170-090-474	FHS-150			160	150	120				637	65	850	–	–

Refer to 1 : P.43

BUTT HINGE LSK-1157

SUS



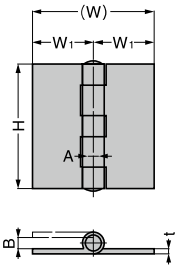
- Additional drilling is also possible. For further details, please contact local representatives.

[Applications]

- Power distribution box, control board, vehicle, ship, etc.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



RoHS	CAD	Item Code	Item Name	Material	Finish	H	W1	W	A	B	t	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-445	LSK-1157-1	Stainless Steel (SUS304)	Satin	51	25	50	6	6	2.5	127	13	76	10	250
G	3D	170-090-446	LSK-1157-2			64	32	64	7	7	3	235	24	141	10	150
G	3D	170-090-447	LSK-1157-3			76	37	74				284	29	188	10	100
G	3D	170-090-448	LSK-1157-4			89	43.5	87	8	8		333	34	257	10	80
G	3D	170-090-449	LSK-1157-5			101.6	49.5	99			4	500	51	417	10	50
G	3D	170-090-450	LSK-1157-6			127	59.5	119	11	11		579	59	681	6	30
G	3D	170-090-451	LSK-1157-7			152	71.5	143	12	12		647	66	928	4	20

Refer to 1 : P.43

STAINLESS STEEL HEAVY-DUTY BUTT HINGE HG-LSC210

SUS



- 6mm thick stainless steel makes the hinge very strong.
- Made with special rings (oil-impregnated bearings) for smooth movement.
- Head caps hide shaft for clean appearance.

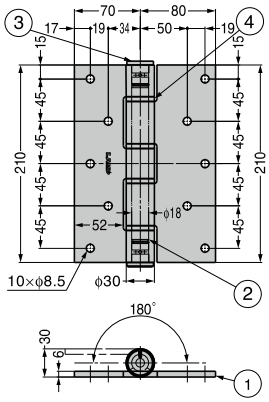
[Applications]

- Large doors, gate doors, and other heavy objects.

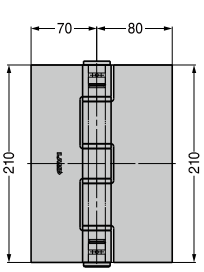
[Remarks]

- Be sure to read the “Cautions” 1 .

[HG-LSC210]



[HG-LSC210N]



Selection Tool

Hinge Selection

*Open/close test is under the following conditions:
-Hinge: Using three hinges vertically
-Door size: W900 × H2000
-Door weight: 250kg

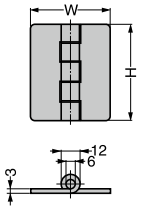
No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Satin
②	Shaft		Plain
③	Head Cap		–
④	Ring		Plain

RoHS	CAD	Item Code	Item Name	Type	Load Capacity N / 2pcs	Load Capacity kgf / 2pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-043-696	HG-LSC210	With screw holes	1960	200	2275	1	6
G	3D	170-043-697	HG-LSC210N	Without screw holes			2300	1	6

Refer to 1 : P.43

BUTT HINGE D-CH





[Remarks]
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

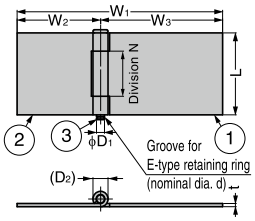
RoHS	CAD	Item Code	Item Name	Material	Finish	H	W	Knuckles	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-395	D-CH-60	Steel (SPHC)	Coloured Zinc Chromate (Trivalent)	60	50	3	177	18	105	–	–
G	3D	170-090-396	D-CH-90			90	60	5	275	28	180	–	–
G	3D	170-090-398	D-CH-100			100	80		294	30	245	–	–

Refer to 1 : P.43

BUTT HINGE OLYA

SUS





- Shaft detachable.

[Remarks]
- E-type retaining ring is not included.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

No.	Part Name	Material	Finish
①	Body A	Stainless Steel (SUS304)	Polished
②	Body B		
③	Shaft		Plain

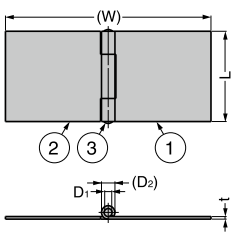
RoHS	CAD	Item Code	Item Name	L	W1	W2	W3	t	d	D1	D2	N	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-099-772	OLYA-128S	51	128	52	76	2	4	5	9.5	3	127	13	120	–	–
G	3D	170-099-771	OLYA-185S	65	185	30	155	3	5	6	12.5	5	245	25	330	–	–

Refer to 1 : P.43

BUTT HINGE YHS

SUS





[Remarks]
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

No.	Part Name	Material	Finish
①	Body A	Stainless Steel (SUS304)	Polished
②	Body B		
③	Shaft		Plain

RoHS	CAD	Item Code	Item Name	L	W	t	D1	D2	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-099-428	YHS-32	32	90	1.5	3.5	7	59	6	45	–	–
G	3D	170-099-427	YHS-38	38	82	1.2	3	5.6			35	–	–
G	3D	170-099-426	YHS-51	51	116	1.5	4	7.2	98	10	85	–	10

Refer to 1 : P.43

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

PIANO HINGE LSN

SUS



- Thick type (t = 3mm, 4mm) for ultra heavy duty also available. 5 widths (25mm, 32mm, 38mm, 50mm, 100mm) and length from 300 to 2000mm suitable for various applications.
- LSN 40-100-500 and LSN 40-100-1000 have built-in metal mesh resin composite bush with excellent wear resistance. Both ends are welded to prevent shaft from slipping off.
- Special dimensions and additional hole drilling, or different materials and finishes also available by made to order.

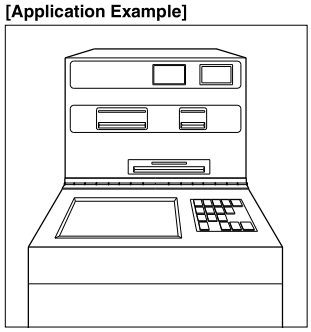
[Applications]

- ATM, game machine, control board, etc.

[Remarks]

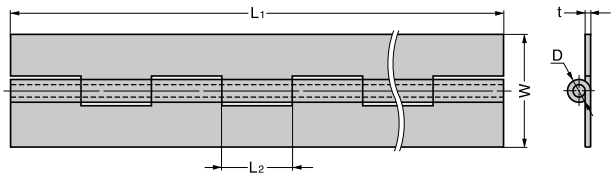
- Load capacity is the value when using one hinges. For calculation conditions, please refer to INDEX 1 .

[Application Example]



Selection Tool

Hinge Selection

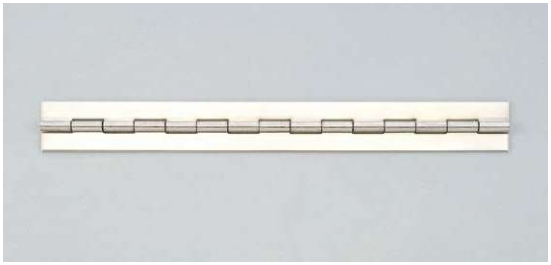


RoHS	CAD	Item Code	Item Name	Material	Finish	L1	L2	W	t	D	Load Capacity N/pc	Load Capacity kgf/pc	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-099-376	LSN8-25-300	Stainless Steel (SUS304)	Polished	300	12.5	25	0.8	2.6	137	14	690	10	50
G	3D	170-099-377	LSN8-25-600			600					275	28	134	10	50
G	3D	170-099-362	LSN8-25-1000			1000					461	47	240	10	50
G	3D	170-099-187	LSN8-25-1800			1800					716	73	400	10	50
G	3D	170-099-378	LSN8-32-300			300		32			137	14	79	10	50
G	3D	170-099-372	LSN8-32-600			600					275	28	166	10	50
G	3D	170-099-361	LSN8-32-1000			1000					461	47	265	10	50
G	3D	170-099-186	LSN8-32-1800			1800					716	73	420	10	50
G	3D	170-099-198	LSN8-38-1000			1000		38			461	47	0	10	50
G	3D	170-099-184	LSN8-38-1800			1800					716	73	500	10	50
G	3D	170-149-329	LSN15-32-300			300	20	32	1.5	3.5	255	26	165	10	50
G	3D	170-099-373	LSN15-32-350			350					304	31	192	10	50
G	3D	170-149-330	LSN15-32-450			450					392	40	247	10	50
G	3D	170-149-331	LSN15-32-600			600					520	53	337	10	50
G	3D	170-099-982	LSN15-32-750			750					598	61	410	10	50
G	3D	170-099-374	LSN15-32-850			850					628	64	461	10	50
G	3D	170-099-375	LSN15-32-900			900					667	68	491	10	50
G	3D	170-099-808	LSN15-32-1000			1000					745	76	545	10	50
G	3D	170-099-030	LSN15-38-1000					38					609	10	50
G	3D	170-099-031	LSN15-38-1800			1800					1370	140	1300	5	25
G	3D	170-090-709	LSN15-50-1000			1000		50			745	76	400	5	25
G	3D	170-099-182	LSN15-50-1800			1800					1370	140	1400	5	25
G	3D	170-099-029	LSN20-50-1000			1000	50	100	2	5	981	100	1096	5	25
G	3D	170-012-596	LSN30-100-1000		Plain				3.0	8.0	1370	140	3175	1	5
G	3D	170-012-597	LSN30-100-2000			2000					2550	260	6350	1	5
G	3D	170-012-598	※LSN40-100-500			500	90		4.0	10.0	981	100	2400	1	–
G	3D	170-012-599	※LSN40-100-1000			1000					1770	180	4600	1	–

Refer to 1 : P.43

※Built-in metal mesh resin composite bush with excellent load bearing and wear resistance.
※Both ends are welded to prevent shaft from slipping off.
※Appearance may be partly different from the drawing.

PIANO HINGE LH



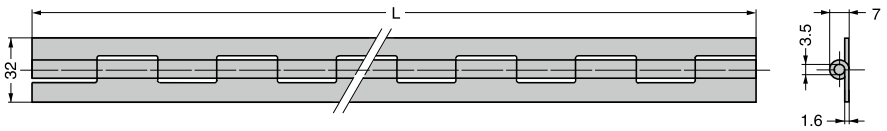
- Can be cut to any length. In case of cutting the hinge, please cut the side without knurling to prevent the shaft from coming off.
- Special dimensions and drilled products also available.

[Remarks]

- Load capacity is the value when using one hinges. For calculation conditions, please refer to INDEX 1 .

Selection Tool

Hinge Selection



RoHS	CAD	Item Code	Item Name	Material	Finish	L	Load Capacity N/pc	Load Capacity kgf/pc	Weight (g)	Box (pcs)
G	3D	170-095-505	LH-30A	Steel (SPCC)	Clear Zinc Chromate	300	216	22	175	30
G	3D	170-095-508	LH-35A			350	255	26	205	30
G	3D	170-090-507	LH-45A			450	324	33	265	30
G	3D	170-095-512	LH-60A			600	431	44	350	10
G	3D	170-095-515	LH-75A			750	539	55	437	10
G	3D	170-095-518	LH-85A			850	569	58	493	10
G	3D	170-095-521	LH-90A			900	598	61	522	10
G	3D	170-095-524	LH-100A			1000	618	63	551	10

Refer to 1 : P.43

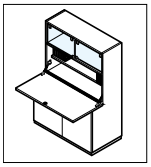
PIANO HINGE LHN

SUS



- Length from 1200 to 2100mm suitable for various application.
- Can be cut to any length.

[Application Example]

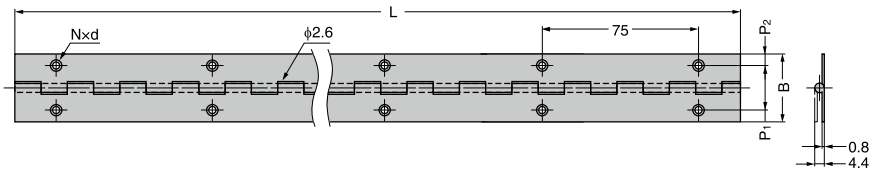


[Remarks]

- Size L is slightly shorter. Please check with actual item.
- Mounting hole pitch is actually measured on wooden item. Not suitable for sheet metal and installation with mounting hole pitch limitation.
- Take care not to damage the shaft when cutting.
- Attention should be paid to prevent the shaft from coming off.
- When installing this hinge to sheet metal, be sure to perform thread relief processing (chamfering) on the mounting surface side (cabinet side). In this way, screw head will not protrude when the hinge is fixed.
- Load capacity is the value when using one hinges. For calculation conditions, please refer to INDEX 1 .

Selection Tool

Hinge Selection



RoHS	CAD	Item Code	Item Name	Material	Finish	L	B	P_1	P_2	Qty of Holes N	d	Load Capacity N/pc	Load Capacity kgf/pc	Weight (g)	Box (pcs)
G	3D	170-097-846	LHN-32-1200	Stainless Steel (SUS304)	Polished	1200	32	20	6	32		549	56	400	30
G	3D	170-097-847	LHN-32-1500			1500				40	ϕ4	588	60	400	30
G	3D	170-097-848	LHN-32-1872			1872				50	ϕ5.2	745	76	400	30
G	3D	170-097-849	LHN-32-2100			2100				56		834	85	600	30
G	3D	170-097-850	LHN-38-1200			1200	38	22.5	7.75	32		549	56	400	30
G	3D	170-097-843	LHN-38-1500			1500				40	ϕ4.6	588	60	400	30
G	3D	170-097-844	LHN-38-1872			1872				50	ϕ6	745	76	600	30
G	3D	170-097-845	LHN-38-2100			2100				56		834	85	650	30

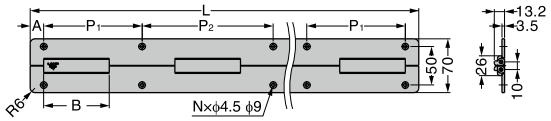
Refer to 1 : P.43

TABLETOP PIANO HINGE HG-MH

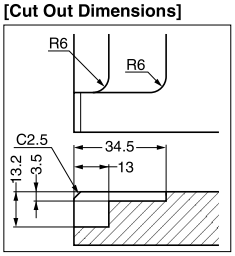


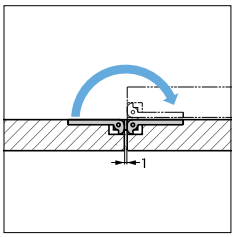
- Double pivot hinge allows 180˚ opening.
- 400mm, 800mm, 1100mm length available.
- Can be cut easily. In case of cutting the hinge, attention should be paid to prevent the shaft from coming off.

[Remarks]
- No stopper mechanism.
- Do not bear the door weight by hinge alone.



[Cut Out Dimensions]





RoHS	CAD	Item Code	Item Name	Material	Finish	L	A	P_1	P_2	B	Qty of Holes N	Weight (g)	Box (pcs)
G	3D	170-012-587	HG-MH400S	Aluminium Alloy	Anodised/Stainless Finish	400	15	111	148	74	8	452	15
G	3D	170-012-588	HG-MH400BR		Anodised/Brown							452	15
G	3D	170-012-589	HG-MH400BL		Anodised/Black							452	15
G	3D	170-012-590	HG-MH800S		Anodised/Stainless Finish	800	17.5	127.5	170	85	12	908	10
G	3D	170-012-591	HG-MH800BR		Anodised/Brown							908	10
G	3D	170-012-592	HG-MH800BL		Anodised/Black							908	10
G	3D	170-012-593	HG-MH1100S		Anodised/Stainless Finish	1100	16.5	145.5	194	97	14	1236	8
G	3D	170-012-594	HG-MH1100BR		Anodised/Brown							1236	8
G	3D	170-012-595	HG-MH1100BL		Anodised/Black							1236	8

DUAL AXIS TORQUE HINGE HG-TMH

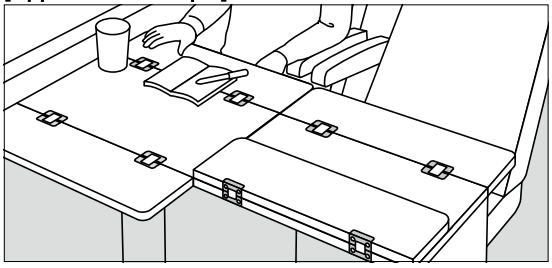






- For more information, please see the product page 1 .

[Application Example]



Box seat table of train

Refer to 1 : P.83

Fully opened

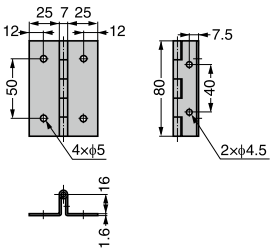


Mounting screws do not protrude when closed.



BUTT HINGE ROH-80



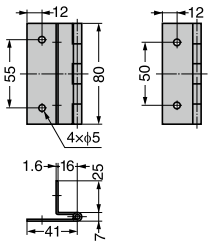


No.	Part Name	Material	Finish
①	Body A	Steel (SPCC)	Nickel
②	Body B		
③	Shaft	Stainless Steel (SUS304)	Plain

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
–	3D	170-092-109	ROH-80	Steel	Nickel	85	50	200

BUTT HINGE KOH-80





[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

No.	Part Name	Material	Finish
①	Body A	Steel (SPCC)	Nickel
②	Body B		
③	Shaft	Stainless Steel (SUS304)	Plain

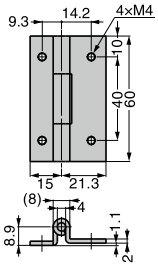
RoHS	CAD	Item Code	Item Name	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-149-316	KOH-80	127	13	94	50	200

Refer to 1 : P.43

STEP HINGE DH60N

SUS





[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

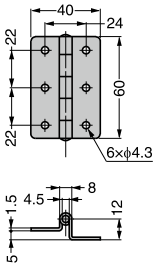
RoHS	CAD	Item Code	Item Name	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Carton (pcs)
G	3D	170-099-128	DH60N	Stainless Steel (SUS304)	Plain	147	15	51.2	150

Refer to 1 : P.43

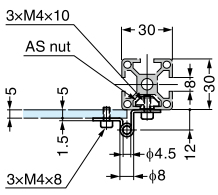
STEP HINGE DH-60C

SUS





[Dimensions]



- Door may be changed into overlay type by using 5mm thick panel.
- Stainless steel lift-off hinge with the same shape also available.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

RoHS	CAD	Item Code	Item Name	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-098-159	DH-60C	Stainless Steel (SUS304)	Polished	108	11	52	80	320

Refer to 1 : P.43

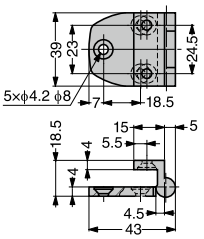
BUTT HINGE 28100

SUS316



[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



RoHS	CAD	Item Code	Item Name	Material	Finish	Door Width	Door Height	Door Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-096-006	28100	Stainless Steel (SCS14)	Polished	Max. 450	Max. 700	Max. 21	167	17	78.5	20	100

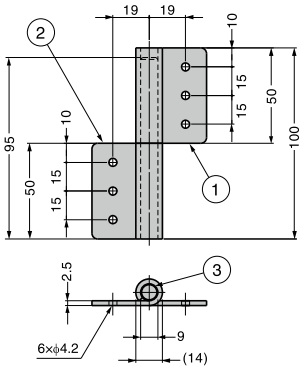
Refer to 1 : P.43

※SCS14 is equivalent to SUS316.

LIFT-OFF HINGE LSX-100

SUS





LSX-100R
(LSX-100L is symmetrical)

- Handed: Specific left and right hand mounting.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

No.	Part Name	Material	Finish
①	Body A	Stainless Steel (SUS304)	Polished
②	Body B		
③	Shaft		–

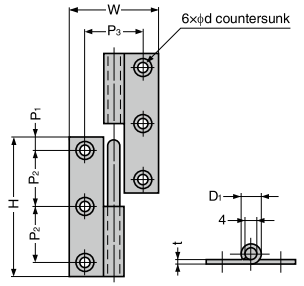
RoHS	CAD	Item Code	Item Name	Type	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-343	LSX-100L	Left-handed	294	30	170	20	80
G	3D	170-090-342	LSX-100R	Right-handed				20	80

Refer to 1 : P.43

LIFT-OFF HINGE KN

SUS





Right-handed type shown.
Left-handed type is symmetrical.

- Handed: Specific left and right hand mounting.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .
- Please be sure to chamfer the mounting surface for screws and rivets.

RoHS	CAD	Item Code	Item Name	Type	Holes	Material	Finish	H	W	P1	P2	P3	D1	t	d	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-742	KN-50CL	Left-handed	With screw holes	Stainless Steel (SUS304)	Polished	50	32	5	20	21	7.5	1.5	3.2	78	8	28	100	400
G	3D	170-090-743	KN-50CR	Right-handed														30	100	400
G	3D	170-090-744	KN-64CL	Left-handed				64	36	8	24	24				108	11	38	100	400
G	3D	170-090-745	KN-64CR	Right-handed														38	100	400
G	3D	170-090-746	KN-75CL	Left-handed				75	38	7.5	30		8.5	2		167	17	60	50	200
G	3D	170-090-747	KN-75CR	Right-handed														60	50	200

Refer to 1 : P.43

LIFT-OFF HINGE NH-40

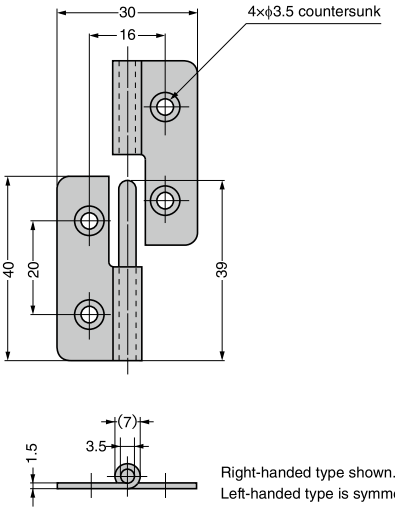
SUS


NH-40CL

- Steel hinge without mounting holes also available.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .
- Please be sure to chamfer the mounting surface for screws and rivets.



Right-handed type shown.
Left-handed type is symmetrical.

RoHS	CAD	Item Code	Item Name	Type	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-339	NH-40CL	Left-handed	Stainless Steel (SUS304)	Polished	69	7	21	150	600
G	3D	170-090-337	NH-40CR	Right-handed						150	600

Refer to 1 : P.43

LIFT-OFF HINGE SNR65

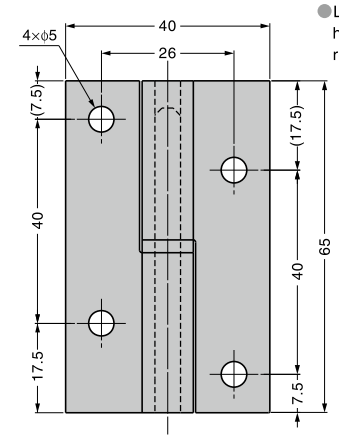
SUS

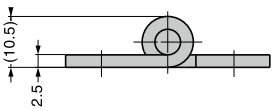

SNR65R

- Handed: Specific left and right hand mounting.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .





Right-handed type shown. Left-handed type is symmetrical.

RoHS	CAD	Item Code	Item Name	Type	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)
G	3D	170-099-046	SNR65L	Left-handed	Stainless Steel (SUS304)	Plain	177	18	76.2	200
G	3D	170-099-043	SNR65R	Right-handed						200

Refer to 1 : P.43

LIFT-OFF HINGE BN

SUS

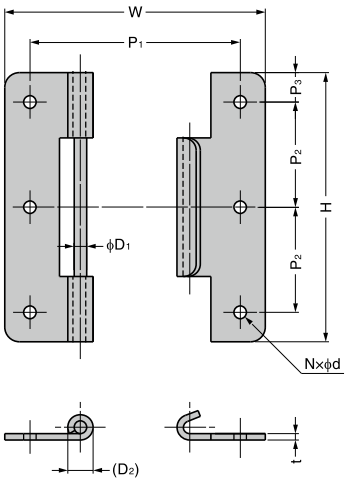


[Applications]

- Measuring instruments, laboratory equipment, trunk, etc.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



RoHS	CAD	Item Code	Item Name	Material	Finish	H	W	P1	P2	P3	d	D1	D2	t	N	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-099-498	BN-50S	Stainless Steel (SUS304)	Polished	50	30	20	20	5	3	3	6	1.5	6	88	9	6	–	–
G	3D	170-099-497	BN-64S			64	36	24	25	7						118	12	8	–	–

Refer to 1 : P.43

LIFT-OFF HINGE SKH

SUS

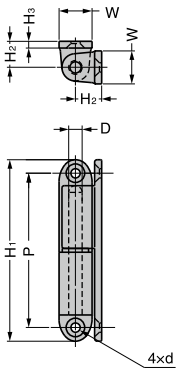


[Applications]

- Control board, various enclosures

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



RoHS	CAD	Item Code	Item Name	Material	Finish	H1	H2	H3	W	P	D	d	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-099-129	SKH-51S	Stainless Steel (SUS304)	Barrel Polished	51	8	2.5	11	40	4	Counterbore for M3	78	8	30	–	–
G	3D	170-090-818	SKH-60S			60	9.5	3	13	48	5	Counterbore for M4	118	12	50	–	–
G	3D	170-099-328	SKH-80S			80	11.5	4.5	14.5	68	6		284	29	95	–	–

Refer to 1 : P.43

LIFT-OFF HINGE HNH

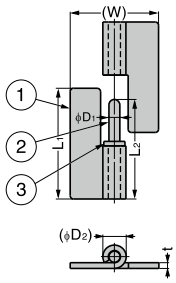
SUS


Right-handed

●Handed: Specific left and right hand mounting.

[Remarks]

●Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



Right-handed type.
Left-handed type is symmetrical.

No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Polished
②	Shaft		Plain
③	Washer		

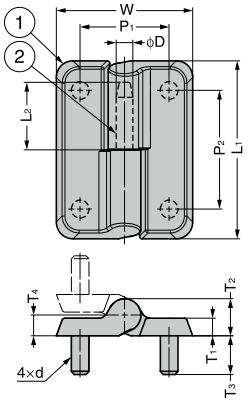
RoHS	CAD	Item Code	Item Name	Type	Material	L1	L2	W	D1	D2	t	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-091-064	HNH-50CL	Left-handed	Stainless Steel (SUS304)	50	45	40	5	10.5	2.5	127	13	60	30	240
G	3D	170-091-065	※HNH-50CR	Right-handed											30	240
G	3D	170-091-062	HNH-65CL	Left-handed		65	60	50				177	18	89	20	160
G	3D	170-091-063	HNH-65CR	Right-handed											20	160
G	3D	170-091-060	HNH-75CL	Left-handed		75	70	70	6	12	3	245	25	165	10	80
G	3D	170-091-061	HNH-75CR	Right-handed											10	80
G	3D	170-091-058	※HNH-100CL	Left-handed		100	90	82	8	16	4	422	43	347	5	40
G	3D	170-091-059	※HNH-100CR	Right-handed											5	40

Refer to 1 : P.43

STAINLESS STEEL LIFT-OFF HINGE HG-STN With Stud Bolts

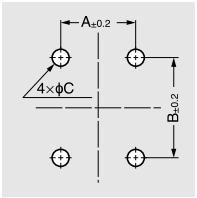
SUS

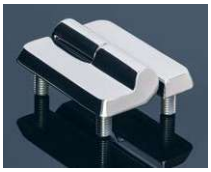




Right-handed type shown.
(R/L types are symmetrical.)

[Cut Out Dimensions]





●Easy-to-clean design:
- Smoothy polished mirror surface.
- Gently sloped sides.
- Rounded edge and corners.

●Food-grade grease is used on the shaft. (NSF H1 registered)

●Has built-in stud bolts for easy assembly.

[Application]

●Cover of food processing machines

[Remarks]

●For calculation conditions, please refer to INDEX 1

●If grease is washed off by cleaning, please apply more grease. NSF H1 and NLGI No.2 grade grease is recommended.

[Specification]

●Passed 20,000 open and close cycle tests in the conditions below:
- HG-STN-40: H800 x W600 mm / 7 kg
- HG-STN-60: H800 x W600 mm / 15 kg
- HG-STN-75: H1500 x W700 mm / 30 kg

No.	Part Name	Material	Finish
①	Body	Stainless Steel (SCS13)	Mirror
②	Shaft	Stainless Steel (SUS316)	Plain

RoHS	CAD	Item Code	Item Name	Type	L1	L2	W	P1	P2	T1	T2	T3	T4	D	d	A	B	C	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs
–	3D	170-048-991	HG-STN-40R	Right-handed	40	14	36	25	25	5	9.5	11	5.5	3.6	M5	25	25	6	88	9
–	3D	170-048-992	HG-STN-40L	Left-handed																
–	3D	170-048-993	HG-STN-60R	Right-handed	60	23	46	30	40	6	12.5	13	7	5.6	M6	30	40	7	196	20
–	3D	170-048-994	HG-STN-60L	Left-handed																
–	3D	170-048-995	HG-STN-75R	Right-handed	75	28.5	66	45	45	8	16.5	18	9	7.6	M8	45	45	9	284	29
–	3D	170-048-996	HG-STN-75L	Left-handed																

Refer to 1 : P.43

CONCEALED PIVOT HINGE TS-243

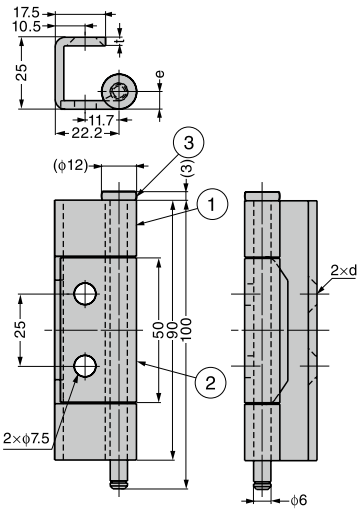
SUS


TS-243-30S

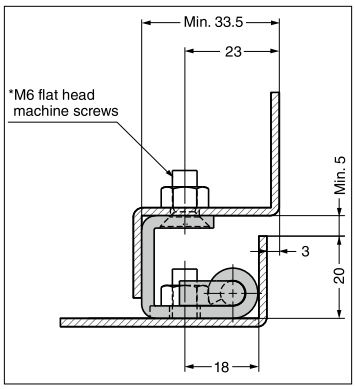

TS-243-30

- Removable pins make door mounting and removal easy.

[Remarks]
- E-type retaining rings are not included.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1.

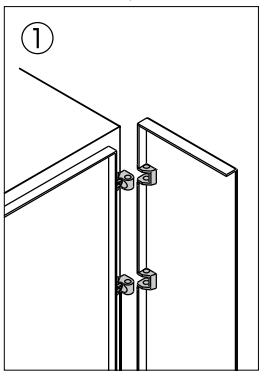


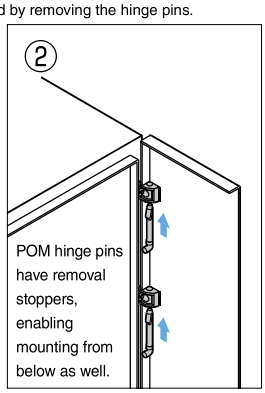
[Mounting Dimensions]

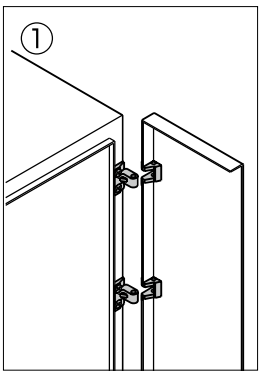


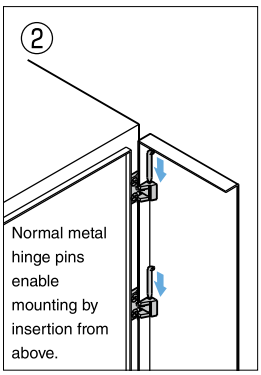
*M6 machine screws are to be supplied by the customer.

Doors can be easily mounted and removed by removing the hinge pins.









No.	Part Name	TS-243-30S		TS-243-30	
		Material	Finish	Material	Finish
①	Wing A	Stainless Steel(SUS304)	Barrel Polished	Steel (SPCC)	Bright Chromate (Trivalent)
②	Wing B				
③	Pin		Plain	Stainless Steel (SUS304)	Plain

Reference door weight: 100 kg
(For door size W1000×H2300, 3 vertical pcs, 10,000 open/close times)

RoHS	CAD	Item Code	Item Name	Main Material	t	d	e	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)
G	3D	170-014-234	TS-243-30S	Stainless Steel (SUS304)	3	ϕ7.4, ϕ12.8 flat	6.1	333	34	163
G	3D	170-097-762	TS-243-30	Steel (SPCC)	3.2	ϕ6.8, ϕ12.8 flat	6.3	275	28	180

Refer to 1: P.43



Zwei L LIFT-OFF HINGE ZL-1701

SUS316



- Oilless ring provides smooth movement.
- Superior "Zwei L Finish".
  Zwei L represents the very pinnacle of ultra-premium Japanese hardware design. Contrasting bands of mirror finish and lustrous satin on a faceted profile give a jewel like finish that highlights any industrial design.

[Remarks]

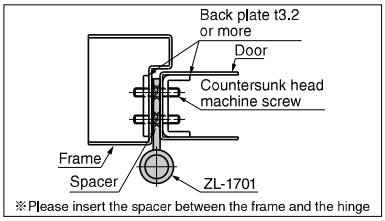
- When installing, be sure to insert the spacer as shown in the installation examples and screw it.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

[Parts Included]

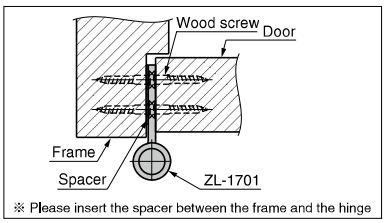
ZL-1701-10
- Countersunk head wood screw 4.1×38
- Countersunk head machine screw M5×16 (head diameter ϕ8)

ZL-1701-12
- Countersunk head wood screw 4.8×38
- Countersunk head machine screw M5×16 (head diameter ϕ9)

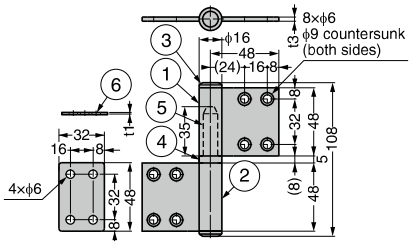
[Installing to Metal Door]



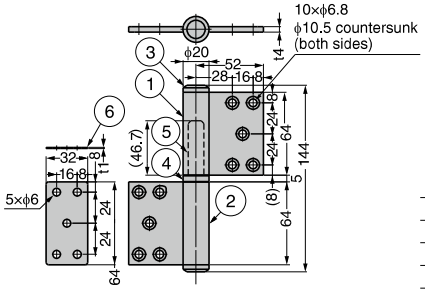
[Installing to Wooden Door]



Video Link



ZL-1701-10



ZL-1701-12

No.	Part Name	Material	Finish
①	Hinge Plate (For Door)	Stainless Steel (SUS316)	Polished/Satin
②	Hinge Plate (For Frame)		
③	Finial		
④	Oilless Ring		Satin
⑤	Shaft		Plain
⑥	Spacer		

RoHS	CAD	Item Code	Item Name	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)
–	3D	170-091-691	ZL-1701-10	314	32	305	8
–	3D	170-091-690	ZL-1701-12	559	57	560	6

Refer to 1 : P.43

LIFT-OFF HINGE (WELD-ON) HG-LSH

SUS



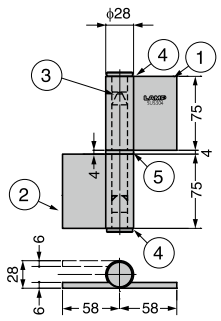
- Uses 6mm thick stainless steel for heavy duty doors.
- Oilless ring provides smooth movement.
- With head caps for beautiful appearance.

[Applications]

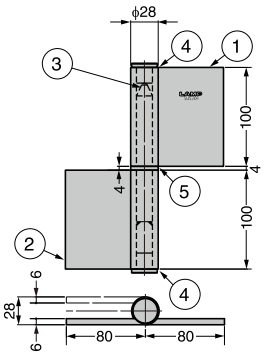
- Large doors, gate doors, and other rotation mechanism of heavy objects, etc.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



LSH-154R



LSH-204R

No.	Part Name	Material	Finish
①	Door Side Leaf	Stainless Steel (SUS304)	Satin
②	Frame Side Leaf		
③	Pin		Plain
④	Finial		
⑤	Ring		

※Open/close test under the following conditions:
Three hinges used vertically, door size W900×H2000
When using HG-LSH-154: Door weight 250kg
When using HG-LSH-204: Door weight 280kg

RoHS	CAD	Item Code	Item Name	Type	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-034-219	HG-LSH-154L	Left-handed	1961	200	1020	6	12
G	3D	170-034-220	HG-LSH-154R	Right-handed				6	12
G	3D	170-034-221	HG-LSH-204L	Left-handed	2177	222	1540	–	6
G	3D	170-034-222	HG-LSH-204R	Right-handed				–	6

Refer to 1 : P.43

HEAVY-DUTY STAINLESS STEEL BUTT HINGE (INSTALLATION HOLE TYPE) HG-LSW

SUS



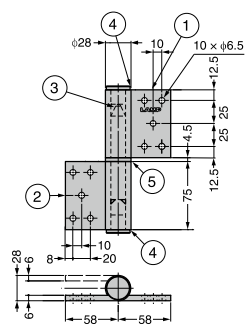
- Made from 6 mm thick stainless steel.
- Made with special rings (oiled bearings) for smooth movement.
- Outstanding design with head cap.

[Application]

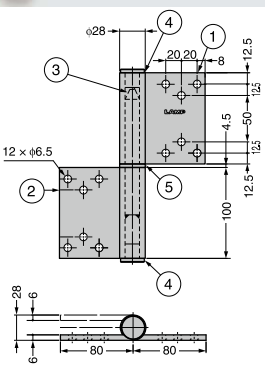
- Rotating mechanisms for large doors, gates and other heavy objects.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



HG-LSW-154R



HG-LSW-204R

Selection Tool
Hinge Selection

No.	Part Name	Material	Finish
①	Door Side Hinge Plate	Stainless Steel (SUS304)	Satin
②	Frame Side Hinge Plate		
③	Pin		Plain
④	Head Cap		
⑤	Ring		Barrel Polished

RoHS	CAD	Item Code	Item Name	Type	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Box (pcs)	Carton (pcs)
G	2D 3D	170-041-019	HG-LSW-154L	Left Side	1960	200	6	12
G	2D 3D	170-041-020	HG-LSW-154R	Right Side			6	12
G	2D 3D	170-041-021	HG-LSW-204L	Left Side	2180	222	–	6
G	2D 3D	170-041-022	HG-LSW-204R	Right Side			–	6

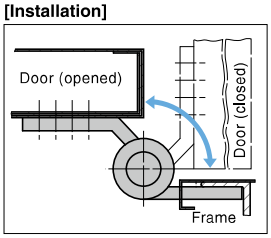
Refer to 1 : P.43

LIFT-OFF HINGE HG-KM

SUS



[Installation]



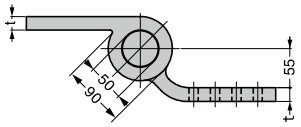
- Ultra thick hinge for ultra heavy doors.
- Thrust bearing in movable part provides smooth movement.

[Applications]

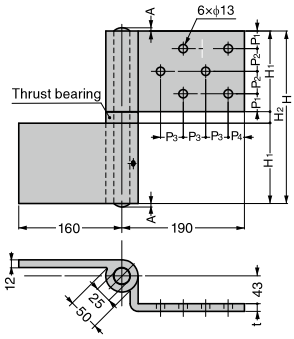
- Large doors, gate doors, and other rotation mechanism of heavy objects, etc.

[Remarks]

- Screws not included.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



HG-KM19-275



HG-KM12-268

Selection Tool

Hinge Selection

RoHS	CAD	Item Code	Item Name	Old Item Name	Type	Material	Finish	H	H1	H2	P1	P2	P3	P4	A	t	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (kg)	Box (pcs)
G	3D	170-090-452	HG-KM12-268R	HG-KM12-268	Right-handed	Stainless Steel (SUS304)	Satin	268	125	18	27.5	35	35	25	5	12	2940	300	8.3	1
G	3D	170-044-760	HG-KM12-268L	—	Left-handed															1
G	3D	170-090-453	HG-KM19-275R	HG-KM19-275	Right-handed			275		25			30		10	19	4810	490	19.8	1
G	3D	170-044-761	HG-KM19-275L	—	Left-handed															1

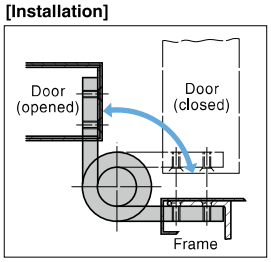
Refer to 1 : P.43

LIFT-OFF HINGE HG-KH

SUS



[Installation]



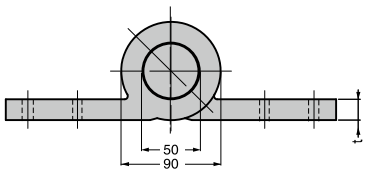
- Ultra thick hinge for ultra heavy doors.
- Thrust bearing in movable part provides smooth movement.

[Applications]

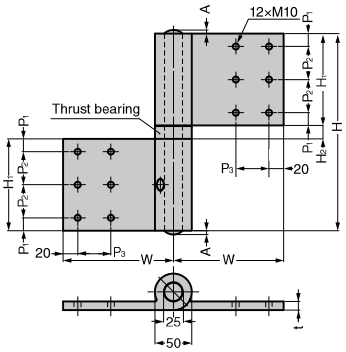
- Large doors, gate doors, and other rotation mechanism of heavy objects, etc.

[Remarks]

- Screws not included.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



HG-KH19-275



HG-KH12-268

Selection Tool

Hinge Selection

RoHS	CAD	Item Code	Item Name	Old Item Name	Type	Material	Finish	H	H1	H2	W	P1	P2	P3	A	t	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (kg)	Box (pcs)
G	3D	170-090-454	HG-KH12-268R	HG-KH12-268	Right-handed	Stainless Steel (SUS304)	Satin	268	125	18	150	17.5	45	45	5	12	2940	300	7.4	1
G	3D	170-044-762	HG-KH12-268L	—	Left-handed															1
G	3D	170-090-455	HG-KH19-275R	HG-KH19-275	Right-handed			275		25					10	19	4810	490	17.2	1
G	3D	170-044-763	HG-KH19-275L	—	Left-handed															1

Refer to 1 : P.43

QUICK RELEASE HINGE HG-OT Quick Installation Type

SUS

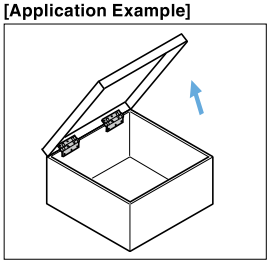


- Easy and quick to install/remove doors.
- Non-handed except for HG-OTA45, HG-OTB45.
- Can be used for upward-opening doors, top-opening lids and lateral opening doors.

[Remarks]

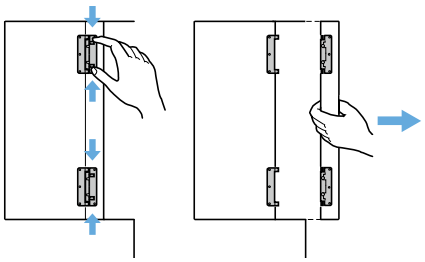
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

[Application Example]



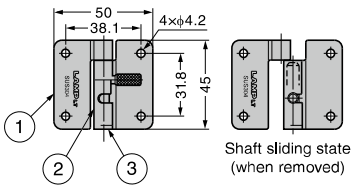
[Retracted Shaft]



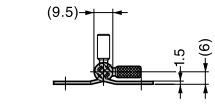


Retract the shaft and rotate it to the cabinet side.

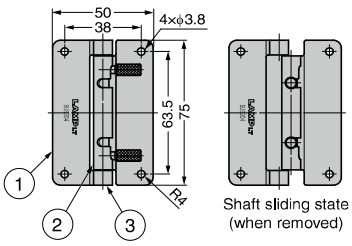
Can be installed and removed in the front direction.



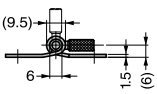
Shaft sliding state (when removed)



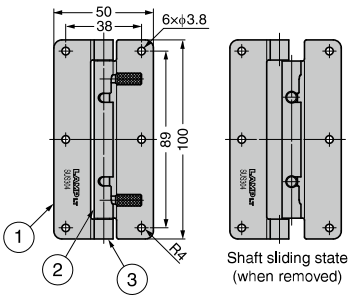
HG-OTA45L



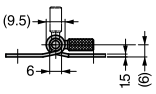
Shaft sliding state (when removed)



HG-OTA75



Shaft sliding state (when removed)



HG-OTA100

No.	Part Name	Material	Finish
①	Plate	Stainless Steel (SUS304)	Satin
②	Hinge Pin	Stainless Steel (SUS303)	Plain
③	Spring	Stainless Steel (SUS304)	

RoHS	CAD	Item Code	Item Name	Type	Holes	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-944	HG-OTA45R	Right-handed	With screw holes	29	3	40	30	300
G	3D	170-090-946	☆HG-OTB45R		Without screw holes				30	300
G	3D	170-090-945	HG-OTA45L	Left-handed	With screw holes				30	300
G	3D	170-090-947	☆HG-OTB45L		Without screw holes				30	300
G	3D	170-090-942	HG-OTA75	Non-handed	With screw holes	59	6	70	40	160
G	3D	170-090-943	☆HG-OTB75		Without screw holes				40	160
G	3D	170-090-940	HG-OTA100		With screw holes	69	7	90	30	120
G	3D	170-090-941	☆HG-OTB100		Without screw holes				30	120

Refer to 1 : P.43

☆Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

PIVOT HINGE HG-PV-30C

SUS



- Small detachable pivot hinge.
- Door is easily detached only by using the lever.

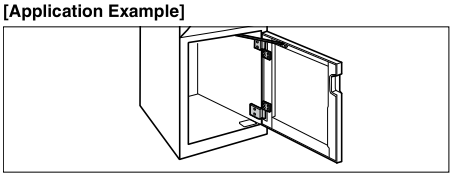
[Applications]

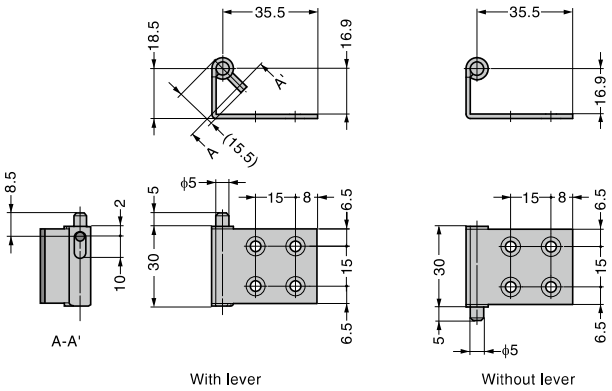
- Light doors of financial equipment, etc.

[Remarks]

- Sold in pairs (upper and lower).

[Application Example]





For right-hanging, the hinge with lever is at the upper side, while that without lever at the lower side.
For left-hanging, the hinge with lever is at the lower side, while that without lever at the upper side.

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-098-215	HG-PV-30C	Stainless Steel (SUS304)	Barrel Polished	54	100	200

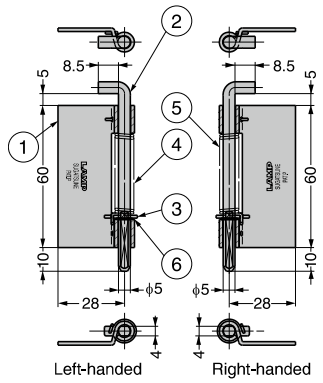
SPRING LOADED PIVOT HINGE HG-PV60AC

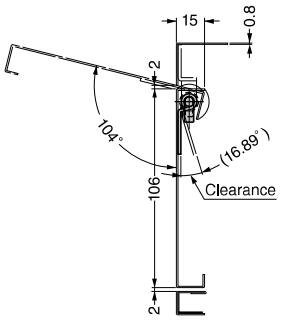
SUS



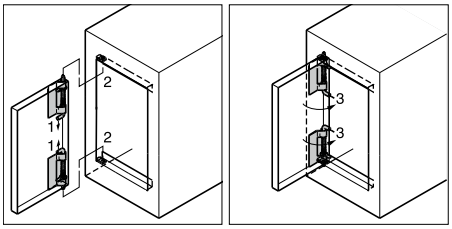
HG-PV60AC-R (Right-handed)

- Spring loaded for self closing.
- Easy door installation and removal.
- Compact self-closing mechanism saves space.





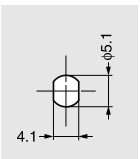
[Installation]



1. Pull up the hook of the lower hinge.
2. Insert the body into the rotation stop hole.
3. Hold the door to prevent rotation while rotating the hook, insert it to bottom along the hole.
4. Install the upper hinge in the same manner.
5. Open and close the door to check the movement.

No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Shaft		–
③	Stopper		Barrel Polished
④	Spring L	Stainless Steel (SUS-304WPB)	–
⑤	Spring R		
⑥	E-type Retaining Ring (Size 3)	Stainless Steel (SUS304)	

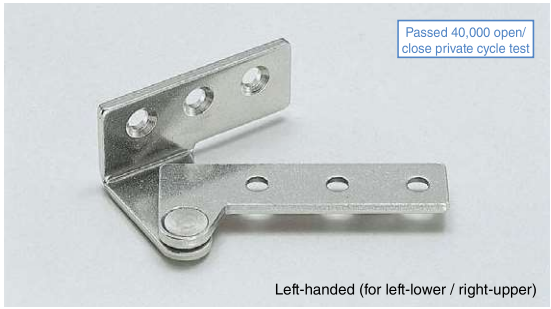
[Cut Out Dimensions]



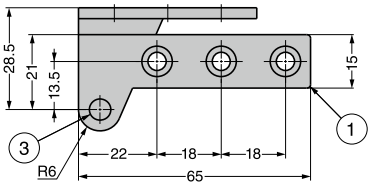
RoHS	CAD	Item Code	Item Name	Type	Door Weight kg/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-988	HG-PV60AC-L	Left-handed	2	38	50	200
G	3D	170-090-987	HG-PV60AC-R	Right-handed			50	200

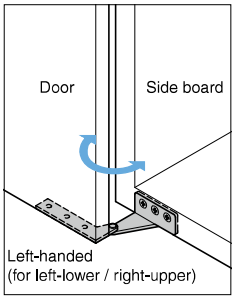
PIVOT HINGE PL-65 For Overlay Door

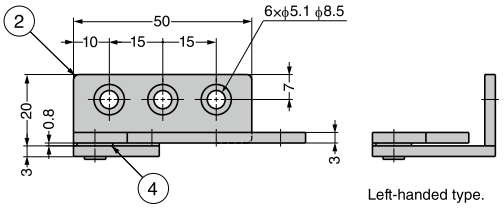
SUS



[Remarks]
- Recommended for use in pairs.





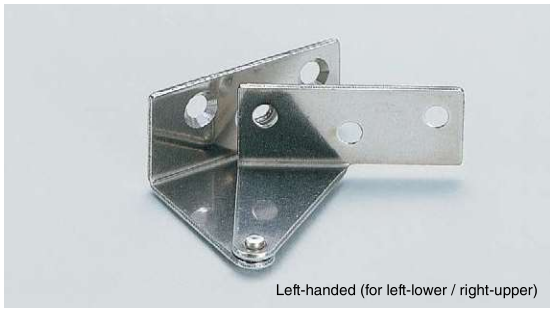


No.	Part Name	Material
①	Arm A	Stainless Steel (SUS430)
②	Arm B	
③	Hinge Pin	Stainless Steel
④	Washer	Stainless Steel (SUS304)

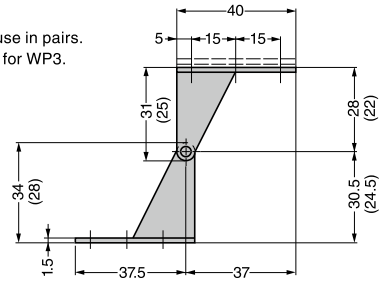
RoHS	CAD	Item Code	Item Name	Type	Door Width	Door Height/2pcs	Door Thickness	Door Weight N/2pcs	Door Weight kgf/2pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-099-190	PL-65R	Right-handed (for right-lower / left-upper)	Max.	Min.	Max.	69	7	55	40	400
G	3D	170-099-191	PL-65L	Left-handed (for left-lower / right-upper)	600	900	20				40	400

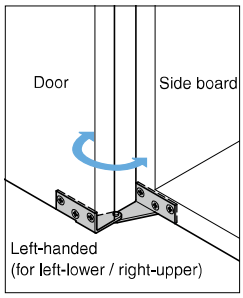
PIVOT HINGE WP1, WP3 For Overlay Door

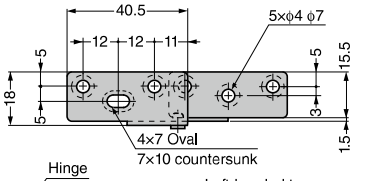
SUS



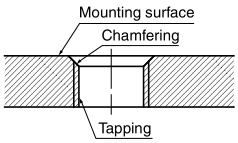
[Remarks]
- Recommended for use in pairs.
- Dimensions in ( ) is for WP3.

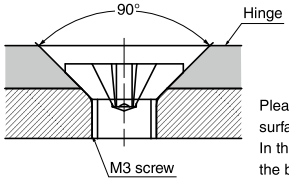






[Processing on metal sheet]
When M3 screws are used.





Please be sure to chamfer the mounting surface for screws and rivets.
In this way, screw head will not project when the body is fixed.

RoHS	CAD	Item Code	Item Name	Type	Material	Finish	Door Width	Door Height	Door Thickness	Door Weight kg/set	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-257	WP1R	Right-handed (for right-lower / left-upper)	Stainless Steel (SUS430)	Plain	Max. 300	Max. 700	Max. 24	Max. 2.7	23	100	1000
G	3D	170-090-258	WP1L	Left-handed (for left-lower / right-upper)								100	1000
G	3D	170-090-259	WP3R	Right-handed (for right-lower / left-upper)					Max. 18		21	100	1000
G	3D	170-090-260	WP3L	Left-handed (for left-lower / right-upper)								100	1000

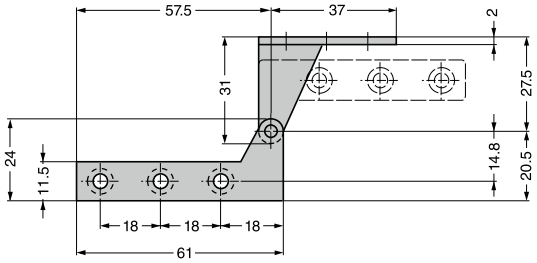
PIVOT HINGE PL-60 For Overlay Door

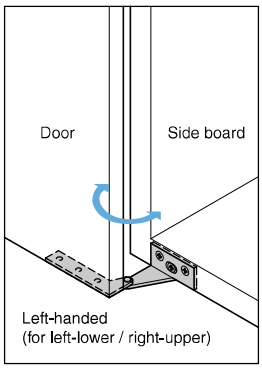
SUS

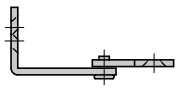


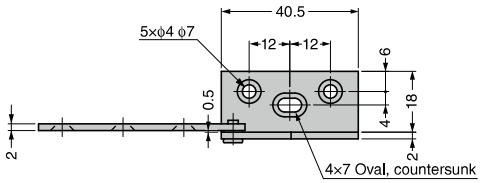
[Remarks]

●Recommended for use in pairs.





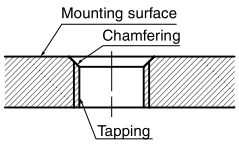


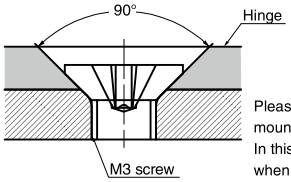


Left-handed type.

[Processing on metal sheet]

When M3 screws are used.





Please be sure to chamfer the mounting surface for screws and rivets. In this way, screw head will not project when the body is fixed.

RoHS	CAD	Item Code	Item Name	Type	Material	Finish	Door Width	Door Height	Recommended Door Thickness	Door Weight kg/set	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-263	PL-60R	Right-handed (for right-lower / left-upper)	Stainless Steel (SUS430)	Plain	Max. 450	Max. 700	22	Max. 4	27	100	1000
G	3D	170-090-264	PL-60L	Left-handed (for left-lower / right-upper)								100	1000

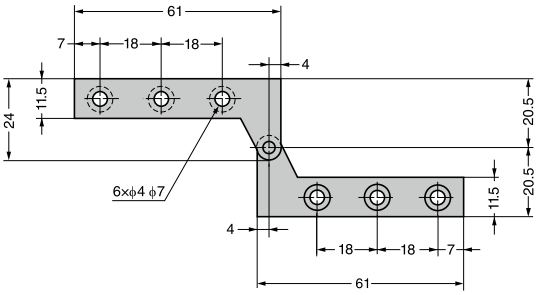
PIVOT HINGE PP-60 For Inset Door

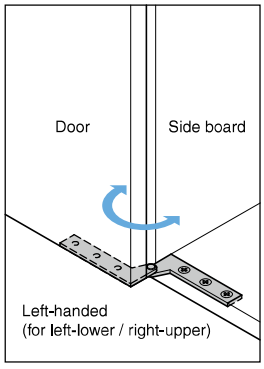
SUS



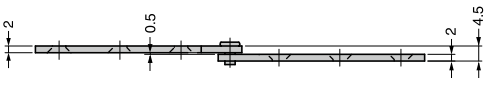
[Remarks]

●Recommended for use in pairs.





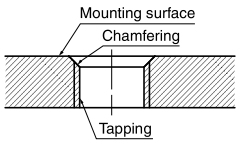


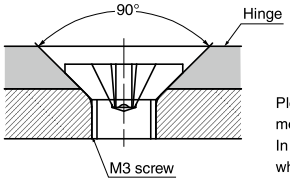


Right-handed type.

[Processing on metal sheet]

When M3 screws are used.





Please be sure to chamfer the mounting surface for screws and rivets. In this way, screw head will not project when the body is fixed.

RoHS	CAD	Item Code	Item Name	Type	Material	Finish	Door Width	Door Height	Door Weight kg/set	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-261	PP-60R	Right-handed (for right-lower / left-upper)	Stainless Steel (SUS430)	Plain	Max. 450	Max. 700	Max.4	22	100	1000
G	3D	170-090-262	PP-60L	Left-handed (for left-lower / right-upper)							100	1000

High durability STAINLESS STEEL SPRING HINGE HG-SHL

SUS

High durability

Passed 1,000,000 open/close private cycle test

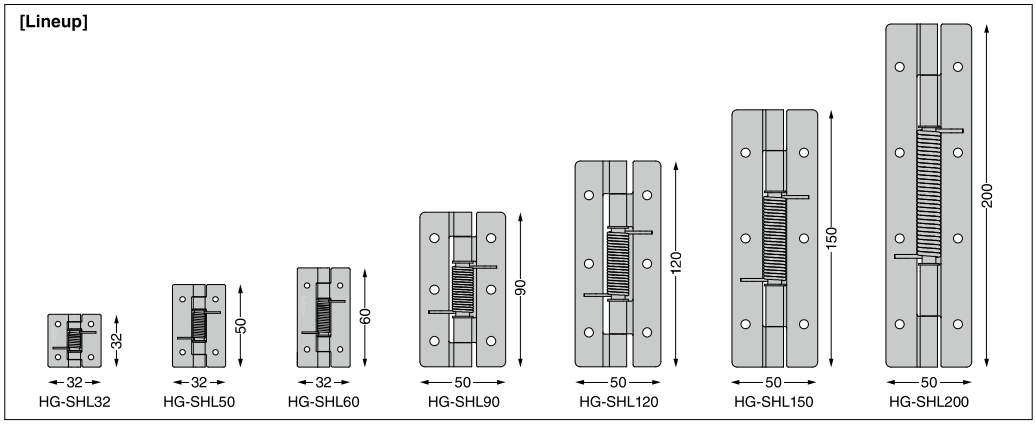


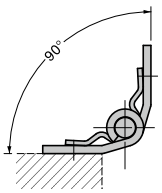
- Stainless steel structure with excellent corrosion resistance.
- Passed 1,000,000 open/close private cycle test.

[Remarks]

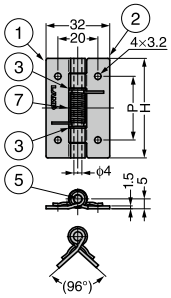
- Torque given in the table below is the value when the hinge opens 90°. (Refer to ※ in the drawing below)
- Load capacity is the value with two hinges. For calculation conditions, please refer to INDEX 1.
- Open/close tests were conducted on top-opening lids.

[Lineup]

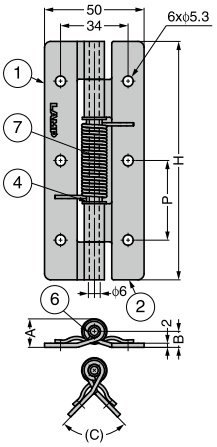




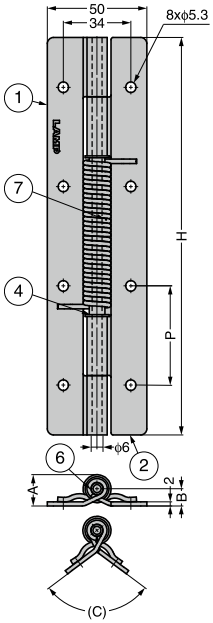
※When applying the torque given in the table below



HG-SHL32
HG-SHL50
HG-SHL60



HG-SHL90
HG-SHL120
HG-SHL150



HG-SHL200

No.	Part Name	Material	Finish
①	Body 1	Stainless Steel (SUS304)	Barrel Polished
②	Body 2		
③	Collar	Stainless Steel (SUS303)	-
④	Collar (Large)		-
⑤	Shaft 1		-
⑥	Shaft 2	Stainless Steel (SUS304)	-
⑦	Spring		-

RoHS	CAD	Item Code	Item Name	H	P	A	B	C	Torque N·m	Torque kgf·cm	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)
G	3D	170-024-384	HG-SHL32	32	18	–	–	–	0.047	0.48	39	4	20
G	3D	170-024-385	HG-SHL50	50	32				0.089	0.91	59	6	30
G	3D	170-024-386	HG-SHL60	60	40				0.14	1.43			38
G	3D	170-045-741	HG-SHL90	90	30	14	7.85	92	0.214	2.18	78	8	103
G	3D	170-045-742	HG-SHL120	120	40	14.35	8	89	0.43	4.38	186	19	137
–	–	170-045-743	HG-SHL150	150	50	14.75	8.2	103	0.50	5.10	225	23	180
–	–	170-045-744	HG-SHL200	200		15.75	8.7	106	0.95	9.68	284	29	248

Refer to 1: P.43

SPRING HINGE SH-C

SUS



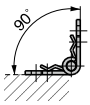
●All parts made of stainless steel.

[Remarks]

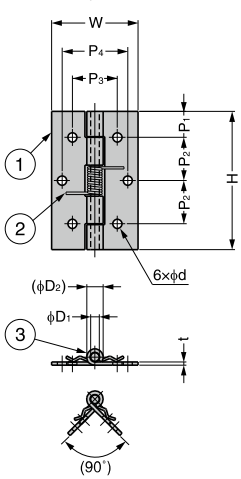
●Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

Selection Tool

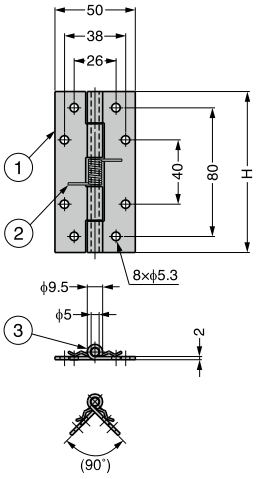
Hinge Selection



※When applying the torque given in the table below



SH-60C, SH-80C



SH-100C

No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Spring		–
③	Shaft		

RoHS	CAD	Item Code	Item Name	H	W	t	P1	P2	P3	P4	D1	D2	d	Torque Moment cN·m	Torque Moment kgf·cm	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-099-788	SH-60C	60	40	1.5	10	20	26	26	5	8.5	4.3	27.8	2.83	88	9	44	250	–
G	3D	170-099-787	SH-80C	80	50	2	15	25		38		9.5	5.3	32.8	3.34	157	16	86	–	–
G	3D	170-099-786	SH-100C	100	Above Drawing									97.7	9.96	196	20	110	150	–

Refer to 1 : P.43

SPRING HINGE HG-BF3-2

SUS



●Self-closing type (SC) and self-opening type (SO) available.

●Spring ends cannot be accessed for safety.

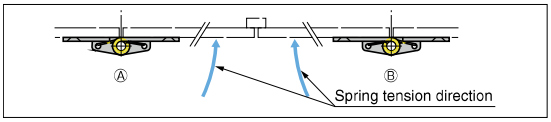
[Remarks]

●Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

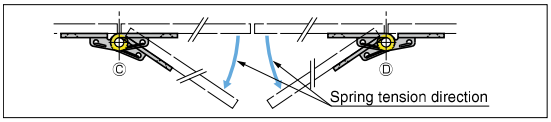
Selection Tool

Hinge Selection

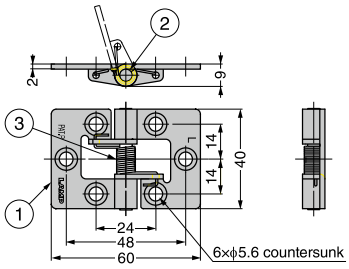
[Self-Closing Type (SC)]



[Self-Opening Type (SO)]



※Ⓐ and Ⓒ are marked with "L" , Ⓑ and Ⓓ are marked with "R" .



※Drawing above is HG-BF3-2L-SC. HG-BF3-2R-SC is symmetrical.

No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Shaft		–
③	Spring		

RoHS	CAD	Item Code	Item Name	No.	Description	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-091-562	HG-BF3-2L-SC	Ⓐ	SC/Left-opening	69	7	41	20	120
G	3D	170-091-564	HG-BF3-2R-SC	Ⓑ	SC/Right-opening				20	120
G	3D	170-091-561	HG-BF3-2L-SO	Ⓒ	SO/Left-opening				20	120
G	3D	170-091-563	HG-BF3-2R-SO	Ⓓ	SO/Right-opening				20	120

Refer to 1 : P.43

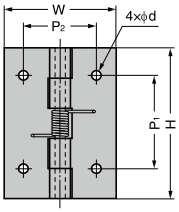
SPRING HINGE HG-SH

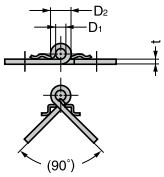
SUS



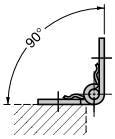
Selection Tool

Hinge Selection





Free state



※When applying the torque given in the table below

- Stainless steel construction suitable for corrosive environments.

[Remarks]

- Torque given in the table below is the value when the hinge opens 90° .(Refer to ※ in the drawing below)
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

RoHS	CAD	Item Code	Old Item Code	Item Name	Material	Finish	H	W	P1	P2	D1	D2	d	t	Torque Moment N·m	Torque Moment kgf·cm	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-098-515	–	HG-SH-20C	Stainless Steel (SUS304)	Barrel Polished	20	14	–	–	1	2.2	–	0.5	0.097	0.99	9.8	1	1.5	800	3200
G	3D	170-098-516	170-098-520	HG-SH-25C			25	32	14	20	3	5.8	3.2	1.2	0.065	0.66	29	3	10	300	1200
G	3D	170-098-517	170-098-521	HG-SH-38C			38		26			6.5		1.5	0.147	1.5	59	6	20	200	800
G	3D	170-098-518	※170-098-522	HG-SH-51C			51	38	32	25					0.135	1.38	69	7	35	130	520

Refer to 1 : P.43

※Item code has been revised.

SPRING HINGE SA

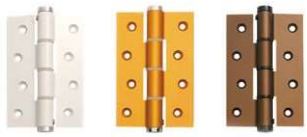
SUS

Passed 500,000 open/close private cycle test



SA120-5314-01 SA180-5814-05 SA180-BK-5813-09

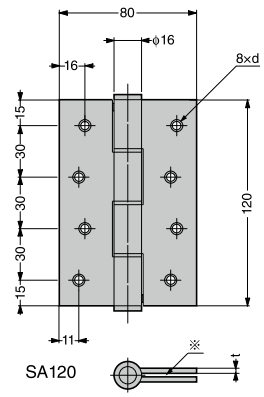
Special Colours (made to order)



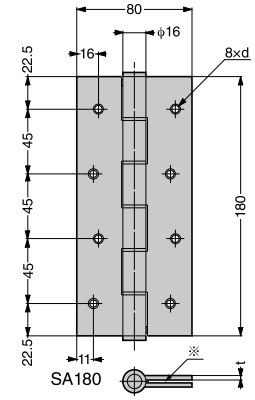
- Spring loaded for self-closing.
- Spring tension adjustable with three steps with a hex key.
- All parts including shaft and spring made of stainless steel (SUS304).

[Remarks]

- In case of noise, apply lubricant (grease) to washer and torsion spring.



SA120

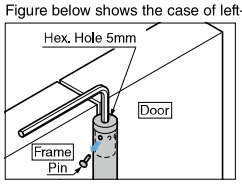


SA180

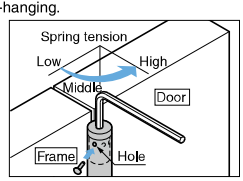
※ After the door is closed, leaves are not parallel to each other.

[How to Adjust Spring Tension]

Figure below shows the case of left-hanging.

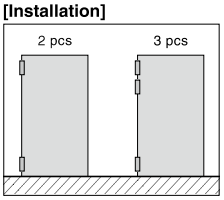


Loosen shaft with a hex key and remove the pin.



Adjust spring tension with three steps. Put the pin to the hole and fix.

[Installation]



RoHS	CAD	Item Code	Item Name	Material	Finish	With Spring	t	d	Door Width	Load Capacity N/2pcs	Load Capacity kgf/2pcs	Load Capacity N/3pcs	Load Capacity kgf/3pcs	Weight (g)	Box (pcs)
G	3D	170-090-810	SA120-5314-01	Aluminium Alloy	Anodised	Yes	4	ϕ5.3 THRU ϕ10 CSK	Max. 1000	196	20	294	30	175	2
G	3D	170-090-811	SA180-5814-01							392	40	588	60	260	2
G	3D	170-090-812	SA120-5314-05	Stainless Steel (SUS304)	Plain		2.5	ϕ5.5 THRU ϕ9 CSK		196	20	294	30	303	2
G	3D	170-090-813	SA180-5814-05				3			392	40	588	60	526	2
–	–	170-048-795	SA120-BK-5313-09	Aluminium Alloy	Black		4	ϕ5.3 THRU ϕ10 CSK		196	20	294	30	175	2
–	–	170-048-796	SA180-BK-5813-09							392	40	588	60	260	2
–	–	170-048-793	SA120-SM-5394-01		Anodised	No				196	20	294	30	175	2
–	–	170-048-794	SA180-SM-5894-01							392	40	588	60	260	2
–	–	170-048-797	SA120-SM-5394-05	Stainless Steel (SUS304)	Plain		2.5	ϕ5.5 THRU ϕ9 CSK		196	20	294	30	303	2
–	–	170-048-798	SA180-SM-5894-05				3			392	40	588	60	526	2

Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

SPRING HINGE ST150-6314-05

SUS





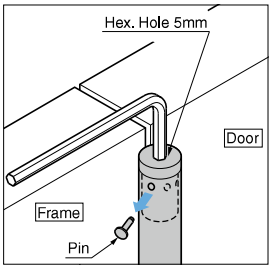
- Spring loaded for self-closing.
- Spring tension adjustable with three steps with a hex key.
- Can reduce clearance between door and frame without door cutting.
- Aluminium hinge also available by made to order.

[Remarks]

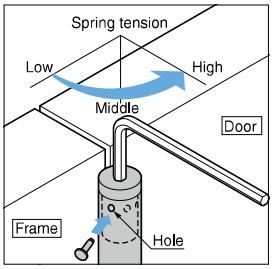
- In case of noise, apply lubricant (grease) to washer and torsion spring.

[How to Adjust Spring Tension]

Figure below shows the case of left-hanging. Right-hanging is symmetrical.

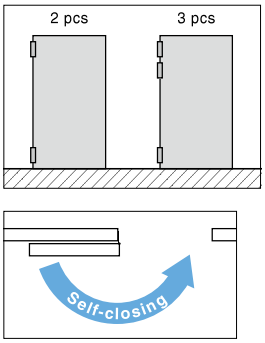


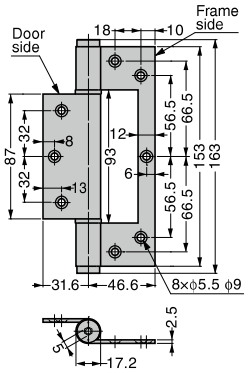
Loosen shaft with a hex key and remove the pin.



Adjust spring tension with three steps. Put the pin to the hole and fix.

[Installation]





※ The value in case of door width 1000mm or less

RoHS	CAD	Item Code	Item Name	Material	Finish	Load Capacity N/2 pcs※	Load Capacity kgf/2 pcs※	Load Capacity N/3 pcs※	Load Capacity kgf/3 pcs※	Weight (g)	Box (pcs)
G	3D	170-022-486	ST150-6314-05	Stainless Steel (SUS304)	Plain	400	40	600	60	336	2

Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

ALUMINIUM SPRING LIFT-OFF HINGE PM120



PM120-524401L



PM120-BK-5243-09R



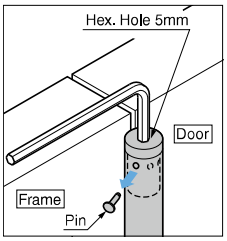
- Spring loaded for self-closing.
- Spring tension adjustable with three steps with a hex key.
- Easy to remove the door.
- Black, white, golden or bronze colours and R10 corner rounding also available by made to order.

[Remarks]

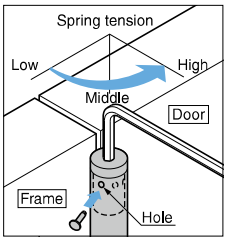
- In case of noise, apply lubricant (grease) to washer and torsion spring.

[How to Adjust Spring Tension]

Figure below shows the case of left-hanging.

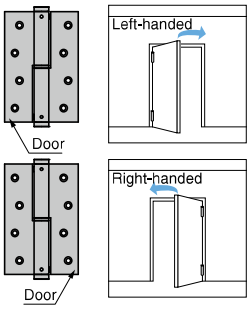


Loosen shaft with a hex key and remove the pin.

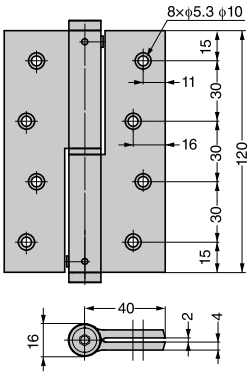


Adjust spring tension with three steps. Put the pin to the hole and fix.

[Installation]



Use right-handed hinge if door is hung on the right (viewing from the side of pulling the door).



Left-handed type.

※ After the door is closed, leaves are not parallel to each other.

RoHS	CAD	Item Code	Item Name	Type	Material	Finish	Door Width	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Load Capacity N/3 pcs	Load Capacity kgf/3 pcs	Weight (g)	Box (pcs)
G	3D	170-022-484	PM120-524401L	Left-handed	Aluminium Alloy	Anodised	Max. 1000	200	20	300	30	172	2
G	3D	170-022-485	PM120-525401R	Right-handed									2
G	–	170-048-791	PM120-BK-5243-09L	Left-handed		Black							2
G	–	170-048-792	PM120-BK-5253-09R	Right-handed									2

Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

SPRING HINGE (DOUBLE ACTION) DA

SUS



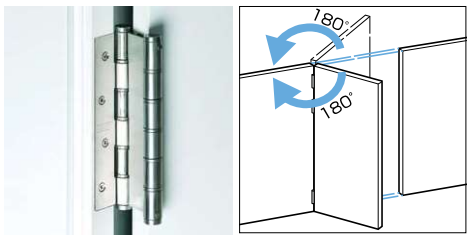
- Opens in both directions inside and outside.
- Spring loaded for self-closing.
- Spring tension adjustable with three steps with a hex key.
- Opening angle is 180°.
- All parts including shaft and spring made of stainless steel (SUS304).
- Anodised type is also available in black, white, gold, bronze colours. (Made to order / MOQ: 2 pcs)

[Relationship Between Door Height and Door Weight]

	DA120	DA180
Recommended Door Height	1800~2500 mm	
Min. Door Height	500 mm	800 mm
Door Weight	Door Height: Max. 1800mm	
	Reduce by 1.1 kg for lowering 100mm each time.	Reduce by 2.1kg for lowering 100mm each time.

[Special Colours (made to order)]

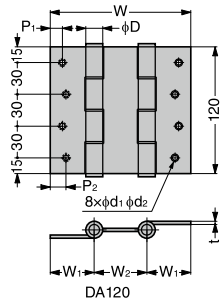




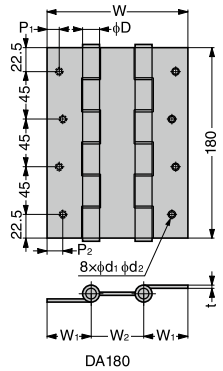
Hinges for double action door.

[Remarks]

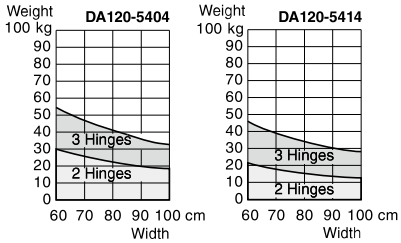
- In case of noise, apply lubricant (grease) to washer and torsion spring.

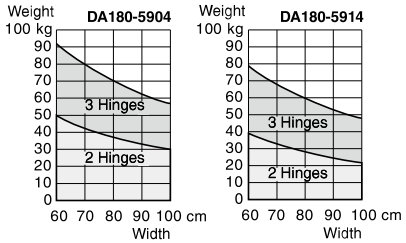


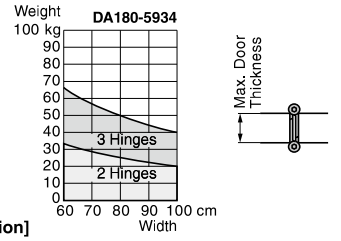
DA120



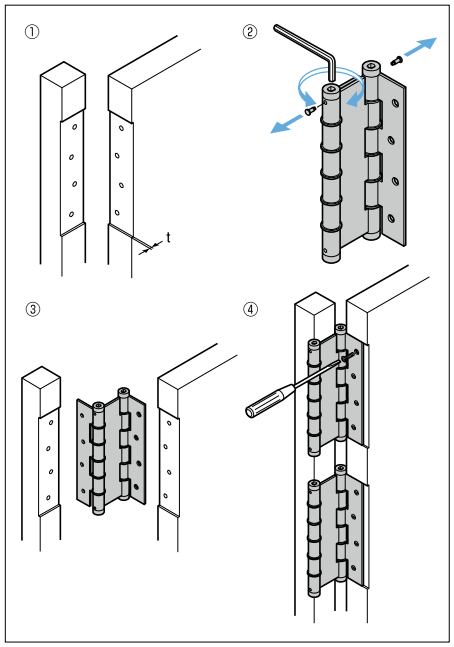
DA180





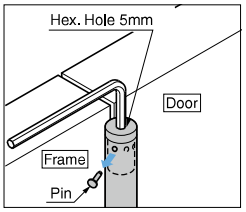


[Installation]

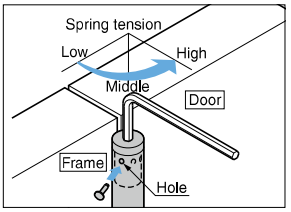


[How to Adjust Spring Tension]

●Figure below shows the case of left-hanging.



Loosen shaft with a hex key and remove the pin.



Adjust spring tension with three steps. Put the pin to the hole and fix.

RoHS	CAD	Item Code	Item Name	Material	Finish	W	W1	W2	P1	P2	D	t	d1	d2	Max. Door Thickness	Opening Angle	Screw	Weight (g)	Box (pcs)
G	3D	170-090-803	DA120-5404-01	Aluminium Alloy	Anodised	101	29.5	42	6.5	11.5	16	4	5.3	10	30	180°	–	275	2
G	3D	170-090-804	DA120-5414-01			133	40	53	11	16					40			320	2
G	3D	170-090-805	DA120-5414-05	Stainless Steel (SUS304)	Plain						17	2.5	5.5	9	36		Countersunk Head Tapping Screw	555	2
G	3D	170-090-806	DA180-5904-01	Aluminium Alloy	Anodised	101	29.5	42	6.5	11.5	16	4	5.3	10	30		–	407	2
G	3D	170-090-807	DA180-5914-01			133	40	53	11	16					40			466	2
G	3D	170-090-808	DA180-5914-05	Stainless Steel (SUS304)	Plain						18	3	5.5	9	38		Countersunk Head	947	2
G	3D	170-090-809	DA180-5934-01	Aluminium Alloy	Anodised	157	48.5	60	19.5	24.5	16	4	5.3	10	50		Tapping Screw	510	2

Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

CLEAN ROOM HINGE HG-CV-127

SUS



- Suitable for use in a clean room.
- Built-in thrust bearing and needle bearing reduce metal-to-metal friction.
- Seal of rotating part prevents metal powder from scattering.
- Welded curl part provides excellent durability.

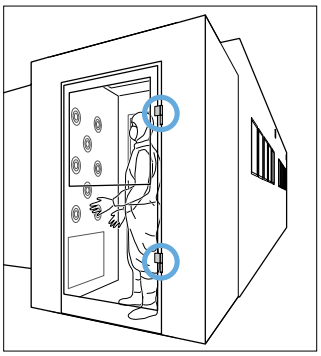
[Applications]

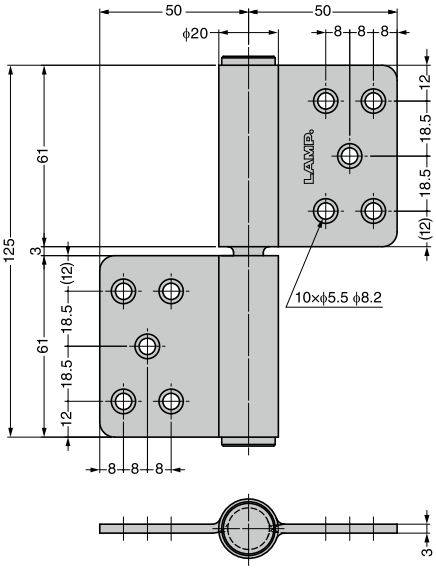
- Semiconductor manufacturing equipment, clean room, etc.

[Remarks]

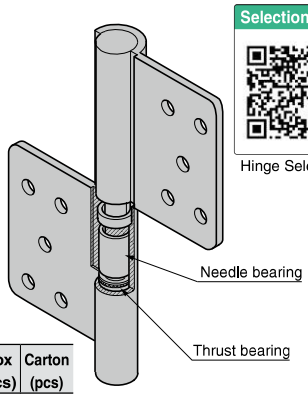
- Install the shaft downwards on the door side.
- Load capacity and open/close test under the following conditions: door size H2000×W900mm, door weight 100kg, two hinges used, installation pitch 1600mm.

[Application Example]





Drawing above is HG-CV-127R.



Selection Tool

Hinge Selection

RoHS	CAD	Item Code	Item Name	Type	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-013-013	HG-CV-127L	Left-handed	Stainless Steel (SUS304)	Satin/ Polished	981	100	388	10	50
G	3D	170-014-422	HG-CV-127R	Right-handed						10	50

CLEAN ROOM TORQUE HINGE HG-CVT

Under Development

Free stop



HG-CVT65-15

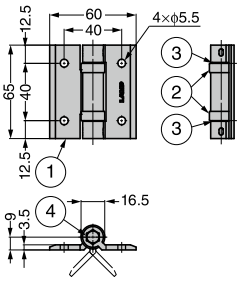
- Retains the door at any angle.
- Plastic caps at rotating part prevent metal-to-metal friction and metal powder scattering.
- Can be used horizontally or vertically.

[Applications]

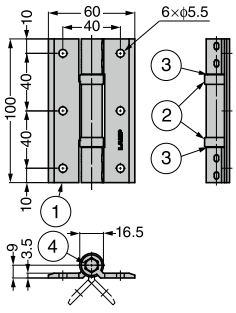
- Semiconductor manufacturing equipment, clean room, aluminium frame, household equipment, etc.

[Remarks]

- Be sure to read the “Cautions” 1 .
- When installing, ensure that both hinge shafts are aligned.



HG-CVT65-15



HG-CVT100-20

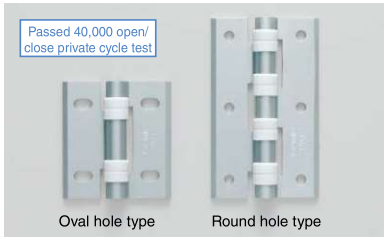
No.	Part Name	Material	Finish / Colour
①	Body	Aluminium Alloy	Anodised Silver
②	Cap	POM	Natural
③	Washer	PTFE	White
④	Shaft	Stainless Steel (SUS303)	–

RoHS	CAD	Item Code	Item Name	Torque N·m	Torque kgf·cm	Weight (g)
G	3D	170-053-302	HG-CVT65-15	1.5 ±30%	15.3 ±30%	62
G	3D	170-053-303	HG-CVT100-20	2.0 ±25%	20.4 ±25%	102

Refer to 1 : P.43

*This is a product under development, so the specifications may change.

CLEAN ROOM HINGE HG-CV



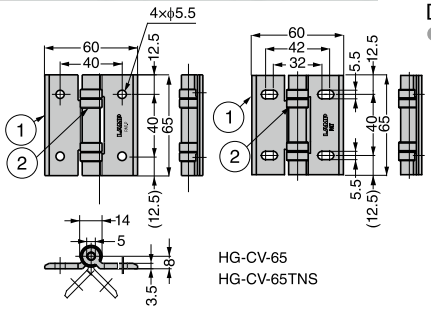
- Plastic caps at rotating part prevent metal-to-metal friction and metal powder scattering.
- When opening and closing door, plastic caps will not interfere with frame .
- Aluminium alloy material, light weight and excellent design.
- Round hole type, precision type and oval hole type available. For precision type, clearance between hinge leaves and plastic caps/shaft is small.

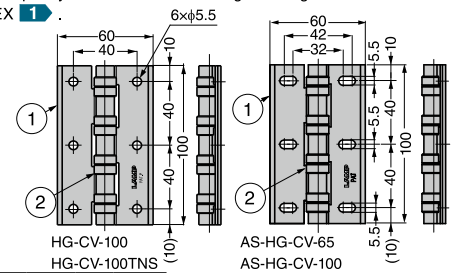
[Applications]

- Semiconductor manufacturing equipment, clean room, aluminium frame, household equipment, etc.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .





Selection Tool
Hinge Selection

RoHS	CAD	Item Code	Item Name	Type	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-091-441	HG-CV-65	Round	147	15	50	20	240
G	3D	170-091-442	HG-CV-100	Hole Type	226	23	78	20	160
G	3D	170-099-151	HG-CV-65TNS	Precision	147	15	50	20	240
G	3D	170-099-152	HG-CV-100TNS	Type	226	23	78	20	160
G	3D	170-090-537	AS-HG-CV-65	Oval Hole	147	15	49	20	240
G	3D	170-090-540	AS-HG-CV-100	Type	226	23	76	20	160

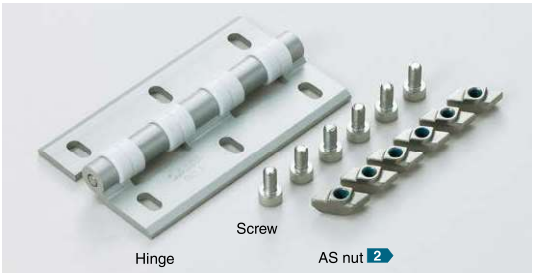
Refer to 1 : P.43

Reference door weight (HG-CV65): 8kg
Reference door weight (HG-CV100): 13kg
(In case of door size W600×800, using 2 pcs vertically)

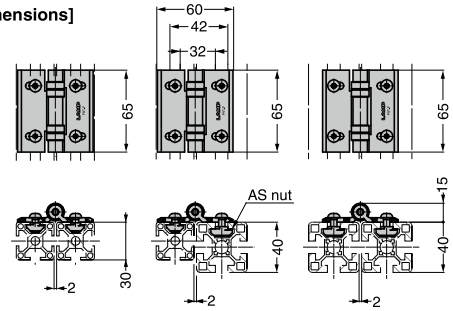
No.	Part Name	Material	Finish / Colour
①	Body	Aluminium Alloy	Anodised Silver
②	Cap	POM	White
–	Shaft	Stainless Steel (SUS303)	–

AS Parts Set For Installing to Aluminium Frame

Please refer to the series introduction page 1 for details about AS series.



[Dimensions]

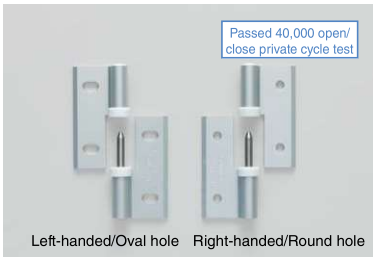


[AS Parts Set] Parts set of screws and AS nuts

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (g)
G	–	170-041-527	AS-HG-CV65-30-6	Groove width 6 mm	Hinge AS-HG-CV-65: 1 pc AS nut AS-6M4: 4 pcs Hexagon socket head cap screw M4×10: 4 pcs	–
G	–	170-041-528	AS-HG-CV65-30-8	Groove width 8 mm	Hinge AS-HG-CV-65: 1pc AS nut AS-8M5: 4 pcs Hexagon socket head cap screw M5×14: 4 pcs	–
G	–	170-041-529	AS-HG-CV65-40-8			–
G	–	170-041-530	AS-HG-CV65-40-10	Groove width 10 mm	Hinge AS-HG-CV-65: 1pc AS nut AS-10M5: 4 pcs Hexagon socket head cap screw M5×14: 4 pcs	–
G	–	170-041-531	AS-HG-CV100-30-6	Groove width 6 mm	Hinge AS-HG-CV-100: 1 pc AS nut AS-6M4: 6 pcs Hexagon socket head cap screw M4×10: 6pcs	–
G	–	170-041-532	AS-HG-CV100-30-8	Groove width 8 mm	Hinge AS-HG-CV-100: 1pc AS nut AS-8M5: 6pcs Hexagon socket head cap screw M5×14: 6pcs	–
G	–	170-041-533	AS-HG-CV100-40-8			–
G	–	170-041-534	AS-HG-CV100-40-10	Groove width 10 mm	Hinge AS-HG-CV-100: 1pc AS nut AS-10M5: 6pcs Hexagon socket head cap screw M5×14: 6pcs	–

Refer to 1 : P.20, 2 : P.526

CLEAN ROOM HINGE HG-CV-65N Lift-Off Type



- Plastic caps at rotating part prevent metal-to-metal friction and metal powder scattering.
- Lift-off type, easy to detach the door.
- When opening and closing door, plastic caps will not interfere with frame .
- Aluminium alloy material, light weight and excellent design.
- Oval hole type also available.

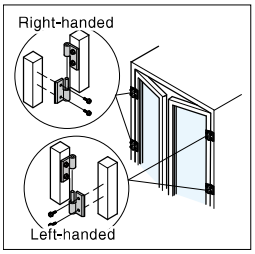
[Applications]

- Semiconductor manufacturing equipment, clean room, aluminium frame, household equipment, etc.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

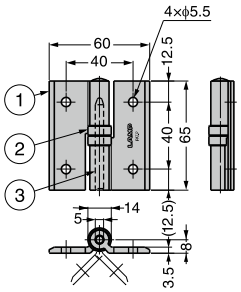
[Installation]



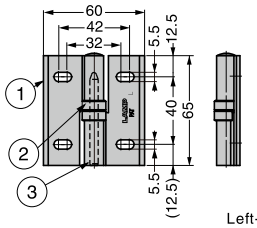
Selection Tool

Hinge Selection

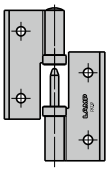
Reference door weight: 8kg
(In case of door size W600×800, using 2 pcs vertically)



HG-CV-65NR, HG-CV-65NL



AS-HG-CV-65NR
AS-HG-CV-65NL



Left-handed/Round hole type shown. Right-handed type is symmetrical.

RoHS	CAD	Item Code	Item Name	Description	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-091-452	HG-CV-65NR	Right-handed/Round Hole	108	11	49	20	240
G	3D	170-091-451	HG-CV-65NL	Left-handed/Round Hole				20	240
G	3D	170-090-538	AS-HG-CV-65NR	Right-handed/Oval Hole			48	20	240
G	3D	170-090-539	AS-HG-CV-65NL	Left-handed/Oval Hole				20	240

No.	Part Name	Material	Finish / Colour
①	Body	Aluminium Alloy	Anodised Silver
②	Cover	POM	White
③	Shaft	Stainless Steel (SUS303)	Plain

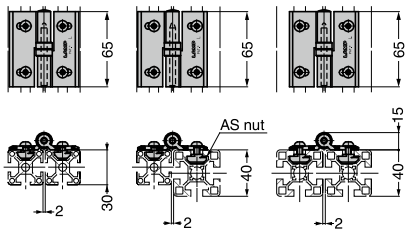
Refer to 1 : P.43

Parts Set For Installing to Aluminium Frame

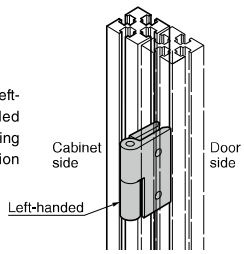
Please refer to the series introduction page 1 for details about AS series.



[Dimensions]



As shown on the right, left-handed and right-handed types are defined according to the Installation position of the hinge.



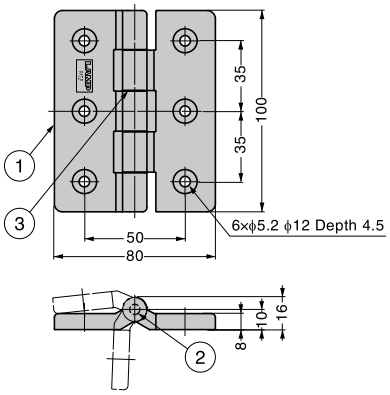
[AS Parts Set] Parts set of screws and AS nuts

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (g)
G	–	170-041-535	AS-HG-CV65NR-30-6	Groove Width 6 mm	Hinge AS-HG-CV-65NR: 1pc AS Nut AS-6M4: 4pcs Hexagon Socket Head Cap Screw M4×10: 4pcs	–
G	–	170-041-539	AS-HG-CV65NL-30-6		Hinge AS-HG-CV-65NL: 1pc AS Nut AS-6M4: 4pcs Hexagon Socket Head Cap Screw M4×10: 4pcs	–
G	–	170-041-536	AS-HG-CV65NR-30-8	Groove Width 8 mm	Hinge AS-HG-CV-65NR: 1pc AS Nut AS-8M5: 4pcs Hexagon Socket Head Cap Screw M5×10: 4pcs	–
G	–	170-041-540	AS-HG-CV65NL-30-8		Hinge AS-HG-CV-65NL: 1pc AS Nut AS-8M5: 4pcs Hexagon Socket Head Cap Screw M5×10: 4pcs	–
G	–	170-041-537	AS-HG-CV65NR-40-8		Hinge AS-HG-CV-65NR: 1pc AS Nut AS-8M5: 4pcs Hexagon Socket Head Cap Screw M5×14: 4pcs	–
G	–	170-041-541	AS-HG-CV65NL-40-8		Hinge AS-HG-CV-65NL: 1pc AS Nut AS-8M5: 4pcs Hexagon Socket Head Cap Screw M5×14: 4pcs	–
G	–	170-041-538	AS-HG-CV65NR-40-10	Groove Width 10 mm	Hinge AS-HG-CV-65NR: 1pc AS Nut AS-10M5: 4pcs Hexagon Socket Head Cap Screw M5×14: 4pcs	–
G	–	170-041-542	AS-HG-CV65NL-40-10		Hinge AS-HG-CV-65NL: 1pc AS Nut AS-10M5: 4pcs Hexagon Socket Head Cap Screw M5×14: 4pcs	–

Refer to 1 : P.20, 2 : P.526

BUTT HINGE HG-P100





- PVC material, with excellent chemical resistance.
- No metal powder generated because all parts (except shaft) are made of resin.
- Clear type does not affect appearance even on transparent door.
- Lead-free.

[Applications]

- Semiconductor manufacturing equipment, liquid crystal manufacturing equipment, etc.

[Remarks]

- Screw may become loose, depending on use situation. Please check appropriately.
- Use washers when fixing with screws.
- When installing to aluminium frame, over-tightening may damage mounting screws.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

[Recommended Screws]

- M5 screw (Recommended tightening torque 2.0N・m)

Selection Tool

Hinge Selection

No.	Part Name	Material	Finish / Colour
①	Leaf	PVC	Clear
②	Shaft	Titanium Alloy	Plain
③	Washer	PEEK	–

Reference door weight: 8kg
(In case of door size W600×H800, using 2 pcs vertically)

RoHS	CAD	Item Code	Item Name	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-020-836	HG-P100	98	10	74	30	240

Refer to 1 : P.43

BUTT HINGE FOR ALUMINIUM FRAME AS-HG-IS

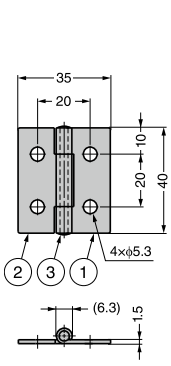
SUS



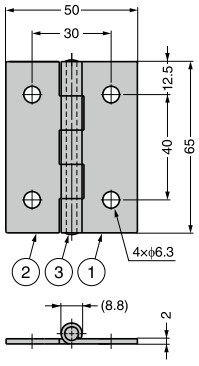
- Can be installed to aluminium frame.
- All parts made of polished stainless steel.

[Remarks]

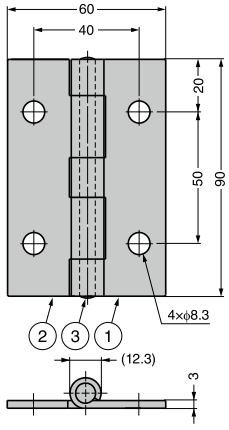
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



AS-HG-IS40



AS-HG-IS65



AS-HG-IS90

RoHS	CAD	Item Code	Item Name	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-098-116	AS-HG-IS40	69	7	21	400	–
G	3D	170-098-117	AS-HG-IS65	157	16	99	50	200
G	3D	170-098-118	AS-HG-IS90	333	34	169	10	80

Refer to 1 : P.43

No.	Part Name	Material	Finish
①	Body 1	Stainless Steel (SUS304)	Mirror
②	Body 2		
③	Shaft		–

LIFT-OFF HINGE FOR ALUMINIUM FRAME AS-HG-AL-N



- Aluminium alloy material, light weight and excellent design.
- Resin covering rotating part and shaft end prevents metal-to-metal friction and metal powder scattering.
- Unique shaft design for easy installation
- Shaft with rib will not fall off when door is detached.
- Suitable for aluminium frames from various manufacturers.

[Applications]

- Semiconductor manufacturing equipment, aluminium frame, household equipment, etc.

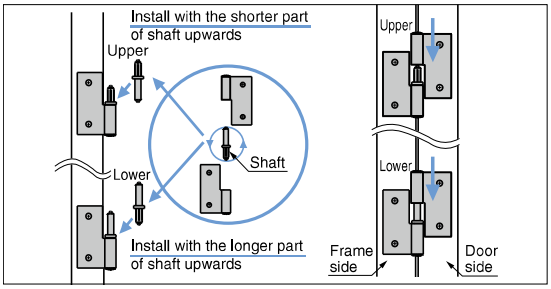
[Remarks]

- For details such as applicable aluminium frames, please contact local representatives.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

Selection Tool

Hinge Selection

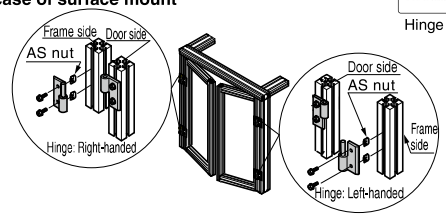
[Installation]



- Shaft
  Install upper and lower hinges with the longer and shorter part of shaft reversed.
- Door installation
  Hang the door on to the lower hinge first, and then on to the upper hinge. Different shaft length reduces installation time.

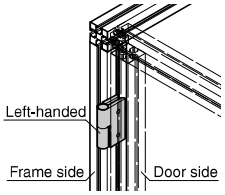
[Installation]

In case of surface mount



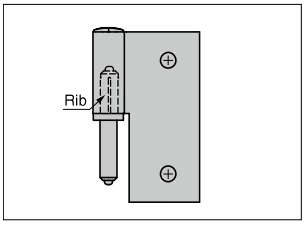
As shown above, in case of surface mount, use left-handed hinge for right-hanging while right-handed hinge for left-hanging.

In case of non-surface mount

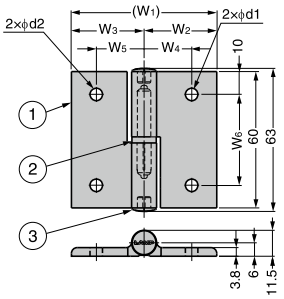


As shown on the left, in case of non-surface mount, use right-handed hinge for right-hanging while left-handed hinge for left-hanging.

[Structure of Shaft]



Unique rib design means that the shaft will remain in the door part of the upper hinge when the door is removed.
When re-installing door, remove shaft and install it into hinge at the frame side.



Right-handed/Round hole type shown. Left-handed type is symmetrical.

No.	Part Name	Material	Finish / Colour
①	Body	Aluminium Alloy	Matte Anodised Silver (Machined Surface: Plain)
②	Shaft	Stainless Steel (SUS303), POM	White
③	Cover	POM	

RoHS	CAD	Item Code	Item Name	Description	W1	W2	W3	W4	W5	W6	d1	d2	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-018-210	AS-HG-AL-NL3020	Round Holes, Left-handed	43	18	25	11	16	40	4.5	5.5	78	8	34	20	240
G	3D	170-018-209	AS-HG-AL-NR3020	Round Holes, Right-handed											34	20	240
G	3D	170-018-212	AS-HG-AL-NL3030	Round Holes, Left-handed	50	25		16			5.5				37	20	240
G	3D	170-018-211	AS-HG-AL-NR3030	Round Holes, Right-handed											37	20	240
G	3D	170-018-214	AS-HG-AL-NL3040	Round Holes, Left-handed	57		32		21						40	20	240
G	3D	170-018-213	AS-HG-AL-NR3040	Round Holes, Right-handed											40	20	240
G	3D	170-020-921	AS-HG-AL-NL4020	Round Holes, Left-handed	50	18		11			4.5				38	20	240
G	3D	170-020-920	AS-HG-AL-NR4020	Round Holes, Right-handed											38	20	240
G	3D	170-018-216	AS-HG-AL-NL4040	Round Holes, Left-handed	64	32		21			5.5				46	20	240
G	3D	170-018-215	AS-HG-AL-NR4040	Round Holes, Right-handed											46	20	240

Refer to 1 : P.43

BUTT HINGE FOR ALUMINIUM FRAME AS-HG-AL



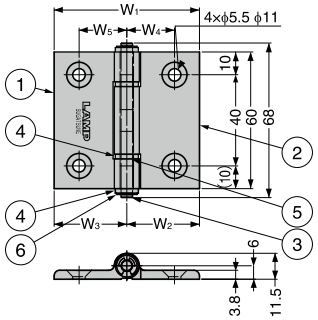
- Special hinges fitting perfectly with the mounting groove of aluminium frame. No additional washers are required.
- Plastic bushes provide smooth movement and prevent metal-to-metal friction.
- Aluminium alloy material, light weight and excellent design.
- Stainless steel hinge AS-HG-SUS 1 of the same type also available.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 2 .

Selection Tool

Hinge Selection



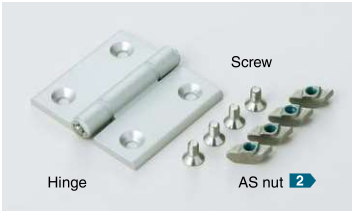
No.	Part Name	Material	Finish / Colour
①	Body A	Aluminium Alloy	Anodised Silver
②	Body B		
③	Shaft	Stainless Steel (SUS303)	Plain
④	Bush	POM	Natural
⑤	Washer	PEEK	
⑥	E-type Retaining Ring	Stainless Steel (SUS304)	–

RoHS	CAD	Item Code	Item Name	W1	W2	W3	W4	W5	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-011-679	AS-HG-AL-M3020	43	18	25	11	16	147	15	41	20	300
G	3D	170-011-680	AS-HG-AL-M3030	50	25		16				45	20	300
G	3D	170-011-681	AS-HG-AL-M3040	57	32	32	21	21			48	20	300
G	3D	170-011-682	AS-HG-AL-M4040	64							53	20	300

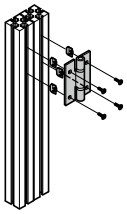
Refer to 1 : P.267, 2 : P.43

AS Parts Set for Installing to Aluminium Frame

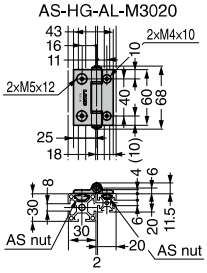
Please refer to the series introduction page 1 for details about AS series.

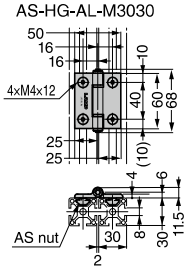


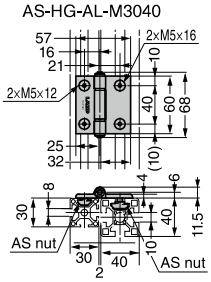
[Installation]

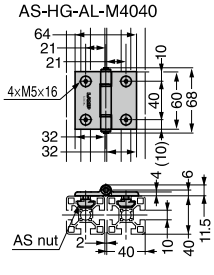


[Dimensions]









[AS Parts Set] Parts set of screws and AS nuts

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (g)
G	–	170-041-810	AS-HG-AL-M3020-8	Groove Width 6 mm Groove Width 8 mm	Hinge AS-HG-AL-M3020 : 1pc AS Nut AS-8M5 : 2pcs Hexagon Socket Countersunk Head Screw M5×12 : 2pcs AS Nut AS-6M4 : 2pcs Hexagon Socket Countersunk Head Screw M4×10 : 2pcs	–
G	–	170-041-811	AS-HG-AL-M3030-8	Groove Width 8 mm	Hinge AS-HG-AL-M3030 : 1pc AS Nut AS-8M5 : 4pcs Hexagon Socket Countersunk Head Screw M5×12 : 4pcs	–
G	–	170-041-812	AS-HG-AL-M3040-10	Groove Width 8 mm Groove Width 10 mm	Hinge AS-HG-AL-M3040 : 1pc AS Nut AS-10M5 : 2pcs Hexagon Socket Countersunk Head Screw M5×16 : 2pcs AS Nut AS-8M5 : 2pcs Hexagon Socket Countersunk Head Screw M5×12 : 2pcs	–
G	–	170-041-813	AS-HG-AL-M4040-8	Groove Width 8 mm	Hinge AS-HG-AL-M4040 : 1pc AS Nut AS-8M5 : 4pcs Hexagon Socket Countersunk Head Screw M5×16 : 4pcs	–
G	–	170-041-814	AS-HG-AL-M4040-10	Groove Width 10 mm	Hinge AS-HG-AL-M4040 : 1pc AS Nut AS-10M5 : 4pcs Hexagon Socket Countersunk Head Screw M5×16 : 4pcs	–

Refer to 1 : P.20, 2 : P.526

BUTT HINGE FOR ALUMINIUM FRAME AS-HG-SUS


AS-HG-SUS-M3030　AS-HG-SUS-M3040

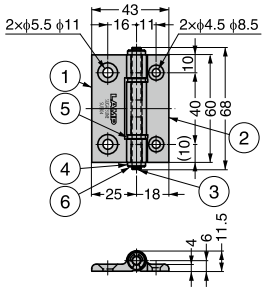
- Special hinges fitting perfectly with the mounting groove of aluminium frame. No additional washers are required.
- Plastic bushes provide smooth movement and prevent metal-to-metal friction.
- Aluminium alloy hinge AS-HG-AL 1 of the same type also available.

[Remarks]

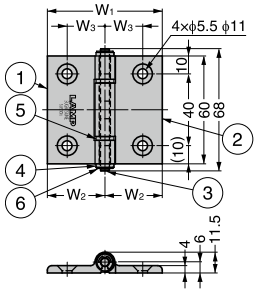
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 2 .

Selection Tool

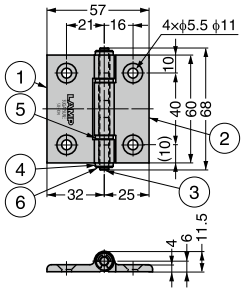
Hinge Selection



AS-HG-SUS-M3020
(Fig.A)



AS-HG-SUS-M3030
AS-HG-SUS-M4040
(Fig.B)



AS-HG-SUS-M3040
(Fig.C)

RoHS	CAD	Item Code	Item Name	Drawing	W1	W2	W3	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-011-886	AS-HG-SUS-M3020	Fig.A	–	–	–	294	30	96	10	100
G	3D	170-011-887	AS-HG-SUS-M3030	Fig.B	50	25	16			102	10	100
G	3D	170-011-888	AS-HG-SUS-M3040	Fig.C	–	–	–			112	10	100
G	3D	170-011-889	AS-HG-SUS-M4040	Fig.B	64	32	21			124	10	100

No.	Part Name	Material	Finish / Colour
①	Body A	Stainless Steel (SCS13)	Polished
②	Body B		
③	Shaft	Stainless Steel (SUS304)	Plain
④	Bush	POM	Natural
⑤	Washer	PEEK	
⑥	E-type Retaining Ring	Stainless Steel	–

Refer to 1 : P.266, 2 : P.43

Parts Set for Installing to Aluminium Frame

Please refer to the series introduction page 1 for details about AS series.

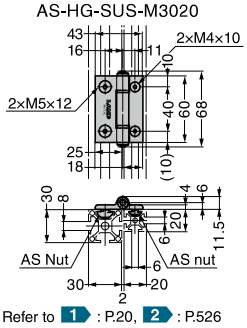


[AS Parts Set] Parts set of screws and AS nuts

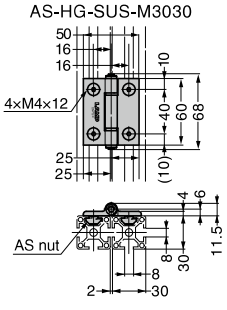
RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (g)
G	–	170-013-727	AS-HG-SUS-M3020-8	Groove width 6 mm Groove width 8 mm	Hinge AS-HG-SUS-M3020 : 1pc AS Nut AS-8M5 : 2pcs AS Nut AS-6M4 : 2pcs Hexagon Socket Countersunk Head Screw M4×10 : 2pcs Hexagon Socket Countersunk Head Screw M5×12 : 2pcs	–
G	–	170-013-728	AS-HG-SUS-M3030-8	Groove width 8 mm	Hinge AS-HG-SUS-M3030 : 1pc AS Nut AS-8M5 : 4pcs Hexagon Socket Countersunk Head Screw M5×12 : 4pcs	–
G	–	170-013-729	AS-HG-SUS-M3040-10	Groove width 8 mm Groove width 10 mm	Hinge AS-HG-SUS-M3040 : 1pc AS Nut AS-8M5 : 2pcs AS Nut AS-10M5 : 2pcs Hexagon Socket Countersunk Head Screw M5×12 : 2pcs Hexagon Socket Countersunk Head Screw M5×16 : 2pcs	–
G	–	170-013-730	AS-HG-SUS-M4040-8	Groove width 8 mm	Hinge AS-HG-SUS-M4040 : 1pc AS Nut AS-8M5 : 4pcs Hexagon Socket Countersunk Head Screw M5×16 : 4pcs	–
G	–	170-013-731	AS-HG-SUS-M4040-10	Groove width 10 mm	Hinge AS-HG-SUS-M4040 : 1pc AS Nut AS-10M5 : 4pcs Hexagon Socket Countersunk Head Screw M5×16 : 4pcs	–

[Dimensions]

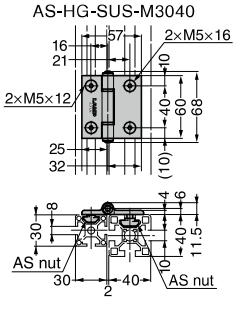
AS-HG-SUS-M3020



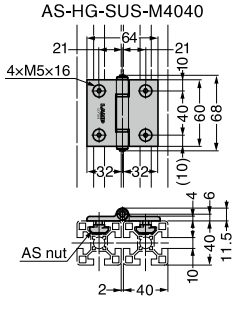
AS-HG-SUS-M3030



AS-HG-SUS-M3040



AS-HG-SUS-M4040



Refer to 1 : P.20, 2 : P.526

TORQUE HINGES
DAMPER HINGES
LIFT ASSIST HINGES
DETENT HINGES
CONCEALED HINGES
BUTT HINGES
PIANO HINGES
STEP HINGES
LIFT-OFF HINGES
PIVOT HINGES
SPRING HINGES
CLEAN ROOM HINGES
HINGES FOR ALUMINIUM FRAME
DROP HINGES
GLASS DOOR HINGES
SPECIAL HINGES

DROP HINGE (ADJUSTABLE TYPE) SDH-P



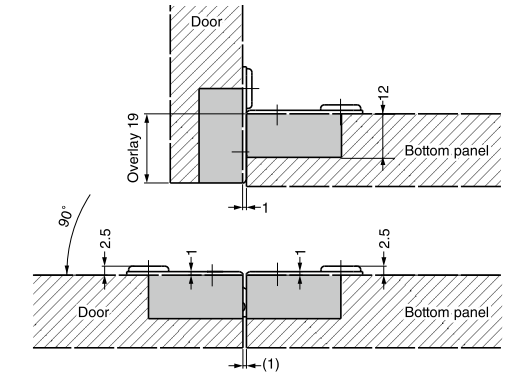
Hinges and covers are packed separately.

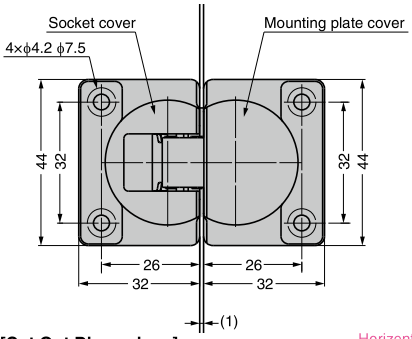
- 3-way adjustment.
  Overlay: 16-19mm / Horizontal: ±1mm / Door gap: 1-3mm
- Can be used with soft-down stay SDS-100 1, SDS-100TV, NSDX-10(R/L) 2, NSDX-10(R/L)K-TV, CSD-10-TV.
- Bore depth:12mm

[Recommended Screws]
- Pan head tapping screw 3.5×15

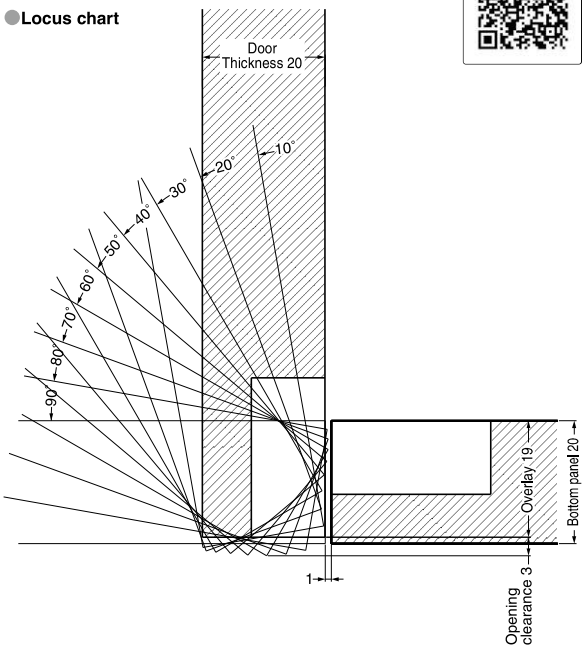
Video Link

Outline drawing



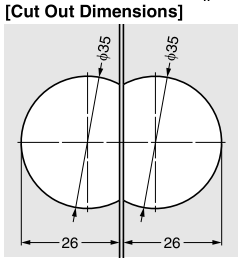


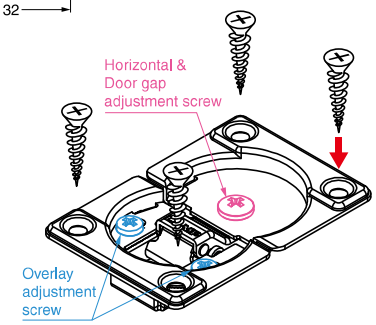
Locus chart



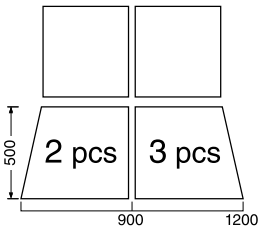
Example (door thickness : 20 mm / bottom panel: 20 mm / overlay : 19 mm)

[Cut Out Dimensions]





[Number of Hinges]
In case of door thickness up to 20 mm. Material: Particle board.



[Drop Hinge+Cover]

RoHS	CAD	Item Code	Item Name
G	3D	170-035-444	SDH-P-BL-SET
G	3D	170-037-357	SDH-P-WT-SET
G	3D	170-037-358	SDH-P-NI-SET

[Drop Hinge]

RoHS	CAD	Item Code	Item Name	Material	Finish	Overlay	Door Thickness	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-034-200	SDH-P	Steel	Nickel	16~19	16~20	90°	42	50	200

[Cover Set] Socket cover + mounting plate cover

RoHS	CAD	Item Code	Item Name	Styles	Material	Finish / Colour	Weight (g)	Box (pcs)
G	3D	170-034-769	SDH-PC-BL	Socket Cover + Mounting Plate Cover	ABS	Black	4	100
G	3D	170-034-828	SDH-PC-WT			White	4	100
G	3D	170-034-829	SDH-PC-NI			Nickel	4	100

Refer to 1 : P.344, 2 : P.342

DROP HINGE (ADJUSTABLE TYPE) SDH-001

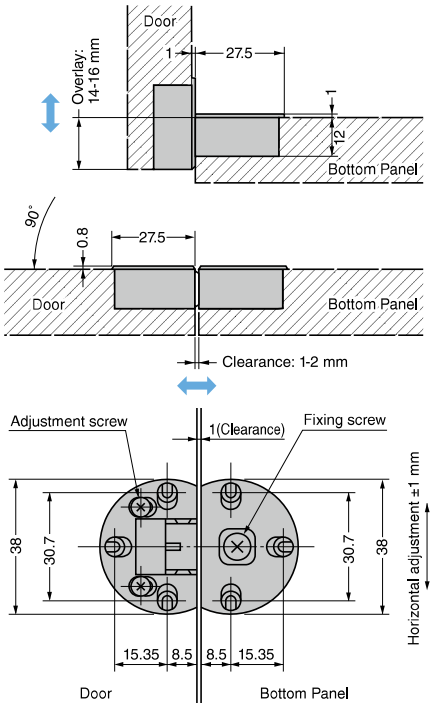


- 3-way adjustment. Overlay: 14~16mm / Door gap: +1mm / Horizontal: ±1mm
- Can be used with SOFT-DOWN STAY SDS-100 1 and NSDX-10 2 .
- Bore depth: 12mm
- Pan head tapping screw 3×13 in black (sold separately) for SDH-001BL is also available. Sold in bags (300 pcs per pack).
- Glass door type is also available.

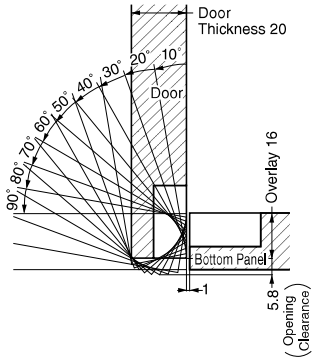
[Remarks]
- Use with a stay for downward-opening.

[Recommended Screws]
- Pan head tapping screw 3×13

Outline drawing

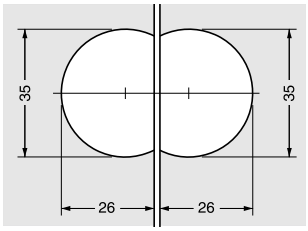


Locus chart (How to Use the Locus Chart 3)



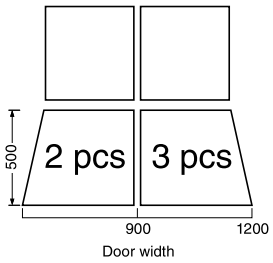
A gap equivalent to opening clearance is required for door opening and closing. Drawing above is door thickness 20 mm, bottom panel thickness 20 mm and 16 mm overlay. The value of opening clearance may change with the door thickness. Please confirm in the locus chart.

[Cut Out Dimensions]



[Number of Hinges]

In case of door thickness up to 20 mm.



[Application Example]



Combination with HEAVY DUTY SOFT-DOWN STAY HDS-10 4

[Pan Head Tapping Screw 3×13] Black

RoHS	CAD	Item Code	Item Name	1 pack	Weight (g)	Box (pcs)
G	–	170-011-885	SDH-001-S-BL	300 pcs	179	300

[Hinge]

RoHS	CAD	Item Code	Item Name	Material	Finish	Overlay	Recommended Door Thickness	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-471	SDH-001	Zinc Alloy	Nickel	14~16	16~20	90°	85	50	200
–	3D	170-010-648	SDH-001BL	(ZDC)	Black Enamel Finish				85	50	200

Refer to 1 : P.344, 2 : P.342, 3 : P.201, 4 : P.338

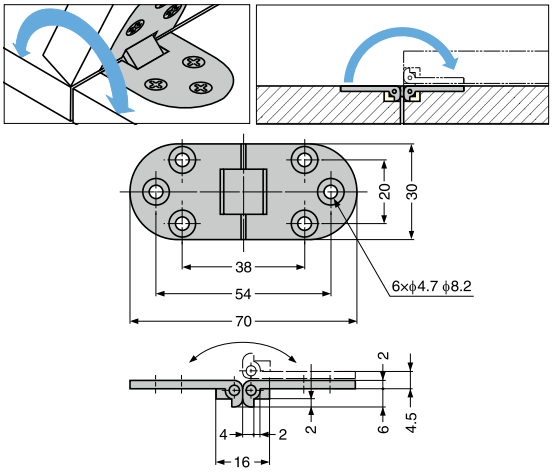
TABLETOP HINGE MH-30



- Double pivot hinge allows 180˚ opening.

[Remarks]

- Recommended door dimensions in the table below are the value when using two hinges for one door.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .



RoHS	CAD	Item Code	Item Name	Material	Finish	Door Width	Door Height	Door Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
–	3D	170-090-052	MH-30M	Brass	Polished	Max. 450	Max. 700	Max. 21	29	3	180˚	45	24	360
–	3D	170-090-051	MH-30WB		White Bronze Plating								24	360
–	3D	170-090-050	MH-30CR		Chrom								24	360

Refer to 1 : P.43

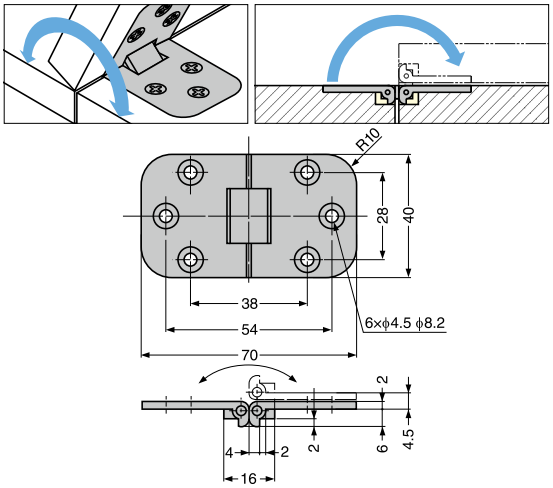
TABLETOP HINGE MH-40



- Double pivot hinge allows 180˚ opening.

[Remarks]

- Recommended door dimensions in the table below are the value when using two hinges for one door.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

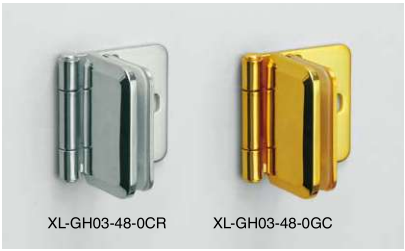


RoHS	CAD	Item Code	Item Name	Material	Finish	Door Width	Door Height	Door Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
–	3D	170-090-057	MH-40M	Brass	Polished	Max. 450	Max. 700	Max. 21	29	3	180˚	64	16	240
–	3D	170-090-056	MH-40WB		White Bronze Plating								16	240
–	3D	170-090-055	MH-40CR		Chrom								16	240

Refer to 1 : P.43

GLASS DOOR HINGE XL-GH03-48-0 For Inset Door

TEMPERED GLASS



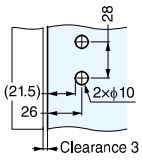
- Only two round holes needed on the door for one hinge.

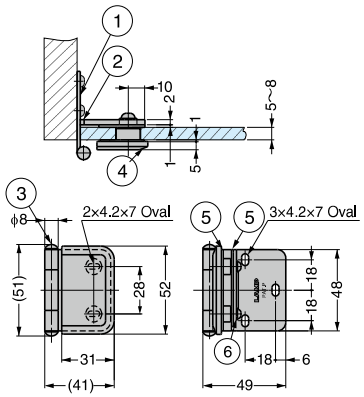
[Applications]
- Glass or acrylic doors, various showcases, etc.

[Remarks]
- Recommended for use in pairs.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

[Parts Included]
- Spacer (2 pcs)
- Truss head screw M4×12 (2 pcs)

[Cut Out Dimensions]





No.	Part Name	Material	Finish / Colour	
			CR	GC
①	Hinge Plate	Stainless Steel (SUS304)	Polished	Gold, Clear
②	Arm			
③	Shaft			
④	Plate	Zinc Alloy (ZDC)	Chrome	
⑤	Spacer	Polyethylene	White	Natural
⑥	Screw	Stainless Steel (SUS304)	Plain	Plain

RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-098-651	XL-GH03-48-0CR	Max. 650	Max. 900	5, 6, 8	118	12	132	10	100
G	3D	170-098-652	XL-GH03-48-0GC						144	10	100

Refer to 1 : P.43

※ Load capacity has priority over glass size.

GLASS DOOR HINGE XL-GH03-48-8 For Overlay Door

TEMPERED GLASS



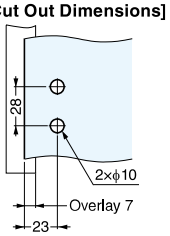
- Only two round holes needed on the door for one hinge.

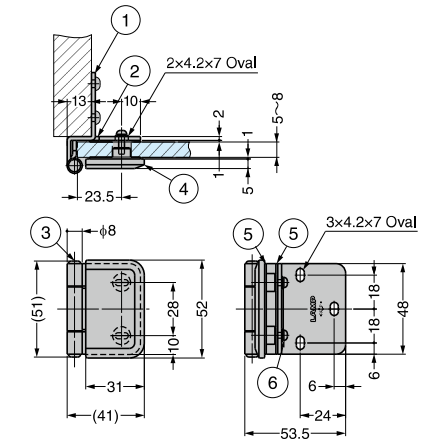
[Applications]
- Glass or acrylic doors, various showcases, etc.

[Remarks]
- Recommended for use in pairs.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

[Parts Included]
- Spacer (2 pcs)
- Truss head screw M4×12 (2 pcs)

[Cut Out Dimensions]





No.	Part Name	Material	Finish / Colour	
			CR	GC
①	Hinge Plate	Stainless Steel (SUS304)	Polished	Gold, Clear
②	Arm			
③	Shaft			
④	Plate	Zinc Alloy (ZDC)	Chrome	
⑤	Spacer	Polyethylene	Natural	Natural
⑥	Screw	Stainless Steel (SUS304)	Plain	Plain

RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-098-649	XL-GH03-48-8CR	Max. 650	Max. 900	5, 6, 8	118	12	141	10	100
–	3D	170-098-650	XL-GH03-48-8GC						148	10	100

Refer to 1 : P.43

※ Load capacity has priority over glass size.

GLASS DOOR HINGE (W/ CATCH) GH-456C For Overlay Door

INSTRUCTION TEMPERED GLASS



- Suitable for showcases and covers for machine.
- Mounting position adjustable: Vertically ±1mm, Horizontally ±1.2mm.
- Inset door hinge is also available.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

[Recommended Screws]

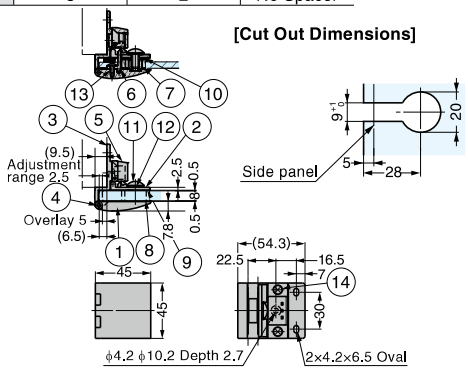
- Size 4 truss head tapping screw or size 3.8 round head wood screw

[Glass Thickness and Qty of Spacers]

Glass Thickness	5	6	8
Qty of Spacers	3	2	No Spacer

No.	Part Name	Material	Finish
①	Front Plate	Brass	SN: Satin Nickel CR: Chrome GC: Gold
②	Fixing Plate C		
③	Hinge Plate		
④	Shaft	Stainless Steel (SUS303)	Plain
⑤	Catch	–	Black
⑥	Striker	Zinc Alloy (ZDC)	–
⑦	Glass Adjustment Block	PA	Black
⑧	Pad C	PVC	–
⑨	Pad D		
⑩	Spacer	PP	
⑪	Truss Head Screw	Stainless Steel	
⑫	Spring Washer		
⑬	Truss Head Screw		
⑭	Truss Head Screw		

[Cut Out Dimensions]



RoHS	CAD	Item Code	Item Name	Finish	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
–	3D	170-020-968	GH-456C-SN	Satin Nickel	Max. 600	Max. 1200	5, 6, 8	148	15	216	10	80
–	3D	170-020-969	GH-456C-CR	Chrome						216	10	80
–	3D	170-020-970	GH-456C-GC	Gold						216	10	80

Refer to 1 : P.43

※ Load capacity has priority over glass size.

GLASS DOOR HINGE (W/O CATCH) GH-456N For Overlay Door

INSTRUCTION TEMPERED GLASS



- Suitable for showcases and covers for machine.
- Mounting position adjustable: Vertically ±1mm, Horizontally ±1.2mm.
- Inset door hinge is also available.

[Remarks]

- Without catch.For type with catch, Refer to GH-456C 1 .
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 2 .

[Recommended Screws]

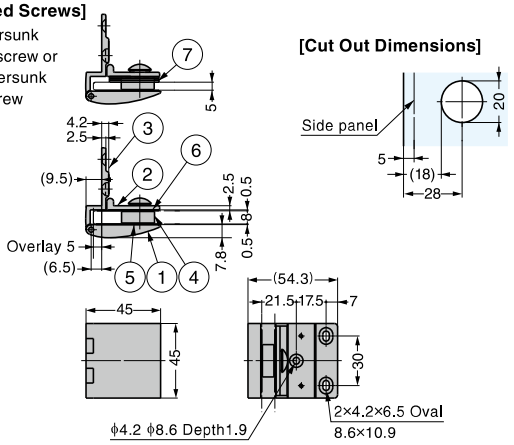
- Size 4 Countersunk head tapping screw or size 3.8 countersunk head wood screw

[Glass Thickness and Qty of Spacers]

Glass Thickness	5	6	8
Qty of Spacers	3	2	No Spacer

No.	Part Name	Material	Finish
①	Front Plate	Copper Alloy (C3604)	SN: Satin Nickel CR: Chrome GC: Gold
②	Fixing Plate B		
③	Hinge Plate		
④	Shaft	Stainless Steel (SUS303)	Plain
⑤	Glass Adjustment Block	PA	Black
⑥	Pad A	Chloroprene Rubber (CR)	–
⑦	Pad B		
⑧	Spacer (Small)	PP	
⑨	Truss Head Screw	Stainless Steel	
⑩	Spring Washer		

[Cut Out Dimensions]



RoHS	CAD	Item Code	Item Name	Finish	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
–	3D	170-090-702	GH-456N-SN	Satin Nickel	Max. 600	Max. 1200	5, 6, 8	148	15	206	10	80
–	3D	170-090-703	GH-456N-CR	Chrome						206	10	80
–	3D	170-090-704	GH-456N-GC	Gold						206	10	40

Refer to 1 : P.272, 2 : P.43

※ Load capacity has priority over glass size.

GLASS DOOR LIFT-OFF HINGE GH36-NCR For Inset Door

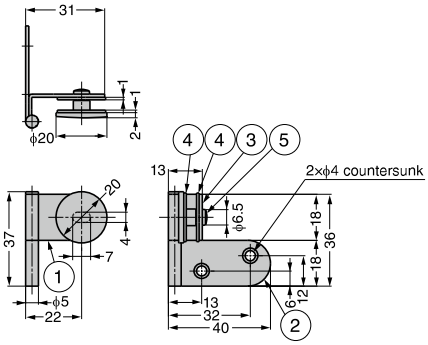
TEMPERED GLASS


Left-handed

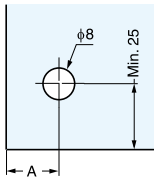
●Hinge for glass/acrylic doors.

[Remarks]

●Recommended for use in pairs.
●Use screw loosening prevention agent when mounting screws .
●Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

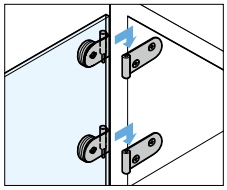


[Cut Out Dimensions]



Boring position changes with the glass thickness.

[Installation Example]



Glass Thickness	A
4	19
5	18
6	17

No.	Part Name	Material	Finish / Colour
①	Body (Male)	Steel (SPCC)	Chrome
②	Body (Female)		
③	Plate	Brass	
④	Washer	PVC	Clear
⑤	Screw	Steel (SWCH)	Nickel

RoHS	CAD	Item Code	Item Name	Type	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
–	3D	170-097-957	GH36-NCRL	Left-handed	Max. 450	Max. 700	4, 5, 6	39	4	24.5	100	400

Refer to 1 : P.43

※Limited stock available. Please contact your local agent or your nearest Sugatsune subsidiary for detail/availability.

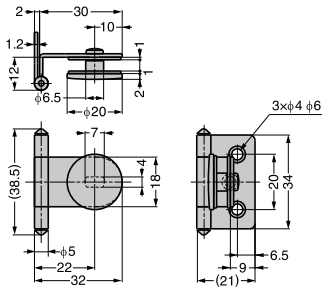
GLASS DOOR HINGE GH34-0 For Inset Door

TEMPERED GLASS

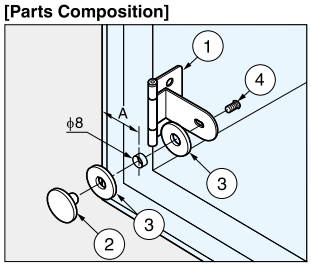


- Hinge for glass/acrylic doors.Square plate type GH34-0CR-K 1 also available.

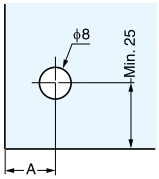
[Remarks]
- Recommended for use in pairs.
- Use screw loosening prevention agent when mounting screws .
- Note that scratch is conspicuous on black surface.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 2 .



[Parts Composition]



[Cut Out Dimensions]



Boring position changes with the glass thickness.

Glass Thickness	A
4	19
5	18
6	17

No.	Part Name	Material	Finish / Colour
①	Body	Steel	Chrome, Paint/Black, Gold,Clear
②	Plate	Zinc Alloy (ZDC)	
③	Washer	PVC	Clear
④	Screw	Steel	Nickel, Paint/Black, Gold,Clear

RoHS	CAD	Item Code	Item Name	Finish	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-083-513	GH34-0CR	Chrome	Max. 450	Max. 700	4, 5, 6	39	4	23.5	150	900
–	3D	170-025-831	GH34-0BL	Paint/Black							150	900
–	3D	170-012-158	GH34-0G	Gold,Clear							200	–

Refer to 1 : P.274, 2 : P.43

※ Load capacity has priority over glass size.

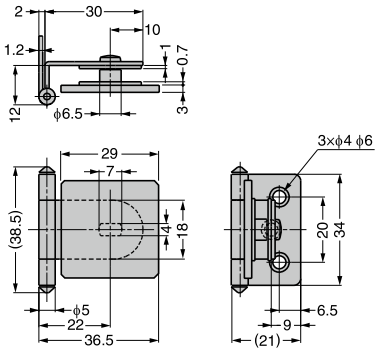
GLASS DOOR HINGE GH34-0CR-K For Inset Door

TEMPERED GLASS

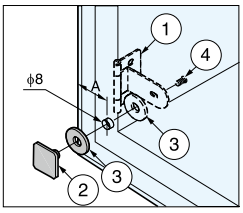


- Hinge for glass/acrylic doors.
- Round plate type GH34-0CR 1 also available

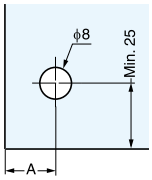
[Remarks]
- Recommended for use in pairs.
- When mounting screws, use a screw loosening prevention agent.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 2 .



[Parts Composition]



[Cut Out Dimensions]



Boring position changes with the glass thickness.

Glass Thickness	A
4	19
5	18
6	17

No.	Part Name	Material	Finish / Colour
①	Body	Steel	Chrome
②	Plate	Zinc Alloy (ZDC)	
③	Washer	PVC	Clear
④	Screw	Steel	Nickel

RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-019-481	GH34-0CR-K	Max. 450	Max. 700	4, 5, 6	39	4	34	100	500

Refer to 1 : P.274, 2 : P.43

※ Load capacity has priority over glass size.

GLASS DOOR HINGE GH34-8CR-K For Overlay Door

TEMPERED GLASS

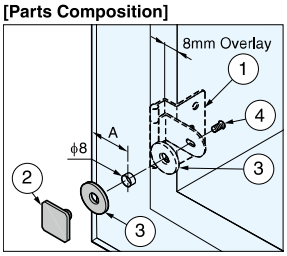


- Hinge for glass/acrylic doors.
- Round plate type GH34-8CR 1 also available.

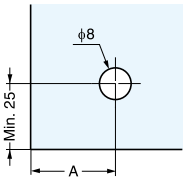
[Remarks]

- Recommended for use in pairs.
- Use screw loosening prevention agent when mounting screws.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 2 .

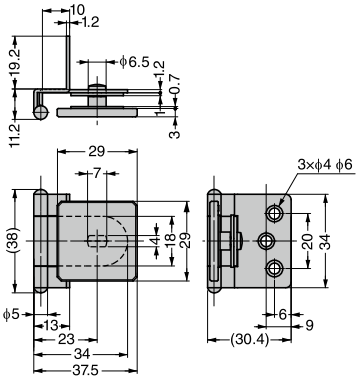
[Parts Composition]



[Cut Out Dimensions]



Boring position changes with the glass thickness.



Glass Thickness	A	Overlay
4	19	8
5	18	7
6	17	6

No.	Part Name	Material	Finish / Colour
①	Body	Steel	Chrome
②	Plate	Zinc Alloy (ZDC)	
③	Washer	PVC	Clear
④	Screw	Steel	Nickel

RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-019-482	GH34-8CR-K	Max. 450	Max. 700	4, 5, 6	39	4	37	50	500

Refer to 1 : P.280, 2 : P.43

※ Load capacity has priority over glass size.

GLASS DOOR HINGE (W/ CATCH) GHC34-8CR-K For Overlay Door

TEMPERED GLASS

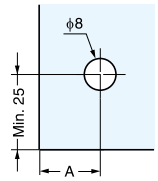


- Hinge for glass/acrylic doors.
- Round plate type GHC34-8CR 1 also available.

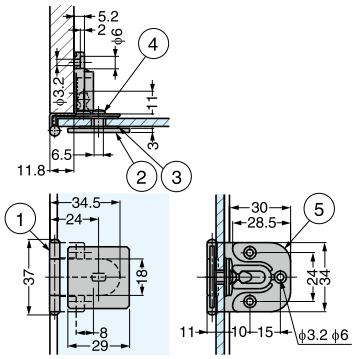
[Remarks]

- Recommended for use in pairs.
- Use screw loosening prevention agent when mounting screws.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 2 .

[Cut Out Dimensions]



Boring position changes with the glass thickness.



Glass Thickness	A	Overlay
4	19	7
5	18	6
6	17	5

No.	Part Name	Material	Finish / Colour
①	Body	Steel	Chrome
②	Plate	Zinc Alloy (ZDC)	
③	Washer	PVC	Clear
④	Screw	Steel	Nickel
⑤	Catch	POM	Black

RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-019-480	GHC34-8CR-K	Max. 450	Max. 700	4, 5, 6	39	4	43	40	600

Refer to 1 : P.282, 2 : P.43

※ Load capacity has priority over glass size.

GLASS DOOR HINGE GH34-0SS For Inset Door

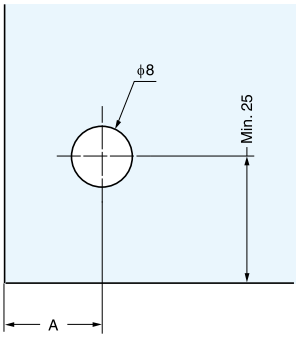


- Hinge for glass/acrylic doors.

[Remarks]

- Recommended for use in pairs.
- Use screw loosening prevention agent when mounting screws.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

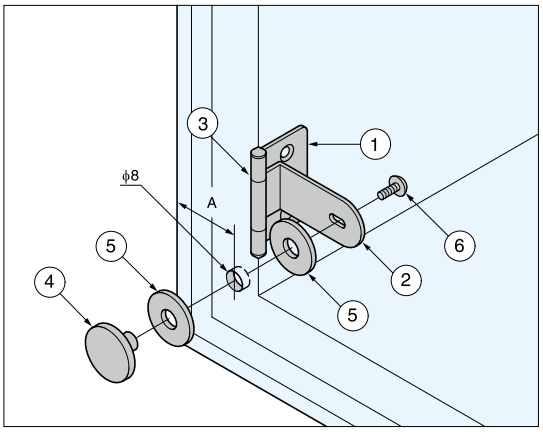
[Cut Out Dimensions]



Boring position changes with the glass thickness.

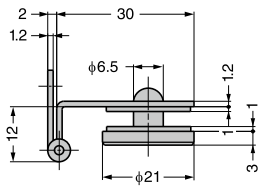
Glass Thickness	A
4	19
5	18
6	17

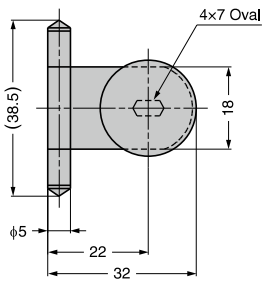
[Parts Composition]

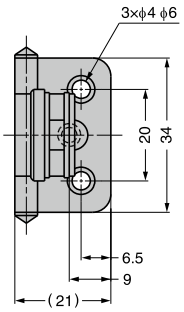


No.	Part Name	Material	Finish / Colour
①	Body	Stainless Steel (SUS304)	Plain
②	Arm		
③	Shaft	Stainless Steel	
④	Plate	Aluminium Alloy	Circular Satin Anodised Silver
⑤	Washer	PVC	Clear
⑥	※Screw	Stainless Steel	Plain

※Truss head screw M3×6







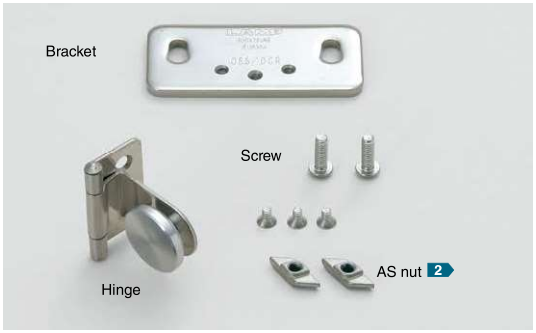
RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-083-529	GH34-0SS	Max. 450	Max. 700	4, 5, 6	49	5	15	150	900

Refer to 1 : P.43

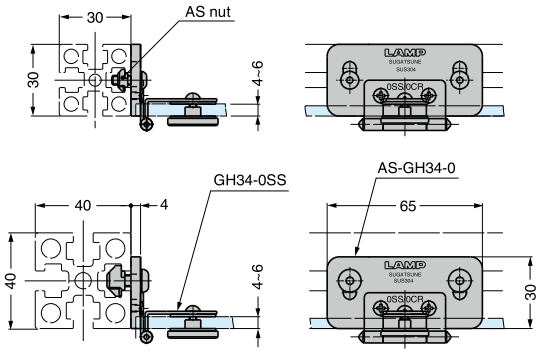
※ Load capacity has priority over glass size.

AS Parts Set for Installing to Aluminium Frame

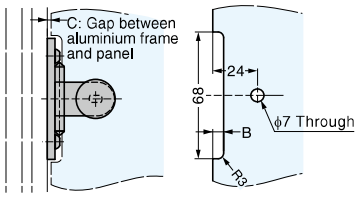
Please refer to the series introduction page 1 for details about AS series.



[Dimensions]

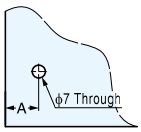


Installation (panel with notch)



Panel with notch
Cut Out Dimensions

Panel Thickness	B	C
4	5	2
5	6	2
6	7	2



Panel without notch
Cut Out Dimensions

Panel Thickness	A	C
4	19	7.1
5	18	7.9
6	17	7.9

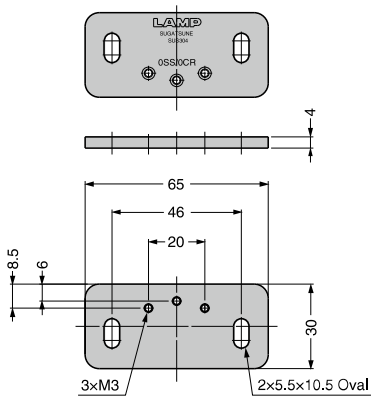
[AS Parts Set] Parts set of brackets, screws and AS nuts used for installing to aluminium frame

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (g)
G	3D	170-041-604	AS-GH34-0SS-30-6	Groove Width 6 mm	Hinge GH34-0SS : 1pc AS Nut AS-6M4 : 2pcs Countersunk Head Screw M3×5 : 3pcs Bracket AS-GH34-0 : 1pc Hexagon Socket Button Head Screw M4×12 : 2pcs	–
G	3D	170-041-605	AS-GH34-0SS-30-8	Groove Width 8 mm	Hinge GH34-0SS : 1pc AS Nut AS-8M4 : 2pcs Countersunk Head Screw M3×5 : 3pcs Bracket AS-GH34-0 : 1pc Hexagon Socket Button Head Screw M4×12 : 2pcs	–
G	3D	170-041-606	AS-GH34-0SS-40-8		Hinge GH34-0SS : 1pc AS Nut AS-8M5 : 2pcs Countersunk Head Screw M3×5 : 3pcs Bracket AS-GH34-0 : 1pc Hexagon Socket Button Head Screw M5×14 : 2pcs	–
G	3D	170-041-607	AS-GH34-0SS-40-10	Groove Width 10 mm	Hinge GH34-0SS : 1pc AS Nut AS-10M5 : 2pcs Countersunk Head Screw M3×5 : 3pcs Bracket AS-GH34-0 : 1pc Hexagon Socket Button Head Screw M5×14 : 2pcs	–

Refer to 1 : P.20, 2 : P.526

AS BRACKET FOR GH34-0SS AS-GH34-0

AS SUS



RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-080-020	AS-GH34-0	Stainless Steel (SUS304)	Barrel Polished	52	50	250

GLASS DOOR HINGE GH34-8SS For Overlay Door

NSF AS SUS TEMPERED GLASS

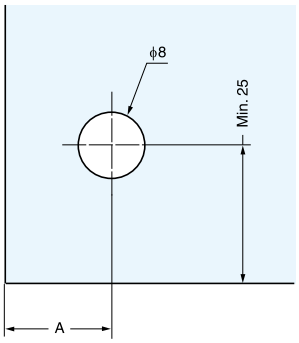


- Hinge for glass/acrylic doors.

[Remarks]

- Recommended for use in pairs.
- Use screw loosening prevention agent when mounting screws.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1 .

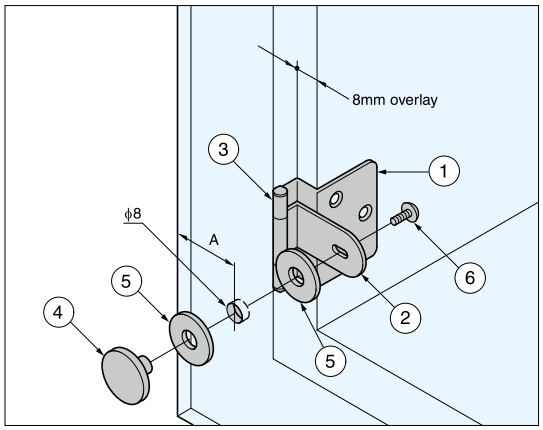
[Cut Out Dimensions]



Boring position changes with the glass thickness.

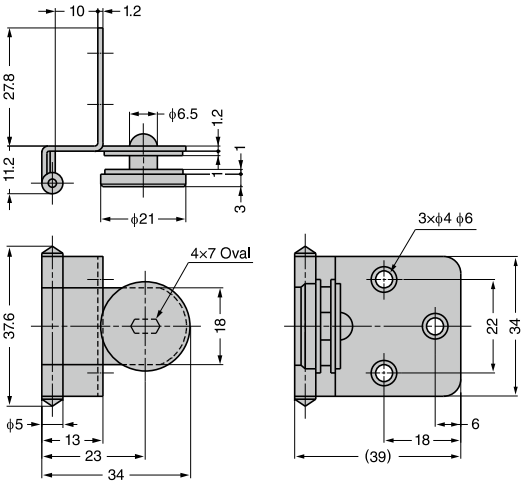
Glass Thickness	A	Overlay
4	19	8
5	18	7
6	17	6

[Parts Composition]



No.	Part Name	Material	Finish / Colour
①	Body	Stainless Steel	Plain
②	Arm	(SUS304)	
③	Shaft	Stainless Steel	
④	Plate	Aluminium Alloy	Circular Satin Anodised Silver
⑤	Washer	PVC	Clear
⑥	※Screw	Stainless Steel	Plain

※Truss head screw M3×6



RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-083-530	GH34-8SS	Max. 450	Max. 700	4, 5, 6	49	5	21	100	600

Refer to 1 : P.43

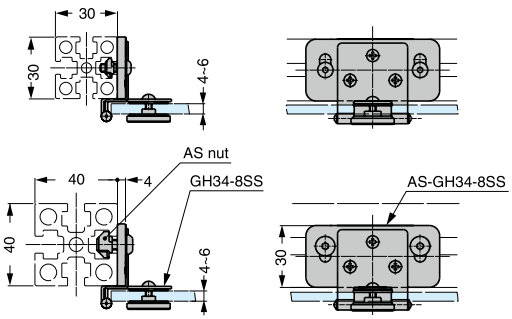
※ Load capacity has priority over glass size.

AS Parts Set for Installing to Aluminium Frame

Please refer to the series introduction page 1 for details about AS series.



[Dimensions]

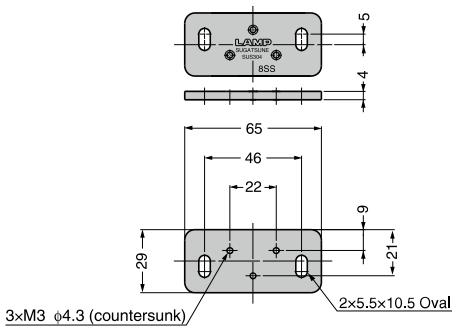


[AS Parts Set] Parts set of brackets, screws and AS nuts used for installing to aluminium frame

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (g)
G	3D	170-041-584	AS-GH34-8SS-30-6	Groove Width 6 mm	Hinge GH34-8SS : 1pc AS Nut AS-6M4 : 2pcs Countersunk Head Screw M3×5 : 3pcs Bracket AS-GH34-8SS : 1pc Hexagon Socket Button Head Screw M4×12 : 2pcs	–
G	3D	170-041-585	AS-GH34-8SS-30-8	Groove Width 8 mm	Hinge GH34-8SS : 1pc AS Nut AS-8M4 : 2pcs Countersunk Head Screw M3×5 : 3pcs Bracket AS-GH34-8SS : 1pc Hexagon Socket Button Head Screw M4×12 : 2pcs	–
G	3D	170-041-586	AS-GH34-8SS-40-8		Hinge GH34-8SS : 1pc AS Nut AS-8M5 : 2pcs Countersunk Head Screw M3×5 : 3pcs Bracket AS-GH34-8SS : 1pc Hexagon Socket Button Head Screw M5×14 : 2pcs	–
G	3D	170-041-587	AS-GH34-8SS-40-10	Groove Width 10 mm	Hinge GH34-8SS : 1pc AS Nut AS-10M5 : 2pcs Countersunk Head Screw M3×5 : 3pcs Bracket AS-GH34-8SS : 1pc Hexagon Socket Button Head Screw M5×14 : 2pcs	–

Refer to 1 : P.20, 2 : P.526

AS BRACKET FOR GH34-8SS AS-GH34-8SS



RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-080-021	AS-GH34-8SS	Stainless Steel (SUS304)	Barrel Polished	52	50	500

GLASS DOOR HINGE GH34-8 For Overlay Door

TEMPERED GLASS

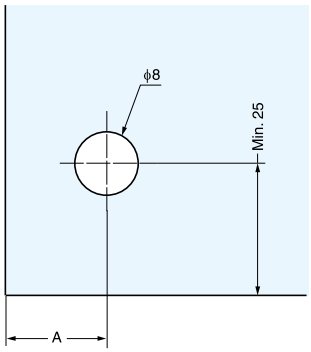


- Hinge for glass/acrylic doors. Square plate type GH34-8CR-K 1 also available.

[Remarks]

- Recommended for use in pairs.
- Use screw loosening prevention agent when mounting screws.
- Note that scratch is conspicuous on black surface.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 2 .

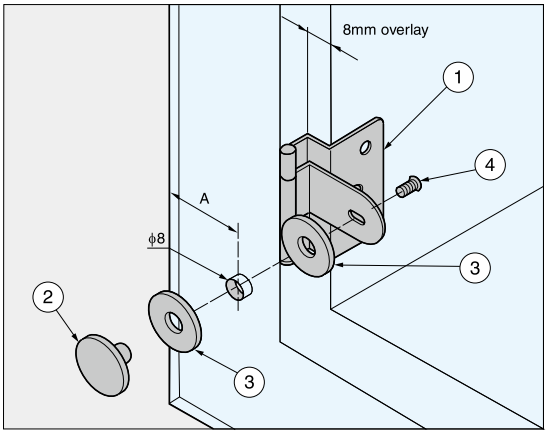
[Cut Out Dimensions]



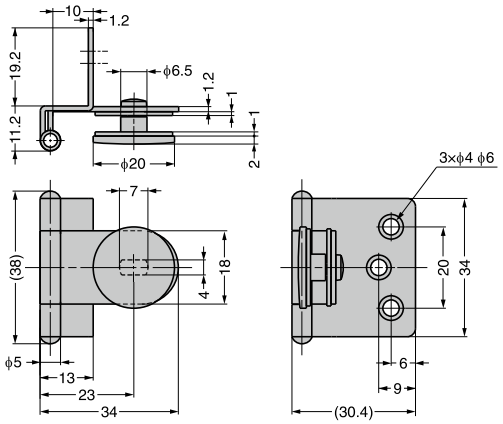
Boring position changes with the glass thickness.

Glass Thickness	A	Overlay
4	19	8
5	18	7
6	17	6

[Parts Composition]



No.	Part Name	Material	Finish / Colour
①	Body	Steel	Chrome, Paint/Black, Gold,Clear
②	Plate	Brass	
③	Washer	PVC	Clear
④	Screw	Steel	Nickel, Paint/Black, Gold,Clear



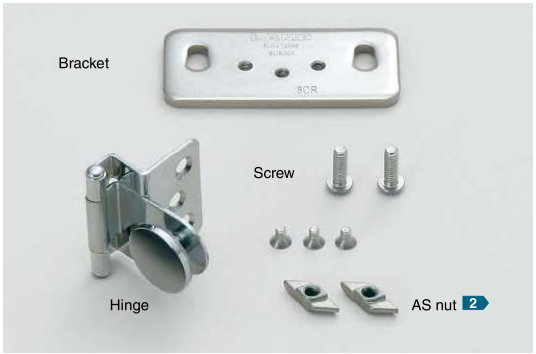
RoHS	CAD	Item Code	Item Name	Finish	Door Width	Door Height	Glass Thickness	Door Weight kg/2pcs	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-083-528	GH34-8CR	Chrome	Max. 450	Max. 700	4, 5, 6	Max. 4	39	4	25	50	500
–	3D	170-025-832	GH34-8BL	Paint/Black								50	500
–	3D	170-012-159	GH34-8G	Gold,Clear								200	–

Refer to 1 : P.275, 2 : P.43

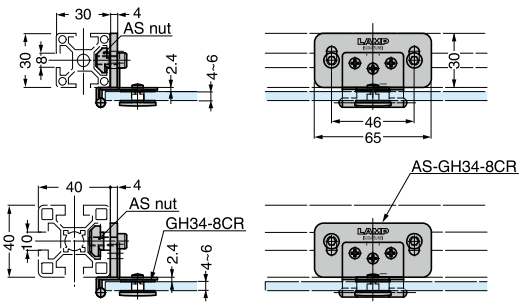
※ Load capacity has priority over glass size.

AS Parts Set for Installing to Aluminium Frame

Please refer to the series introduction page 1 for details about AS series.



[Dimensions]

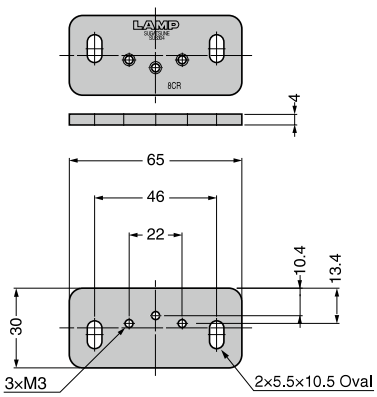


[AS Parts Set] Parts set of brackets, screws and AS nuts used for installing to aluminium frame

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (g)
G	3D	170-041-588	AS-GH34-8CR-30-6	Groove Width 6 mm	Hinge GH34-8CR : 1pc AS Nut AS-6M4 : 2pcs Countersunk Head Screw M3×5 : 3pcs Bracket AS-GH34-8CR : 1pc Hexagon Socket Button Head Screw M4×12 : 2pcs	–
G	3D	170-041-589	AS-GH34-8CR-30-8	Groove Width 8 mm	Hinge GH34-8CR : 1pc AS Nut AS-8M4 : 2pcs Countersunk Head Screw M3×5 : 3pcs Bracket AS-GH34-8CR : 1pc Hexagon Socket Button Head Screw M4×12 : 2pcs	–
G	3D	170-041-590	AS-GH34-8CR-40-8		Hinge GH34-8CR : 1pc AS Nut AS-8M5 : 2pcs Countersunk Head Screw M3×5 : 3pcs Bracket AS-GH34-8CR : 1pc Hexagon Socket Button Head Screw M5×14 : 2pcs	–
G	3D	170-041-591	AS-GH34-8CR-40-10	Groove Width 10 mm	Hinge GH34-8CR : 1pc AS Nut AS-10M5 : 2pcs Countersunk Head Screw M3×5 : 3pcs Bracket AS-GH34-8CR : 1pc Hexagon Socket Button Head Screw M5×14 : 2pcs	–

Refer to 1 : P.20, 2 : P.526

AS BRACKET FOR GH34-8CR AS-GH34-8CR



RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-080-022	AS-GH34-8CR	Stainless Steel (SUS304)	Barrel Polished	55	50	500

GLASS DOOR HINGE (W/ CATCH) GHC34-8 For Overlay Door

TEMPERED GLASS

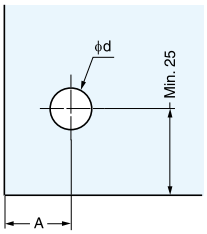


- Hinge for glass/acrylic doors.
- Square plate type GH34-8CR-K 1 also available

[Remarks]

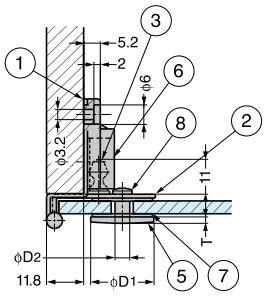
- Recommended for use in pairs.
- Use screw loosening prevention agent when mounting screws.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 2 .

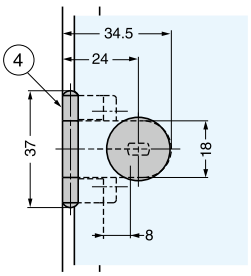
[Cut Out Dimensions]

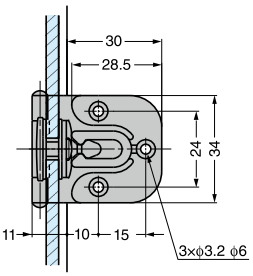


Boring position changes with the glass thickness.

Glass Thickness	A	Overlay
4	19	7
5	18	6
6	17	5







No.	Part Name	Material			
		GHC34-8G	GHC34-8B	GHC34-8CR	GHC34-8CR-W
①	Body	Steel (SPCC)	Stainless Steel (SUS304)	Steel (SPCC)	
②	Arm				
③	Striker	Brass	Stainless Steel (SUS303)	Brass	
④	Shaft	Steel (SWCH)	Stainless Steel (SUS304)	Steel	
⑤	Plate	Copper Alloy	Aluminium Alloy	Brass	Zinc Alloy
⑥	Catch	POM			
⑦	Washer	PVC			
⑧	Binding head screw	Brass	Steel		

No.	Part Name	Finish / Colour			
		GHC34-8G	GHC34-8B	GHC34-8CR	GHC34-8CR-W
①	Body	Gold, Clear	Black Enamel Finish	Chrome	
②	Arm				
③	Striker				
④	Shaft				
⑤	Plate	Polished, Clear	Black Anodised		
⑥	Catch	Black			Natural
⑦	Washer	Clear			
⑧	Binding head screw	Brass	Nickel		

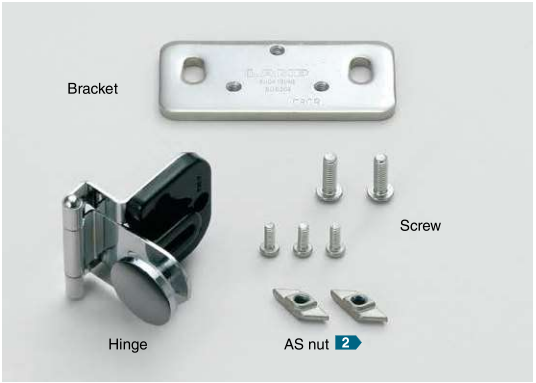
RoHS	CAD	Item Code	Item Name	D1	D2	d	T	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
–	3D	170-083-524	GHC34-8G	20	6.5	8	2	Max. 450	Max. 700	4, 5, 6	39	4	36	40	600
G	3D	170-083-508	GHC34-8B	21	8	10	3				49	5	32	40	600
G	3D	170-083-523	GHC34-8CR	20	6.5	8	2				39	4	36	40	600
G	3D	170-083-516	GHC34-8CR-W											40	600

Refer to 1 : P.275, 2 : P.43

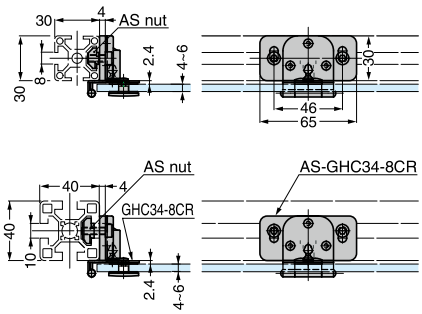
※ Load capacity has priority over glass size.

AS Parts Set for Installing to Aluminium Frame

Please refer to the series introduction page 1 for details about AS series.



[Dimensions]

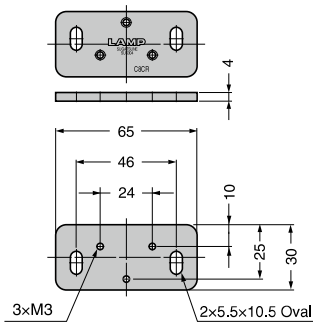


[AS Parts Set] Parts set of brackets, screws and AS nuts used for installing to aluminium frame

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts (Hinges)	Parts (Others)	Weight (g)
G	3D	170-041-600	AS-GHC34-8B-30-6	Groove Width 6 mm	GHC34-8B : 1pc	AS Nut AS-6M4 : 2pcs Pan Head Screw M3×8 : 3pcs Bracket AS-GHC34-8CR : 1pc Hexagon Socket Button Head Screw M4×12 : 2pcs	–
G	3D	170-041-592	AS-GHC34-8CR-30-6		GHC34-8CR : 1pc		–
G	3D	170-041-596	AS-GHC34-8CR-W-30-6		GHC34-8CR-W : 1pc		–
G	3D	170-041-601	AS-GHC34-8B-30-8	Groove Width 8 mm	GHC34-8B : 1pc	AS Nut AS-8M4 : 2pcs Pan Head Screw M3×8 : 3pcs Bracket AS-GHC34-8CR : 1pc Hexagon Socket Button Head Screw M4×12 : 2pcs	–
G	3D	170-041-593	AS-GHC34-8CR-30-8		GHC34-8CR : 1pc		–
G	3D	170-041-597	AS-GHC34-8CR-W-30-8		GHC34-8CR-W : 1pc		–
G	3D	170-041-602	AS-GHC34-8B-40-8		GHC34-8B : 1pc	AS Nut AS-8M5 : 2pcs Pan Head Screw M3×8 : 3pcs Bracket AS-GHC34-8CR : 1pc Hexagon Socket Button Head Screw M5×14 : 2pcs	–
G	3D	170-041-594	AS-GHC34-8CR-40-8		GHC34-8CR : 1pc		–
G	3D	170-041-598	AS-GHC34-8CR-W-40-8		GHC34-8CR-W : 1pc		–
G	3D	170-041-603	AS-GHC34-8B-40-10	Groove Width 10 mm	GHC34-8B : 1pc	AS Nut AS-10M5 : 2pcs Pan Head Screw M3×8 : 3pcs Bracket AS-GHC34-8CR : 1pc Hexagon Socket Button Head Screw M5×14 : 2pcs	–
G	3D	170-041-595	AS-GHC34-8CR-40-10		GHC34-8CR : 1pc		–
G	3D	170-041-599	AS-GHC34-8CR-W-40-10		GHC34-8CR-W : 1pc		–

Refer to 1 : P.20, 2 : P.526

AS BRACKET FOR GHC34-8 AS-GHC34-8CR

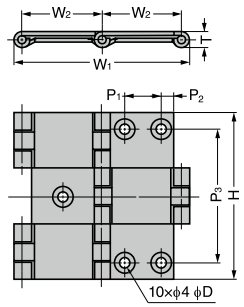


RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-080-023	AS-GHC34-8CR	Stainless Steel (SUS304)	Barrel Polished	54	50	500

DOUBLE ACTION HINGE HG-BH

SUS



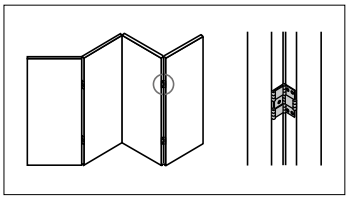


- Opens 180° in both left and right direction.

[Remarks]

- Recommended for use in pairs.

[Application Example]



RoHS	CAD	Item Code	Item Name	Material	Finish	H	W1	W2	T	P1	P2	P3	D	Door Width	Door Height	Door Weight kg/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-090-065	HG-BH60	Stainless Steel (SUS304)	Satin	60	64	29	5.5	13.5	4.8	47	6.5	Max. 450	Max. 700	Max. 2.6	65	20	260
G	3D	170-090-066	HG-BH70			70	78	35	7.5		6.8	57	7				130	10	180
G	3D	170-090-067	HG-BH80			80	94	43.2		22	6.5	66					175	10	120

CORNER FASTENER HINGE (W/ LOCK) STH-C64

SUS



- Combination of hinge and corner fastener.
- Works with STF-C64A and STF-C64B fastener 1.
- Can be installed on cabinet corner.
- Locks when fastened to prevent accidental release.
- Sealing pin (sold separately) may be installed.

[Applications]

- Doors and covers required for dustproof and drip-proof.
- Doors and covers required for vibration proof.
- Measurement equipment, communication equipment, machine tools, etc.



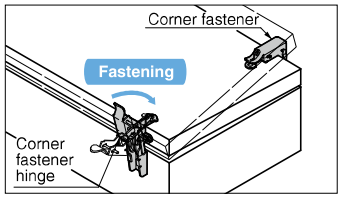
Step 1.
After locked.

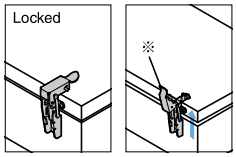


Step 2.
Pull the lever and lift the latch.

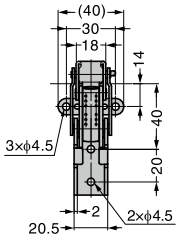


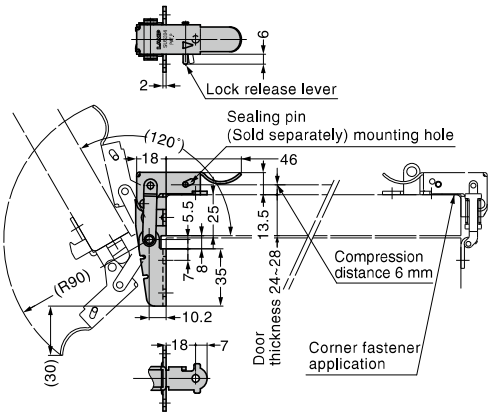
Step 3.
Release the lock of the fastener to open the lid.





Pull the lever ※ while pushing the lock release lever to lift the latch to open the lid.





RoHS	CAD	Item Code	Item Name	Material	Finish	Door Width	Door Height	Door Thickness	Door Weight kg/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
G	3D	170-091-430	STH-C64	Stainless Steel (SUS304)	Barrel Polished	Max. 300	Max. 400	24~28	Max. 2.8	90	10	140

Refer to 1 : P.504