

LAMP®

HINGES

Hinges are a kind of hardware used for opening and closing doors or lids.

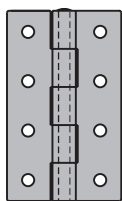
It is said that they look like butterflies, so they are also known as “CHOOTSUGAI (paired butterflies)” in Japanese.

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.

Shapes of Hinges

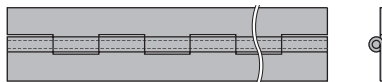
Butt Hinges



LSB P.136

Leaves are flat.

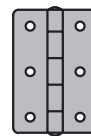
Piano Hinges



LSN P.146

Leaves are long in the axial direction.

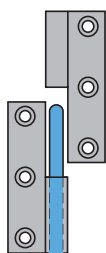
Step Hinges



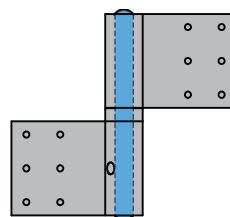
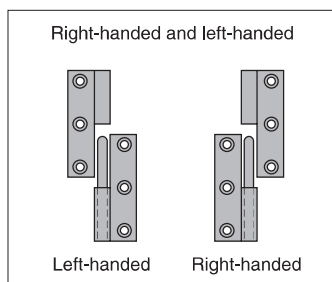
DH-60C P.149

Can be used for overlay doors.

Lift-off Hinges



KN P.151



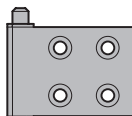
HG-KH P.159

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.

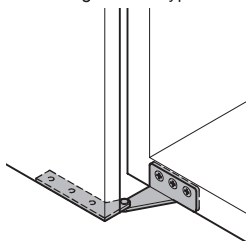
Detachable type



HG-PV-30C P.161

Doors are detachable on the action of spring.

Edge mount type



PL-65 P.162

Installed at the edge of door or cabinet.

Sugatsune Also Offers Made-to-order Products!

Function Addition



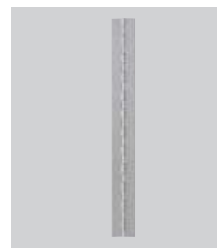
Adding detent mechanism on torque hinge

Specification Change



Changing to antibacterial material, adding antibacterial coating

Size Change



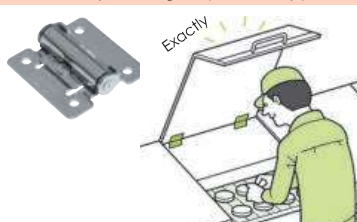
Extending piano hinge to 3000mm

For OEM and ODM request form with required items at consultation, refer to P.923-925

Outline INDEX

Realising motion functions

Torque Hinges (Free stop)



Freely stop doors, lids or covers at any position.

P.16~

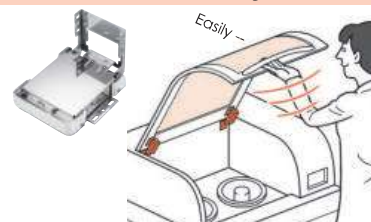
Damper Hinges (Smooth and quiet motion)



Lower opening/closing speed of doors or lids.

P.49~

Lift Assist Hinges



Assist in opening/closing heavy lids or covers.

P.72~

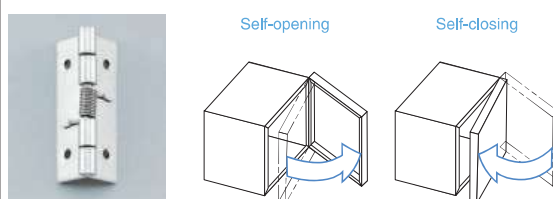
Detent Hinges



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

P.80~

Spring Hinges

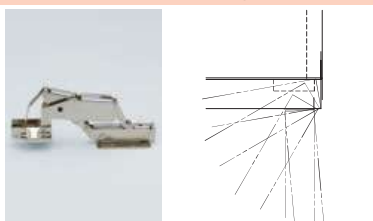


Automatically close or open.

P.164~

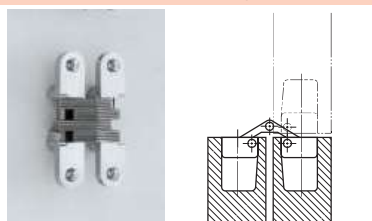
Designing opening/closing locus

Concealed Hinges



P.100~

Concealed Hinges



P.88~

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.169~

Hinges for Aluminium Frame



Special hinges fitting with the mounting groove of aluminium frame.

P.172~

Glass Door Hinges



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

P.180~

Butt Hinges

P.136~

Piano Hinges

P.146~

Step Hinges

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Lift-off Hinges

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Pivot Hinges

P.161~

Drop Hinges

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Special Hinges

P.194~

TORQUE HINGES

DAMPER HINGES

LIFT ASSIST HINGES

DETENT HINGES

CONCEALED HINGES

BUTT HINGES

PIANO HINGES

STEP HINGES

LIFT-OFF HINGES

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SPRING HINGES

CLEAN ROOM HINGES

HINGES FOR ALUMINIUM FRAME

DROP HINGES

GLASS DOOR HINGES

SPECIAL HINGES

INDEX by Type

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.16
	HG-VH8-T35	0.35 $\pm$ 0.1		
	HG-TQJ100	0~10	Friction in one direction only. Torque adjustable.	 P.19
	HG-TQA90	9.0 $\pm$ 40% -20%	Friction in one direction only.	 P.20
	HG-MF-08	0.0784 $\pm$ 25%	Small plastic torque hinge.	 P.47
	HG-MF-15	0.147 $\pm$ 33%		
	HG-MF-25	0.245 $\pm$ 33%		
	HG-TS03	0.35 $\pm$ 40% -20%	Greaseless.	 P.21
	HG-TS07	0.7 $\pm$ 40% -20%		
	HG-TS15	1.5 $\pm$ 40% -20%		
	SFTH-02-5	5	All Stainless.	 P.21
	SFTH-03-9	9		
	SFTH-03-19	19		
	SFTH-05-35	35		
	HG-TU03	0.35 $\pm$ 40% -20%	Hinge is hidden when door is closed. Can be used horizontally or vertically.	 P.22
	HG-TU07	0.7 $\pm$ 40% -20%		
	HG-TUWA07	0.7 $\pm$ 40% -20%	Greaseless	 P.23
	HG-TUWA15	1.5 $\pm$ 40% -20%		
	HG-ITS25	2.5 $\pm$ 20%	Supplied with mounting hole cover.	 P.31
	HG-ITS35	3.5 $\pm$ 20%		
	HG-ITM50	5.0 $\pm$ 20%		
	HG-ITM70	7.0 $\pm$ 20%		
	HG-ITSF HG-ITMF	—		
	HG-ITJ4080	4 $\pm$ 20%~8	Torque adjustable.	 P.30
	HG-DTA4	0.4 $\pm$ 20%	No reaction (spring-back).	 P.34
	HG-DTA8	0.8 $\pm$ 20%		
	HG-TWP15	1.5	For exterior use	 P.32
	HG-TWP30	3.0		
	HG-ITHP07	0.7	Heat resistant	 P.32
	HG-ITHP15	1.5		
	HG-ITHP30	3.0		

Picture	Item Name	Torque N·m	Feature	Page
	HG-TLS30-50-300	3	Greaseless	 P.33
	HG-DTB4	0.4 $\pm$ 20%	No reaction (spring-back).	 P.35
	HG-DTB8	0.8 $\pm$ 20%		
	HG-TA20	2.0 $\pm$ 20%	Types with wire hole also available.	 P.36
	HG-TA30	3.0 $\pm$ 20%		
	HG-TA45	4.5 $\pm$ 20%		
	HG-TB7	0.7 $\pm$ 20%	—	 P.37
	HG-TB20	2.0 $\pm$ 20%		
	HG-TB30	3.0 $\pm$ 20%		
	HG-TB45	4.5 $\pm$ 20%		
	HG-TA45H	4.5 $\pm$ 20%	With wire hole.	 P.38
	HG-TC45H	4.5 $\pm$ 20%	With wire hole.	 P.39
	HG-TAS15	1.5 $\pm$ 20%	All stainless	 P.40
	HG-TAS25	2.5 $\pm$ 20%		
	HG-TAS40	4.0 $\pm$ 20%		
	HG-TASJ40	0~4.0	Torque adjustable	 P.41
	HG-TBS15	1.5 $\pm$ 20%	All stainless	 P.42
	HG-TBS25	2.5 $\pm$ 20%		
	HG-TBS40	4.0 $\pm$ 20%		
	HG-TBSJ40	0~4.0	Torque adjustable	 P.43
	HG-RT30	3 $\pm$ 20%	Hinge is hidden when door is closed.	 P.44
	HG-RT50	5 $\pm$ 20%		
	HG-KNT3	0.3 $\pm$ 0.20	Lift-off type, easy to detach.	 P.46
	HG-KNT7	0.7 $\pm$ 0.25		
	HG-KNT16	1.6 $\pm$ 0.3		
	HG-S7-MN	0.7 $\pm$ 20%	Rotates 360°. Centre hole for easy cable management (except for HG-S-MN).	 P.25
	HG-S20-MN	2.0 $\pm$ 20%		

INDEX by Type

Torque Hinges

Picture	Item Name	Torque N·m	Feature	Page
	HG-S30-12	3.0 ±20%	Rotates 360°. Centre hole for easy cable management (except for HG-S-MN).	 P.25
	HG-S50-12	5.0 ±20%		
	HG-S30-21	3.0 ±20%		 P.26
	HG-S50-21	5.0 ±20%		
	HG-S50-34	5.0 ±20%		 P.26
	HG-S70-34	7.0 ±20%		
	HG-S70-50	7.0 ±20%	Can hold in tilting or swivelling direction.	 P.27
	HG-S100-50	10.0 ±20%		
	HG-S50-75	5.0 ±20%		 P.27
	HG-S70-75	7.0 ±20%		
	HG-T30S15	3.0 ±20% (Tilting) 1.5 ±20% (Swivelling)		 P.29
	HG-T70S30	7.0 ±20% (Tilting) 3.0 ±20% (Swivelling)		 P.28
	HG-RNM30	3.0 ±20%	For transom window. Door detachment without tools.	 P.45
	HG-RNM30-SET			

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
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INDEX by Type

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.16
	HG-JHW16S-34	2.0~3.4		P.49
	HG-JHW16S-50	3.4~5.0		
	HG-JHW16S-00	—		
	HG-JH25	3~5	Surface mount type.	P.52
	HG-JH35	5~7		
	HG-JHW50	3~5		P.50
	HG-JHW70	5~7		
	HG-JH14-50	3~5	Surface mount type. Supplied with stainless steel bracket.	P.59
	HG-JHM14-S-8	0.5~0.8		P.57
	HG-JHM14-S-15	0.8~1.5		
	HG-JHM14-S-20	1.5~2.0		
	HG-JHM16-34	2~3.4	Surface mount type. HG-JHM14 can also be mounted at the bottom by using with bracket (sold separately).	P.56
	HG-JHM16-50	3.4~5		
	HG-JHM20T-80BL	6~8		P.54
	HG-JHM20T-80WT			
	HG-JHM20T-80CR			
	HG-JHM20-80	6~8		P.55
	HG-JHS9-S	0.027~0.043	Self-closing, Side mount type.	P.62
	HG-JHS9-U	0.027~0.043	Self-closing, Under mount type.	P.63
	HG-JHM9-S	0.027~0.086	Built-in bidirectional damper, Side mount type.	P.60
	HG-JHM9-U	0.027~0.086	Built-in bidirectional damper, Under mount type.	P.61
	HG-CSH63	—	Can hold at two opening angles of 0° and 120° where detent function works.	P.64
	HG-CSH63A(B)M	1~1.7		
	HG-CSH63A(B)H	1.7~2.5		
	UDH-14A(B)LS	0.5~0.8		P.68
	UDH-14A(B)MS	0.8~1.5		
	UDH-14A(B)TS	1.5~2.0		
	UDH-A(B)MS-G	1.5~2.5	Can be detached as a single unit.	P.66
	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		

Picture	Item Name	Torque N·m	Feature	Page
	UDH-16SA(B)M	1~1.7	Can be detached as a single unit.	P.67
	UDH-16SA(B)H	1.7~2.5		
	UDH-16NA(B)MS	1.7~2.4		P.68
	UDH-16NA(B)HS	2.2~3		
	URD8-3	0.022~0.038	Recess mount type.	P.69
	UDD-S	0.5~1.0	Can be mounted at the shaft of rotating lid, etc.	P.70
	UDD-M	1.0~2.0		
	UDD-H	2.0~3.0		

Lift Assist Hinges

Picture	Item Name	Torque N·m	Feature	Page
	HG-PA180-9	9±10%	Outside mount type. Torque adjustable.	P.74
	HG-PA200(201)-15	15±10%		P.75
	HG-PA200(201)-20	20±10%		
	HG-PA200(201)-25	25±10%		
	HG-PA270-35	35±10%		P.76
	HG-PA270-45	45±10%		
	HG-PA210-9	9±10%	Inside mount type. Torque adjustable.	P.77
	HG-PA230(231)-15	15±10%		P.78
	HG-PA230(231)-20	20±10%		
	HG-PA230(231)-25	25±10%		
	HG-JH210	—	Outside mount type.	P.79

INDEX by Type

Detent Hinges

Butt Hinges

Picture	Item Name	Retaining Torque N·m	Detent Angle	Page
	HG-MPS2	0.26 0.145	-10° 120° 170°	 P.82
	HG-YJ50	Approx. 0.49	90° each	 P.83
	HG-FH128	10	60° 120°	 P.84
	CH-75	—	0° 90° 180°	 P.86
	HG-RCT15-C	40	0° 90°	 P.86

Recess Mount

Picture	Item Name	O. D.	Remarks	Page
	MPH-20-5G2	φ 5	—	 P.80
	MPH-22G	φ 6	—	 P.80
	MPH-30	φ 6	High Torque Type	 P.81
	MPH-30-5TN	φ 5	High Torque Type	 P.81

Others (Special Type)

Picture	Item Name	Retaining Torque N·m	Page
	HG-YC105	Approx. 1.18	 P.85
	KA-60	Load Capacity 25	 P.87

Concealed Hinges

Picture	Item Name	Door Thickness	Door Weight kg/2 pcs	Door Weight kg/3 pcs	Page
	R	—	Max. 4 Max. 7	—	 P.88
	RK-50	Min. 15	Max. 2.6	—	 P.89
	INO-66	—	Max. 30	Max. 50	 P.89
	HES3D-E190	Min. 38	Max. 100	Max. 125	 P.92
	HES3D-160	Min. 35	Max. 45	Max. 60	 P.93
	HES3D-120	Min. 29	Max. 30	Max. 40	 P.94
	HES3D-90	Min. 23	Max. 12	Max. 16	 P.95

Picture	Item Name	Door Thickness	Door Weight kg/2 pcs	Door Weight kg/3 pcs	Page
	HES3D-70	Min. 19	Max. 9	Max. 12	 P.96
	HES3D-V135LGR	Min. 30	Max. 40	Max. 55	 P.97

Bracket for Sheet Metal HES3D-E190BKT  P.98
Bracket for Sheet Metal HES3D-120BKT  P.98
Installation Template HES3D-TMP  P.99

INDEX by Type

Concealed Hinges

Picture	Series	Recommended Door Thickness	Overlay	Quick Detachment	Page
	HT160	30	15	○	 P.132 ~
	H95	30	13.6	○	 P.134 ~
	J95	18~30	25 16 Inset	○	 P.100 ~
	100	15~20	19 14 9	—	 P.112 ~

Picture	Series	Recommended Door Thickness	Overlay	Quick Detachment	Page
	170	15~20	19 9 Inset	—	 P.118 ~
	H160	18~34	28 23 18 Inset	—	 P.121 ~
	T-90-200	15~18	15~18	—	 P.193

Door Dimensions and Number of Hinges  P.110

How to Use the Locus Chart  P.111

Examples of Installation to Sheet Metal  P.131

BUTT
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STEP
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LIFT-
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PIVOT
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SPRING
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CLEAN
ROOM
HINGES

HINGES FOR
ALUMINIUM
FRAME

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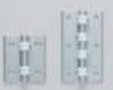
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Butt Hinges

Picture	Item Name	Load Capacity N/2 pcs		Page
	LSA, LSB	69 88 157	186 333 363	 P.136
	LSF	275 353 500 667		 P.136
	KHA	49 59 69 88 108	118 137 147 167 186	 P.137
	KHB	49 59 78 98 118	127 147 157 177 206	 P.137
	F-A	20 29 39	59 69	 P.138
	28300, 28400	167 226		 P.138
	50704, 50706	118		 P.138
	D-S-A	78 98 137	196 226 284	 P.139
	D-S-B	49 59 88	127 186 235	 P.139
	D-S-C	20 29 49 59		 P.140
	HG-BF1	157		 P.140
	28000, 28500	167		 P.140
	27800, 27900	167		 P.141
	SYR140	69		 P.141
	LSS	245		 P.141

Picture	Item Name	Load Capacity N/2 pcs		Page
	SBR40	69		 P.142
	SR75, SR75B	186		 P.142
	3535SS, 4040SS	333 431		 P.142
	3535WSS, 4040WSS	245 294		 P.142
	4545BSS	481		 P.143
	SR	69 88		 P.143
	KHL	167 255		 P.143
	FHS	186 226 275	490 569 637	 P.144
	LSK-1157	127 235 284 333	500 579 647	 P.144
	D-CH	177 275 294		 P.145
	OLYA	127 245		 P.145
	YHS	59 98		 P.145
	HG-CV	147 226		 P.170
	HG-P100	98		 P.172
	AS-HG-IS	69 157 333		 P.172
	AS-HG-AL	147		 P.174

Picture	Item Name	Load Capacity N/2 pcs	Page
	AS-HG-SUS	294	 P.175

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INDEX by Type

Piano Hinges

Picture	Item Name	Load Capacity N/pc		Page
	LSN	137	628	 P.146
		255	667	
		275	716	
		304	745	
		392	981	
		461	1370	
		520	1770	
		598	2550	

Picture	Item Name	Load Capacity N/pc		Page
	LH	216	539	 P.147
		255	569	
		324	598	
		431	618	
	LHN	549	588	 P.147
		745	834	

Picture	Item Name	Load Capacity N/pc	Page
	HG-MH	—	 P.148

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ASSIST
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HINGESCONCEALED
HINGESBUTT
HINGES

Step Hinges

Picture	Item Name	Load Capacity N/2 pcs	Page
	ROH-80	—	 P.149
	KOH-80	127	 P.149

Picture	Item Name	Load Capacity N/2 pcs	Page
	DH60N	147	 P.149
	DH-60C	108	 P.149

Picture	Item Name	Load Capacity N/2 pcs	Page
	28100	167	 P.150

Lift-off Hinges

Picture	Item Name	Load Capacity N/2 pcs	Page
	NH-40	69	 P.151
	SNR65	177	 P.152
	SNRK65	167	 P.152
	BN	88 118	 P.153
	HNH	127 177 245 422	 P.154
	HG-CV-65N	108	 P.171
	AS-HG-AL-N	78	 P.173
	HG-OT	29 59 69	 P.160
	LSX-100	294	 P.150
	KN	78 108 167	 P.151

Picture	Item Name	Load Capacity N/2 pcs	Page
	HG-LSH	1961 2177	 P.158
	HG-KM	2940 4610 4810	 P.159
	HG-KH	2940 4610 4810	 P.159
	ZL-1701	314 559	 P.155
	HG-CV-127	981	 P.169
	SKH	78 118 284	 P.153
	S-6166-2	—	 P.156
	S-6166-6	—	 P.156
	S-6173-2	—	 P.157
	S-6173-5	—	 P.157

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Pivot Hinges

Detachable Type

Picture	Item Name	Material	Page
	HG-PV-30C	Stainless Steel	 P.161
	HG-PV60AC	Stainless Steel	 P.161

Edge mount type

Picture	Item Name	Material	Page
	PL-65	Stainless Steel	 P.162
	WP1, WP3	Stainless Steel	 P.162
	PL-60	Stainless Steel	 P.163
	PP-60	Stainless Steel	 P.163

Spring Hinges

Picture	Item Name	Load Capacity N/2 pcs	Page
	HG-SHL	39 59	 P.164
	HG-SH	9.8 29 59 69	 P.164
	SH-C	88 157 196	 P.165
	HG-BF3-2	69	 P.165

Picture	Item Name	Load Capacity N/2 pcs	Page
	SA	196 392	 P.166
	ST150-6314-05	400	 P.167
	PM120	200	 P.167
	DA	—	 P.168

Clean Room Hinges

Picture	Item Name	Load Capacity N/2 pcs	Page
	HG-CV-127	981	 P.169
	HG-CV	147 226	 P.170

Picture	Item Name	Load Capacity N/2 pcs	Page
	HG-CV-65N	108	 P.171
	HG-P100	98	 P.172

Hinges for Aluminium Frame

Picture	Item Name	Load Capacity N/2 pcs	Page
	AS-HG-IS	69 157 333	 P.172
	AS-HG-AL-N	78	 P.173
	AS-HG-AL	147	 P.174

Picture	Item Name	Load Capacity N/2 pcs	Page
	AS-HG-SUS	294	 P.175
	AS-AF-25D	—	 P.176

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

INDEX by Type

Drop Hinges

Picture	Item Name	Door Thickness	Page
	SDH-001	16~20	 P.178
	SDH-P	16~20	 P.177

Picture	Item Name	Door Thickness	Page
	MH-30	Max. 21	 P.179
	MH-40	Max. 21	 P.179

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.180
	XL-GH03-48-8	Door Width: Max. 650 Door Height: Max. 900 Glass Thickness: 5, 6, 8	 P.180
	GH-456C	Door Width: Max. 600 Door Height: Max. 1200 Glass Thickness: 5, 6, 8	 P.181
	GH-456N	Door Width: Max. 600 Door Height: Max. 1200 Glass Thickness: 5, 6, 8	 P.181
	GH36-NCR	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	 P.182
	GH34-0	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	 P.183
	GH34-0CR-K	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	 P.183

Picture	Item Name	Door Size	Page
	GH34-8CR-K	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	 P.184
	GHC34-8CR-K	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	 P.184
	GH34-0SS	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	 P.185
	GH34-8SS	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	 P.187
	GH34-8	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	 P.189
	GHC34-8	Door Width: Max. 450 Door Height: Max. 700 Glass Thickness: 4, 5, 6	 P.191

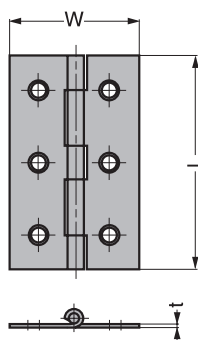
Special Hinges

Picture	Product Name	Page
	Stainless Steel Double Action Hinge HG-BH	 P.194
	Stainless Steel Corner Fastener Hinge STH-C64	 P.194
	All Stainless Steel Hinge with Catch Stay HG-YS65C	 P.195

Picture	Product Name	Page
	MONITOR BRACKET KA-T100S50	 P.196
	MONITOR BRACKET TV	 P.198
	MONITOR BRACKET KA-150	 P.198

Size and Load Capacity Table by Material and Thickness

Butt Hinges



Thickness (t)	Material			
	Stainless Steel			
	L x W	Load Capacity N/2 pcs	Item Name	Page
0.8	25,5 × 21	20	D-S-25C	P.140
	31,5 × 22,5	29	D-S-32C	P.140
	38 × 26	29	D-S-38C	P.140
	51 × 31	49	D-S-51C	P.140
	51 × 34,5	49	D-S-51B	P.139
	64 × 33	59	D-S-64C	P.140
	64 × 40	59	D-S-64B	P.139
1	76 × 46	88	D-S-76B	P.139
1.2	38 × 82	59	YHS-38	P.145
	89 × 56	127	D-S-89B	P.139
1.3	51 × 39	78	D-S-51A	P.139
	64 × 42,5	98	D-S-64A	P.139
1.5	25 × 32	49	KHA-25C(N)	P.137
	30 × 32	59	KHA-30C(N)	P.137
	32 × 90	59	YHS-32	P.145
	40 × 30	69	AS-HG-IS40	P.172
	40 × 32	69	KHA-40C(N)	P.137
	40 × 35	69	LSA(B)-40	P.136
	40 × 35	69	SBR40	P.142
	40 × 35	69	SR40	P.143
	50 × 32	88	KHA-50C(N)	P.137
	50 × 35	88	LSA(B)-50	P.136
	50 × 35	88	SR50	P.143
	51 × 116	98	YHS-51	P.145
	60 × 32	108	KHA-60C(N)	P.137
	65 × 32	118	KHA-65C(N)	P.137
	75 × 32	137	KHA-75C(N)	P.137
	76 × 50	137	D-S-76A	P.139
	80 × 32	147	KHA-80C(N)	P.137
	90 × 32	167	KHA-90C(N)	P.137
	100 × 32	186	KHA-100C(N)	P.137
	102 × 66,5	186	D-S-102B	P.139
	127 × 82	235	D-S-127B	P.139
1.8	89 × 56,5	196	D-S-89A	P.139
	102 × 70	226	D-S-102A	P.139
	127 × 82	284	D-S-127A	P.139
2	28 × 140	69	SYR140	P.141
	51 × 128	127	OLYA-128S	P.145
	65 × 50	157	LSA(B)-65	P.136
	65 × 50	157	AS-HG-IS65	P.172
	65 × 50	157	HG-BF1	P.140
	75 × 50	186	LSA(B)-75	P.136
	75 × 50	186	SR75(B)	P.142

Thickness (t)	Material				
	Stainless Steel				
	L	× W	Load Capacity N/2 pcs	Item Name	Page
2.5	51 × 50		127	LSK-1157-1	P.144
	89 × 89		245	3535WSS	P.142
	101.6 × 101.6		294	4040WSS	P.142
3	50 × 50		186	FHS-50	P.144
	60 × 64		226	FHS-60	P.144
	64 × 64		235	LSK-1157-2	P.144
	65 × 56		245	LSS-H(2)-A(N)65	P.141
	65 × 185		245	OLYA-185S	P.145
	75 × 70		275	FHS-75	P.144
	76 × 74		284	LSK-1157-3	P.144
	89 × 87		333	LSK-1157-4	P.144
	89 × 89		333	3535SS	P.142
	90 × 60		333	LSA(B)-90	P.136
	90 × 60		333	AS-HG-IS90	P.172
	100 × 60		373	LSA(B)-100	P.136
	3.4	101.6 × 101.6		431	4040SS
114.3 × 114.3			481	4545BSS	P.143
100 × 100			490	FHS-100	P.144
4	101.6 × 99		500	LSK-1157-5	P.144
	125 × 100		569	FHS-125	P.144
	127 × 119		579	LSK-1157-6	P.144
	150 × 120		637	FHS-150	P.144
	152 × 143		647	LSK-1157-7	P.144
	38 × 39		167	28300	P.138
	50 × 50		226	28400	P.138
	58 × 38		167	27900	P.141
	68 × 43		294	AS-HG-SUS-M3020	P.175
	68 × 50		294	AS-HG-SUS-M3030	P.175
	68 × 57		294	AS-HG-SUS-M3040	P.175
	68 × 64		294	AS-HG-SUS-M4040	P.175
	72 × 38		167	27800	P.141
	74 × 38		167	28500	P.140
	104 × 38		167	28000	P.140
	105 × 26.5		118	50704	P.138
158 × 26.5		118	50706	P.138	
5	50 × 50		275	LSF-50	P.136
	65 × 65		363	LSF-65	P.136
6	75 × 75		500	LSF-75	P.136
	100 × 100		618	LSF-100	P.136

Thickness (t)	Material				
	Steel				
	L × W	Load Capacity N/2 pcs	Item Name	Page	
0.8	25 × 20	20	F-25A	P.138	
	32 × 22	20	F-32A	P.138	
	38 × 26	29	F-38A	P.138	
	51 × 30	39	F-51A	P.138	
1	64 × 33	59	F-64A	P.138	
	76 × 41	69	F-76A	P.138	
3	60 × 50	177	D-CH-60	P.145	
	90 × 60	275	D-CH-90	P.145	
	100 × 80	294	D-CH-100	P.145	

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.170	
	65 × 60	147	AS-HG-CV-65	P.170	
	100 × 60	226	HG-CV-100(TNS)	P.170	
	100 × 60	226	AS-HG-CV-100	P.170	
3.8	68 × 43	147	AS-HG-AL-M3020	P.174	
	68 × 50	147	AS-HG-AL-M3030	P.174	
	68 × 57	147	AS-HG-AL-M3040	P.174	
	68 × 64	147	AS-HG-AL-M4040	P.174	

Thickness (t)	Material				
	Brass				
	L x W	Load Capacity N/2 pcs	Item Name	Page	
2.3	25 × 32	49	KHB-25CR	P.137	
	30 × 32	59	KHB-30CR	P.137	
	40 × 32	78	KHB-40CR	P.137	
	50 × 32	98	KHB-50CR	P.137	
	60 × 32	118	KHB-60CR	P.137	
	65 × 32	127	KHB-65CR	P.137	
	75 × 32	147	KHB-75CR	P.137	
	80 × 32	157	KHB-80CR	P.137	
	90 × 32	177	KHB-90CR	P.137	
	100 × 32	206	KHB-100CR	P.137	
3.2	60 × 50	167	KHBL-60CR	P.143	
	90 × 50	255	KHBL-90CR	P.143	

Thickness (t)	Material				
	Resin				
	L × W	Load Capacity N/2 pcs	Item Name	Page	
8	100 × 80	98	HG-P100	P.172	

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

Size and Load Capacity Table by Material and Thickness

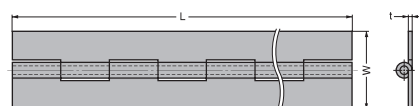
Piano Hinges

Thickness (t)	Material			
	Stainless Steel			
	L × W	Load Capacity N/pc	Item Name	Page
0.8	300 × 25	137	LSN8-25-300	P.146
	300 × 32	137	LSN8-32-300	P.146
	600 × 25	275	LSN8-25-600	P.146
	600 × 32	275	LSN8-32-600	P.146
	1000 × 25	461	LSN8-25-1000	P.146
	1000 × 32	461	LSN8-32-1000	P.146
	1000 × 38	461	LSN8-38-1000	P.146
	1200 × 32	549	LHN-32-1200	P.147
	1200 × 38	549	LHN-38-1200	P.147
	1500 × 32	588	LHN-32-1500	P.147
	1500 × 38	588	LHN-38-1500	P.147
	1800 × 25	716	LSN8-25-1800	P.146
	1800 × 32	716	LSN8-32-1800	P.146
	1800 × 38	716	LSN8-38-1800	P.146
	1872 × 32	745	LHN-32-1872	P.147
	1872 × 38	745	LHN-38-1872	P.147
	2100 × 32	834	LHN-32-2100	P.147
	2100 × 38	834	LHN-38-2100	P.147

Thickness (t)	Material			
	Stainless Steel			
	L × W	Load Capacity N/pc	Item Name	Page
1.5	300 × 32	255	LSN15-32-300	P.146
	350 × 32	304	LSN15-32-350	P.146
	450 × 32	392	LSN15-32-450	P.146
	600 × 32	520	LSN15-32-600	P.146
	750 × 32	598	LSN15-32-750	P.146
	850 × 32	628	LSN15-32-850	P.146
	900 × 32	667	LSN15-32-900	P.146
	1000 × 32	745	LSN15-32-1000	P.146
	1000 × 38	745	LSN15-38-1000	P.146
	1000 × 50	745	LSN15-50-1000	P.146
	1800 × 38	1370	LSN15-38-1800	P.146
	1800 × 50	1370	LSN15-50-1800	P.146
2	1000 × 50	981	LSN20-50-1000	P.146
3	1000 × 100	1370	LSN30-100-1000	P.146
	2000 × 100	2550	LSN30-100-2000	P.146
4	500 × 100	981	LSN40-100-500	P.146
	1000 × 100	1770	LSN40-100-1000	P.146

Thickness (t)	Material			
	Steel			
	L × W	Load Capacity N/pc	Item Name	Page
1.6	300 × 32	216	LH-30A	P.147
	350 × 32	255	LH-35A	P.147
	450 × 32	324	LH-45A	P.147
	600 × 32	431	LH-60A	P.147
	750 × 32	539	LH-75A	P.147
	850 × 32	569	LH-85A	P.147
	900 × 32	598	LH-90A	P.147
	1000 × 32	618	LH-100A	P.147

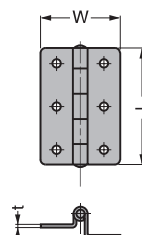
Thickness (t)	Material			
	Aluminium Alloy			
	L × W	Load Capacity N/pc	Item Name	Page
3.5	400 × 70	—	HG-MH400S(BR/BL)	P.148
	800 × 70	—	HG-MH800S(BR/BL)	P.148
	1100 × 70	—	HG-MH1100S(BR/BL)	P.148



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.149
2	60 × 36.3	147	DH-60N	P.149
4	39 × 58	167	28100	P.150

Thickness (t)	Material			
	Steel			
	L × W	Load Capacity N/2 pcs	Item Name	Page
1.6	80 × 57	—	ROH-80	P.149
	80 × 69.5	127	KOH-80	P.149

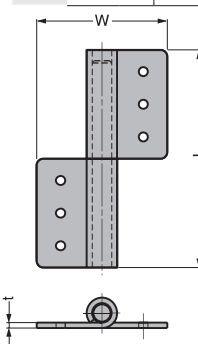


Lift-off Hinges

Thickness (t)	Material			
	Stainless Steel			
	L × W	Load Capacity N/2 pcs	Item Name	Page
1.5	40 × 30	69	NH-40CL(R)	P.151
	45 × 50	29	HG-OTA45L(R)	P.160
	45 × 50	29	HG-OTB45L(R)	P.160
	50 × 30	88	BN-50S	P.153
	50 × 32	78	KN-50CL(R)	P.151
	64 × 36	118	BN-64S	P.153
	64 × 36	108	KN-64CL(R)	P.151
	75 × 50	59	HG-OTA(B)75	P.160
	100 × 50	69	HG-OTA(B)100	P.160
2	75 × 38	167	KN-75CL(R)	P.151
	100 × 60	294	LSX-100L(R)	P.150
2.5	50 × 40	127	HNH-50CL(R)	P.154
	65 × 40	177	SNR65L(R)	P.152
	65 × 40	167	SNRK65L(R)	P.152
	65 × 50	177	HNH-65CL(R)	P.154

Thickness (t)	Material			
	Stainless Steel			
	L × W	Load Capacity N/2 pcs	Item Name	Page
3	108 × 96	559	ZL-1701-10	P.155
	75 × 70	245	HNH-75CL(R)	P.154
	125 × 100	981	HG-CV-127L(R)	P.169
4	144 × 104	314	ZL-1701-12	P.155
	100 × 82	422	HNH-100CL(R)	P.154
	154 × 116	1140	HG-LSH-154L(R)	P.154
6	204 × 160	1500	HG-LSH-204L(R)	P.154
	268 × 300	2940	HG-KH12-268	P.159
12	268 × 350	2940	HG-KM12-268	P.159
19	275 × 300	4810	HG-KH19-275	P.159
	275 × 350	4810	HG-KM19-275	P.159
20	250 × 280	4610	HG-KH20-250	P.159
	250 × 350	4610	HG-KM20-250	P.159

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.171
	65 × 60	108	AS-HG-CV-65NR(L)	P.171
3.8	63 × 43	78	AS-HG-AL-NL(R)3020	P.173
	63 × 43	78	AS-HG-AL-NL(R)3020N	P.173
	63 × 50	78	AS-HG-AL-NL(R)3030	P.173
	63 × 50	78	AS-HG-AL-NL(R)3030N	P.173
	63 × 50	78	AS-HG-AL-NL(R)4020	P.173
	63 × 57	78	AS-HG-AL-NL(R)3040	P.173
	63 × 64	78	AS-HG-AL-NL(R)4040	P.173



[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

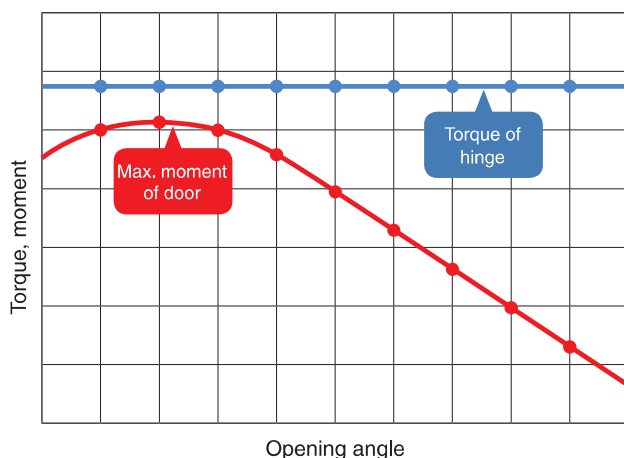
Moment of door or lid = Horizontal distance from rotation centre to centre of gravity × Weight of door or lid

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

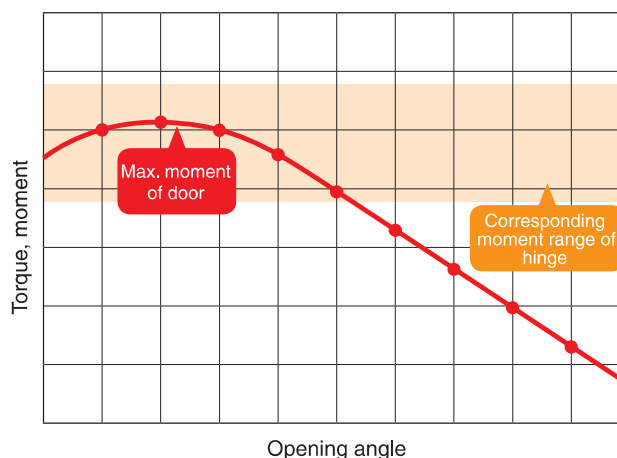
● In case of a torque hinge (Free stop)

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.

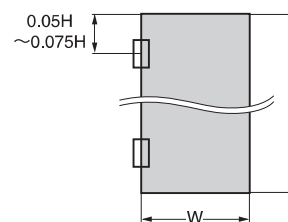


※ The moment of the door is calculated as per the horizontal distance from the rotation centre to the centre of gravity. Therefore, it changes with the opening angle.

[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.

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

COMBINATION HINGE HG-VH8



- 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°C ~40°C

[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
Applicable Products
Used for Product
Selection &
Simulation.
Available on Web!

Video Link



※ The applicable products are only limited to hinges with built-in "damper" or "torque unit".

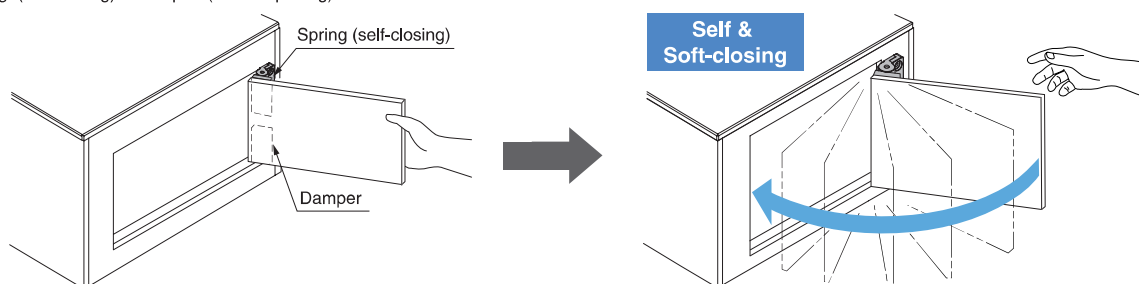
[Hinge Motions] For top-opening lid

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

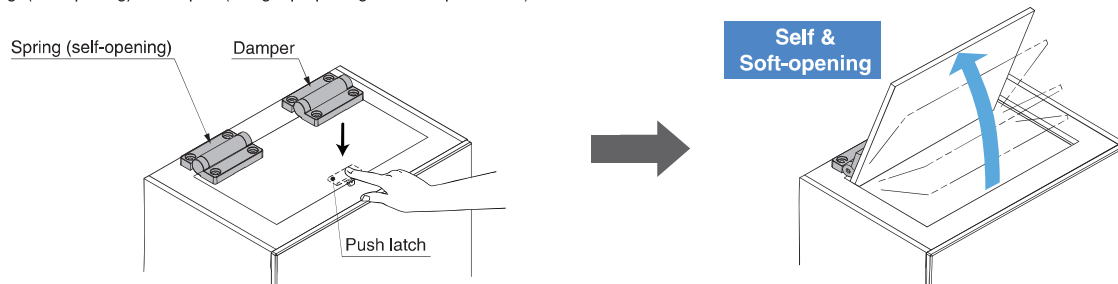
(It depends) Please carry out thorough tests before using since performance with these combinations might vary depending on door size and weight.

[Combination Example]

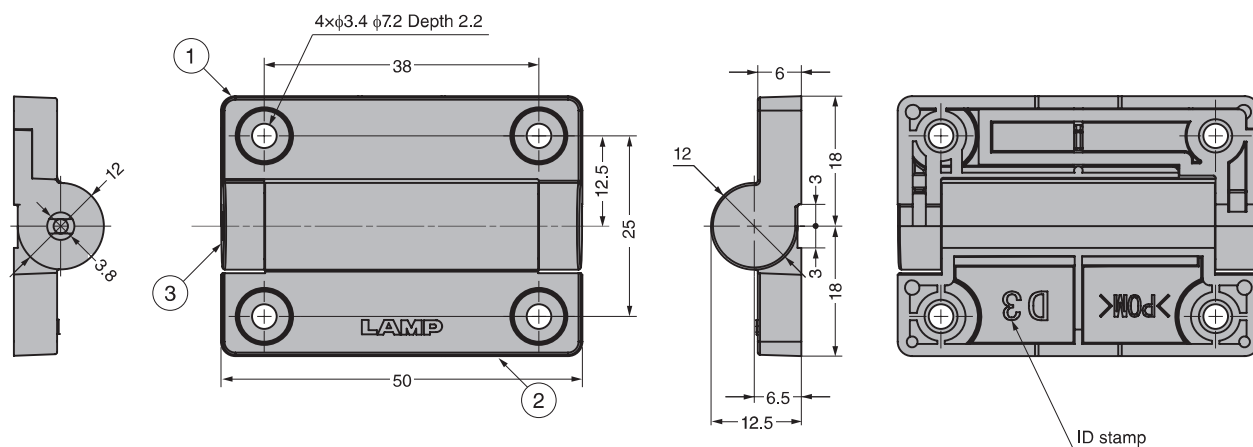
- Spring (self-closing) + Damper (lateral-opening)



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



Refer to 1 : P.15



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

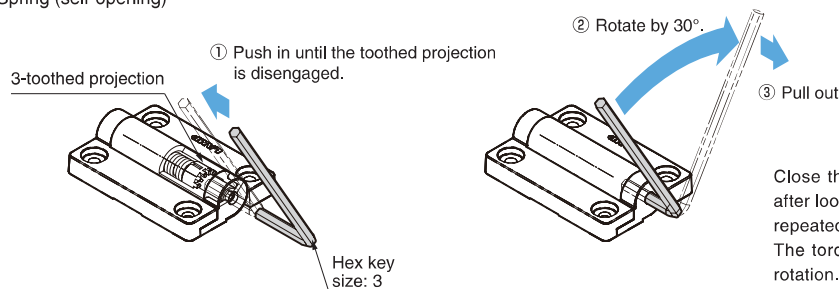
Acrylic plate, Density 1.2 g/cm³

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)
		170-032-616	HG-VH8-N-BL	—	N	Black	—	—	270°	11	40	640
		170-032-617	HG-VH8-N-WT			White					40	640
		170-032-618	HG-VH8-D3-BL	Damper	D3	Black	0.022~0.038	0.22~0.39		14	40	640
		170-032-619	HG-VH8-D3-WT			White					40	640
		170-032-620	HG-VH8-OP-BL	Spring (self-opening)	OP	Black	※	※		18	40	640
		170-032-621	HG-VH8-OP-WT			White					40	640
		170-032-622	HG-VH8-CL-BL	Spring (self-closing)	CL	Black	※	※			40	640
		170-032-623	HG-VH8-CL-WT			White					40	640
		170-032-624	HG-VH8-T15-BL	Torque	T1	Black	0.15±0.05	1.53±0.51		19	40	640
		170-032-625	HG-VH8-T15-WT			White					40	640
		170-032-626	HG-VH8-T35-BL		T3	Black	0.35±0.1	3.57±1.02			40	640
		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]

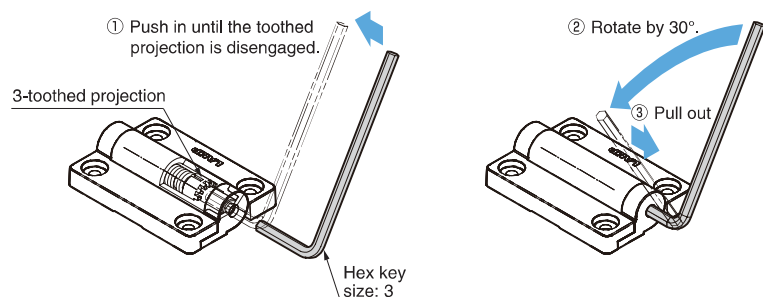
● Spring (self-opening)



Close the lid, and check if the lid can be opened smoothly after loosening 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 loosening 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

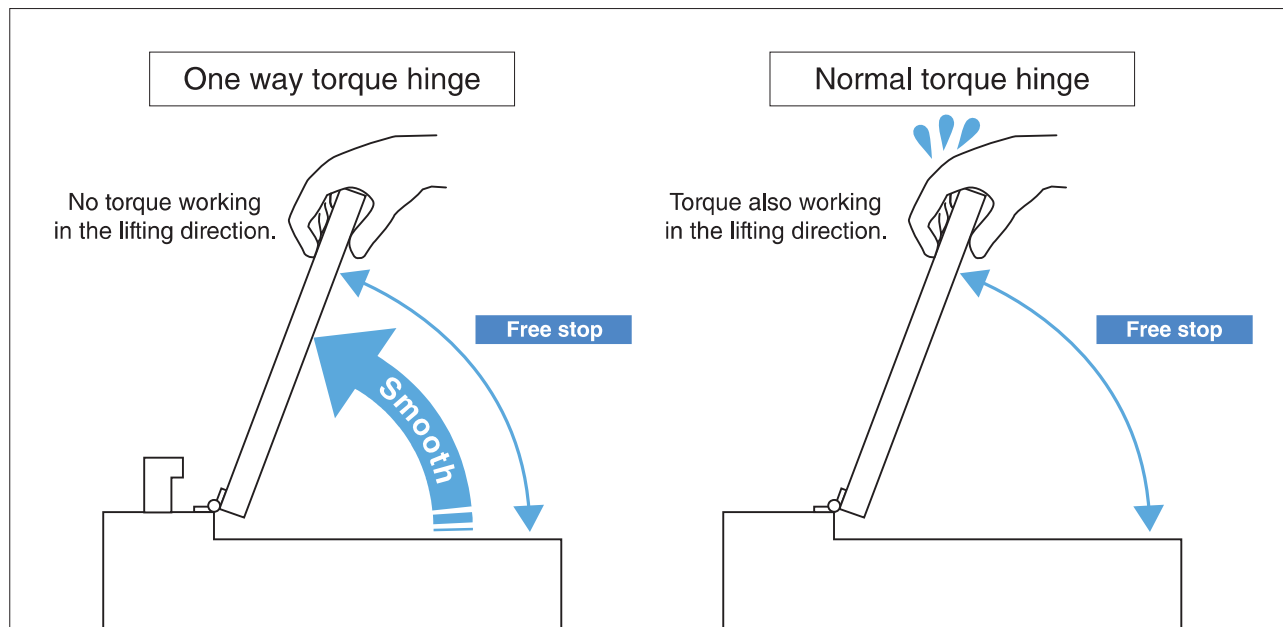
GLASS
DOOR
HINGES

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-TQJ100	HG-TQA
Torque N · m	0~10 (Adjustable)	9.0 $\pm 40\%$ -20%
Page	P.19	P.20

[Other One Way Torque Products]

FREE STOP STAY (ONE WAY) S-TAR P.288



- 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)

ADJUSTABLE ONE WAY TORQUE HINGE HG-TQJ100



- 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°C ~40°C

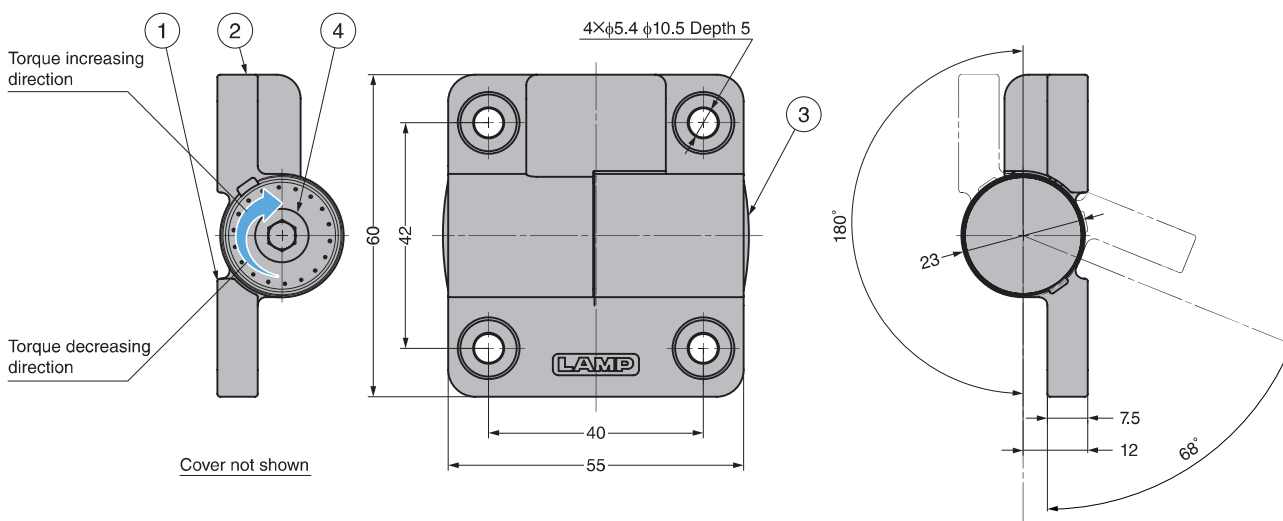
[Applications]

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

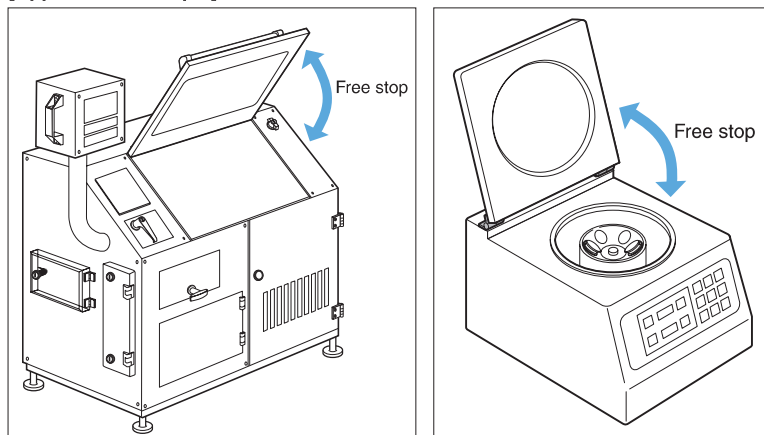
[Remarks]

- 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.

Selection Tool
Sasuga-kun
Applicable Products
Used for Product
Selection &
Simulation.
Available on Web!

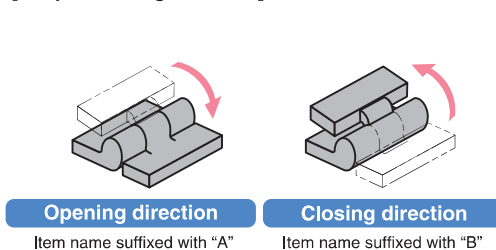


[Application Example]



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

[Torque Working Direction]



No.	Part Name	Material	Finish / Colour
①	Bracket A	Zinc Alloy	Satin Chrome
②	Bracket B		
③	Cover	PP	Dark Grey
④	Torque Adjustment Nut	Steel	—

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

Refer to 1 : P.15.



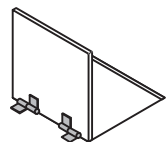
ONE WAY TORQUE HINGE HG-TQA



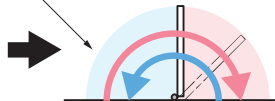
[Torque and Free Stop Range]

→ Free direction → Torque direction Free stop range

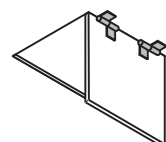
●HG-TQA90-A



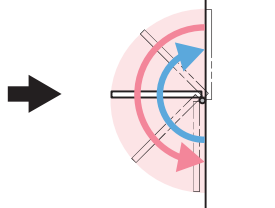
Range where torque is not effective, install stopper to hold the door.



●HG-TQA90-B



Range where torque is not effective.



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

[Specifications]

- Operating temperature: 0°C ~50°C

[Applications]

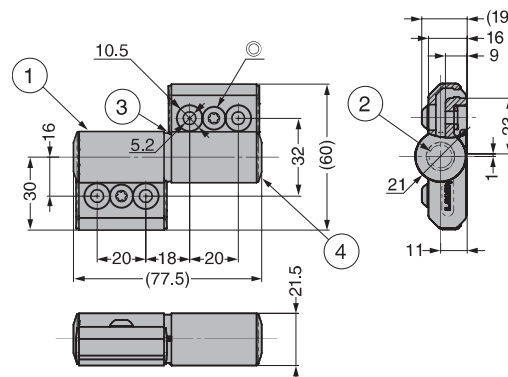
- Impact-free opening and closing of door. Medical equipment, FA equipment, and OA equipment, etc.

[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.

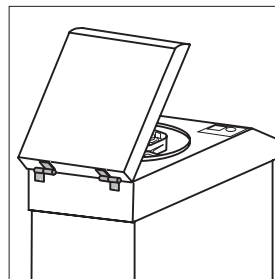
[Recommended Screws]

- M5 binding head screws

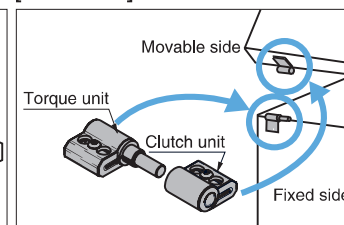


No.	Part Name	Material	Finish
①	Body	Aluminium Alloy	Anodised Silver
②	Shaft	Stainless Steel	Plain
③	Sleeve	POM	Black
④	Cover		

[Application Example]



[Installation]



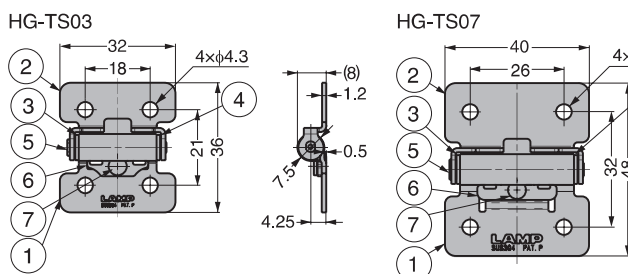
RoHS	CAD	Item Code	Item Name	Torque N·m / pair※	Torque kgf·cm / pair※	Weight (g / pair)	Box (pairs)	Carton (pairs)
✓	3D	170-021-244	HG-TQA90-A	9.0 ^{+40%} _{-20%}	91.8 ^{+40%} _{-20%}	270	1	10
✓	3D	170-021-245	HG-TQA90-B				1	10

Refer to 1 : P.15.

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

TORQUE HINGE HG-TS

SUS



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		

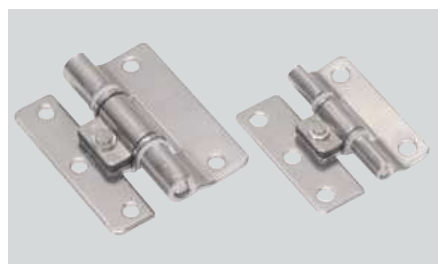
RoHS	CAD	Item Code	Item Name	Torque N·m/pc※	Torque kgf·cm/pc※	Weight (g)	Box (pcs)	Carton (pcs)
CE	3D	170-018-501	HG-TS03	0.35 ^{+40%} / _{-20%}	3.6 ^{+40%} / _{-20%}	15.0	50	500
CE	3D	170-018-502	HG-TS07	0.7 ^{+40%} / _{-20%}	7.1 ^{+40%} / _{-20%}	27.5	50	500
CE	3D	170-018-503	HG-TS15	1.5 ^{+40%} /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

Refer to 1 : P.15.

※ 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



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

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

- 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

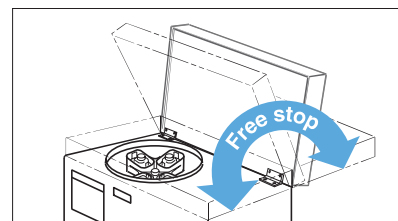
[Applications]

- 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.

[Application Example]



Selection Tool
Sasuga-kun
Applicable Products
Used for Product Selection & Simulation.
Available on Web!

TORQUE HINGES

DAMPER HINGES

LIFT ASSIST HINGES

DETENT HINGES

CONCEALED HINGES

BUTT HINGES

PIANO HINGES

STEP HINGES

LIFT-OFF HINGES

PIVOT HINGES

SPRING HINGES

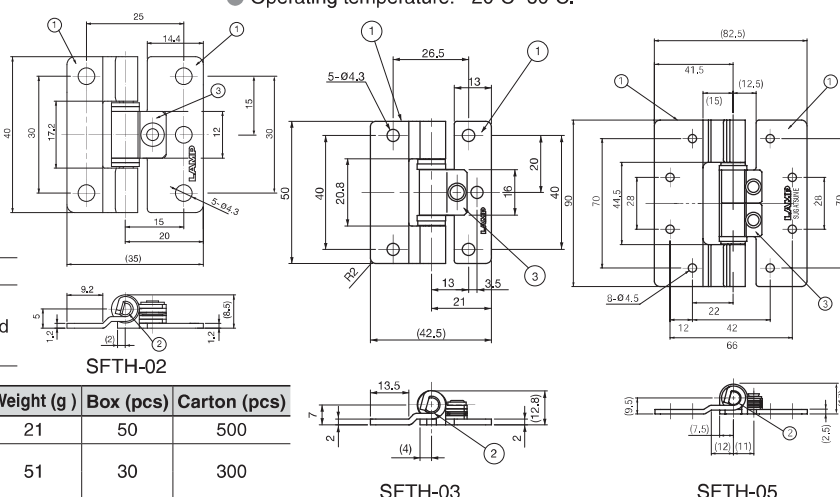
CLEAN ROOM HINGES

HINGES FOR ALUMINIUM FRAME

DROP HINGES

GLASS DOOR HINGES

SPECIAL HINGES



TORQUE HINGE (CONCEALED) HG-TU



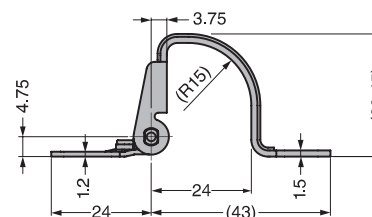
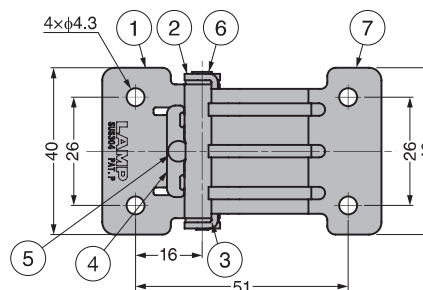
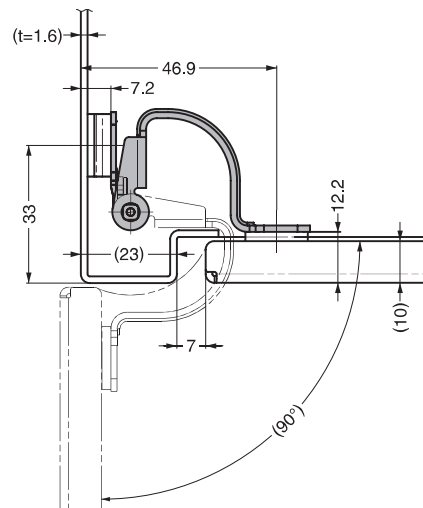
- Installation on the back side of the door for clean appearance.
- Can be used horizontally or vertically.

[Remarks]

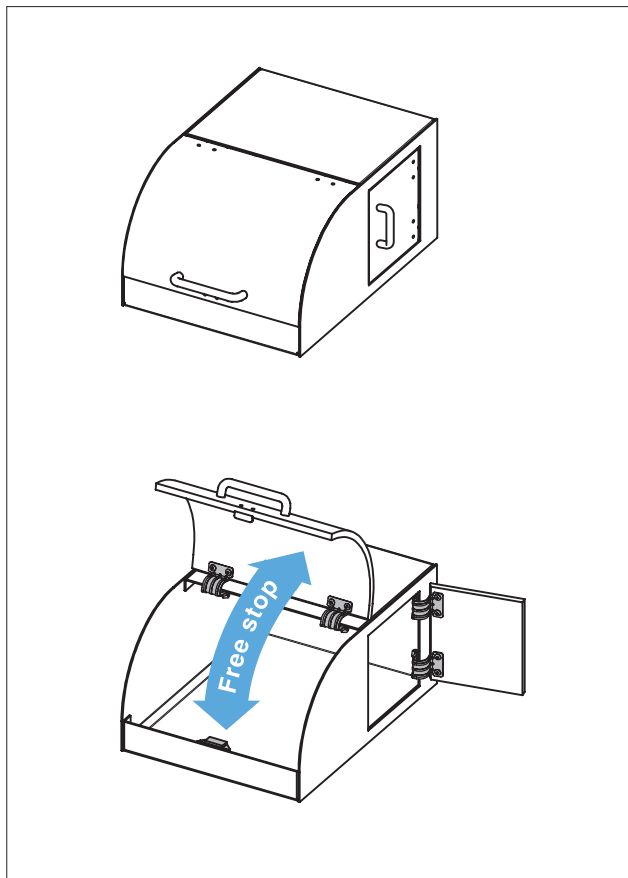
- Be sure to read the "Cautions" **1**.
- When installing, ensure that both hinge shafts are aligned.

Selection Tool
Sasuga-kun
Applicable Products
Used for Product
Selection &
Simulation.
Available on Web!

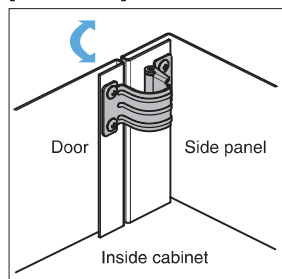
[Dimensions]



[Application Example]



[Installation]



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)	

RoHS	CAD	Item Code	Item Name	Torque N·m/pc※	Torque kgf·cm /pc※	Weight (g)	Box (pcs)	Carton (pcs)
		170-022-304	HG-TU03	0.35 ^{+40%} / _{-20%}	3.6 ^{+40%} / _{-20%}	50	20	200
		170-022-305	HG-TU07	0.7 ^{+40%} / _{-20%}	7.1 ^{+40%} / _{-20%}		20	200

Refer to **1** : P.15.

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

TORQUE HINGE (CONCEALED) HG-TUWA

SUS



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

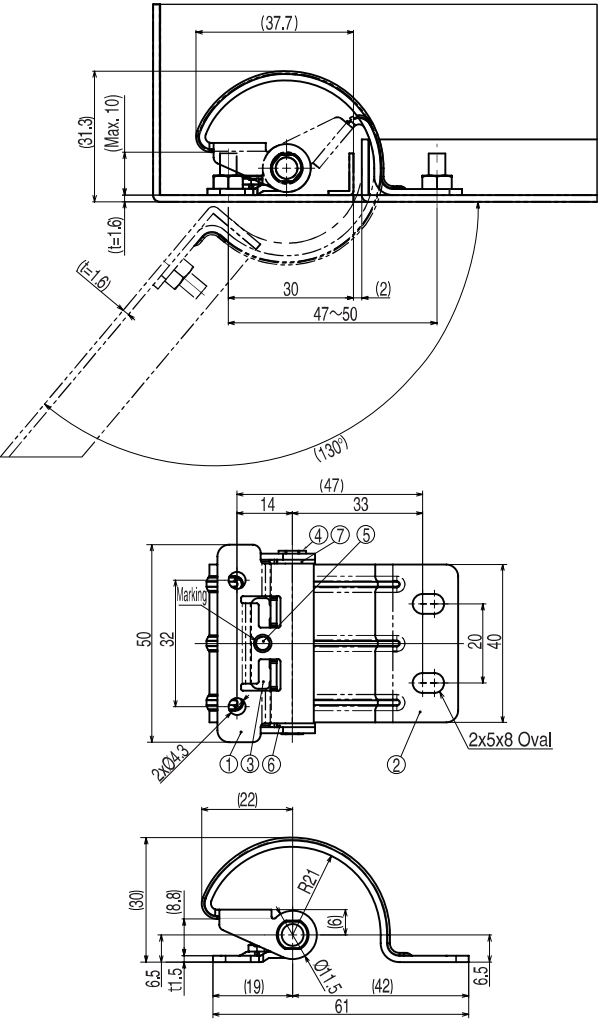
- High torque and wide opening angle (130°) type of HG-TU 1.
- Installation on the back side of the door for clean appearance.
- Can be used horizontally or vertically.

[Remarks]

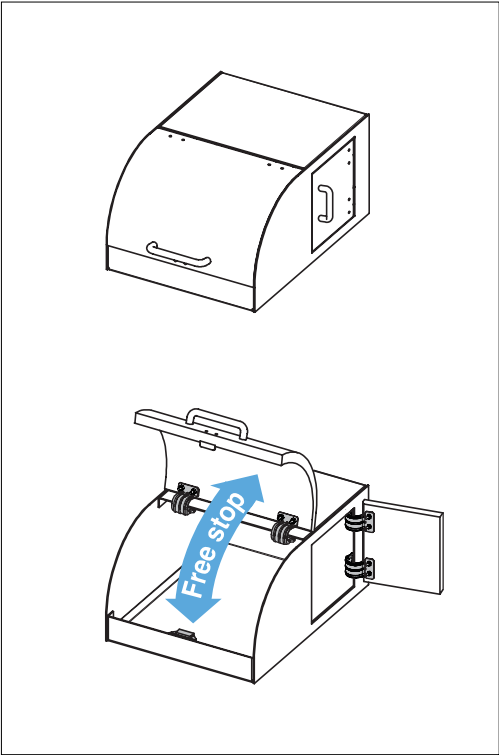
- Be sure to read the "Cautions" 2.
- When installing, ensure that both hinge shafts are aligned.

Selection Tool
Sasuga-kun
Applicable Products
Used for Product
Selection &
Simulation.
Available on Web!

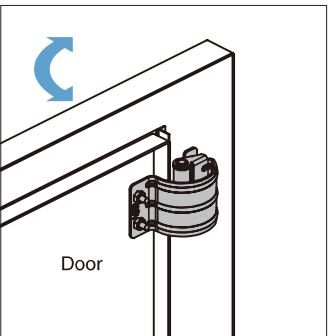
[Dimensions]



[Application Example]



[Installation]



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.22, 2 : P.15.

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
ALUMINUM
FRAME

DROP
HINGES

GLASS
DOOR
HINGES

SPECIAL
HINGES

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]

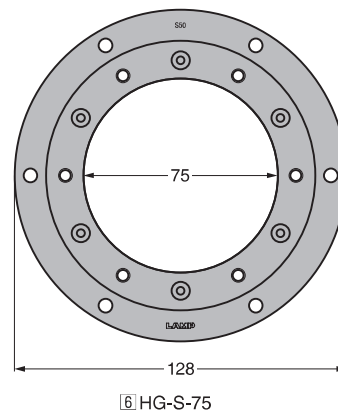
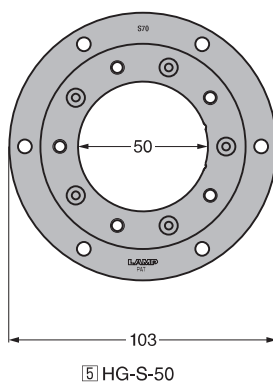
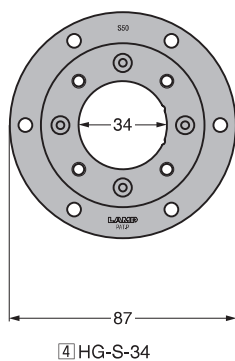
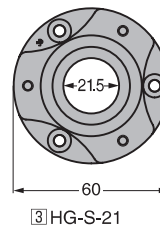
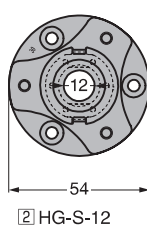
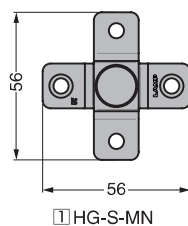
- Be sure to read the "Cautions" **1**.
- Hinges can be used upside down. However, fix the screws from the mounting surface (refer to the "Installation" in relevant pages). Otherwise, the products will not function.
- * is horizontal use only.

Video Link



[Selection Guide]

	RoHS	CAD	Item Code	Item Name	No.	Size	Hole Diameter	Torque N·m/pc	Torque kgf·cm/pc	Page
DETENT HINGES			170-029-726	HG-S7-MN	①	56	—	0.7 ± 20%	7.1 ± 20%	2
			170-029-727	HG-S20-MN				2.0 ± 20%	20.4 ± 20%	
CONCEALED HINGES			170-021-976	HG-S30-12	②	φ 54	12	3.0 ± 20%	30.6 ± 20%	
			170-021-975	HG-S50-12				5.0 ± 20%	51.0 ± 20%	
BUTT HINGES			170-029-728	HG-S30-21	③	φ 60	21.5	3.0 ± 20%	30.6 ± 20%	3
			170-029-729	HG-S50-21				5.0 ± 20%	51.0 ± 20%	
			170-023-959	HG-S50-34	④ *	φ 87	34	5.0 ± 20%	51.0 ± 20%	
			170-023-960	HG-S70-34				7.0 ± 20%	71.4 ± 20%	
PIANO HINGES			170-023-961	HG-S70-50	⑤ *	φ 103	50	7.0 ± 20%	71.4 ± 20%	4
			170-023-962	HG-S100-50				10.0 ± 20%	102.0 ± 20%	
STEP HINGES			170-029-730	HG-S50-75	⑥ *	φ 128	75	5.0 ± 20%	51.0 ± 20%	
			170-029-731	HG-S70-75				7.0 ± 20%	71.4 ± 20%	

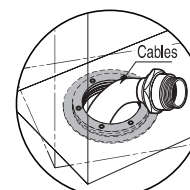
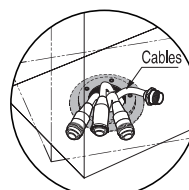
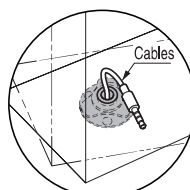


[Application Example]

Tablet stand

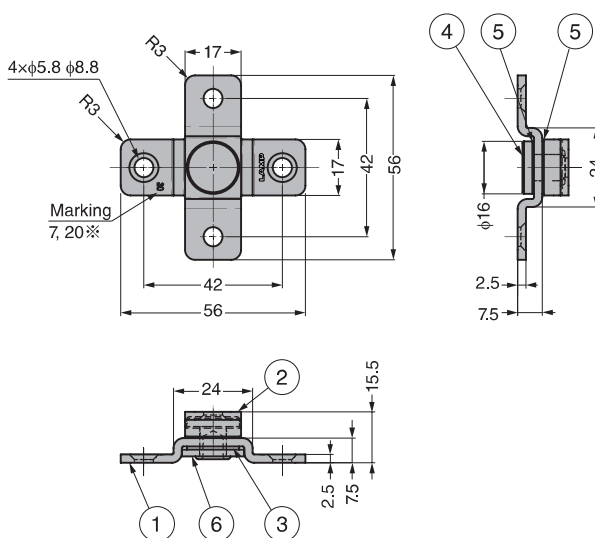


Operation panel



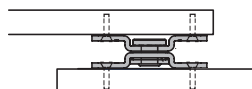
Choose the hole diameter according to the thickness of the cable.

Refer to **1** : P.15, **2** : P.25, **3** : P.26, **4** : P.27

SWIVEL TORQUE HINGE **HG-S-MN** Small Type

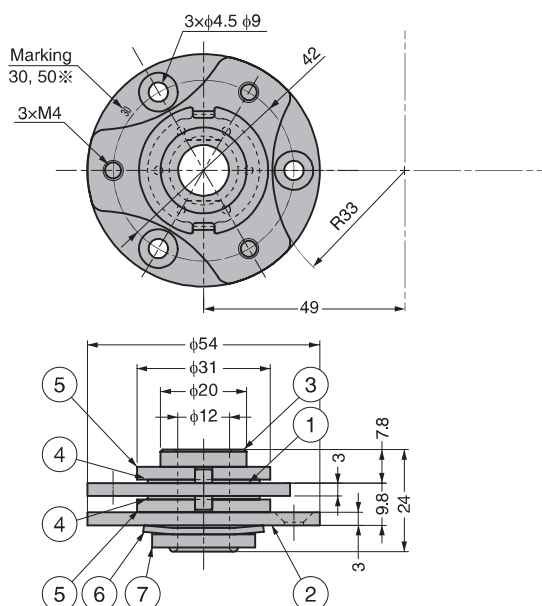
※7: HG-S7-MN, 20: HG-S20-MN.

[Installation]



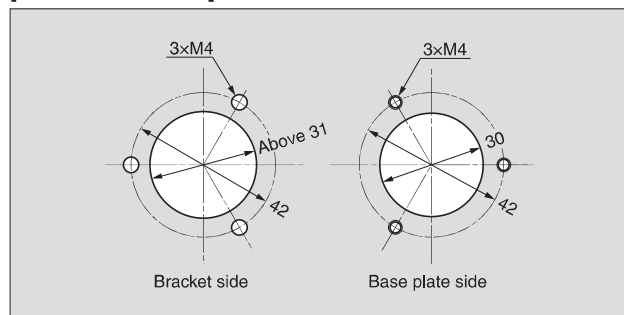
No.	Part Name	Material	Finish
①	Bracket B	Stainless Steel (SUS430)	Barrel Polished
②	Bracket A		
③	F Plate	Bronze	-
④	Shaft	Stainless Steel (SUS303)	
⑤	Spring Washer	Stainless Steel	
⑥	Washer	Stainless Steel (SUS430)	Barrel Polished

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

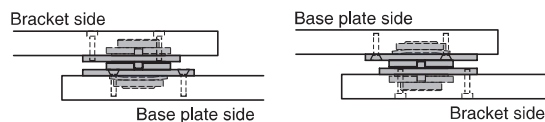
SWIVEL TORQUE HINGE **HG-S-12** Hole Dia. φ 12

※30: HG-S30-12, 50: HG-S50-12.

[Cut Out Dimensions]



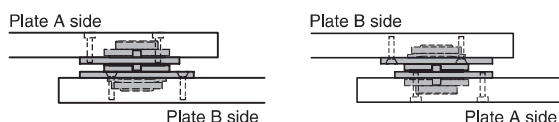
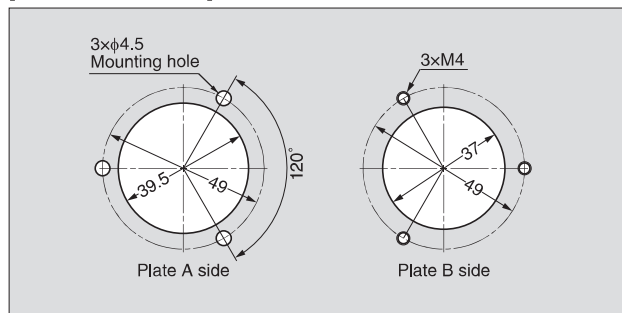
[Installation]



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)	

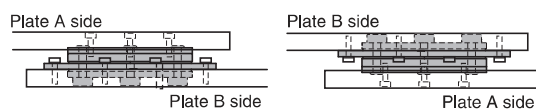
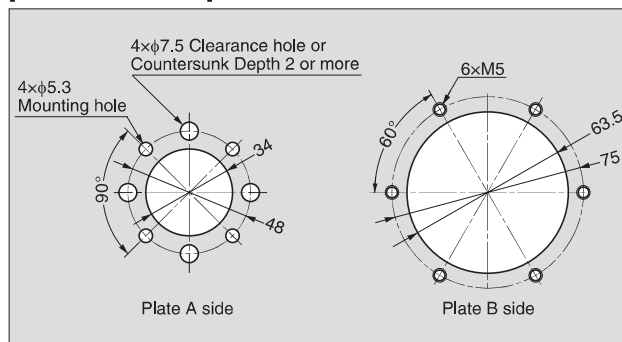
Max. load capacity : 200N (20.4kgf)/pc

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



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)	

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



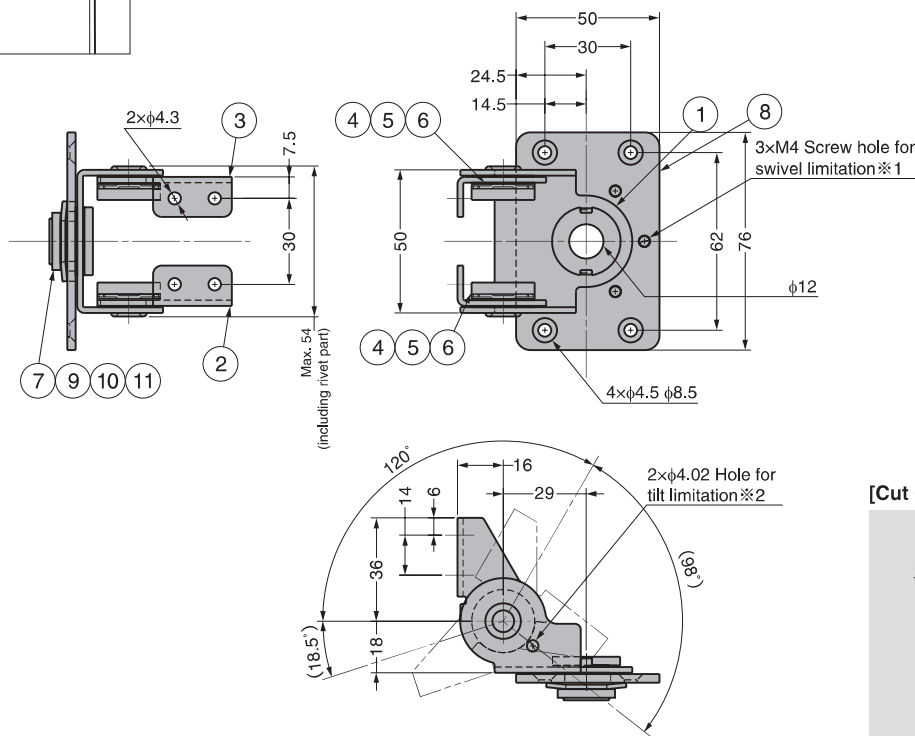
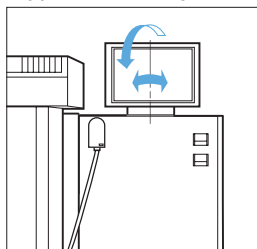
No.	Part Name	Material	Finish
①	Plate A	Stainless Steel (SUS430)	Barrel Polished
②	Plate B		
③	Plate C		
④	F Plate	Bronze	—
⑤	Bush	POM	
⑥	Spring Washer	Stainless Steel	
⑦	Shaft	Stainless Steel (SUS303)	

RoHS	CAD	Item Code	Item Name	Size	Hole Diameter	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
		170-023-959	HG-S50-34	87	34	5,0±20%	51,0±20%	280	5	40
		170-023-960	HG-S70-34			7,0±20%	71,4±20%	282	5	40

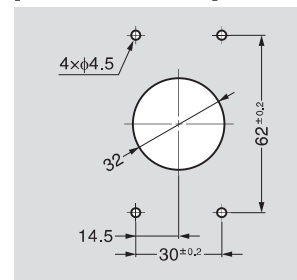
TORQUE HINGE (DUAL AXIS) HG-T70S30

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

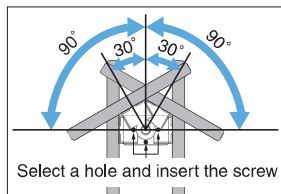
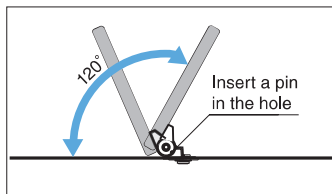
[Application Example]



[Cut Out Dimensions]



[Angle Limitation]



- 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°C ~40°C

[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



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)
		170-012-419	HG-T70S30	7.0±20%	71.4±20%	3.0±20%	30.6±20%	229	5	40

Refer to 1 : P.15

TORQUE HINGE (DUAL AXIS) HG-T30S15


Free stop

 Passed 20,000 open/
close private cycle test

- 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°C ~40°C

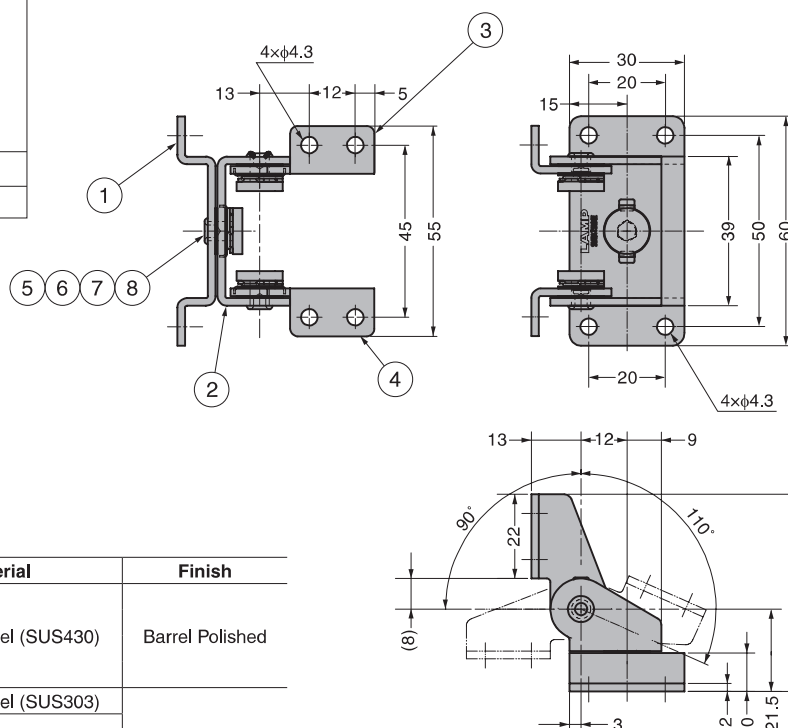
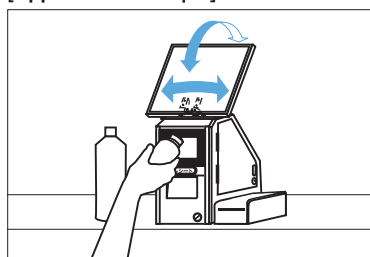
[Applications]

- 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



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

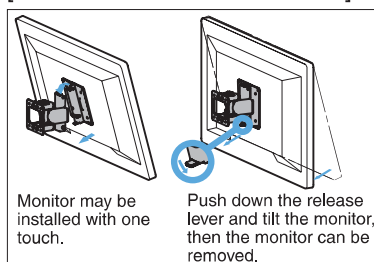
RoHS	CAD	Item Code	Item Name	Torque N·m/pc (Tilting)	Torque kgf·cm/pc (Tilting)	Torque N·m/pc (Swivelling)	Torque kgf·cm/pc (Swivelling)	Weight (g)	Box (pcs)	Carton (pcs)
		170-020-826	HG-T30S15	3.0±20%	30.6±20%	1.5±20%	15.3±20%	87	12	96

 Refer to **1** : P.15

MONITOR BRACKET DIGEST

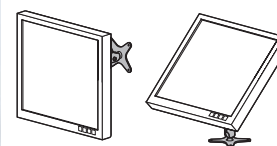


[How to Install and Remove Monitor]


 Monitor may be
installed with one
touch.

 Push down the release
lever and tilt the monitor,
then the monitor can be
removed.


KA-150



KA-150

 MONITOR BRACKET KA-T100S50 WITH TORQUE & AUXILIARY LOCK **1**

 MONITOR BRACKET KA-150 **2**

 Refer to **1** : P.196, **2** : P.198

ADJUSTABLE TORQUE HINGE **HG-ITJ4080**TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

Free stop

Passed 20,000 open/
close private cycle test

- 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°C ~40°C

[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



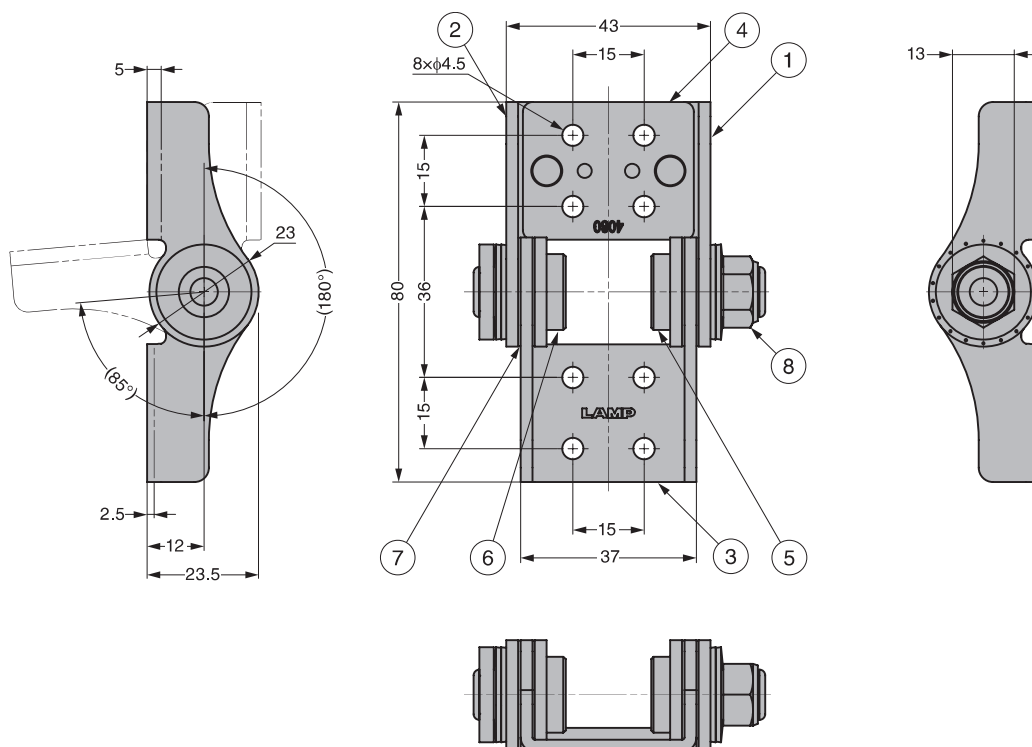
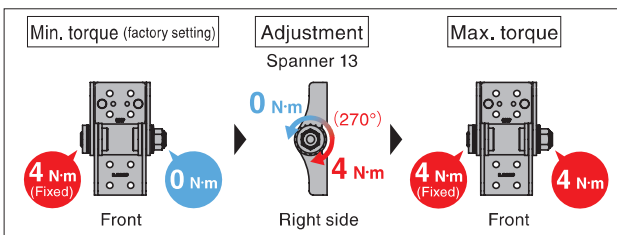
Selection Tool

Sasuga-kun

Applicable Products

Used for Product
Selection &
Simulation.

Available on Web!



No.	Part Name	Material	Finish
①	Bracket A	Stainless Steel (SUS430)	Barrel Polished
②	Bracket B		
③	Bracket C		
④	Connecting Plate	Stainless Steel	—
⑤	Shaft A		
⑥	Shaft B	Bronze	Barrel Polished
⑦	Washer		
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)
		170-029-802	HG-ITJ4080	4 ±20%~8	41 ±20%~82	163	10	80

Refer to **1** : P.15

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°C~50°C

[Applications]

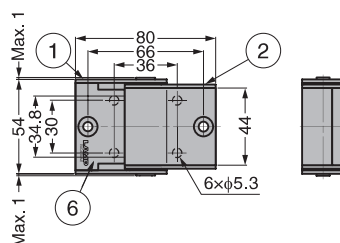
- LCD, monitoring camera, etc.

[Remarks]

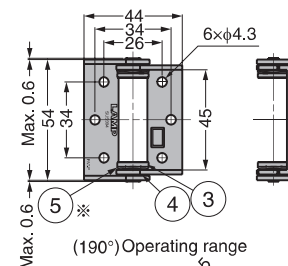
- Be sure to read the "Cautions" 1.
- When installing, ensure that both hinge shafts are levelled and aligned.

[Sold Separately]

- Cover

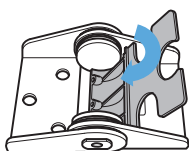


HG-ITM (With cover shown)

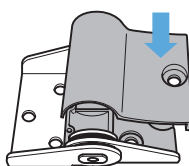


HG-ITS (Without cover shown)

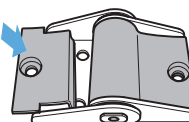
[How to Install Cover]



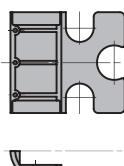
1. Insert the cover A under the hinge shaft.



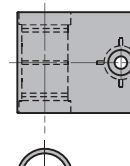
2. Put the cover B on the cover A.



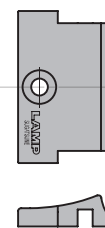
3. Put the cover C.



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)
SD	SD	170-090-106	HG-ITS25	2.5±20%	25.49±20%	190°	50	20	160
SD	SD	170-090-115	HG-ITS35	3.5±20%	35.69±20%	190°	50	20	160
SD	SD	170-090-114	HG-ITM50	5.0±20%	50.98±20%	193°	130	10	80
SD	SD	170-090-113	HG-ITM70	7.0±20%	71.38±20%	193°	130	10	80
SD	SD	170-090-999	HG-ITSF	—	—	190°	50	20	160
SD	SD	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)
SD	SD	170-091-002	HG-ITSC	HG-ITS	10	40	960
SD	SD	170-091-001	HG-ITMC	HG-ITM	18	20	480

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

Refer to 1 : P.15

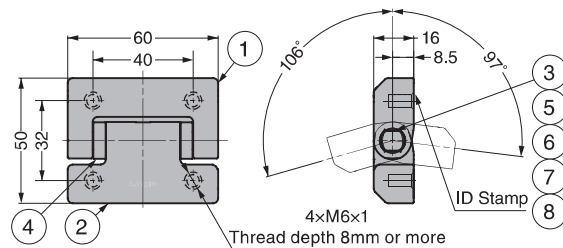
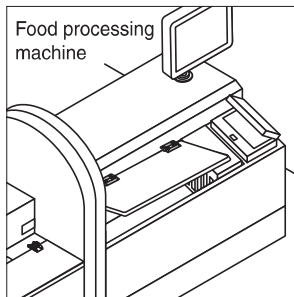
TORQUE HINGE **HG-TWP** Exterior Type

Under Development

SUS

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

[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.15

TORQUE HINGE **HG-ITHP**

Under Development

SUS

● Suitable for use in heat-generating environment.

[Specifications]

● Operating temperature: 0°C ~ 100°C

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

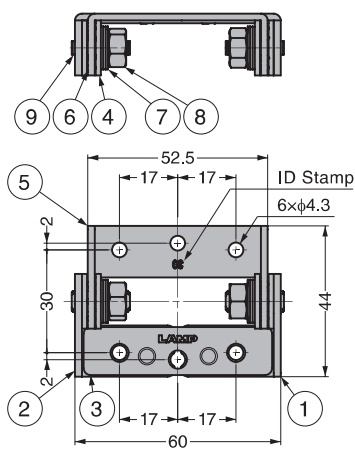
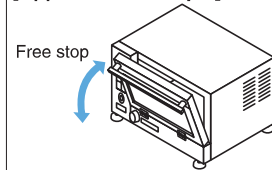
[Applications]

● Food processing equipment, kitchen equipment.

[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.

[Application Example]



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

RoHS	CAD	Item Code	Item Name	ID Stamp	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
—	—	170-037-312	HG-ITHP07	07	0.7	7.1	—	—	—
—	—	170-037-313	HG-ITHP15	15	1.5	15.3	—	—	—
—	—	170-037-314	HG-ITHP30	30	3.0	30.6	—	—	—

Refer to 1 : P.15

TORQUE PIANO HINGE HG-TLS30-50-300

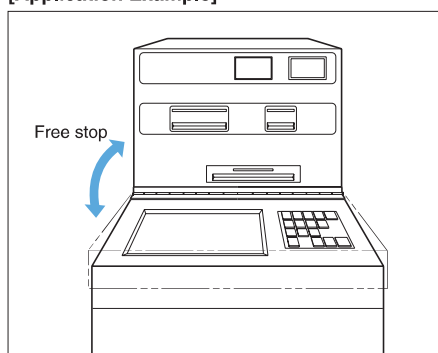
Under Development



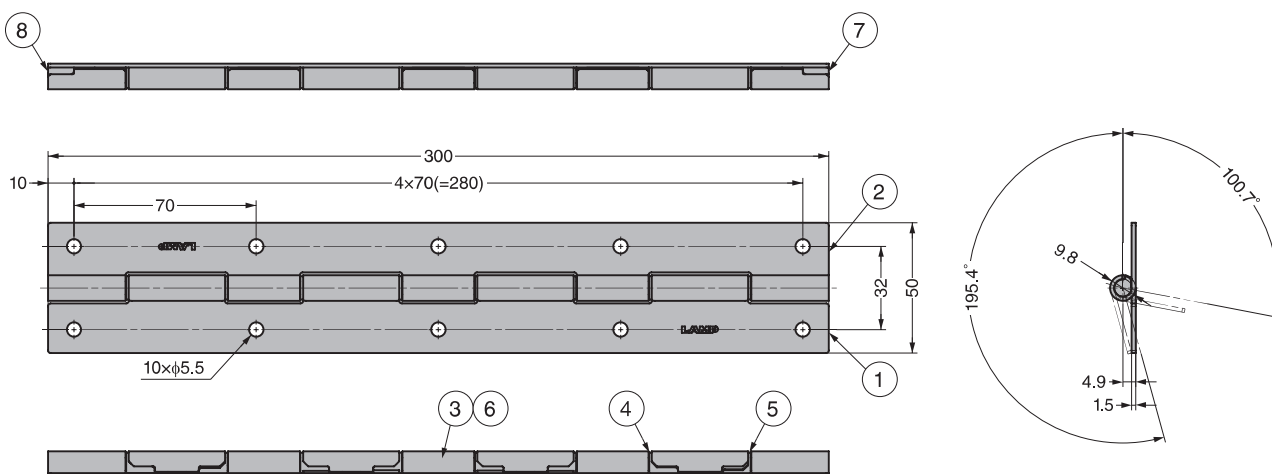
- Long type torque hinge.
- Other lengths also available on order.

[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.

[Application Example]

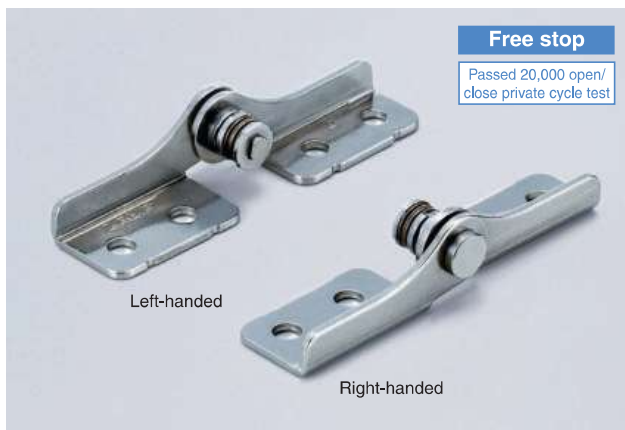
For opening/closing of cash machine maintenance door.



No.	Part Name	Material
①	Hinge A	Stainless Steel (SUS304)
②	Hinge B	
③	Shaft	
④	Plug L	POM
⑤	Plug R	
⑥	Collar	PA
⑦	Holder L	
⑧	Holder R	

RoHS	CAD	Item Code	Item Name	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
—	—	170-037-315	HG-TLS30-50-300	3	29	—	—	—

Refer to **1** : P.15

DETENT TORQUE HINGE **HG-DTA**

- Detent function prevents spring-back in closed position.

[Specifications]

- Operating temperature: 0°C ~40°C

[Applications]

- Small device with cover, folding machine, etc.

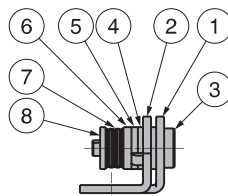
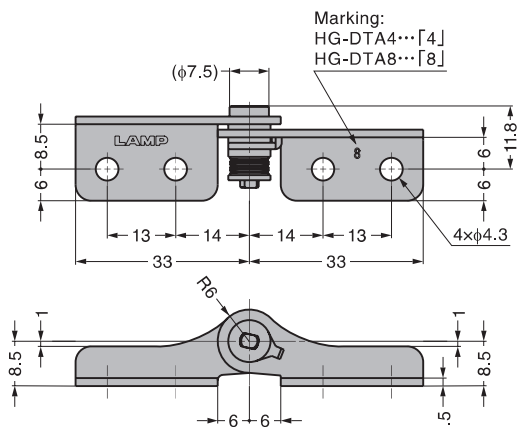
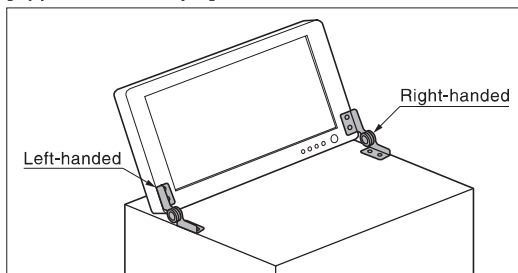
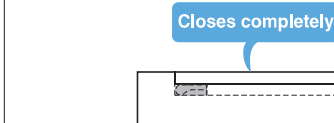
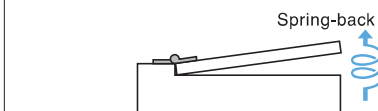
[Remarks]

- 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.

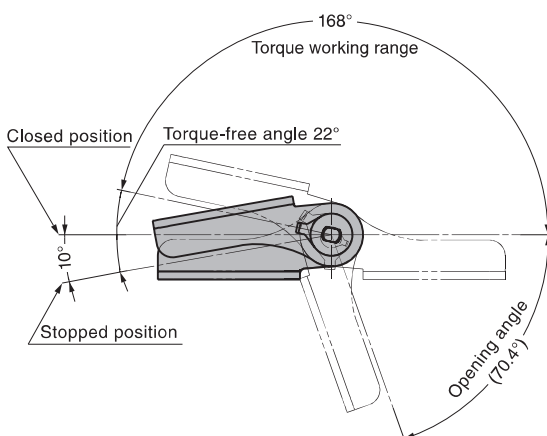
Video Link

Selection Tool
Sasuga-kun
Applicable Products

Used for Product
Selection &
Simulation.
Available on Web!

[Application Example]**Detent torque hinge****Normal torque hinge**

- Detent function prevents spring-back in closed position.



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

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

Refer to **1** : P.15

※Torque required to release detent.

DETENT TORQUE HINGE HG-DTB



- Detent function prevents spring-back in closed position.

[Specifications]

- Operating temperature: 0°C ~40°C

[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
Applicable Products
Used for Product
Selection &
Simulation.
Available on Web!

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

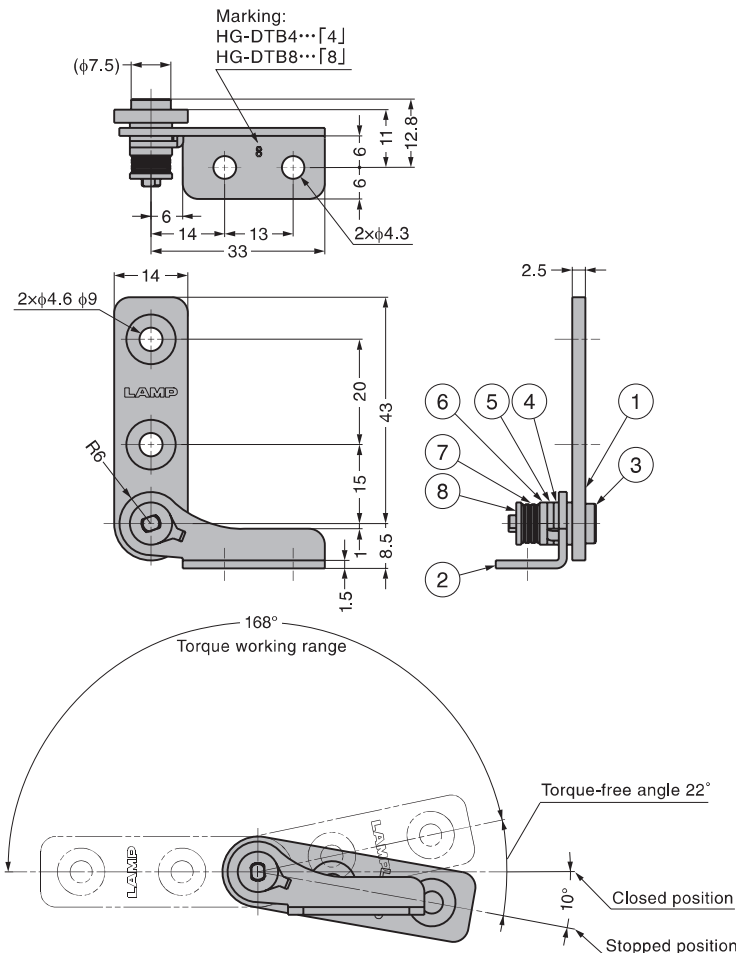
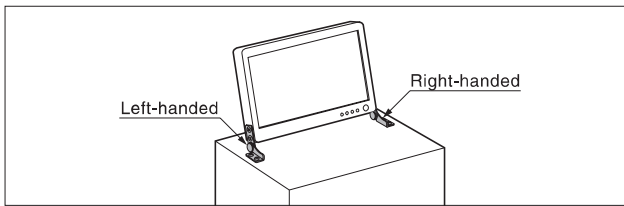
HINGES FOR
ALUMINIUM
FRAME

DROP
HINGES

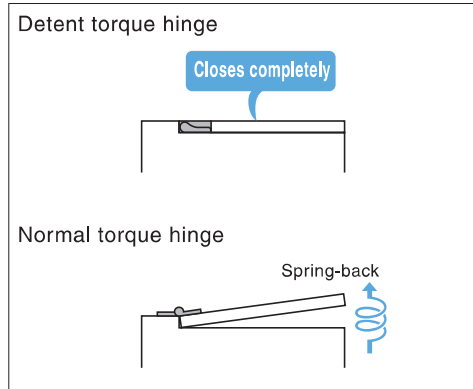
GLASS
DOOR
HINGES

SPECIAL
HINGES

[Application Example]



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



- Detent function prevents spring-back in closed position.

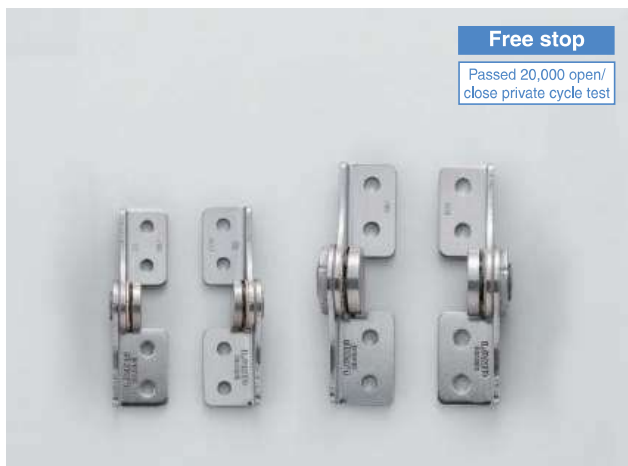
No.	Part Name	Material	Finish
①	Base	Stainless Steel (SUS304)	Barrel Polished
②	Bracket	Stainless Steel (SUS304)	Barrel Polished
③	Shaft	Stainless Steel (SUS303)	Barrel Polished
④	Washer	Stainless Steel	Barrel Polished
⑤	Cam A	Stainless Steel	Barrel Polished
⑥	Cam B	Stainless Steel	Barrel Polished
⑦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

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

Refer to **1** : P.15

※Torque required to release detent.

TORQUE HINGE HG-TA



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

[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.

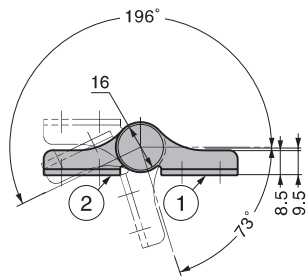
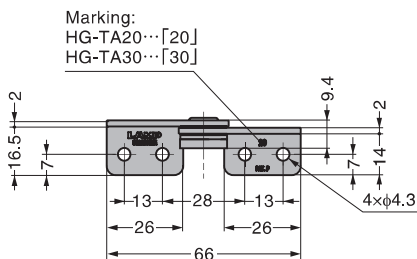
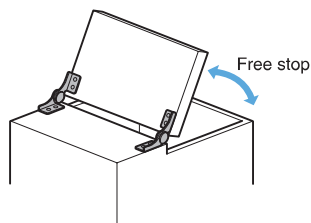
● When installing, ensure that both hinge shafts are levelled and aligned.

Selection Tool
Sasuga-kun
Applicable Products
Used for Product
Selection &
Simulation.
Available on Web!

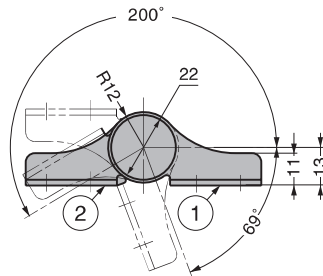
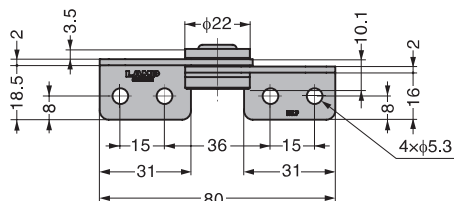
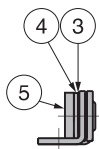
Video Link



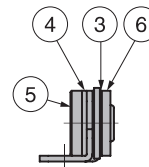
[Application Example]



HG-TA20L, HG-TA30L



HG-TA45L

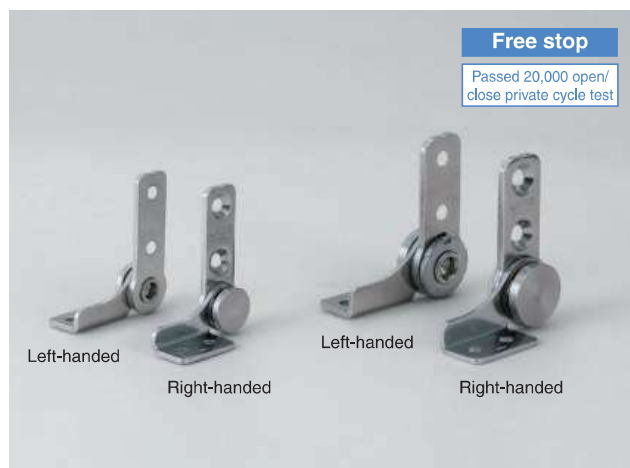


No.	Part Name	Material	Finish
①	Bracket	Stainless Steel (SUS430)	Barrel Polished
②	Base		
③	F Plate	Bronze	-
④	Spring Washer	Steel	
⑤	Shaft	Stainless Steel (SUS303)	Barrel Polished
⑥	Washer	Stainless Steel (SUS430)	

RoHS	CAD	Item Code	Item Name	Description	Type	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
		170-012-403	HG-TA20R	Without wire hole	Right-handed	2,0 ± 20%	20,4 ± 20%	30	40	320
		170-012-404	HG-TA20L		Left-handed				40	320
		170-012-405	HG-TA30R		Right-handed	3,0 ± 20%	30,6 ± 20%		40	320
		170-012-406	HG-TA30L		Left-handed				40	320
		170-012-407	HG-TA45R		Right-handed	4,5 ± 20%	45,9 ± 20%	65	20	160
		170-012-408	HG-TA45L		Left-handed				20	160

Refer to 1 : P.38, 2 : P.15

TORQUE HINGE HG-TB



- Provides torque stability in both directions.

[Specifications]

- Operating temperature: 0°C ~40°C

[Applications]

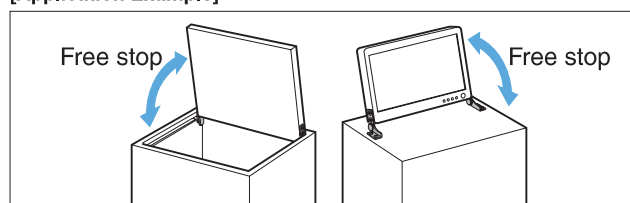
- LCD, monitoring camera, etc.

[Remarks]

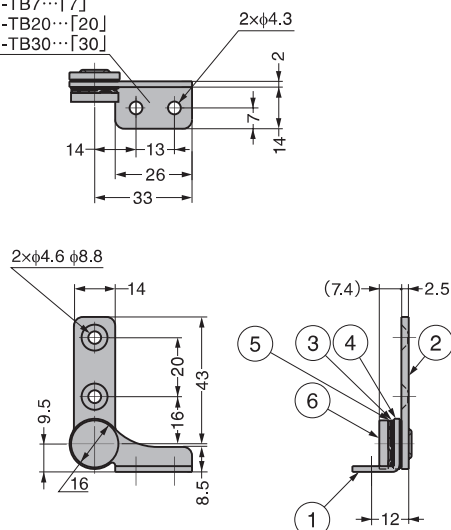
- Be sure to read the "Cautions" **1**.
- For pair using: Please use the same torque in both hinges.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Can not be used around water because not all parts are made of stainless steel.

Video Link

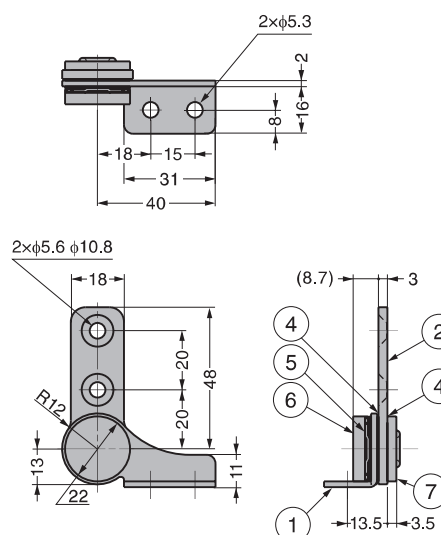
Selection Tool
Sasuga-kun
 Applicable Products
 Used for Product
 Selection &
 Simulation.
 Available on Web!

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES**[Application Example]**

Marking:
 HG-TB7...[7]
 HG-TB20...[20]
 HG-TB30...[30]



HG-TB7L, G-TB20L, HG-TB30L



HG-TB45L

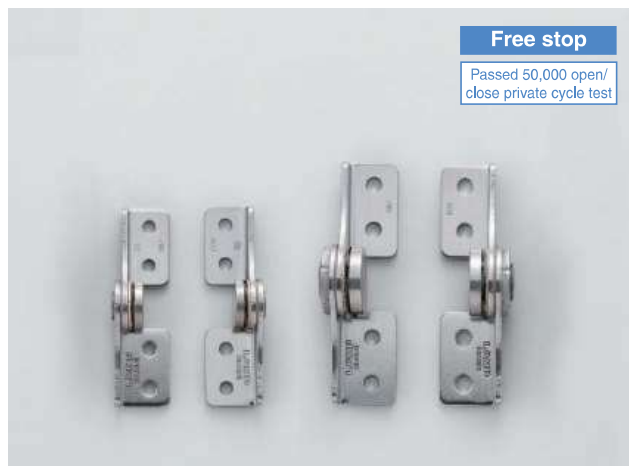
Left-handed type shown. Right-handed type is symmetrical.

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)	Barrel Polished
⑦	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)
		170-022-142	HG-TB7R	Right-handed	0.7 ±20%	7.1 ±20%	360°	31	40	320
		170-022-143	HG-TB7L	Left-handed					40	320
		170-012-413	HG-TB20R	Right-handed	2.0 ±20%	20.4 ±20%		32	40	320
		170-012-414	HG-TB20L	Left-handed					40	320
		170-012-415	HG-TB30R	Right-handed	3.0 ±20%	30.6 ±20%			40	320
		170-012-416	HG-TB30L	Left-handed					40	320
		170-012-417	HG-TB45R	Right-handed	4.5 ±20%	45.9 ±20%		67	20	160
		170-012-418	HG-TB45L	Left-handed					20	160

Refer to **1** : P.15

TORQUE HINGE HG-TA45H



- With wire hole.
- Excellent durability.

[Specifications]

- Operating temperature: 0°C ~ 40°C

[Applications]

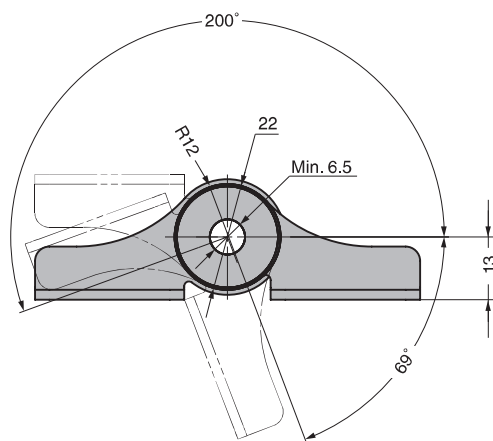
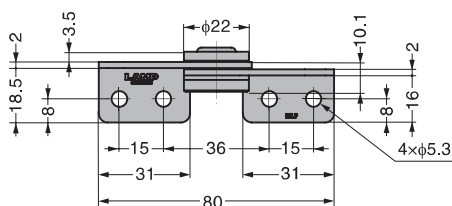
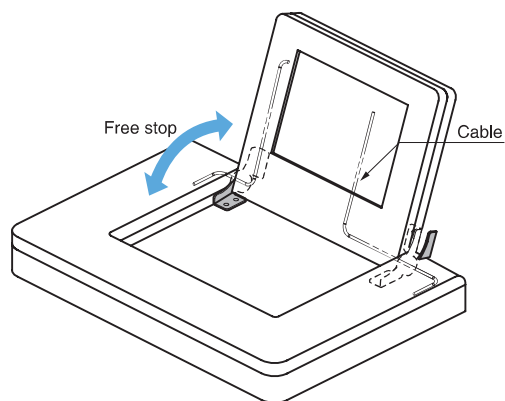
- LCD, monitoring camera, etc.

[Remarks]

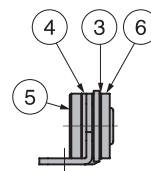
- Be sure to read the "Cautions" **1**.
- For pair using: Please use the same torque in both hinges.
- When installing, ensure that both hinge shafts are levelled and aligned.

Selection Tool
Sasuga-kun
 Applicable Products
 Used for Product
 Selection &
 Simulation.
 Available on Web!

[Application Example]



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



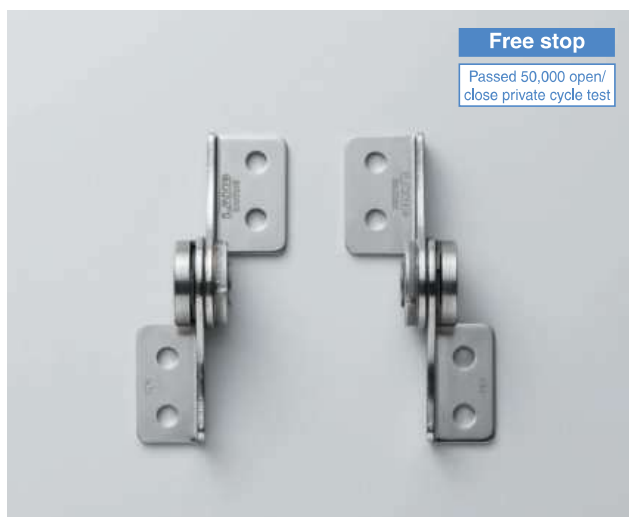
No.	Part Name	Material	Finish
①	Bracket	Stainless Steel (SUS430)	Barrel Polished
②	Base		
③	F Plate	Bronze	-
④	Spring Washer	Steel	
⑤	Shaft	Stainless Steel (SUS303)	
⑥	Washer	Stainless Steel (SUS430)	Barrel Polished

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

Refer to **1** : P.15

TORQUE HINGE HG-TC45H

SUS



- With wire hole.
- Excellent durability.

[Specifications]

- Operating temperature: 0°C ~40°C

[Applications]

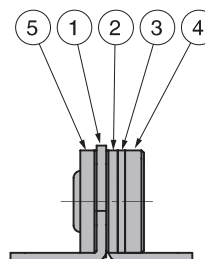
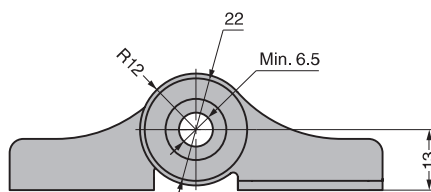
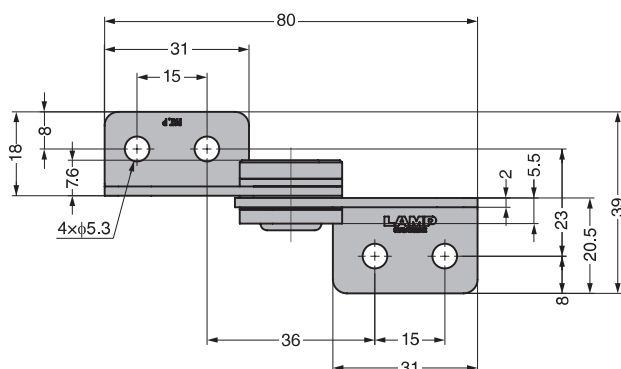
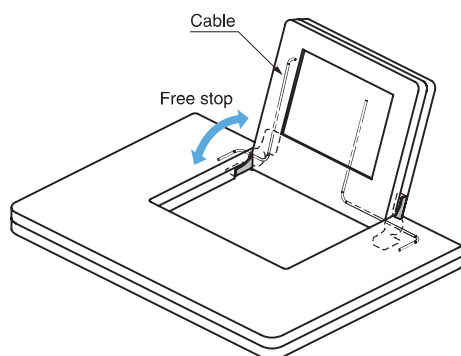
- LCD, monitoring camera, etc.

[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.



[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)	

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

Refer to **1** : P.15

STAINLESS STEEL TORQUE HINGE HG-TAS

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

Free stop



- Stainless steel construction suitable for corrosive environments.

[Specifications]

- Operating temperature: 0°C ~40°C

[Applications]

- LCD, monitoring camera, etc.

[Remarks]

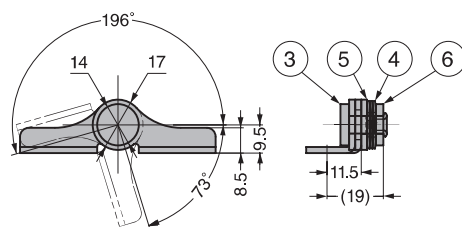
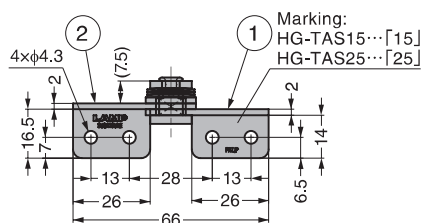
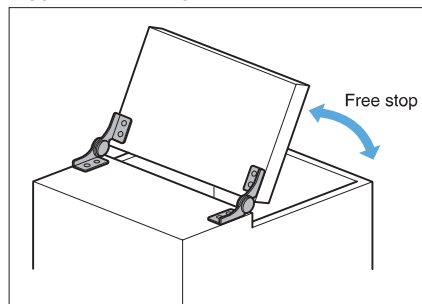
- Be sure to read the "Cautions" **1**.
- For pair using: Please use the same torque in both hinges.
- When installing, ensure that both hinge shafts are levelled and aligned.



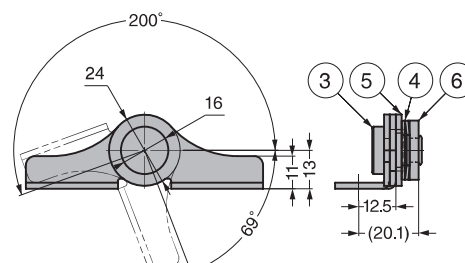
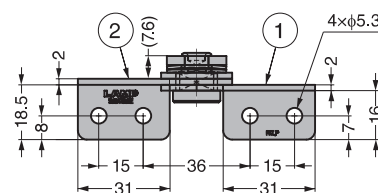
Video Link



[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		
⑥	Washer	Stainless Steel (SUS430)	Barrel Polished

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

Refer to **1** : P.15

ADJUSTABLE TORQUE HINGE **HG-TASJ40****SUS**

Free stop

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

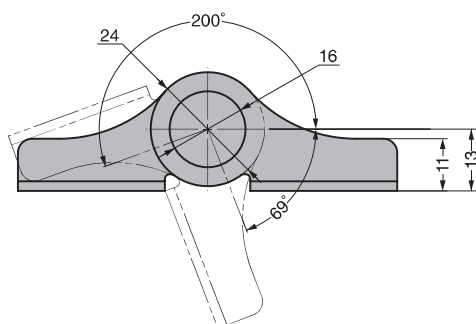
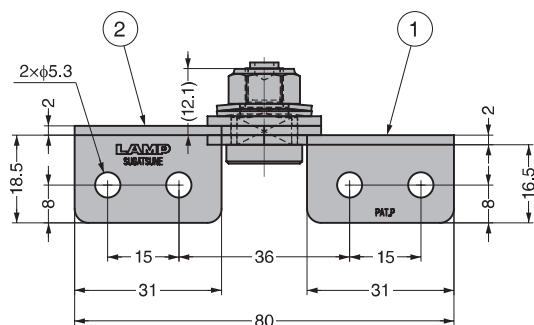
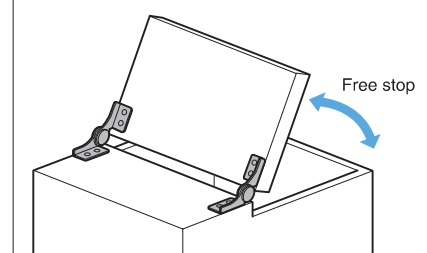
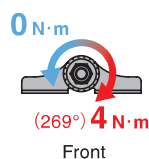
[Specifications]

- Operating temperature: 0°C ~40°C

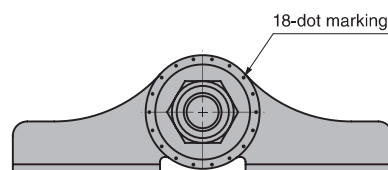
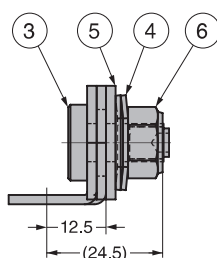
[Remarks]

- 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
 Applicable Products
 Used for Product
 Selection &
 Simulation.
 Available on Web!

[Application Example]Adjustable with
a hex key 13.

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)	Barrel Polished
⑤	Plate		
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)
		170-037-306	HG-TASJ40R	Right	0~4.0	0~40.8	64	20	160
		170-037-307	HG-TASJ40L	Left			64	20	160

Refer to **1** : P.15TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

STAINLESS STEEL TORQUE HINGE HG-TBS



- Stainless steel construction suitable for corrosive environments.

[Specifications]

- Operating temperature: 0°C ~40°C

[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.

Video Link



Selection Tool

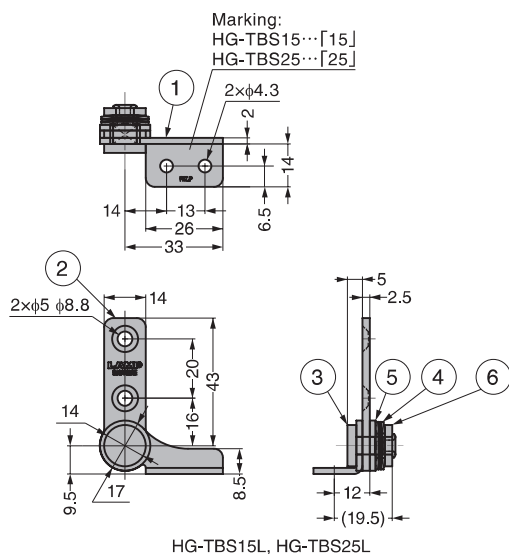
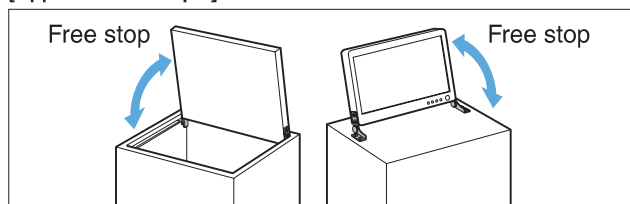
Sasuga-kun

Applicable Products

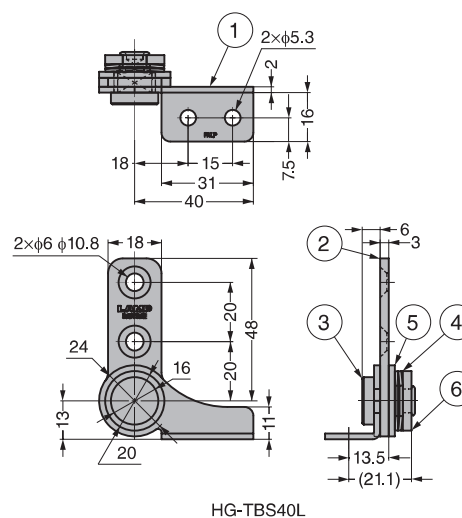
Used for Product
Selection &
Simulation.

Available on Web!

[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		
⑥	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)
		170-037-300	HG-TBS15R	Right	1.5±20%	15.3±20%	360°	37	40	320
		170-037-301	HG-TBS15L	Left				37	40	320
		170-037-302	HG-TBS25R	Right	2.5±20%	25.5±20%		38	40	320
		170-037-303	HG-TBS25L	Left				38	40	320
		170-037-304	HG-TBS40R	Right	4.0±20%	40.8±20%		67	20	160
		170-037-305	HG-TBS40L	Left				67	20	160

Refer to **1** : P.15

ADJUSTABLE TORQUE HINGE **HG-TBSJ40****SUS**

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

[Specifications]

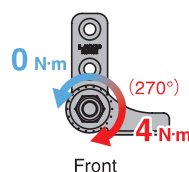
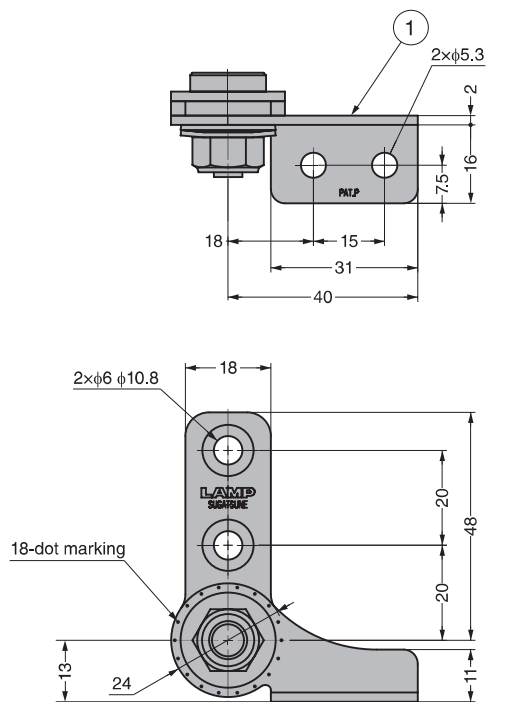
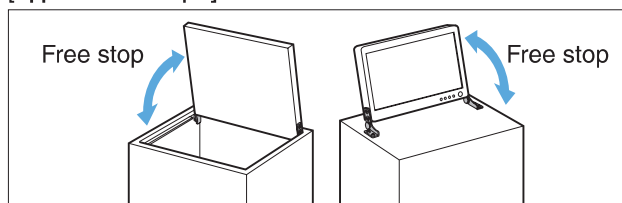
- Operating temperature: 0°C ~40°C

[Remarks]

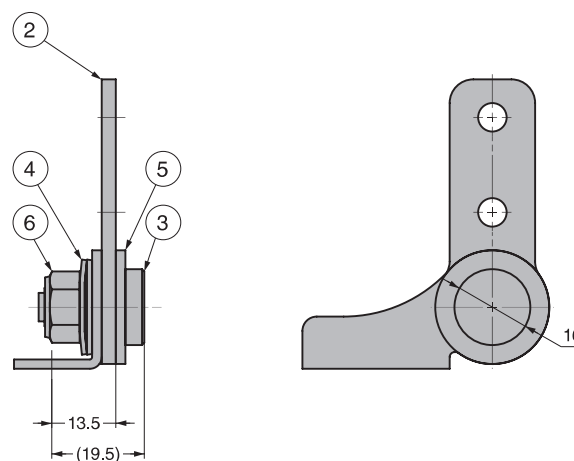
- Be sure to read the "Cautions" **1**.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Use a spanner (nominal size 13) for torque adjustment.
- Do not forcibly remove the torque adjustment nut.
- The factory setting of torque is 4.0N · m. Adjust if necessary.

Selection Tool
Sasuga-kun
 Applicable Products
 Used for Product
 Selection &
 Simulation.
 Available on Web!

Adjustable with
a hex key 13.

**[Application Example]**

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

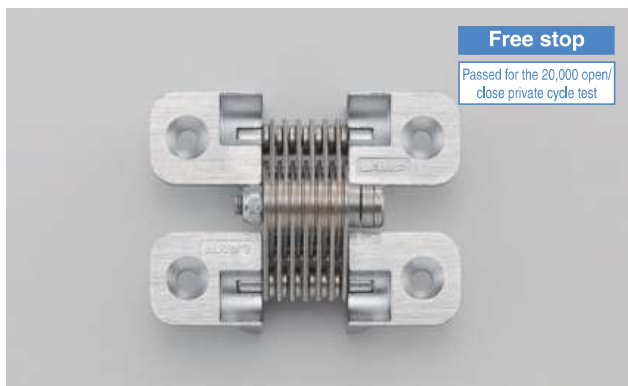


No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Barrel Polished
②	Base		
③	Shaft	Stainless Steel (SUS303)	—
④	Spring Washer	Stainless Steel (SUS304)	Barrel Polished
⑤	Plate		
⑥	Lock Nut	Stainless Steel	—

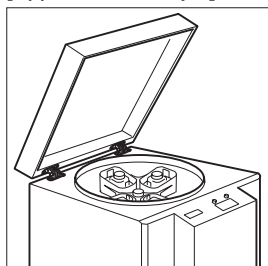
RoHS	CAD	Item Code	Item Name	Type	Torque N · m/pc	Torque kgf · cm/pc	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
		170-037-308	HG-TBSJ40R	Right	0~4.0	0~40.8	360°	67	20	160
		170-037-309	HG-TBSJ40L	Left				67	20	160

Refer to **1** : P.15

TORQUE HINGE (CONCEALED) HG-RT

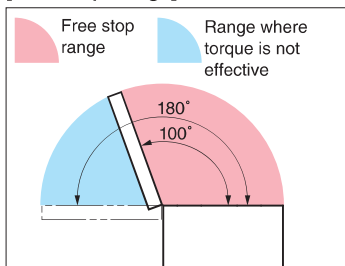


[Application Example]



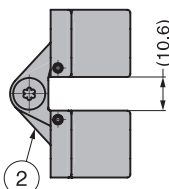
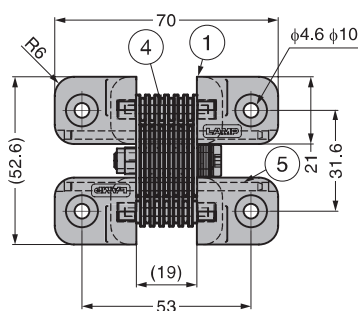
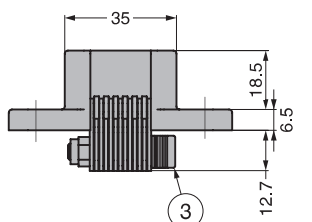
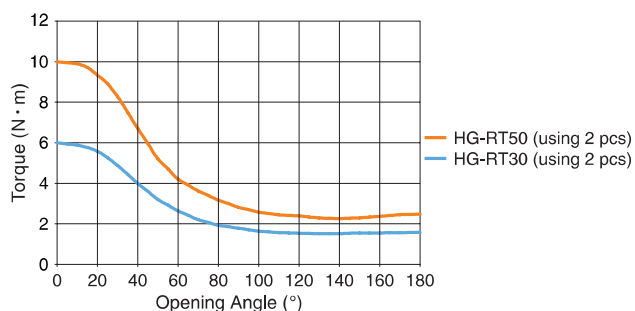
Use with top-opening lids (opening angle 0° ~100°).

[Free Stop Range]



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

[Torque Curve]



- 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°C ~40°C

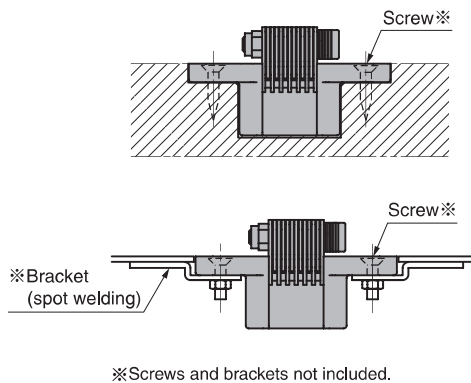
[Remarks]

- 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.

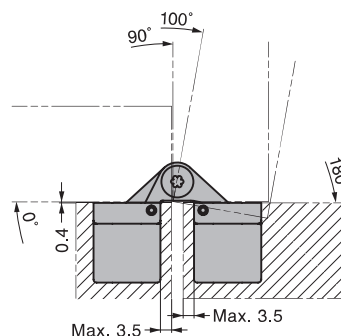
[Recommended Screws]

- Countersunk head tapping screw 4 or Countersunk head screw M4

[Installation]



[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						
✓	SD	170-026-478	HG-RT30	3	31	3±20%	31±20%	180°	160	12	72
✓	SD	170-021-889	HG-RT50	5	51	5±20%	51±20%				

Refer to **1** : P.88, **2** : P.15

DETACHABLE TORQUE HINGE HG-RNM30

INSTRUCTION

SUS

VIDEO



- 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]

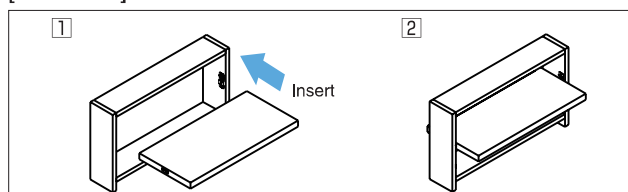
Only for HG-RNM30-SET

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

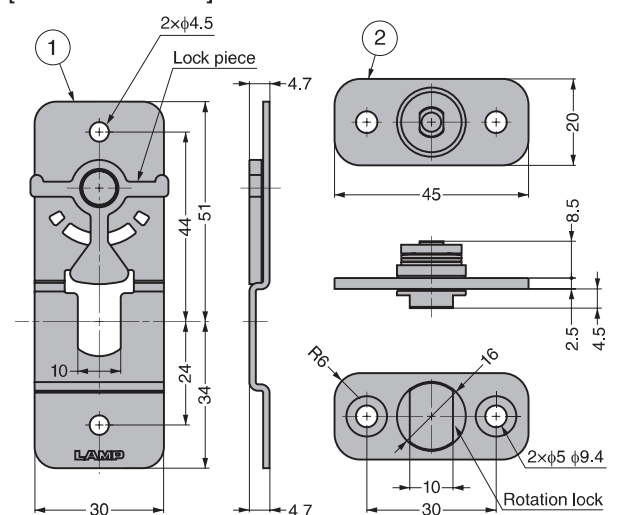
[Recommended Screws]

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

[Installation]

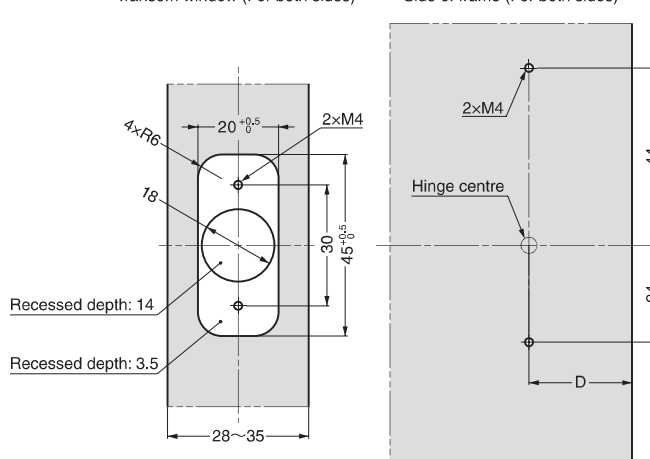


[Cut Out Dimensions]



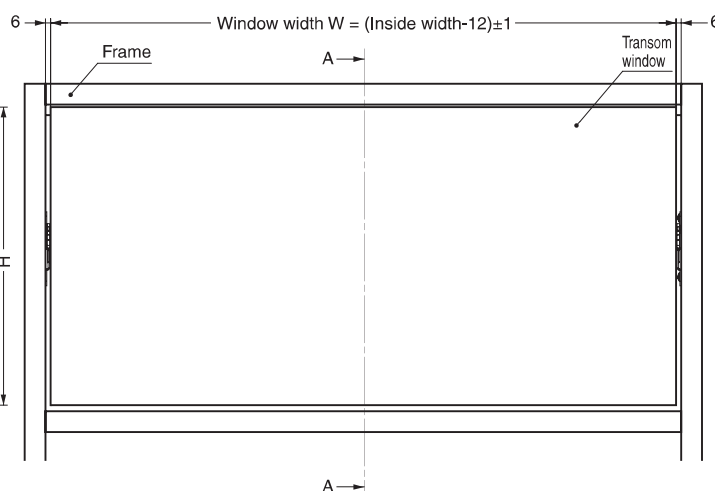
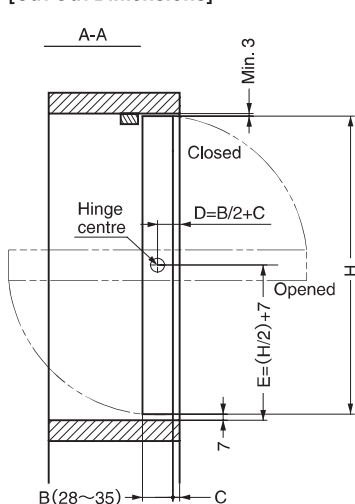
Transom window (For both sides)

Side of frame (For both sides)



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)
✓	3D	170-029-733	HG-RNM30	w/o	3.0 ±20%	30.6 ±20%	112	15	120
✓	3D	170-033-319	HG-RNM30-SET	w/				15	120

Refer to 1 : P.15

LIFT-OFF TORQUE HINGE HG-KNT

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

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

[Applications]

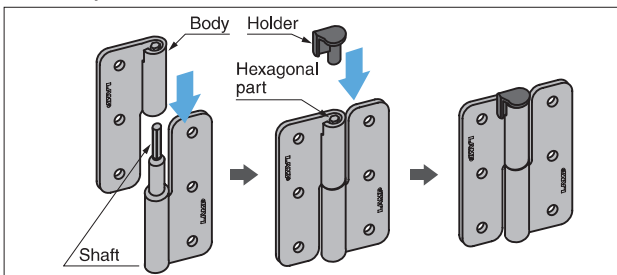
- Laboratory equipment, OA equipment, FA equipment, and various automatic equipment.

[Remarks]

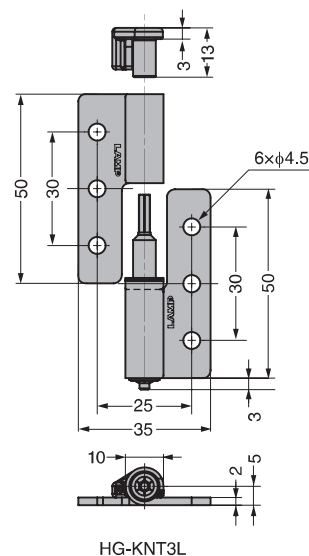
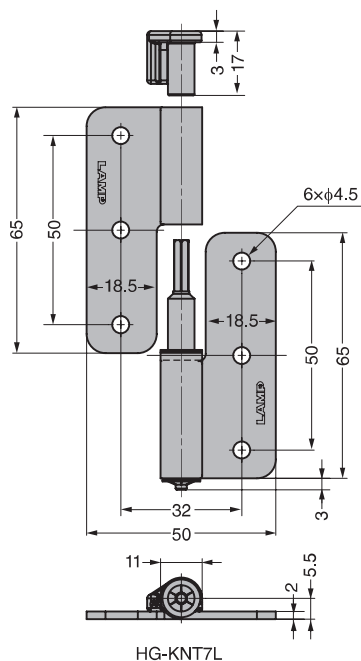
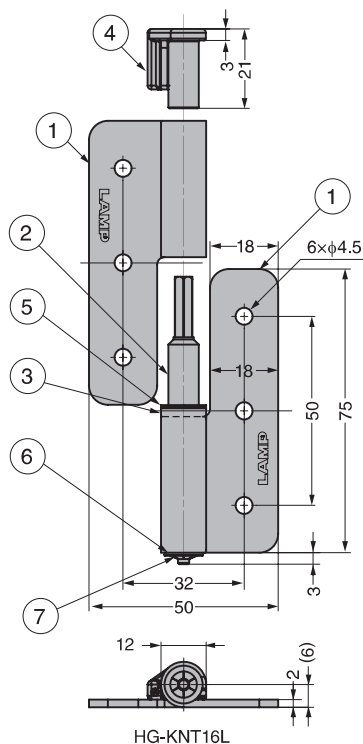
- Be sure to read the "Cautions" 1.
- When installing, ensure that both hinge shafts are aligned.
- Insert into holder following installation of the door. Infirm insertion may cause damage.
- When using the hinges horizontally, set the holders opposite each other to prevent them being inserted or removed.

Selection Tool
Sasuga-kun
Applicable Products
Used for Product
Selection &
Simulation.
Available on Web!

[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.



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

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

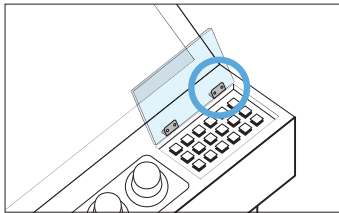
RoHS	CAD	Item Code	Item Name	Type	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
	—	170-035-380	HG-KNT3L	Left-handed	0.3±0.2	3.1±2.0	42	50	200
	—	170-035-381	HG-KNT3R	Right-handed				50	200
	—	170-035-382	HG-KNT7L	Left-handed	0.7±0.25	7.1±2.6	76	50	200
	—	170-035-383	HG-KNT7R	Right-handed				50	200
	—	170-035-384	HG-KNT16L	Left-handed	1.6±0.3	16.3±3.1	96	30	120
	—	170-035-385	HG-KNT16R	Right-handed				30	120

Refer to 1 : P.15

MINI TORQUE HINGE HG-MF



[Application Example]



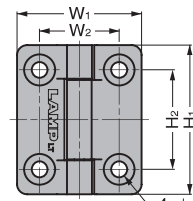
● Small plastic torque hinge.

[Applications]

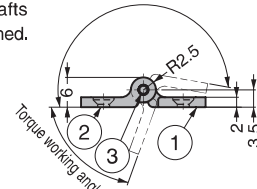
● Small and lightweight doors such as office equipment and shop furniture

[Remarks]

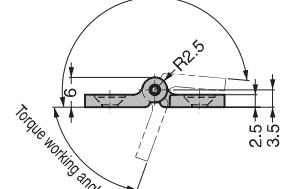
- Be sure to read the "Cautions" 1.
- When installing, ensure that both hinge shafts are levelled and aligned.



Torque working angle 190°



HG-MF08, HG-MF15



HG-MF25

No.	Part Name	Material	Colour
①	Body A	POM	Black, White
②	Body B		
③	Shaft	Stainless Steel (SUS304)	—

RoHS	CAD	Item Code	Item Name	Colour	W ₁	W ₂	H ₁	H ₂	t	d φ	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
		170-023-854	HG-MF08-BL	Black	25	16	20	10	2	φ 2.4, φ 4.2	0.0784 ± 25%	0.8 ± 25%	2	300	1800
		170-023-855	HG-MF08-WT	White			20	10		φ 2.4, φ 4.2			2	300	1800
		170-023-856	HG-MF15-BL	Black			30	20		φ 3.2, φ 6.2			3	200	1200
		170-023-857	HG-MF15-WT	White			30	20		φ 3.2, φ 6.2			3	200	1200
		170-023-858	HG-MF25-BL	Black	28	18	40	25	2.5	φ 3.2, φ 6.2	0.245 ± 33%	2.5 ± 33%	5	100	600
		170-023-859	HG-MF25-WT	White			40	25		φ 3.2, φ 6.2			5	100	600

Refer to 1 : P.15

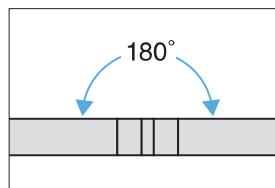
DUAL AXIS TORQUE HINGE

Under Development



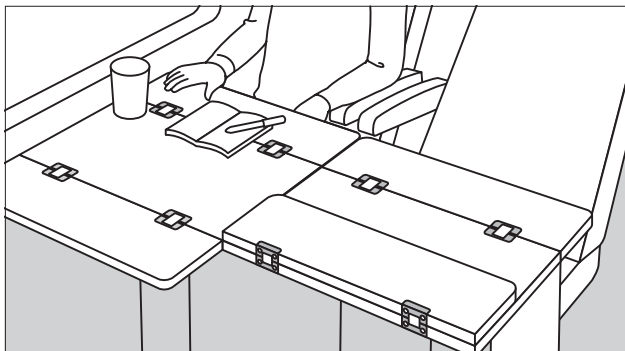
● Swivels 180° .

● Suitable for folding table of shop and train, etc.



No projection from the top surface of the door when fully opened. And the design of door is maintained as the mounting screws are not visible.

[Application Example]



Box seat table of train

Fully opened



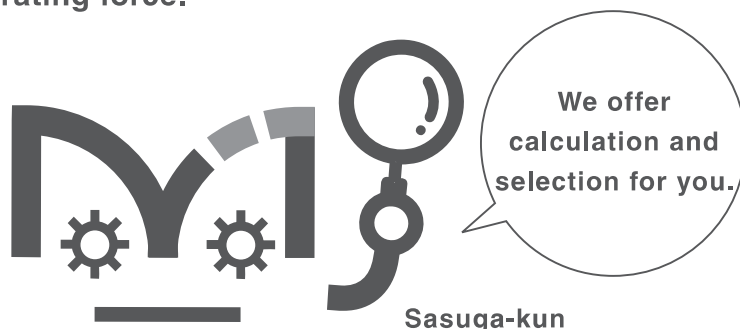
Mounting screws do not protrude when closed.



TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
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.



Sasuga-kun

Access from here

Sasuga-kun

Search

<http://contents.sugatsune.co.jp/en/motion/selection/>



DAMPER HINGE HG-JHW16S



● 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°C ~40°C

[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

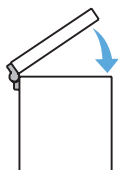
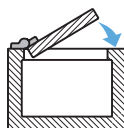
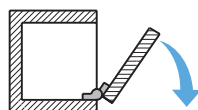


Selection Tool
Sasuga-kun
Applicable Products

Used for Product
Selection &
Simulation.
Available on Web!

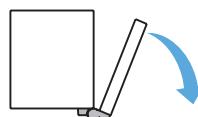
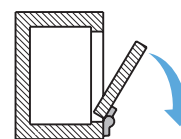
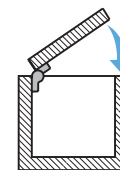
[Damper Working Direction]

HG-JHW16S

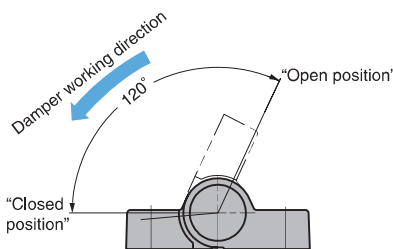
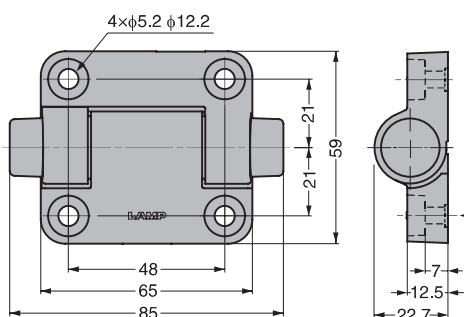
Top-opening
(Overlay)Top-opening
(Inset)

Downward-opening

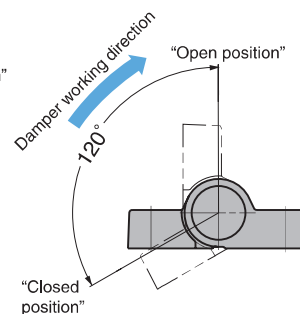
HG-JHW16SG

Downward-opening
(Overlay)Downward-opening
(Inset)

Top-opening



HG-JHW16S



HG-JHW16SG

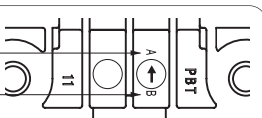
※ "Opening" and "Closing" directions shown above are for the case of external installation.

View X (back)

Marking (arrow)

HG-JHW16S

HG-JHW16SG



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)
		170-027-420	HG-JHW16S-34	For Closing	2.0~3.4	20.4~34.7	83	30
		170-027-421	HG-JHW16S-50		3.4~5.0	34.7~51.0		30
		170-027-422	HG-JHW16S-34G	For Opening	2.0~3.4	20.4~34.7		30
		170-027-423	HG-JHW16S-50G		3.4~5.0	34.7~51.0		30
		170-027-419	HG-JHW16S-00	Without Damper	—	—	52	30

Refer to **1** : P.67, **2** : P.15

DAMPER HINGE HG-JHW, HG-JHWG

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGESPassed 20,000 open/
close private cycle test

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]

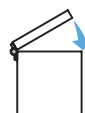
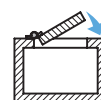
● Be sure to read the "Cautions" 3.

● 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.

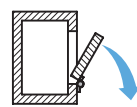
[Damper Working Direction]

HG-JHW

Top-opening
(Overlay)Top-opening
(Inset)

Downward-opening

HG-JHWG

Downward-opening
(Overlay)Downward-opening
(Inset)

Top-opening

Video Link



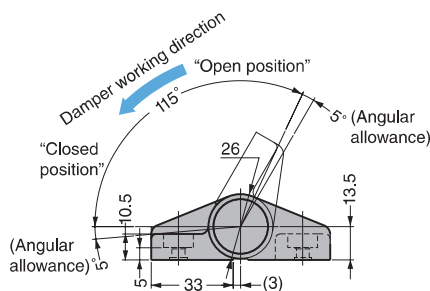
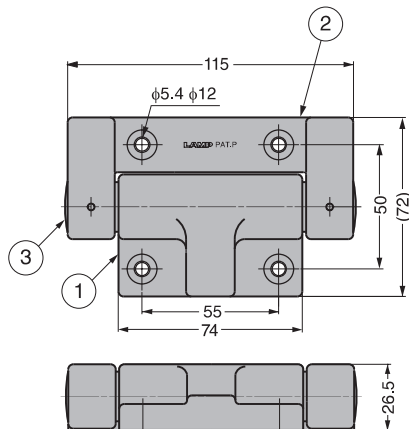
Selection Tool

Sasuga-kun

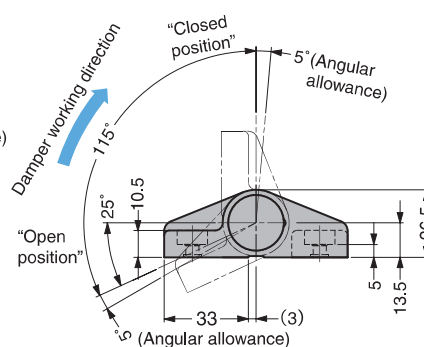
Applicable Products

Used for Product
Selection &
Simulation.

Available on Web!



HG-JHW



HG-JHWG

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

RoHS	CAD	Item Code	Item Name	Damper Working Direction	Torque N·m/2pcs	Torque kgf·cm/2pcs	Marking Colour	Weight (g)	Box (pcs)	Carton (pcs)
		170-092-212	HG-JHW50	For Closing	3~5	61.2~102	White	184	4	64
		170-092-211	HG-JHW70		5~7	102~142.8	w/o	182	4	64
		170-092-215	HG-JHW50G	For Opening	3~5	61.2~102	White, Red	216	4	64
		170-092-216	HG-JHW70G		5~7	102~142.8	Red	180	4	64

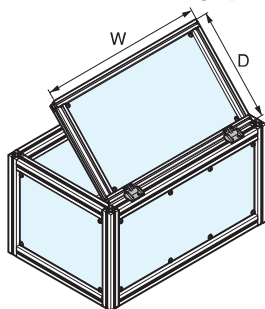
Refer to 1 : P.66, 2 : P.51, 3 : P.15

AS Parts Set for Installing to Aluminium Frame

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



[Criterion of Door Weight]



Item Name	W	D	Door Weight kg
HG-JHW50	600	500	3,4
HG-JHW70	1000	500	5

※ In case of using two hinges for one door.

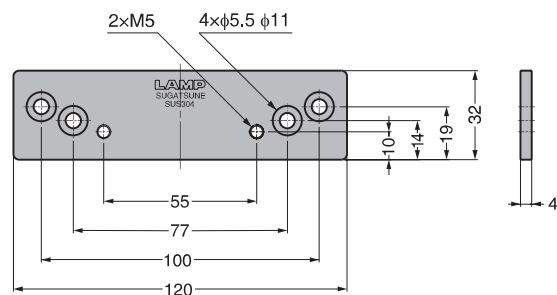
[AS Parts Set] Parts set of brackets, screws and AS nuts used for installing to aluminium frame.

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (g)
✓	—	170-041-554	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	—
✓	—	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	—
✓	—	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	—
✓	—	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 : FRONT P.20, 2 : P.50, 3 : P.706, 4 : P.51

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

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)
✓	3D	170-090-692	AS-JH-W	Stainless Steel (SUS304)	Barrel Polished	105	25	250

DAMPER HINGE HG-JH



INSTRUCTION



- 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]

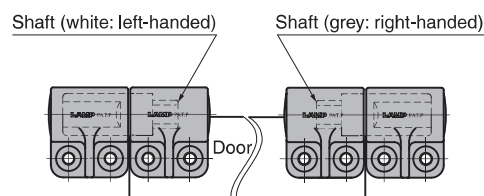
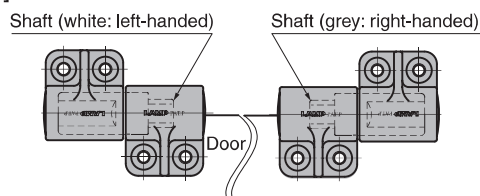
- Top-opening lids and upper covers of various cabinets.

[Remarks]

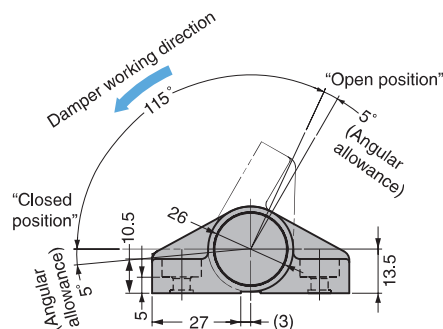
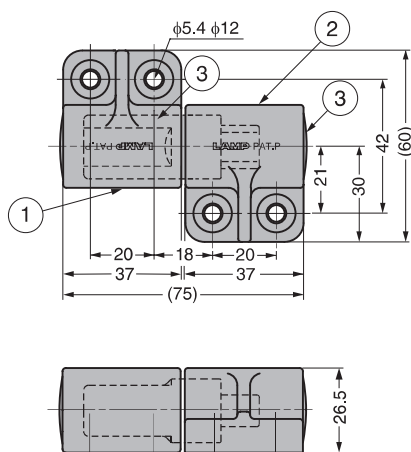
- Be sure to read the "Cautions" **3**.
- Torque range is the value when using two hinges for one door.
- Install a stopper such as a stay at the lid opening/closing position (0~115 degree or less) for not exceeding the specified rotation range.
- When installing, ensure that both hinge shafts are levelled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

Selection Tool
Sasuga-kun
 Applicable Products
 Used for Product
 Selection &
 Simulation.
 Available on Web!

[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.



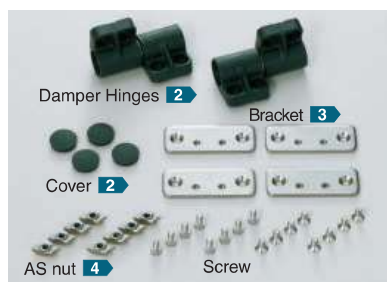
No.	Part Name	Material	Finish / Colour
①	Bracket	PBT	Emboss/Dark Grey
②	Damper		
③	Cap	PP	

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

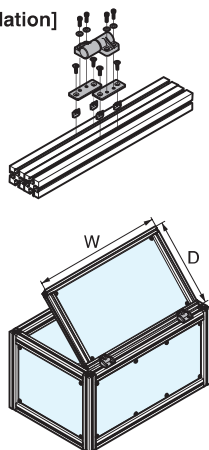
Refer to **1** : P.66, **2** : P.53, **3** : P.15

AS Parts Set for Installing to Aluminium Frame

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

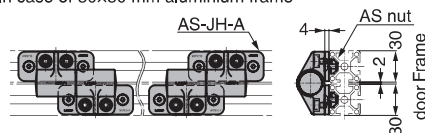


[Installation]

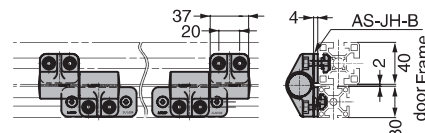


[Dimensions]

In case of 30x30 mm aluminium frame



In case of 40x40 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.

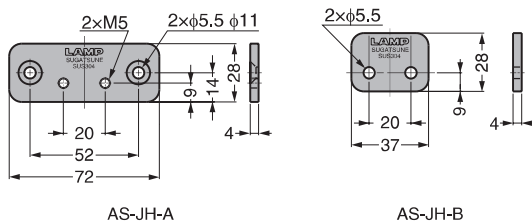
[AS Parts Set] Parts set of brackets, screws and AS nuts used for installing to aluminium frame.

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 x 10 Hexagon Socket Head Cap Screw : 8pcs M5 x 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 x 10 Hexagon Socket Head Cap Screw : 8pcs M5 x 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 x 10 Hexagon Socket Head Cap Screw : 4pcs M5 x 20 Hexagon Socket Head Cap Screw : 4pcs M5 x 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 x 10 Hexagon Socket Head Cap Screw : 4pcs M5 x 20 Hexagon Socket Head Cap Screw : 4pcs M5 x 12 Hexagon Socket Countersunk Head Screw : 4pcs M5 Washers (size 5) : 8pcs	-

Refer to 1 : FRONT P.20, 2 : P.52, 3 : P.53, 4 : P.706

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

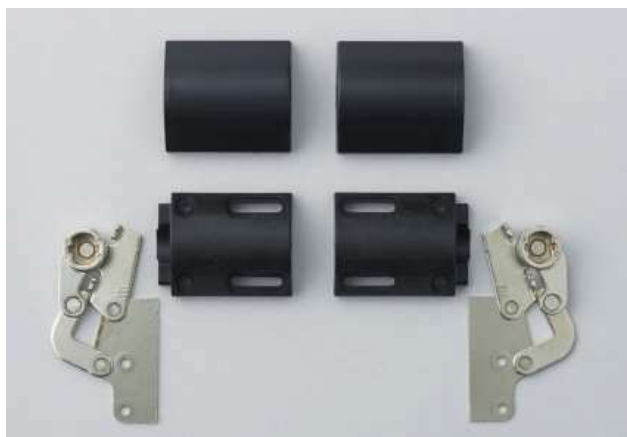
AS BRACKET FOR HG-JH AS-JH



- 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)
3D		170-090-690	AS-JH-A	Stainless Steel (SUS304)	Barrel Polished	60	50	500
3D		170-090-691	AS-JH-B			30	100	1000

DAMPER HINGE HG-JHM20T Surface Mount Type



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]

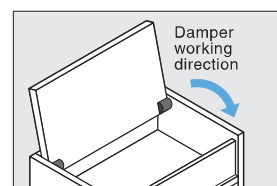
- Sold in pairs.
- Below torque range is the value when using a pair of hinges (left and right) per lid.
- Be sure to read the "Cautions" 2.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Damper mechanism works when opening the top-opening lid by about 60° or more. Otherwise, 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



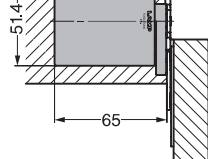
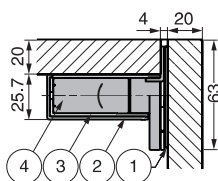
Chrome finished cover



[Front View]

Top-opening lid closed

Top-opening lid opened by 90°

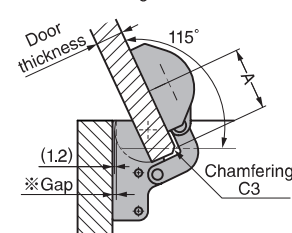
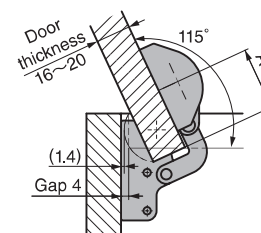


※Right-handed type shown. Left-handed type is symmetrical.

[Installation]

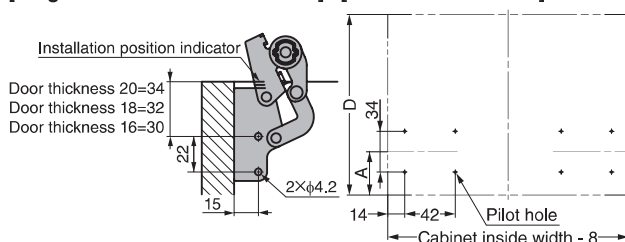
Standard

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)
 $L = \frac{D}{2} - A + 20$ ※

Rotation 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.

 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)

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)
		170-036-328	HG-JHM20T-80BL	Black	6~8	61.2~81.6	Yellow	—	—	—
		170-036-329	HG-JHM20T-80WT	White				—	—	—
		170-036-839	HG-JHM20T-80CR	Chrome				—	—	—

Refer to 1 : P.66, 2 : P.15

DAMPER HINGE HG-JHM20



INSTRUCTION



Sold in pairs.

W/ black cover



Sold in pairs.

W/ white cover

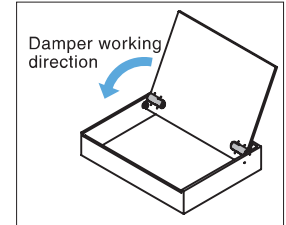
- Hinge with built-in dampers UDH 1.
- Smooth movement in the opening direction.
- Mortise mount type.
- Easy to cut out with a router.
- Cover hides mounting screws for clean appearance.

[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 x 20 (For wooden door)



Selection Tool
Sasuga-kun
Applicable Products
Used for Product Selection & Simulation.
Available on Web!

Video Link


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

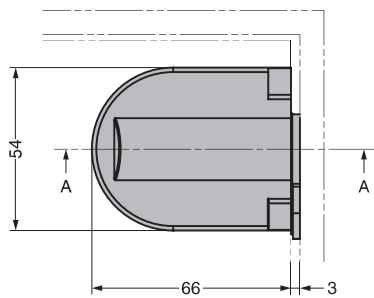
HINGES FOR
ALUMINIUM
FRAME

DROP
HINGES

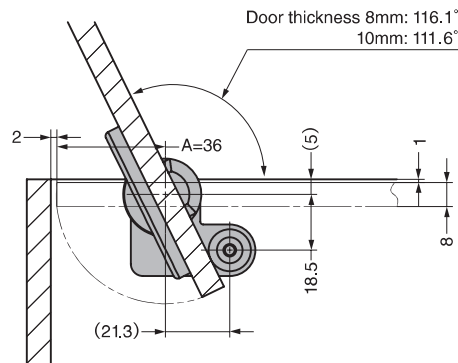
GLASS
DOOR
HINGES

SPECIAL
HINGES

[Top View]



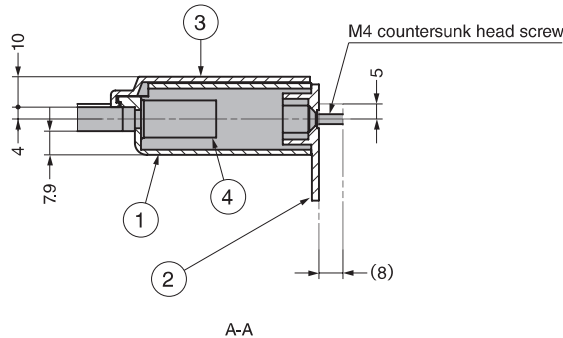
[Installation]



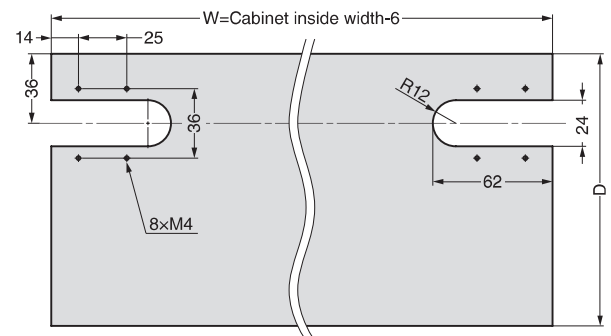
※If the distance from the screw hole to the edge is 5mm, a level difference of 1mm is generated.

※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)
		170-012-854	HG-JHM20-80BL	Black	6~8	61.2~81.6	Yellow	206	-	-
		170-012-855	HG-JHM20-80WT	White				206	-	-

Refer to 1 : P.66, 2 : P.15

DAMPER HINGE HG-JHM16

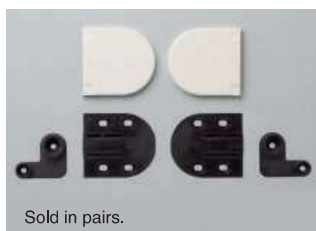


INSTRUCTION

VIDEO

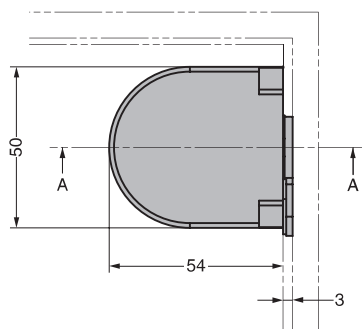


W/ black cover

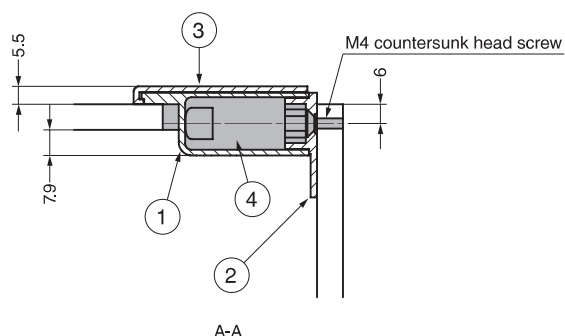


W/ white cover

[Top View]



[Cross-section Drawing]



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	-	-

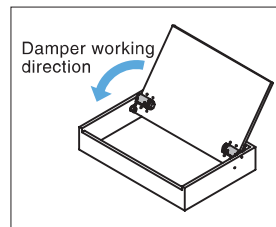
- Hinge with built-in damper UDH-16 1.
- Smooth movement in the opening direction.
- Mortise mount type.
- Easy to cut out with a router.
- Cover hides mounting screws for clean appearance.

[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)

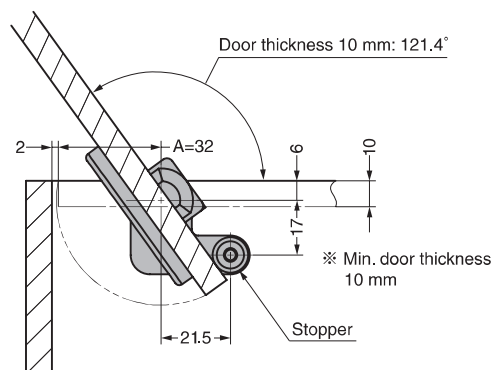


Selection Tool
Sasuga-kun
 Applicable Products
 Used for Product
 Selection &
 Simulation.
 Available on Web!

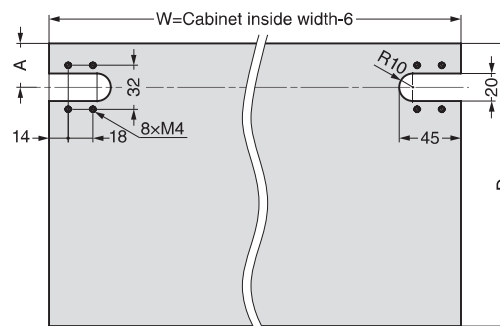
Video Link



[Installation]



[Cut Out Dimensions]



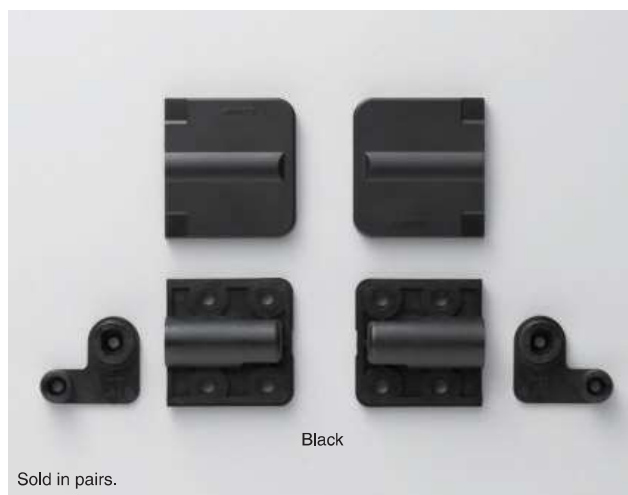
RoHS	CAD	Item Code	Item Name	Colour	Torque N·m/pair	Torque kgf·cm/pair	Marking Colour (Base Side)	Weight (g)	Box (pairs)	Carton (pairs)
		170-092-221	HG-JHM16-34BL	Black	2~3.4	20.4~34.7	Green	126	-	-
		170-092-222	HG-JHM16-34WT	White				126	-	-
		170-092-223	HG-JHM16-50BL	Black	3.4~5	34.7~51	Black	126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

Refer to 1 : P.67, 2 : P.15

DAMPER HINGE HG-JHM14



INSTRUCTION



- 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°C ~40°C

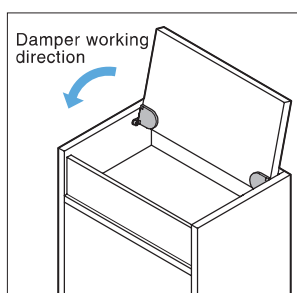
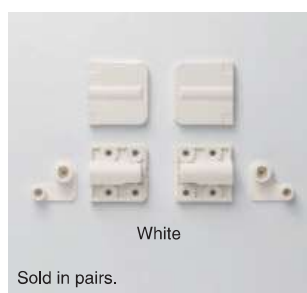
[Remarks]

- 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**.

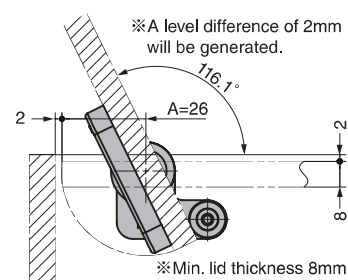
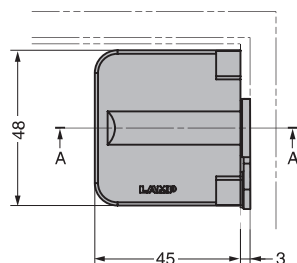
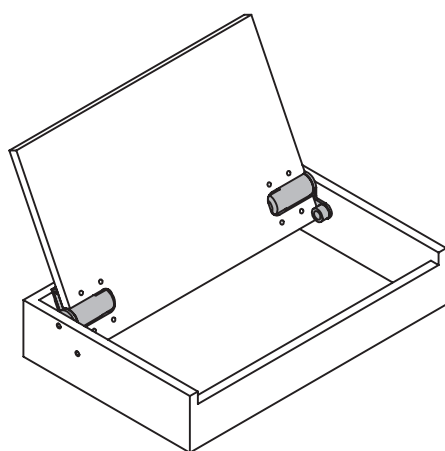
Selection Tool
Sasuga-kun
 Applicable Products
 Used for Product
 Selection &
 Simulation.
 Available on Web!

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

■ Side Mount Type

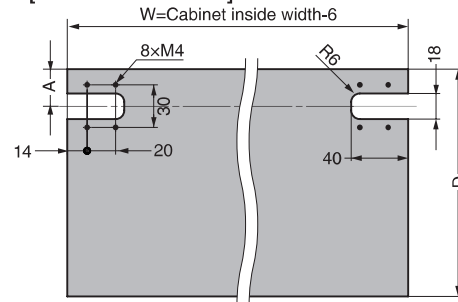
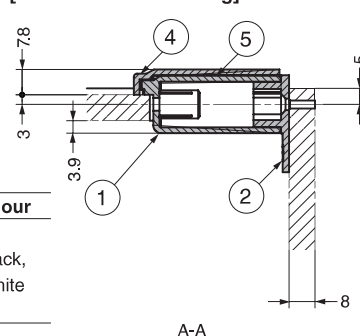
[Top View]

[Installation]



[Cross-section Drawing]

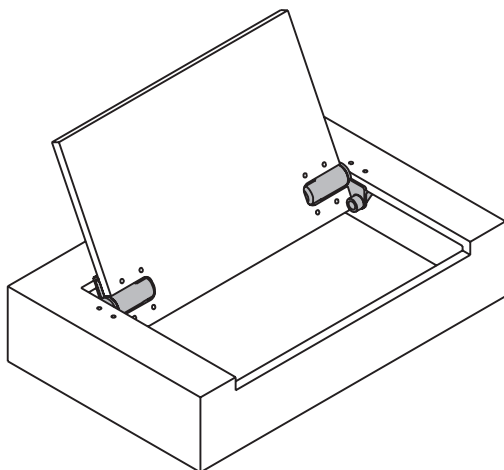
[Cut Out Dimensions]



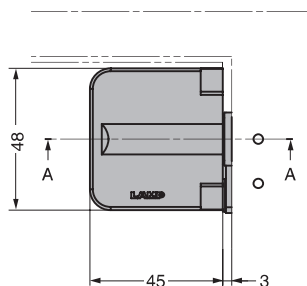
No.	Part Name	Material	Colour
①	Body	POM	Black, White
②	Bracket for side mount R	Reinforced	
③	Bracket for side mount L	PBT	
④	Cover	ABS	
⑤	Damper	-	-

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)
		170-031-930	HG-JHM14-S-8BL	Black	0.5~0.8	5.1~8.2	Purple	105°	51.4	20	220
		170-031-931	HG-JHM14-S-8WT	White			51.4		20	220	
		170-031-932	HG-JHM14-S-15BL	Black	0.8~1.5	8.2~15.3	Blue		51.4	20	220
		170-031-933	HG-JHM14-S-15WT	White					51.4	20	220
		170-031-934	HG-JHM14-S-20BL	Black	1.5~2	15.3~20.4	Green		51.4	20	220
		170-031-935	HG-JHM14-S-20WT	White					51.4	20	220

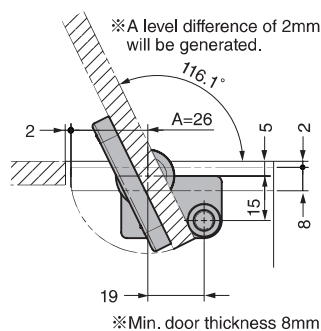
Refer to **1** : P.68, **2** : P.15, **3** : P.58

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES**Under Mount Type** (optional bracket 1 for under mount is required)

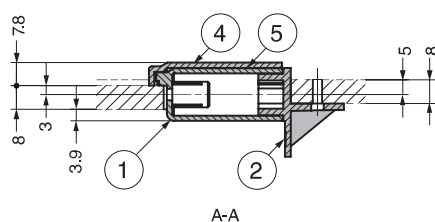
[Top View]



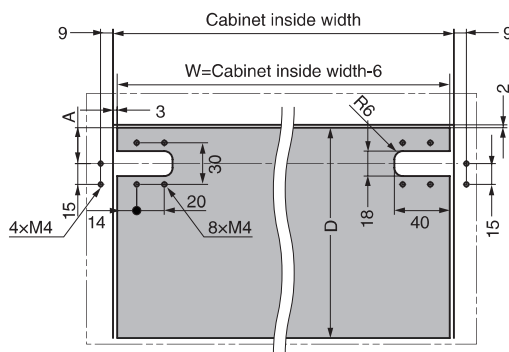
[Installation]



[Cross-section Drawing]



[Cut Out Dimensions]



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

Refer to 1 : P.58

BRACKET FOR HG-JHM14 UNDER MOUNT UKZ14

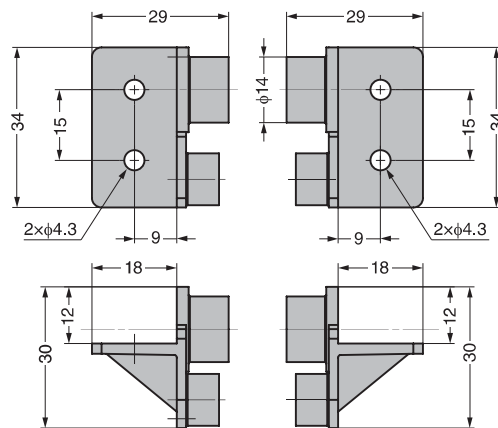
INSTRUCTION



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)
CE	3D	170-031-936	UKZ14-BL	Reinforced PBT	Black	13	40	440
CE	3D	170-031-937	UKZ14-WT		White	14	40	440

DAMPER HINGE HG-JH14-50 Stainless Steel Bracket



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 ($1.6 \sim 3.0 \text{ N} \cdot \text{m}$) also available by made to order.

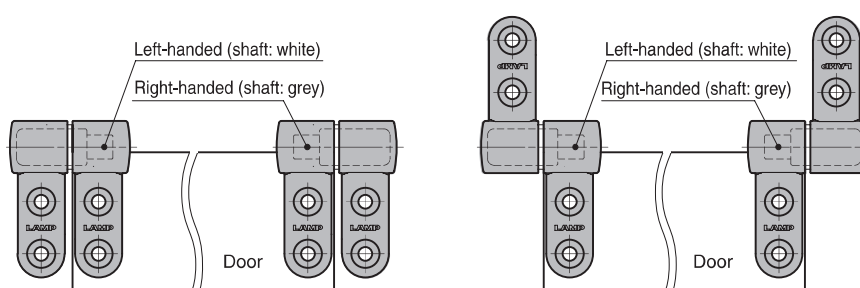
[Applications]

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

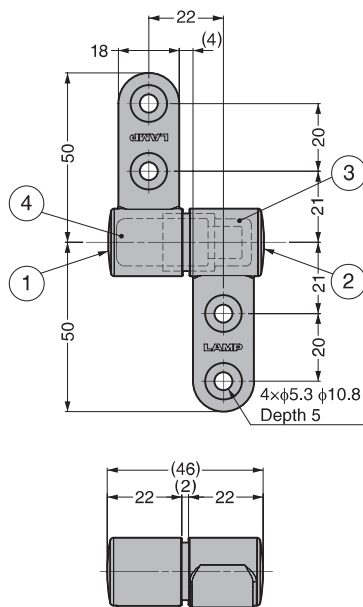
[Remarks]

- Be sure to read the "Cautions" **2**.
- Install a stopper such as a stay at the lid opening/closing position ($0 \sim 115$ 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.

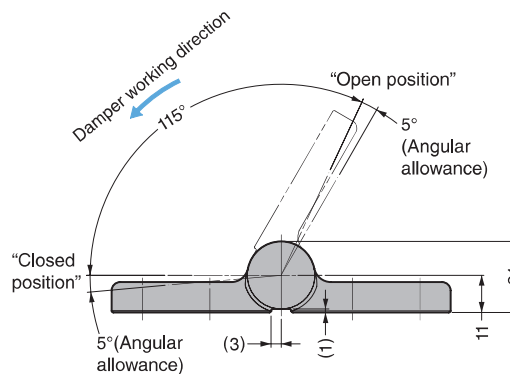
Selection Tool
Sasuga-kun
 Applicable Products
 Used for Product
 Selection &
 Simulation.
 Available on Web!

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES**[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)
		170-021-173	HG-JH14-50	3~5	30.6~51	254	8	48

Refer to **1** : P.68, **2** : P.15

MINI DAMPER HINGE HG-JHM9-S Side Mount

INSTRUCTION

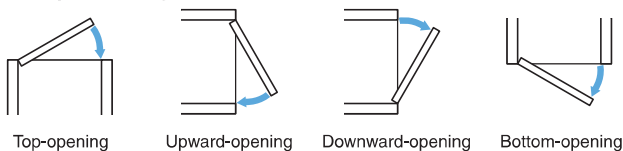
VIDEO



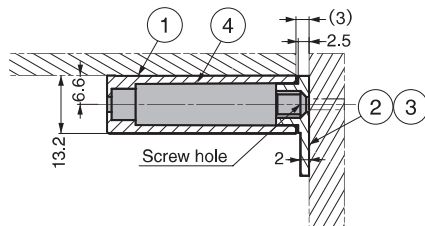
[Application Example]



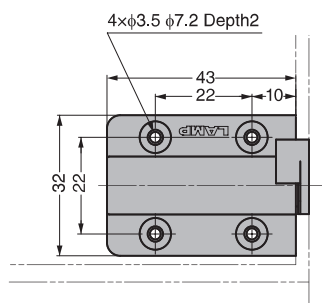
[Damper Working Direction]



[Front View] Cross-section



[Bottom View]



- 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°C ~40°C

[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



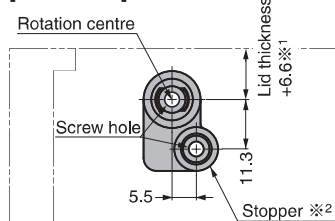
Selection Tool

Sasuga-kun

Applicable Products

Used for Product
Selection &
Simulation.
Available on Web!

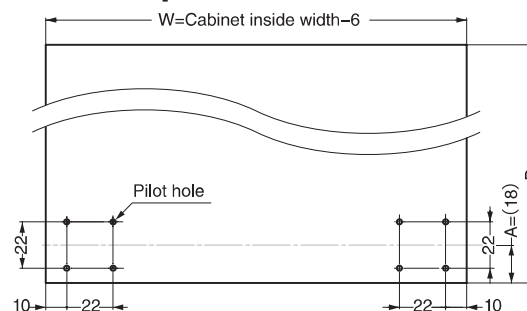
[Installation] Bracket



※1 Dimension when side board is flush with top surface of lid.

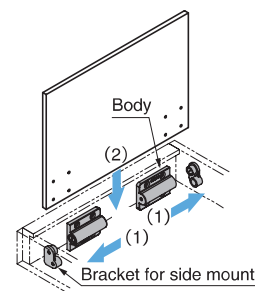
※2 To increase the opening angle of lid, rotate the stopper then fix it.

[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.



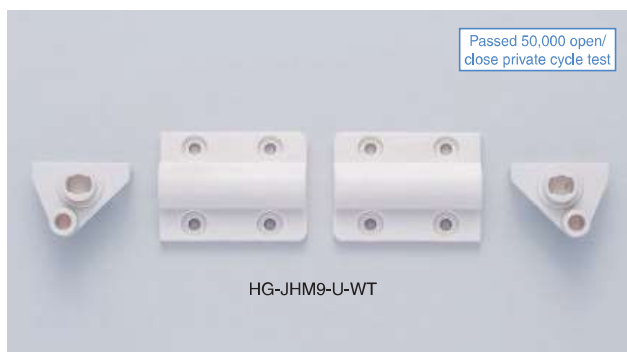
No.	Part Name	Material	Colour
①	Body	POM	Black, White
②	Bracket R	PBT	
③	Bracket L		
④	Damper	POM	—

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

Refer to **1** : P.61, **2** : P.15

MINI DAMPER HINGE HG-JHM9-U Under Mount

INSTRUCTION

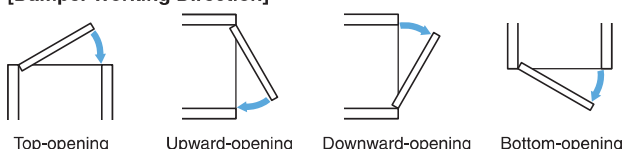


HG-JHM9-U-WT

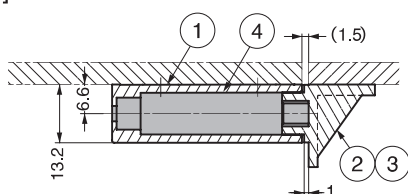
[Application Example] Shown below is HG-JHM9-S 1



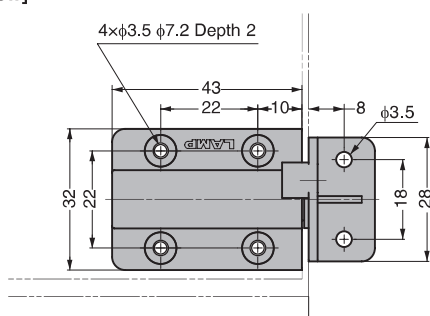
[Damper Working Direction]



[Front View] Cross-section



[Bottom View]



- 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°C ~40°C

[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]

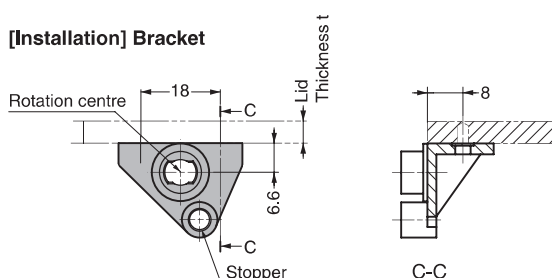
- Binding head screw M3, Binding head tapping screw 3, etc.



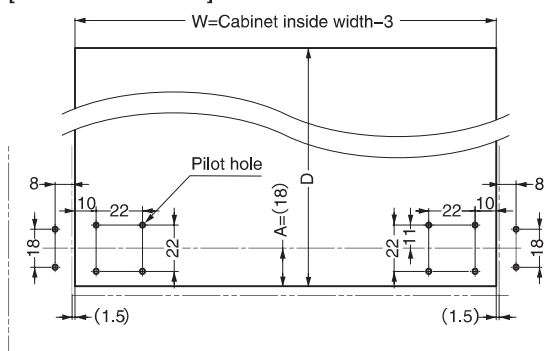
Video Link

Selection Tool
Sasuga-kun
Applicable Products
Used for Product
Selection &
Simulation.
Available on Web!

[Installation] Bracket

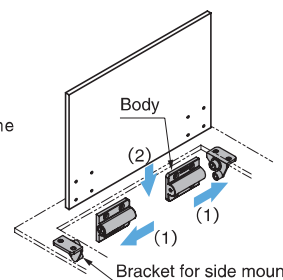


[Cut Out Dimensions]



[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)
		170-025-897	HG-JHM9-U-BL	Black	0.054~0.086	0.55~0.88	105°	31	35	385
		170-025-898	HG-JHM9-U-WT	White				31	35	385
		170-037-328	HG-JHM9-U4-BL	Black	0.027~0.043	0.275~0.44		—	—	—
		170-037-329	HG-JHM9-U4-WT	White				—	—	—

Refer to 1 : P.60, 2 : P.15



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.

- Operating temperature: 0°C ~40°C

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

- 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.

● Countersunk head screw M3, Binding head screw M3, Countersunk head tapping screw 3, Binding head tapping screw 3, etc.



Technical drawing of a screw hole in a plate. The drawing shows a cross-section of a plate with a screw hole. The dimensions are: 6.6 (total thickness), 13.2 (hole depth), 2.5 (thread depth), and 2 (plate thickness). The assembly sequence is indicated by circled numbers 1, 4, 5, 2, and 3. A label 'Screw hole' points to the hole. A dimension of 6.6 is shown for the total thickness. A dimension of 13.2 is shown for the hole depth. A dimension of 2.5 is shown for the thread depth. A dimension of 2 is shown for the plate thickness. The assembly sequence is indicated by circled numbers 1, 4, 5, 2, and 3.

Technical drawing of a lamp base. The drawing shows a side view of a rectangular base with two mounting holes. Dimensions are given in millimeters. The overall width is 43 mm, with a hole diameter of 4 mm and a hole-to-hole distance of 22 mm. The overall height is 32 mm, with a hole-to-bottom distance of 22 mm. A callout points to the mounting holes with the text: $4 \times \phi 3.5 \phi 7.2$ Depth 2.

Technical drawing of a lid with the following dimensions and labels:

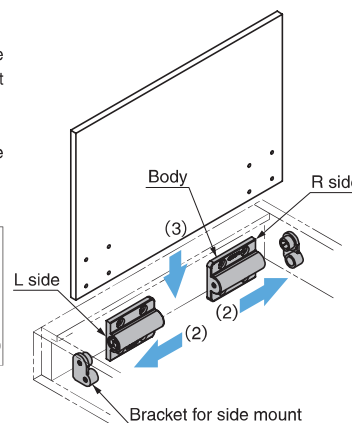
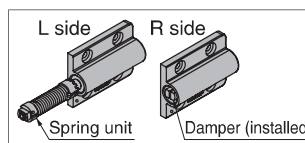
- Rotation centre
- Screw hole
- 5.5
- 11.3
- Lid thickness $t+6.6$
- Stopper²

- ※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.

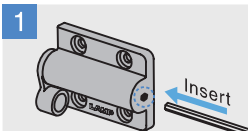
Technical drawing of a cabinet top showing a wavy line for the top edge and a dashed line for the bottom edge. Dimensions include $W = \text{Cabinet inside width} - 6$, $A = 18$, and a 22×10 grid for pilot holes.

- (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.

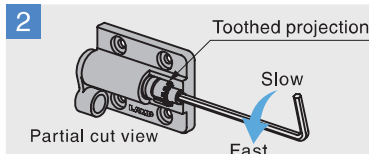


No.	Part Name	Material	Colour
①	Body	POM	Black, White
②	Bracket R	PBT	
③	Bracket L		
④	Damper (R side)	POM	—
⑤	Spring Unit (L side)	Zinc Alloy (ZDC)/Stainless Steel	Chromate/-

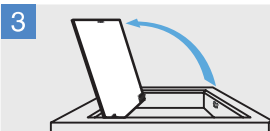
When increasing lid opening speed



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



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



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.

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

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

Loosen the force following the hex key rotating clockwise.

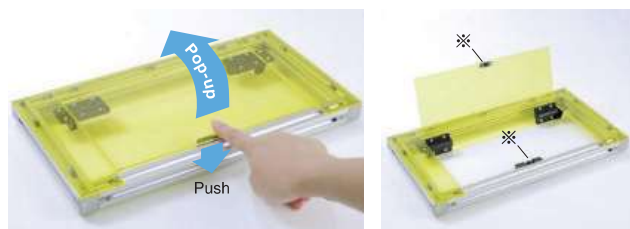
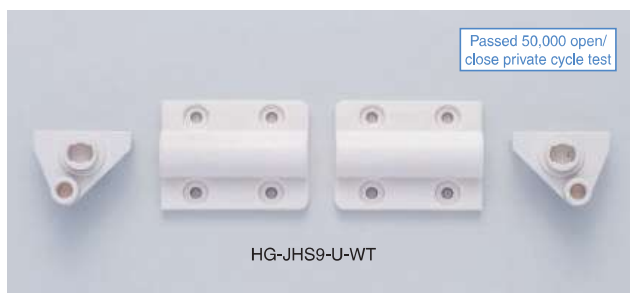
RoHS	CAD	Item Code	Item Name	Colour	Torque N·m/pair	Torque kgf·cm/pair	Opening Angle	Weight (g/pair)	Box (pairs)	Carton (pairs)
		170-028-293	HG-JHS9-S-BL	Black	0.027~0.043	0.28~0.44	105°	38	40	440
		170-028-294	HG-JHS9-S-WT	White					40	440

Refer to **1** : P.652, **2** : P.63, **3** : P.15

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

INSTRUCTION

VIDEO



※: 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°C ~40°C

[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



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

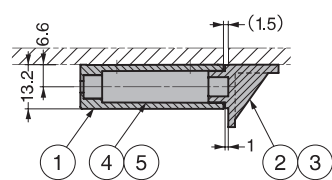
HINGES FOR ALUMINIUM FRAME

DROP HINGES

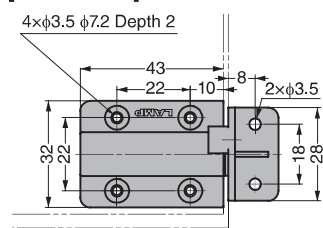
GLASS DOOR HINGES

SPECIAL HINGES

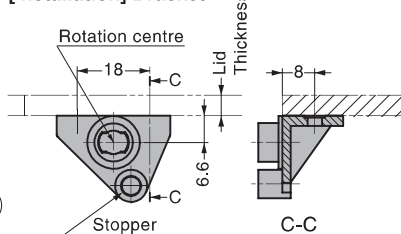
[Front View] Cross-section



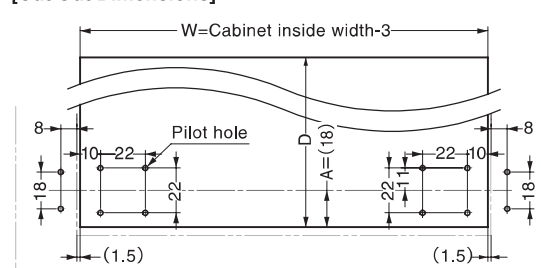
[Bottom View]



[Installation] Bracket

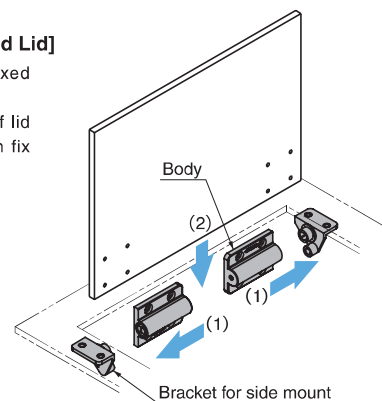


[Cut Out Dimensions]



[How to Install Body and Lid]

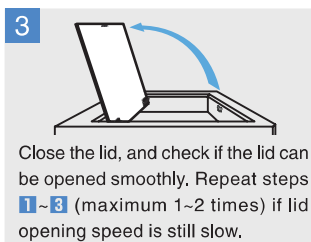
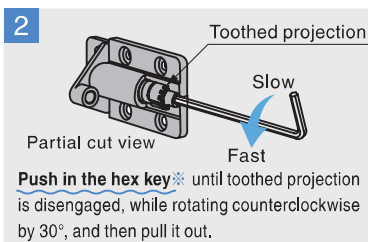
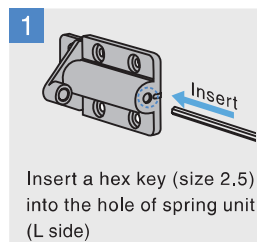
- (1) Insert the body into fixed bracket.
- (2) Align mounting holes of lid with the body, and then fix with screws.



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

[Adjustment of Lid Opening Speed]

When increasing lid opening speed



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.

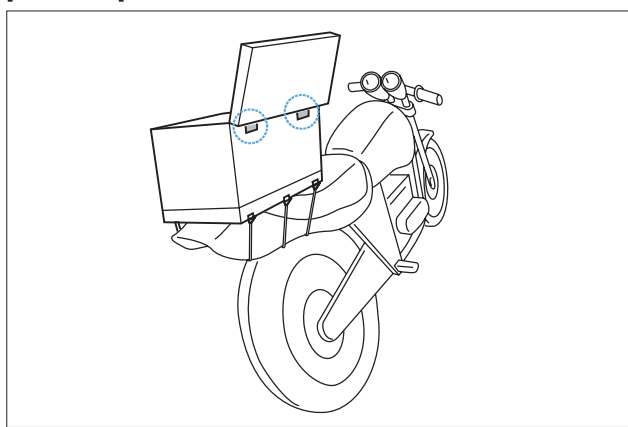
RoHS	CAD	Item Code	Item Name	Colour	Torque N·m/pair	Torque kgf·cm/pair	Opening Angle	Weight (g/pair)	Box (pairs)	Carton (pairs)
CE	3D	170-028-295	HG-JHS9-U-BL	Black	0.027~0.043	0.28~0.44	105°	38	35	385
CE	3D	170-028-296	HG-JHS9-U-WT	White					35	385

Refer to 1 : P.652, 2 : P.62, 3 : P.15

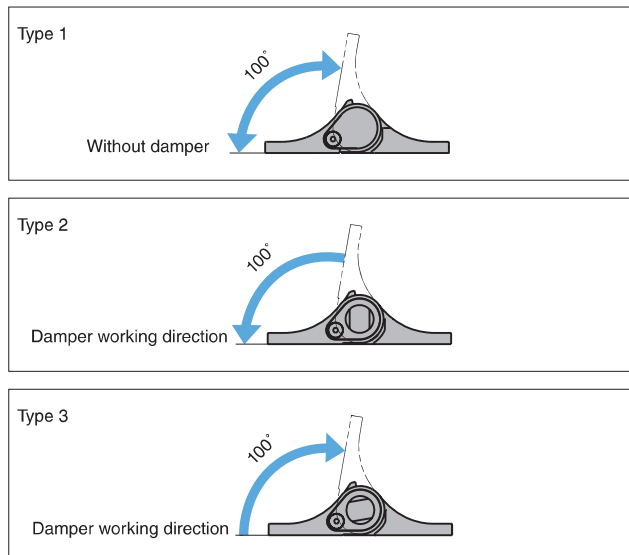
DETENT HINGE HG-CSH63 With Damper

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

[Installation]



[Types]



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

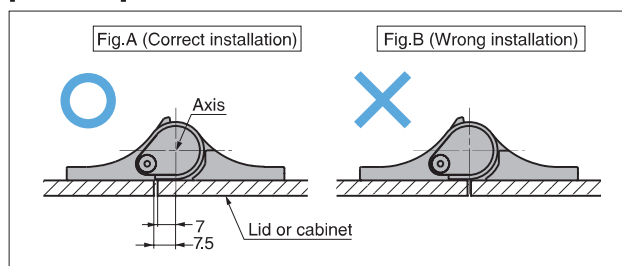
[Applications]

- Carrying box of motorcycle courier, etc.

[Remarks]

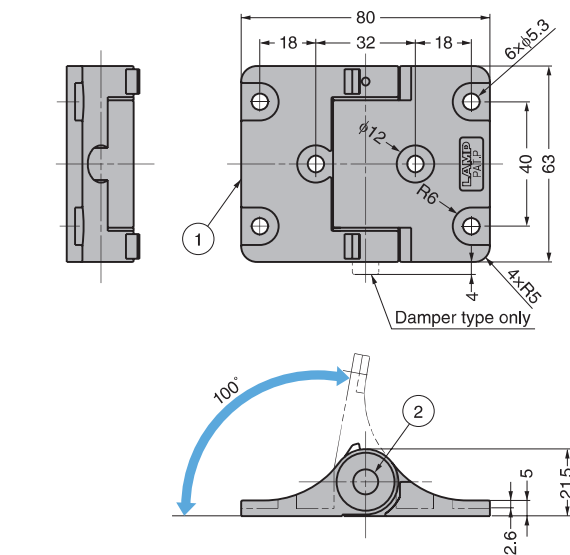
- Be sure to read the "Cautions" **1**.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Torque not adjustable.

[Installation]



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

Selection Tool
Sasuga-kun
 Applicable Products
 Used for Product
 Selection &
 Simulation.
 Available on Web!



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)
—		170-090-044	HG-CSH63	1 (Without Damper)	—	—	0.98	10	100°	98.7	10	120
		170-090-109	HG-CSH63AM	2	1~1.7	10.2~17.3				114.3	10	120
		170-090-108	HG-CSH63AH		1.7~2.5	17.3~25.5					10	120
		170-090-111	HG-CSH63BM	3	1~1.7	10.2~17.3					10	120
		170-090-110	HG-CSH63BH		1.7~2.5	17.3~25.5					10	120

Refer to **1** : P.15

TORQUE DAMPER UDH SERIES

Picture	Item Name	Diameter	Length	Damping direction	Torque	Page
	UDH-A	20mm	55mm		150 - 400N·cm	P.66
	UDH-B	20mm	55mm		150 - 400N·cm	P.66
	UDH16N-A	16mm	51mm		170 - 300N·cm	P.68
	UDH16N-B	16mm	51mm		170 - 300N·cm	P.68
	UDH16-A	16mm	37mm		100 - 250N·cm	P.67
	UDH16-B	16mm	37mm		100 - 250N·cm	P.67
	UDH16S-A	16mm	37mm		100 - 250N·cm	P.67
	UDH16S-B	16mm	37mm		100 - 250N·cm	P.67
	UDH14-A	14mm	37mm		50 - 200·cm	P.68
	UDH14-B	14mm	37mm		50 - 200·cm	P.68

TORQUE DAMPERS

Item Name	Torque (N.cm)	Torque range (N.cm)																Page			
		40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340		360	380	400
UDD-S	50 - 100																				P.70
UDD-M	100 - 200																				P.70
UDD-H	200 - 300																				P.70
UDH-M	150 - 250																				P.66
UDH-H	250 - 350																				P.66
UDH-G	300 - 400																				P.66
UDH16N-M	170 - 240																				P.68
UDH16N-H	220 - 300																				P.68
UDH16-M	100 - 170																				P.67
UDH16-H	150 - 250																				P.67
UDH16S-M	100 - 170																				P.67
UDH16S-H	150 - 250																				P.67
UDH14-T	150 - 200																				P.68
UDH14-M	80 - 150																				P.68
UDH-14L	50 - 80																				P.68

TORQUE DAMPER UDH



Video Link



[Application Example]



- 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.

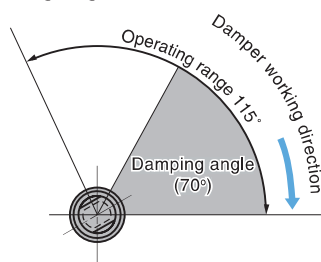
[Applications]

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

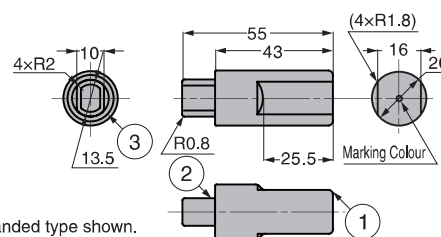
[Remarks]

- 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

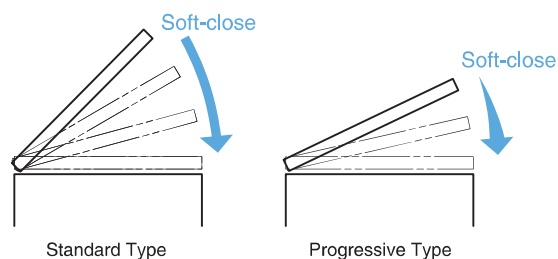


Right-handed: damper works when the shaft is turned clockwise (this figure)
Left-handed: damper works when the shaft is turned counterclockwise (symmetrical to this figure)

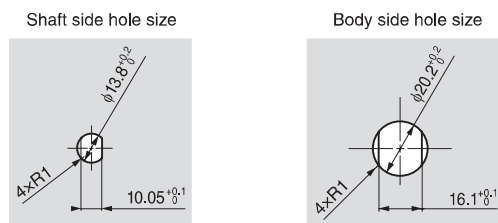


Right-handed type shown.

[Difference Between Standard Type and Progressive Type]



[Cut Out Dimensions]



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)
		170-090-820	UDH-AMS-G	Left-handed	Counterclockwise	Blue	1.5~2.5	15.3~25.5	38	200
		170-090-822	UDH-BMS-G	Right-handed	Clockwise					200
		170-090-821	UDH-AHS-G	Left-handed	Counterclockwise	Red	2.5~3.5	25.5~35.7		200
		170-090-823	UDH-BHS-G	Right-handed	Clockwise					200
		170-090-824	UDH-AGS-G	Left-handed	Counterclockwise	Yellow	3.0~4.0	30.6~40.8		200
		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)
		170-090-825	UDH-AMP-G	Left-handed	Counterclockwise	Green	1.5~1.8	15.3~18.4	38	200
		170-090-827	UDH-BMP-G	Right-handed	Clockwise					200
		170-090-826	UDH-AHP-G	Left-handed	Counterclockwise	Black	1.8~3.5	18.4~35.7		200
		170-090-828	UDH-BHP-G	Right-handed	Clockwise					200

TORQUE DAMPER UDH-16



Passed 70,000 open/
close private cycle test

- 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



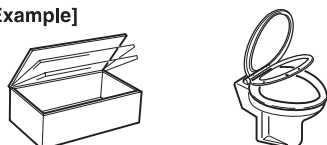
[Applications]

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

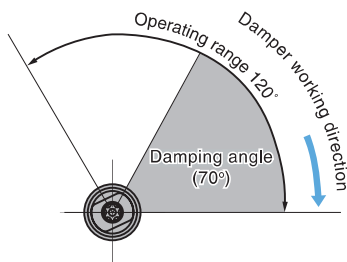
[Remarks]

- 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]

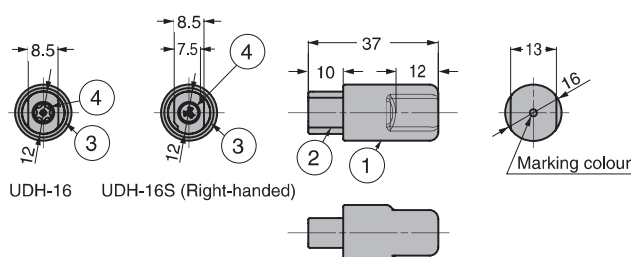


Damper Operating Angle

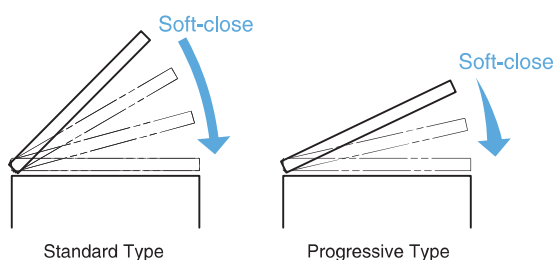


Right-handed: damper works when the shaft is turned clockwise (this figure)

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



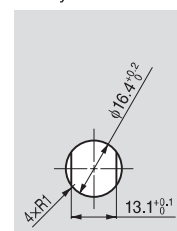
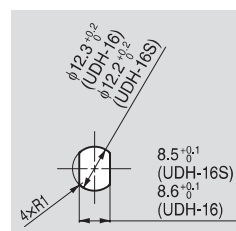
[Difference Between Standard Type and Progressive Type]



[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)
		170-011-717	UDH-16SAMS	Left-handed	Counterclockwise	Blue	1~1.7	10.2~17.3	16	200
		170-011-719	UDH-16SBMS	Right-handed	Clockwise					200
		170-011-718	UDH-16SAHS	Left-handed	Counterclockwise	Red	1.7~2.5	17.3~25.5		200
		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)
		170-090-829	UDH-16AMS-G	Left-handed	Counterclockwise	Green	1~1.7	10.2~17.3	16	200
		170-090-831	UDH-16BMS-G	Right-handed	Clockwise					200
		170-090-830	UDH-16AHS-G	Left-handed	Counterclockwise	Black	1.7~2.5	17.3~25.5		200
		170-090-832	UDH-16BHS-G	Right-handed	Clockwise					200

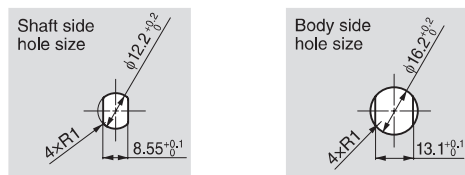
TORQUE DAMPER UDH-16N



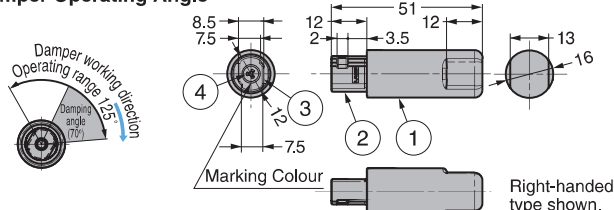
Video Link



[Cut Out Dimensions]



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)

RoHS	CAD	Item Code	Item Name	Type	Damper Working Direction	Marking Colour	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Carton (pcs)
		170-090-833	UDH-16NAMS	Left-handed	Counterclockwise	Blue	1.7~2.4	17,3~24.5	25	200
		170-090-834	UDH-16NBMS	Right-handed	Clockwise					200
		170-090-835	UDH-16NAHS	Left-handed	Counterclockwise	Red	2.2~3	22.4~30.6		200
		170-090-836	UDH-16NBHS	Right-handed	Clockwise					200

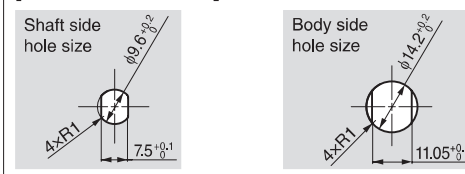
TORQUE DAMPER UDH-14



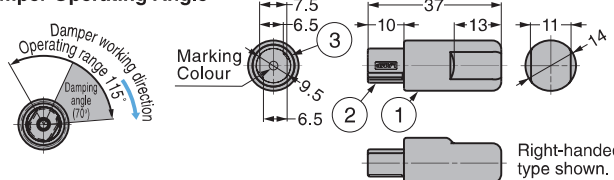
Video Link



[Cut Out Dimensions]



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)

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

- 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.

[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.

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	—

- 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.

[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.

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

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°C ~50°C

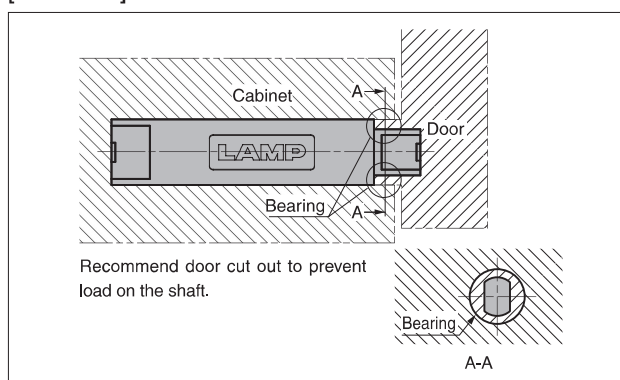
[Applications]

- Switch cover of equipment
- Wire hole cover of table

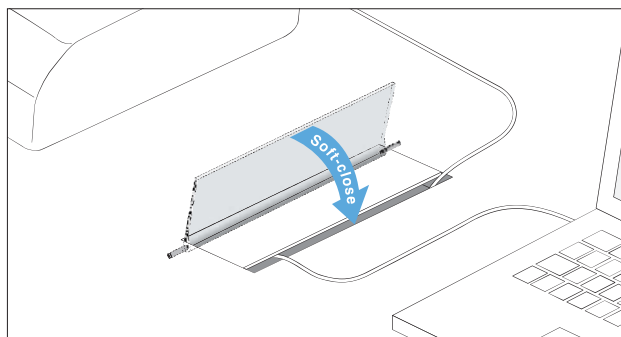
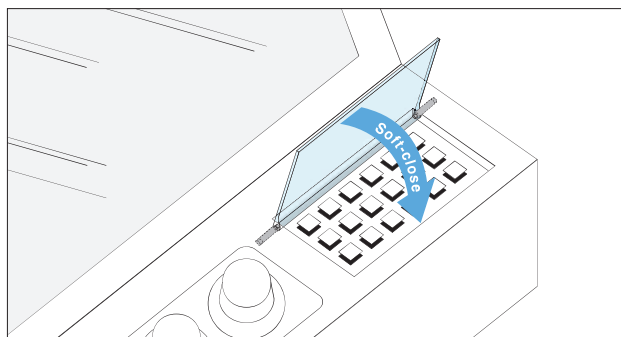
[Remarks]

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

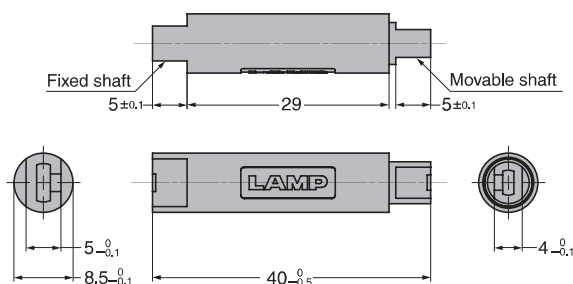
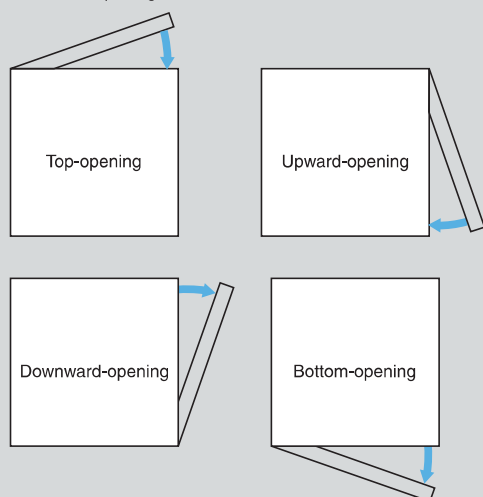
[Installation]



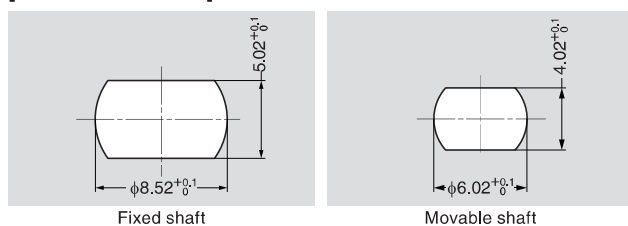
[Application Example]



Suitable for various opening modes



[Cut Out Dimensions]



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

Refer to **1** : P.15.

DISK DAMPER UDD®



- 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°C ~35°C

[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.

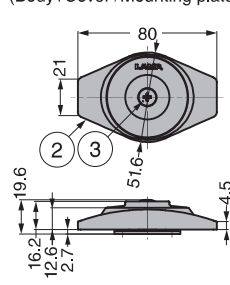


Video Link

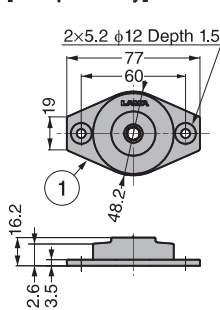


[Assembled State]

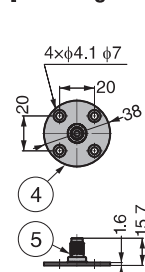
(Body+Cover+Mounting plate)



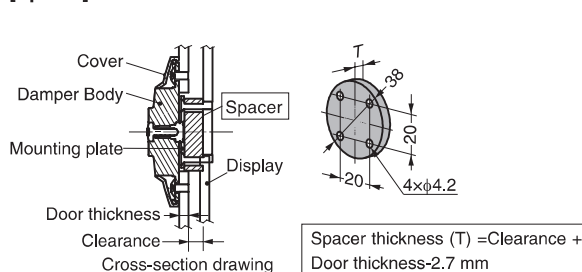
[Damper Body]



[Mounting Plate]

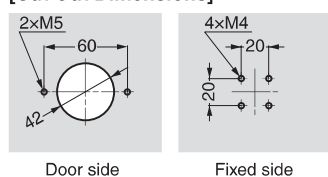


[Spacer]



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

[Cut Out Dimensions]



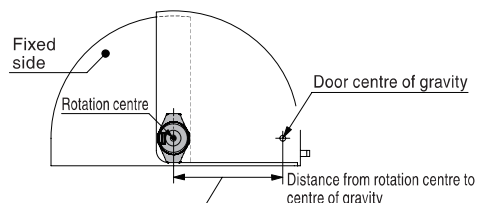
[Damper Working Direction]



[Selection of Damper]

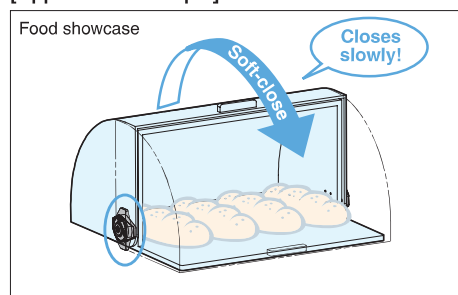
Choose from 3 types according to door moment.

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

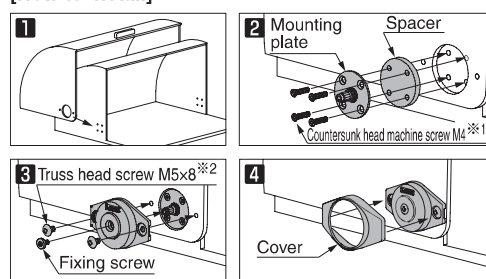


Door Moment	Type	Qty
1.0~2.0 N·m	S	2 pcs
2.0~4.0 N·m	M	2 pcs
4.0~6.0 N·m	H	2 pcs

[Application Example]



[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.

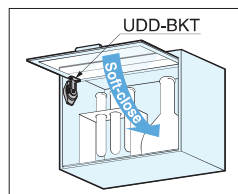
RoHS	CAD	Item Code	Item Name	Damper Working Direction	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
		180-022-306	UDD-S-L	Counterclockwise	0.5~1.0	5.1~10.2	90	20	20
		180-022-307	UDD-S-R	Clockwise				20	20
		180-022-308	UDD-M-L	Counterclockwise	1.0~2.0	10.2~20.4		20	20
		180-022-309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

BRACKET FOR DISK DAMPER UDD-BKT

L=R SUS



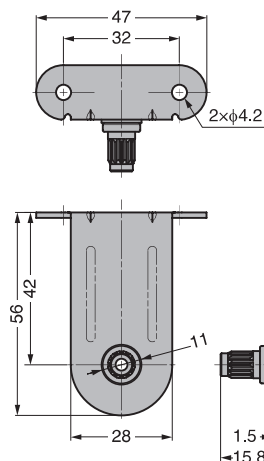
[Application Example]



● 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]

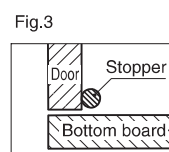
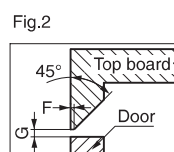
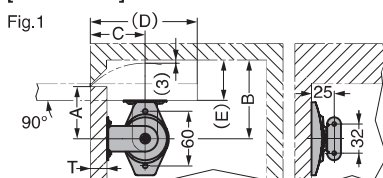


Table 1

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)

※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.

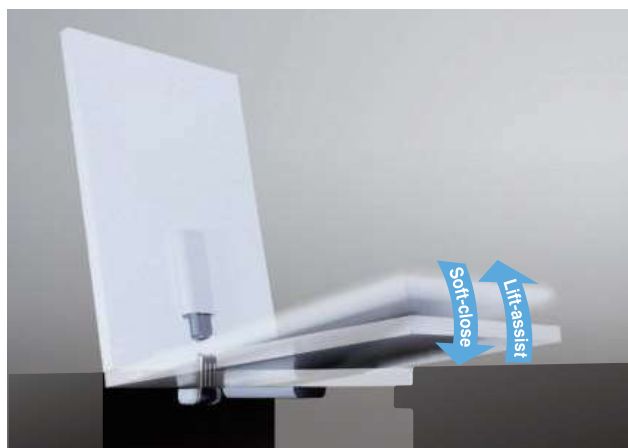
Table 2

Chamfering Allowance F	Gap G
1	3
2	4
3	5

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

Refer to 1 : P.70, 2 : P.267

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.

Video Link



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LAD 1

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

Refer to 1 : P.232, 2 : P.230

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES



LIFT-ASSIST HINGE HG-PA SERIES



- 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 (see below).

[Specifications]

- Operating temperature: 0°C ~ 40°C

[Applications]

- Medical equipment, analytical instruments, semiconductor equipment etc.

[Remarks]

- Be sure to read the "Cautions" **1**.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Install a stopper (not included) on the cabinet to prevent from exceeding the operating angle during opening or closing.
- Do not use outdoors.
- Check if the cabinet has sufficient strength and rigidity before use.
- For inside mount type, check the torque adjusting screw position, and turn the screw with cabinet and lid already mounted.

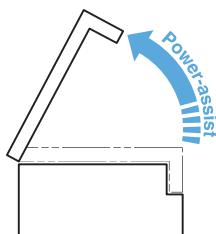
Selection Tool
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Video Link

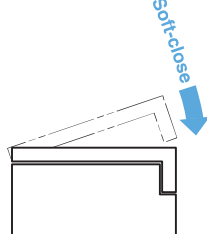


Video
Design
Lift Assist

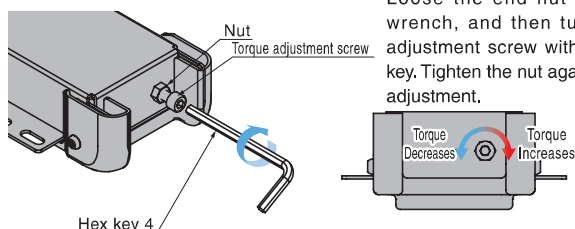
Lift assist function



Soft-close function

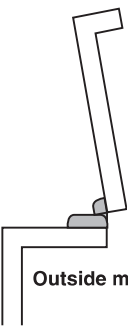
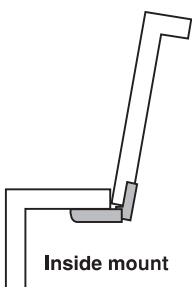
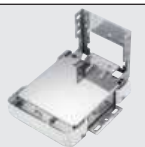


[How to Adjust Torque]



Loose the end nut with a wrench, and then turn the adjustment screw with a hex key. Tighten the nut again after adjustment.

[HG-PA Series]

Type	Torque N · m	Torque kgf · cm	Torque Adjustment Range	Item Name	Page
 Outside mount	9 ± 10%	91 ± 10%	± 11%	 HG-PA180-9	2
	15 ± 10%	153 ± 10%	± 5%	 HG-PA200, HG-PA201	3
	20 ± 10%	204 ± 10%			
	25 ± 10%	255 ± 10%			
	35 ± 10%	357 ± 10%	± 5%	 HG-PA270	4
	45 ± 10%	459 ± 10%			
 Inside mount	9 ± 10%	91 ± 10%	± 11%	 HG-PA210-9	5
	15 ± 10%	153 ± 10%	± 5%	 HG-PA230, HG-PA231	6
	20 ± 10%	204 ± 10%			
	25 ± 10%	255 ± 10%			

Refer to **1** : P.15, **2** : P.74, **3** : P.75, **4** : P.76, **5** : P.77, **6** : P.78

Please use selection tool “SASUGA-kun” for product selection.
Simulation when using multiple hinges is possible.

Please visit by
clicking the banner
on the website

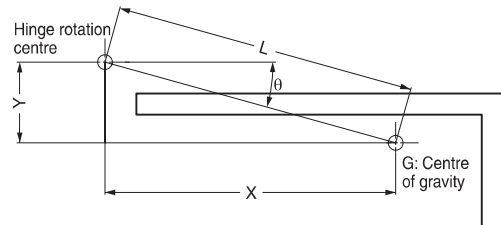


[How to Select] Refer to the following 1~3 for model selection.

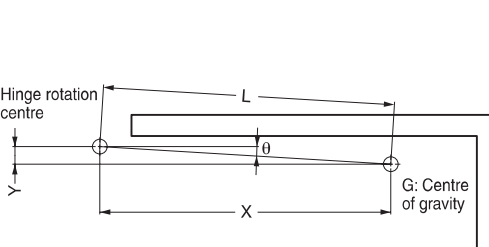
1. Calculating lid moment

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

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

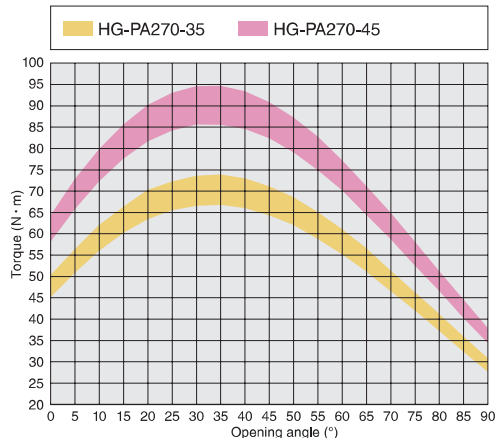
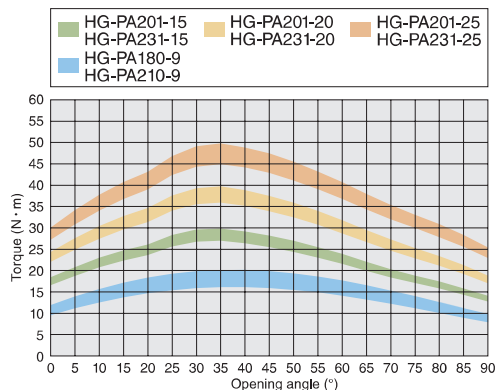
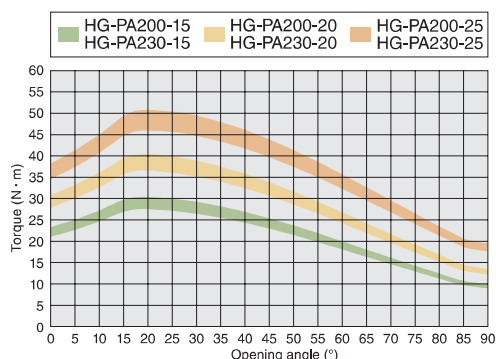


● Inside mount type (HG-PA210, HG-PA230, HG-PA231)



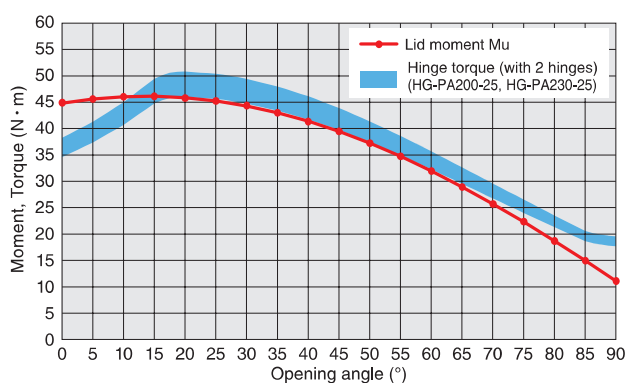
X	Horizontal distance from rotation centre to lid centre of gravity
Y	Vertical distance from rotation centre to lid centre of gravity
L	Distance from rotation centre to lid centre of gravity
θ	Angle from the horizontal line at the rotation centre to lid centre of gravity
m	Lid weight
G	Lid centre of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

2. Torque of the hinge (using 2 pcs)



3. Selecting model

Example



Lid torque and hinge torque should be overlapped as shown on the graph above.

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.

※Confirm the movement with actual item when the lid moment Mu is at the upper or lower limit of the torque range of lift assist hinge.

Conditions in the above example : $X=43$ cm, $Y=-10.5$ cm, $L=44.3$ cm, $W=10.8$ kg
Recommended model : 2 pcs of HG-PA200-25 or HG-PA230-25

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-PA180-9 Outside Mount

INSTRUCTION

SUS

VIDEO

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

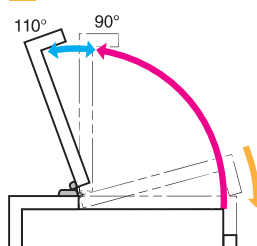
- Easy to lift heavy top-opening lid with spring tension (lift assist function).
- Smooth and soft-closing movement at the end, preventing lid from slamming shut.
- Torque is adjustable by turning the adjustment screw ($\pm 11\%$).
- With plastic cover for clean appearance.

[Remarks]

- Be sure to read the "Cautions" **1**.

[Operating Range]

- Free
- Lift assist
- Soft-close

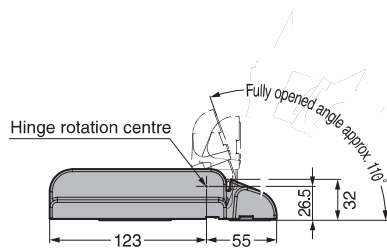
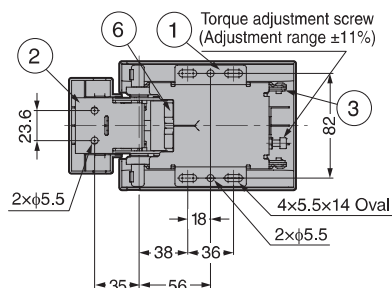
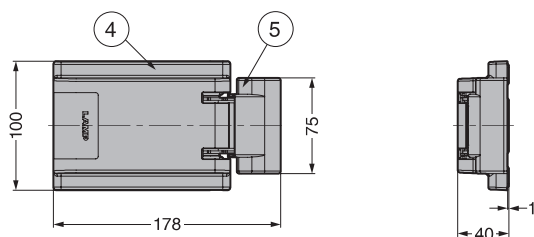


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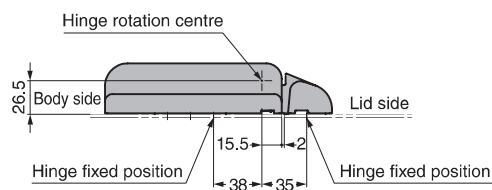


Video
Link
Lift Assist



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

[Installation]



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

Refer to **1** : P.15.

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



Lift assist

Soft-close

Passed 100,000 open/
close private cycle test

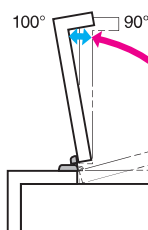
- The torque peaks at 20° or 35° depending on the lid shape (see diagram below).
- Easy to lift heavy top-opening lid with spring tension (lift assist function).
- Smooth and soft-closing movement at the end, preventing lid from slamming shut.
- Torque is adjustable by turning the adjustment screw ($\pm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

[Operating Range]

- Free
- Lift assist
- Soft-close

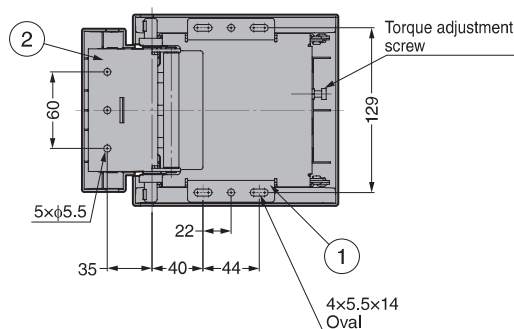
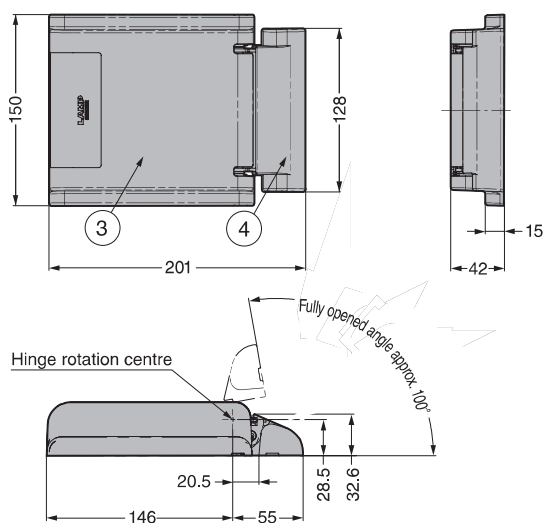


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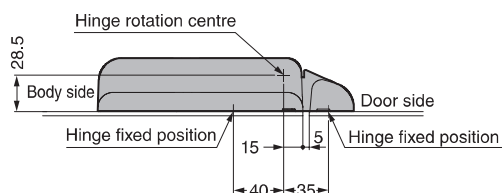


Video
Lift Assist



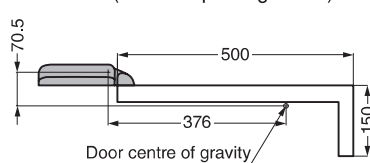
No.	Part Name	Material / Colour
①	Base A	Stainless Steel (SUS430)
②	Base B	
③	Cover A	PBT/Light Grey
④	Cover B	
-	Slider	POM
-	Spring	Steel (SWO)

[Installation]

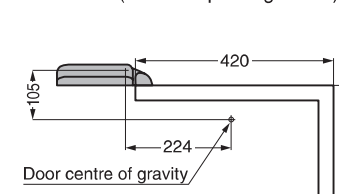


[Installation]

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)
		170-025-668	HG-PA200-15	Peak torque angle 20°	15 $\pm 10\%$	153 $\pm 10\%$	1385	1	8
		170-025-669	HG-PA200-20		20 $\pm 10\%$	204 $\pm 10\%$		1	8
		170-025-670	HG-PA200-25		25 $\pm 10\%$	255 $\pm 10\%$		1	8
		170-029-741	HG-PA201-15	Peak torque angle 35°	15 $\pm 10\%$	153 $\pm 10\%$		1	8
		170-029-742	HG-PA201-20		20 $\pm 10\%$	204 $\pm 10\%$		1	8
		170-029-743	HG-PA201-25		25 $\pm 10\%$	255 $\pm 10\%$		1	8

Refer to **1** : P.15, **2** : P.73

LIFT-ASSIST HINGE HG-PA270 Outside Mount

INSTRUCTION

SUS

VIDEO



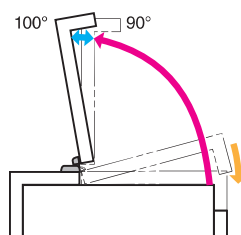
- Easy to lift heavy top-opening lid with spring tension (lift assist function).
- Smooth and soft-closing movement at the end, preventing lid from slamming shut.
- Torque is adjustable by turning the adjustment screw ($\pm 5\%$).
- With plastic cover for clean appearance.

[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]

- Free
- Lift assist
- Soft-close

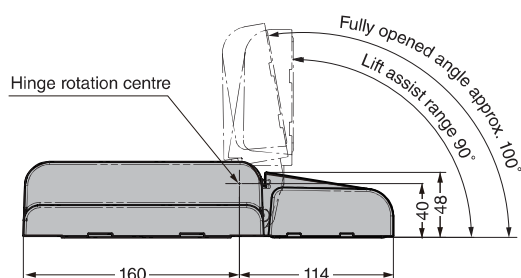
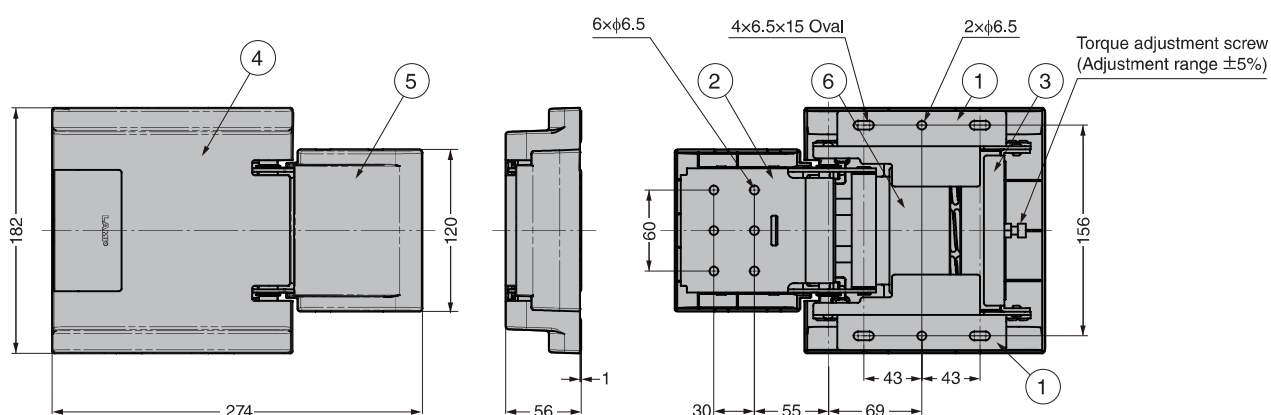


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No.	Part Name	Material / Colour
①	Base A	Stainless Steel (SUS430)
②	Base B	
③	Case	
④	Cover A	PBT/Light Grey
⑤	Cover B	
⑥	Slider	POM
-	Spring	Steel (SWO)

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

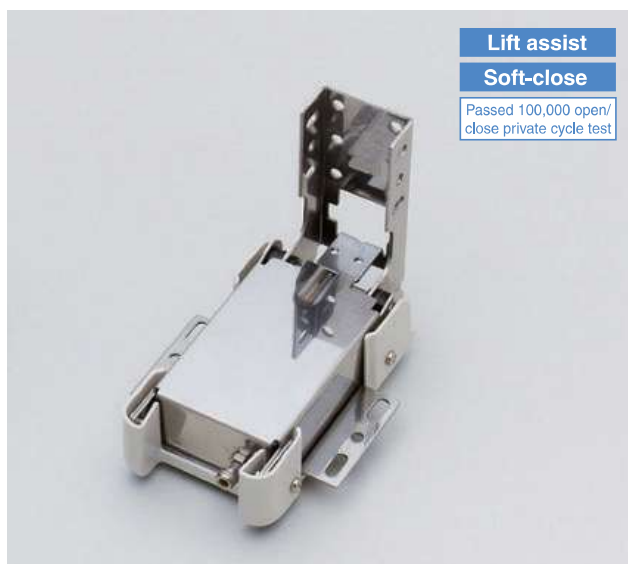
Refer to **1** : P.15.

LIFT-ASSIST HINGE HG-PA210-9 Inside Mount

INSTRUCTION

SUS

VIDEO



- 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 ($\pm 11\%$).
- 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).

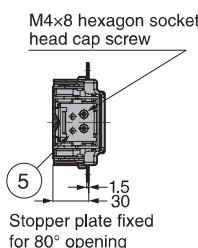
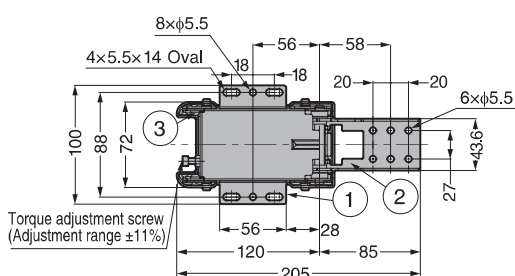
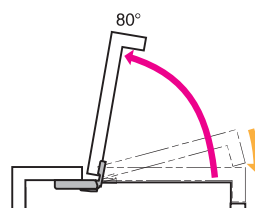
[Remarks]

- 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.

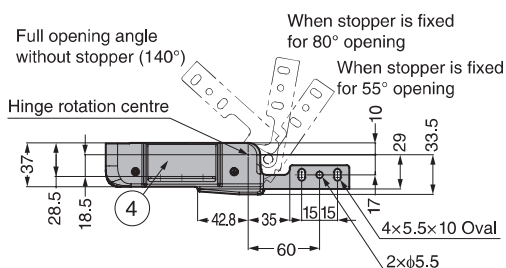
[Operating Range]

- Lift assist
- Soft-close

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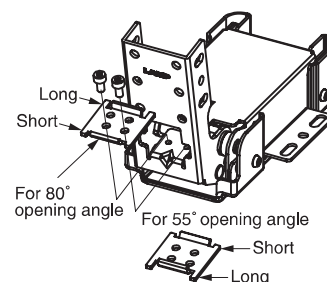
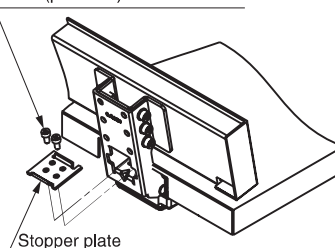
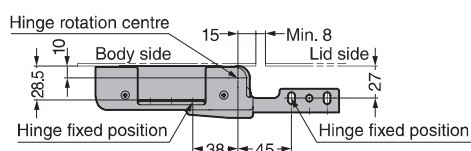
No.	Part Name	Material / Colour
①	Base A	Stainless Steel (SUS430)
②	Base B	
③	Case	
④	Cover	PP/Light Grey
⑤	Stopper Plate	Stainless Steel (SUS430)
-	Slider	POM
-	Spring	Steel (SWO)

**[Setting of Opening angle]**

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

Hexagon socket head cap screw
M4 $\times$ 8 (provided)

Direction of stopper plate

**[Installation]**

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

Refer to **1** : P.15.

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



Lift assist

Soft-close

Passed 100,000 open/
close private cycle test

- 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 ($\pm 5\%$).
- 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).

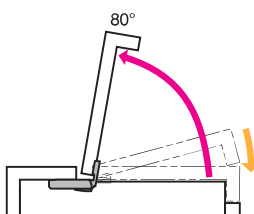
[Remarks]

- 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.

[Operating Range]

Lift assist

Soft-close

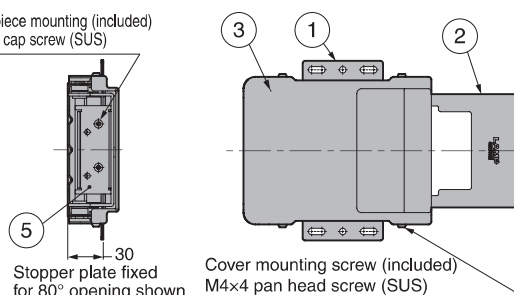
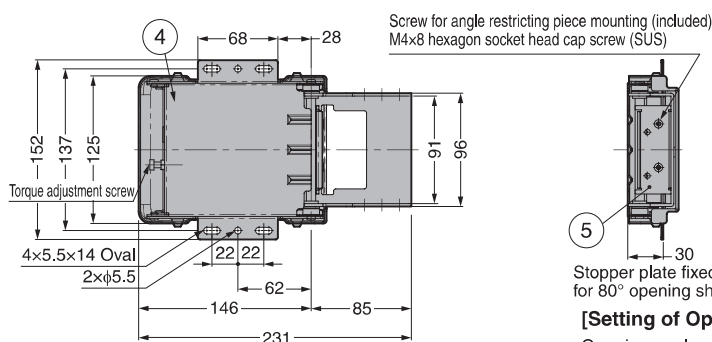


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Video Link

Nvision
DesignTec Video
Lift Assist

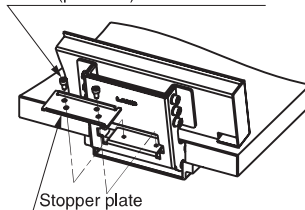
No.	Part Name	Material / Colour
①	Base A	Stainless Steel (SUS430)
②	Base B	
③	Cover	PP/Light Grey
④	Case	Stainless Steel (SUS430)
⑤	Stopper Plate	
-	Slider	POM
-	Spring	Steel (SWO)



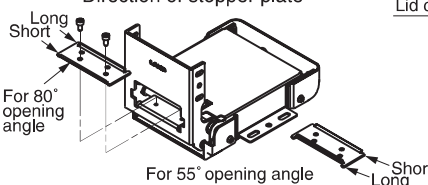
[Setting of Opening angle]

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

Hexagon socket head cap screw
M4x8 (provided)

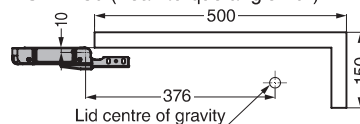


Direction of stopper plate

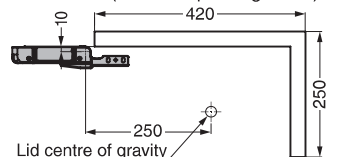


[Installation]

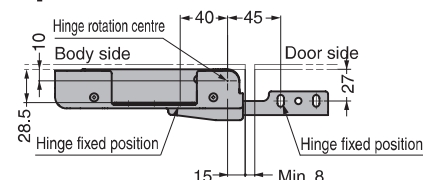
HG-PA230 (Peak torque angle 20°)



HG-PA231 (Peak torque angle 35°)



[Installation]



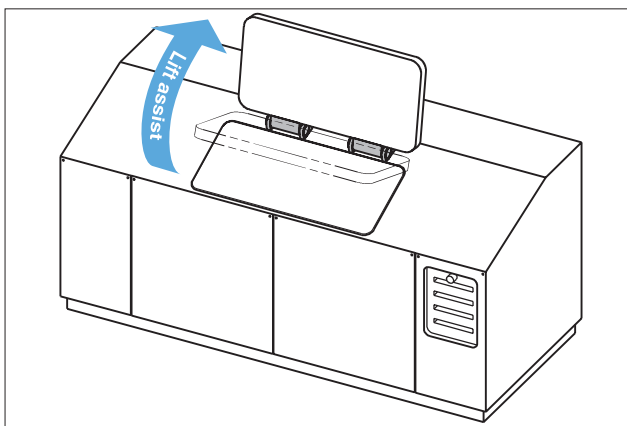
RoHS	CAD	Item Code	Item Name	Description	Torque N·m/pc	Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
		170-025-671	HG-PA230-15	Peak torque angle 20°	15 $\pm 10\%$	153 $\pm 10\%$	1296	1	8
		170-025-672	HG-PA230-20		20 $\pm 10\%$	204 $\pm 10\%$		1	8
		170-025-673	HG-PA230-25		25 $\pm 10\%$	255 $\pm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

Refer to [1](#) : P.15, [2](#) : P.73

STAINLESS STEEL LIFT-ASSIST HINGE HG-JH210



[Application Example]



- 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°C ~ 40°C
- Hinge operating angle: 0° ~ 110°

[Applications]

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

[Remarks]

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

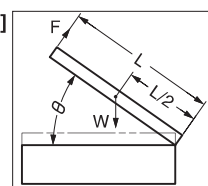
[Calculation Formula and Graph of Moment]

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

$$\text{Hinge moment } M_h = M_m \times \left(1 - \frac{\theta}{115}\right)$$

$$\text{Residual moment } M_z = M_h - M_t$$

$$\text{Operating force } F = \frac{M_t - M_h}{L}$$

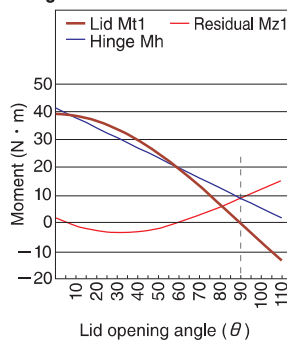


W : Weight at lid centre of gravity θ : Lid opening angle
L : Lid length Mm : Torque value of lift-assist hinge

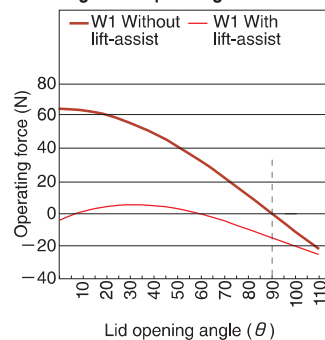
The meaning of residual moment $M_z = (M_h - M_t)$ is as follows.

- “-” means that the force is applied in the closing direction of lid.
- “+” means that the force is applied in the opening direction of lid.

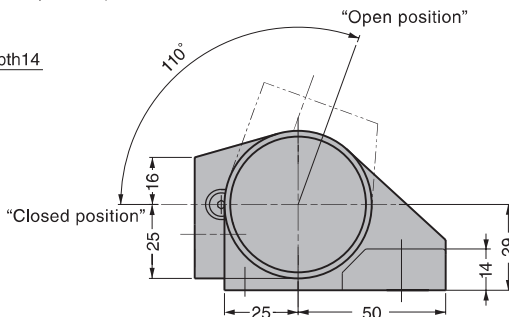
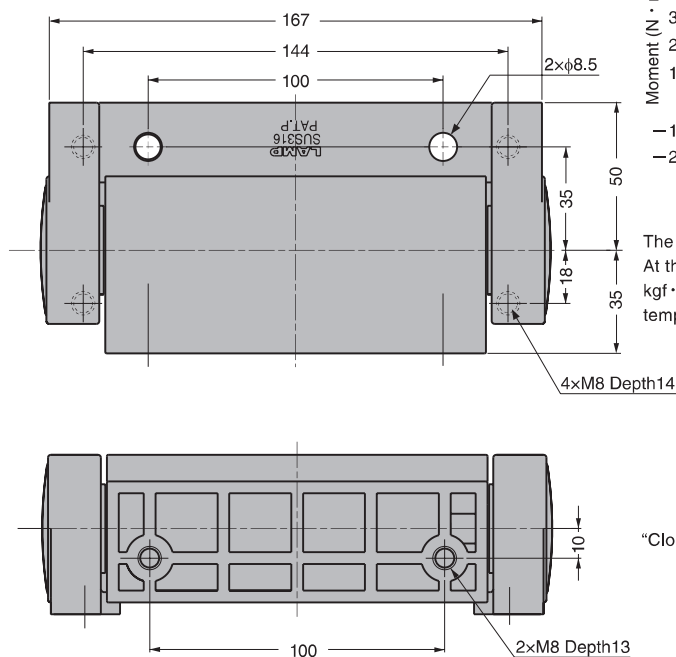
Relationship between lid opening angle and moments



Relationship between lid opening angle and operating forces



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

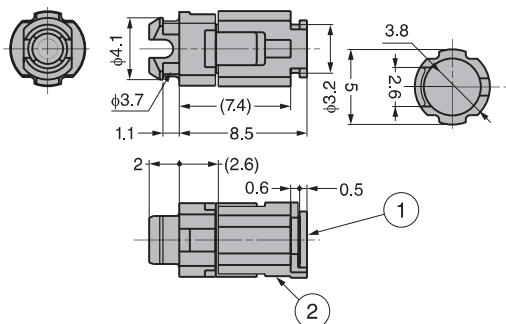


RoHS	CAD	Item Code	Item Name	Material	Finish	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
—	3D	170-090-535	HG-JH210	Stainless Steel (SCS14)	Polished	110°	2350	1	6

※SCS14 is equivalent of SUS316.



MICRO DETENT HINGE MPH-20-5G2



- Ultra compact detent hinge suitable for clamshell type cell phones, PDA and other foldable devices.
- Small diameter of $\phi 5$ for space-saving and downsizing of casing.
- Designed for 160° opening, and detent catch in open and closed position.
- Easy snap-in for quick assembly.

[Applications]

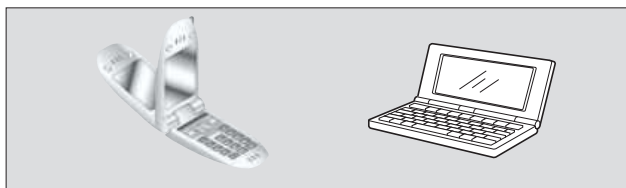
- Cell phone, PDA, remote control, gaming device, etc.

[Remarks]

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



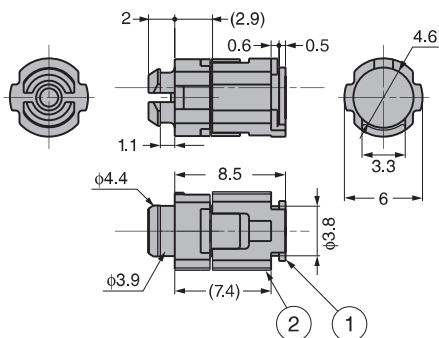
[Application Example]



No.	Part Name	Material	Finish / Colour
①	Spindle	Steel	Clear Zinc Chromate
②	Body	POM	White

RoHS	CAD	Item Code	Item Name	Opening Angle	Weight (g)	Box (pcs)
		170-090-536	MPH-20-5G2	160°	0.46	4000

MICRO DETENT HINGE MPH-22G



- Ultra compact detent hinge suitable for clamshell type cell phones, PDA and other foldable devices.
- Designed for 160° opening, and detent catch in open and closed position.
- Easy snap-in for quick assembly.

[Applications]

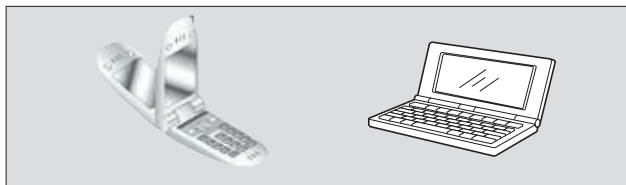
- Cell phone, PDA, remote control, gaming device, etc.

[Remarks]

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



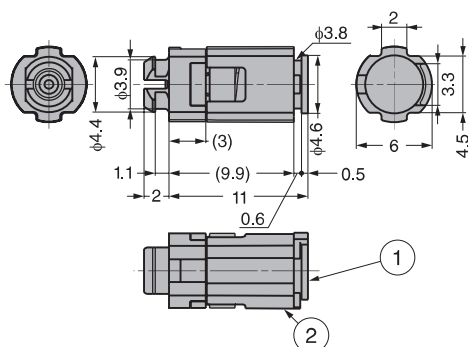
[Application Example]



No.	Part Name	Material	Finish / Colour
①	Spindle	Steel	Coloured Zinc Chromate
②	Body	POM	Grey

RoHS	CAD	Item Code	Item Name	Opening Angle	Weight (g)	Box (pcs)
		170-098-727	MPH-22G	160°	0.62	4000

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.

[Applications]

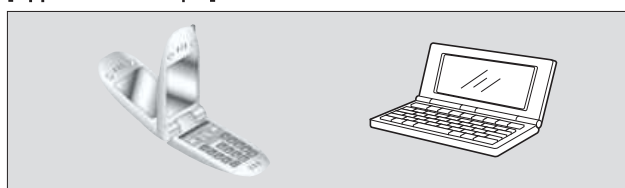
- Cell phone, PDA, remote control, gaming device, etc.

[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.



[Application Example]



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)
		170-090-024	MPH-30	160°	0.98	4000

TORQUE HINGES

DAMPER HINGES

LIFT ASSIST HINGES

DETENT HINGES

CONCEALED HINGES

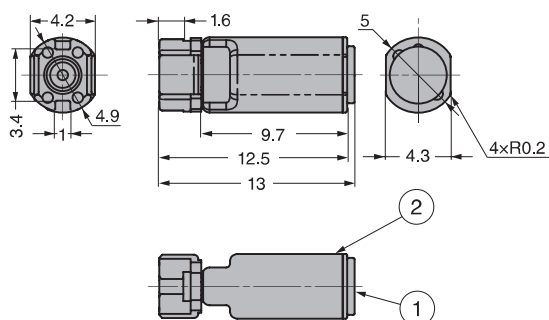
BUTT HINGES

PIANO HINGES

STEP HINGES

LIFT-OFF HINGES

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.

[Applications]

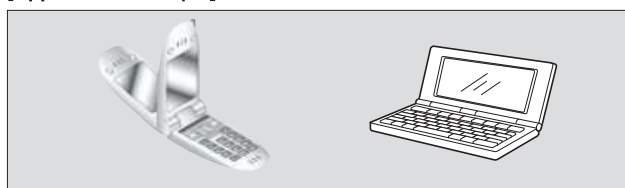
- Cell phone, PDA, remote control, gaming device, etc.

[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.



[Application Example]



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)
		170-097-888	MPH-30-5TN	160°	0.86	4000

※The item will be discontinued after current stock is sold out.

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.

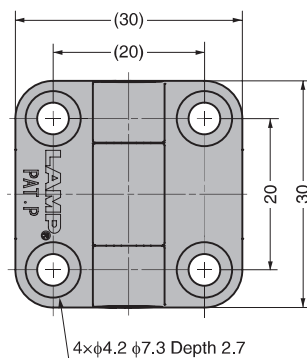
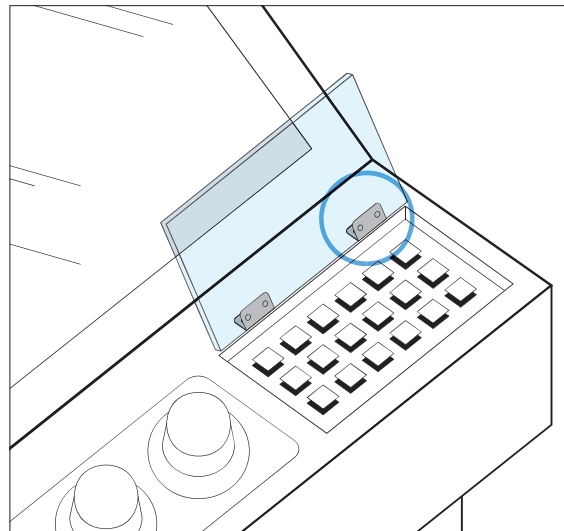
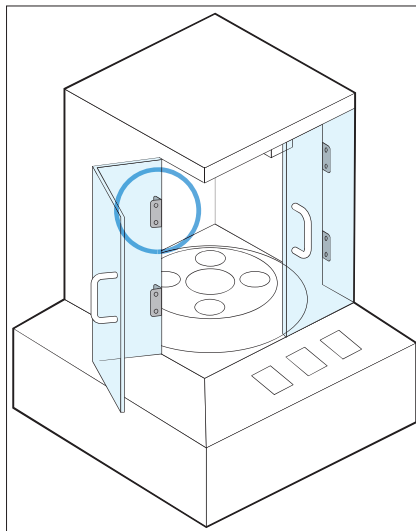
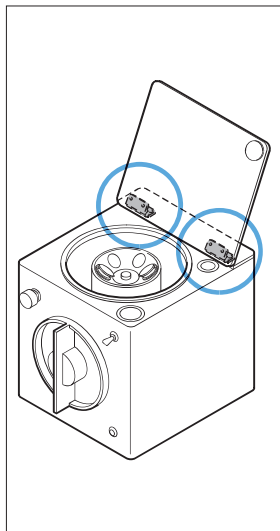
[Recommended Screws]

- Pan head screw M4 or pan head tapping screw 4

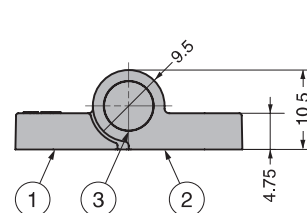
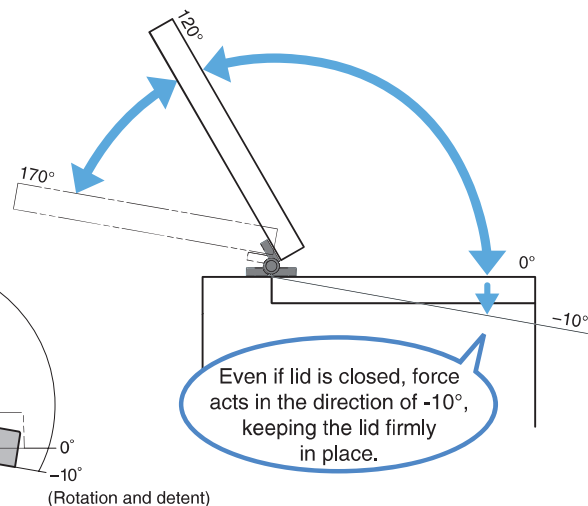
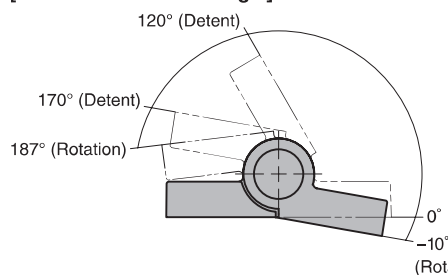
Video Link



[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

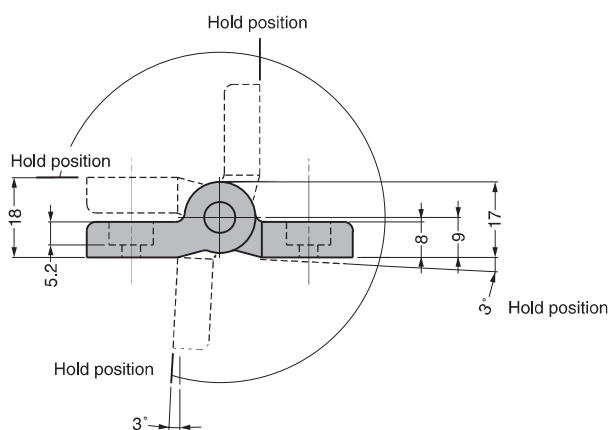
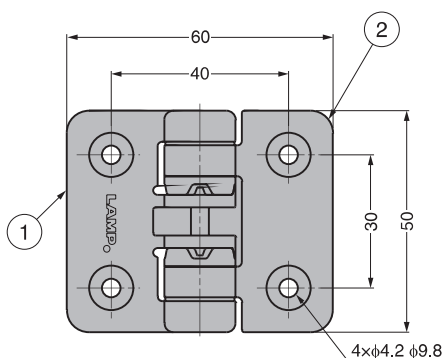
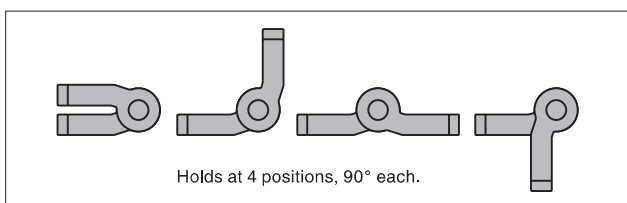
When using horizontally, design the door and lid sizes not to exceed the following torque.

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			
		170-023-908	HG-MPS2-BL	Black	0.26	2.65	0.145	1.48	6.9	50	500
		170-023-909	HG-MPS2-WT	White						50	500

DETENT HINGE HG-YJ50



With cap.

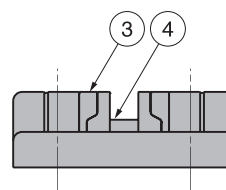
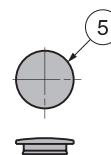
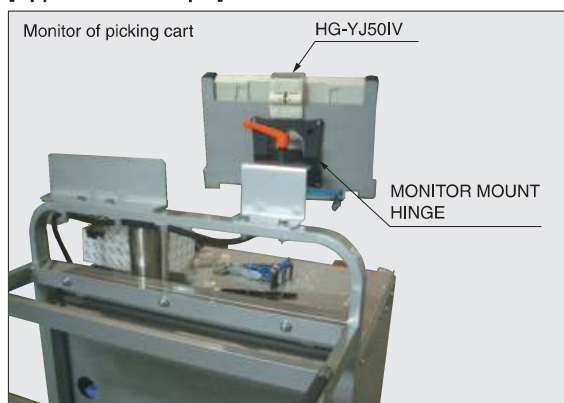


- Holds at 4 positions, 90° each.
- Lightweight plastic hinge.
- Plastic parts and metal parts can be separated for easy recycling.
- Caps for the screw holes are included. Caps (Ivory: KD-772-3I, Black: KD-772-3B) also available separately. **1**

[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)
✓	3D	170-090-000	HG-YJ50IV	Ivory	Approx. 0.49	Approx. 5	30	20	200
✓	3D	170-090-002	HG-YJ50BL	Black				20	200

Refer to **1** : P.881

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES



- 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)

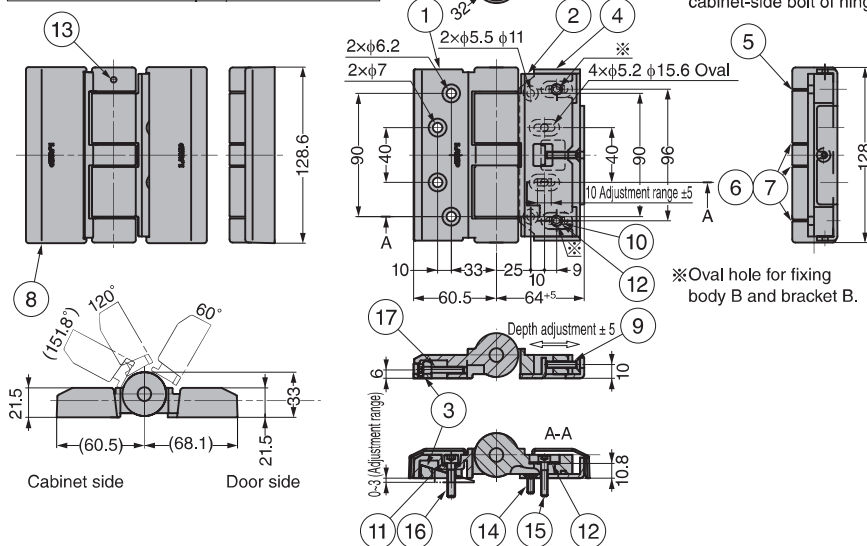


Diagram illustrating the final assembly steps:

- A**: Top hinge assembly.
- B**: Bottom hinge assembly (Install the door).
- C**: Door cover (Finally snap into the cover).

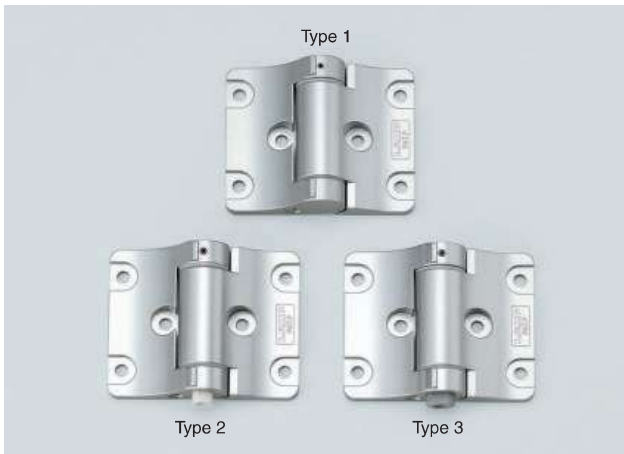
Diagram illustrating the adjustment range of the cabinet door:

- Horizontal adjustment range:** 0~3 mm
- Depth adjustment range:** ± 5 mm



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		

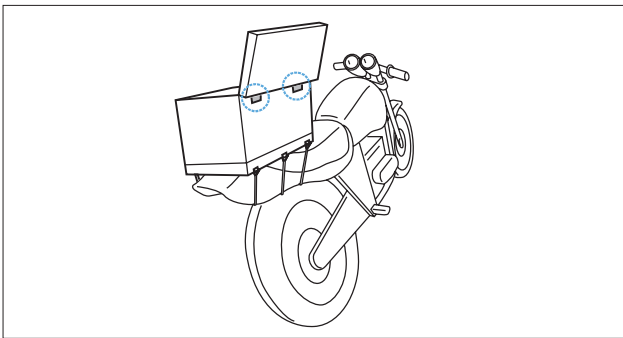
RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Door Weight kg/Pair	Retaining Torque N·m/Pair	Retaining Torque kgf·m/Pair	Weight (g)	Box (pcs)	Carton (pcs)
		170-090-317	HG-FH128	600-900	900-1200	Max. 40	10	102	1500	1	6

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**.



[Installation]

Refer to **1** : P.15DETENT HINGE **HG-YC105****SUS**

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

[Applications]

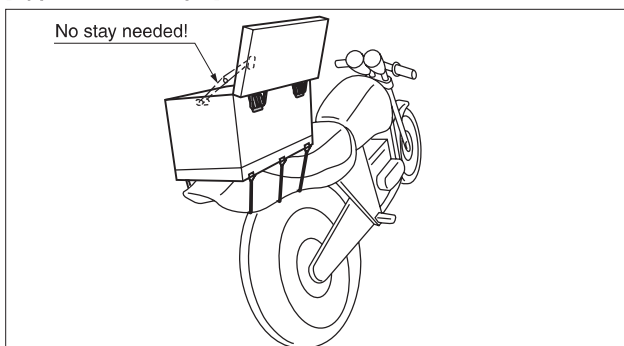
- Motorcycle carrying box, control box, etc.

[Remarks]

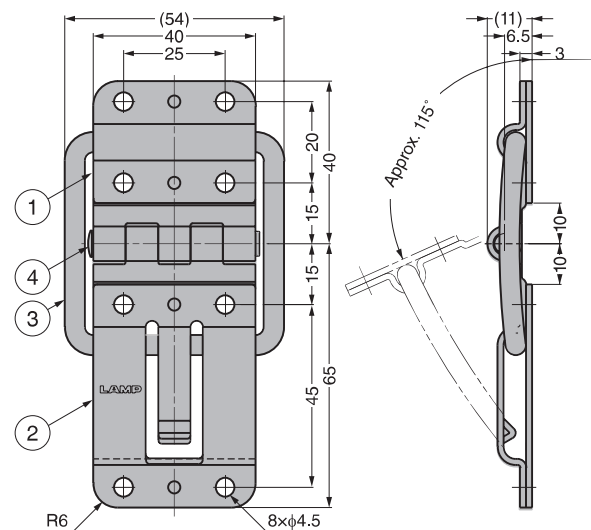
- Retaining torque varies.
Not guaranteed value.
- Confirm with actual item before use.



[Application Example]

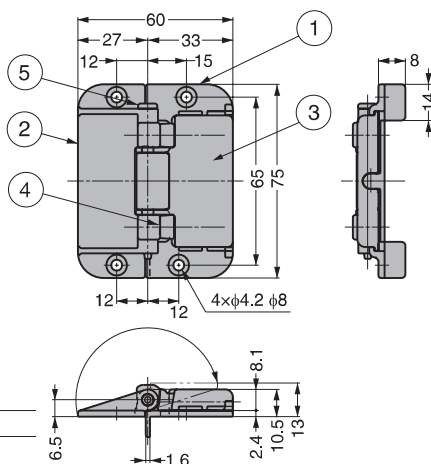


No.	Part Name	Material	Finish
①	Body (Fixed Side)	Stainless Steel (SUS304)	Barrel Polished
②	Body (Movable Side)		
③	Stopper		-
④	Shaft		



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

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES



-
- 90° Detent
- Detent when opened
- Detent when closed

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

Part#	CAD	Item Code	Item Name	Finish	Weight (g)	Box (pcs)	Carton (pcs)
—		250-129-208	CH-75-NI	Nickel	101	42	168
—		250-120-031	CH-75-GB	Bronze	99	42	168

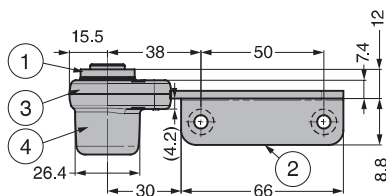
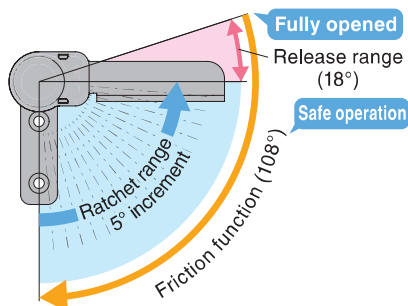
- Ratchet mechanism holds at angles in 5° increment from closed to opened position.
- Lift up to the fully open position to release the ratchet mechanism.
- The friction (resistance) function works even when released for safe operation.

[Applications]

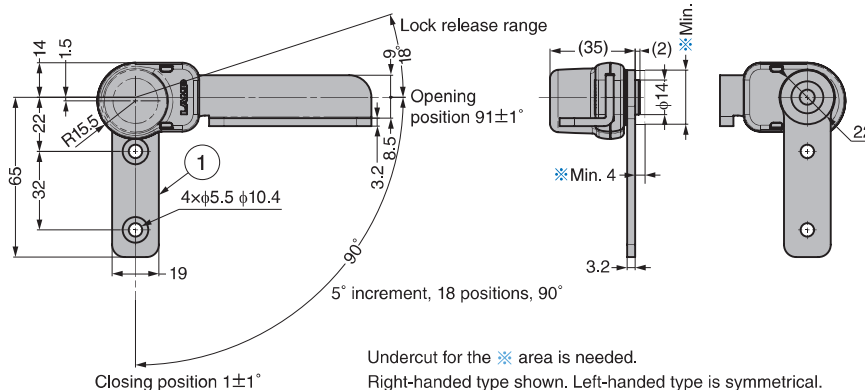
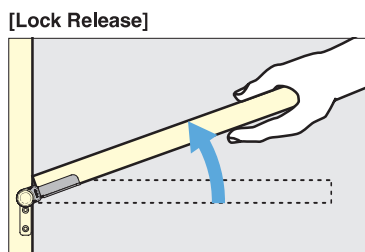
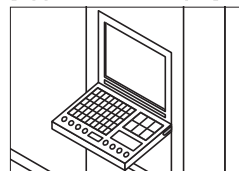
- For angle adjustment of folding table, touch panel, keyboard, etc.

[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]



No.	Part Name	Material	Finish
①	Bracket	Steel (SPCC)	Nickel
②	Arm (Right-handed)		
③	Cover (Right-handed)	PC	—
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)
—		170-036-333	HG-RCT15-C	40	408	173	—	—

MULTI ANGLE STAY **KA-60** With Locking Mechanism

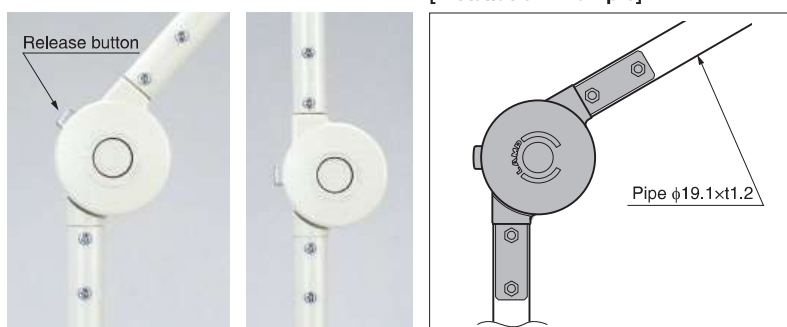
INSTRUCTION



- 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]

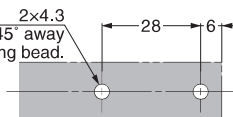
- Do not forcibly apply force in the locked position.
- Pipe not included.

[Installation Example]

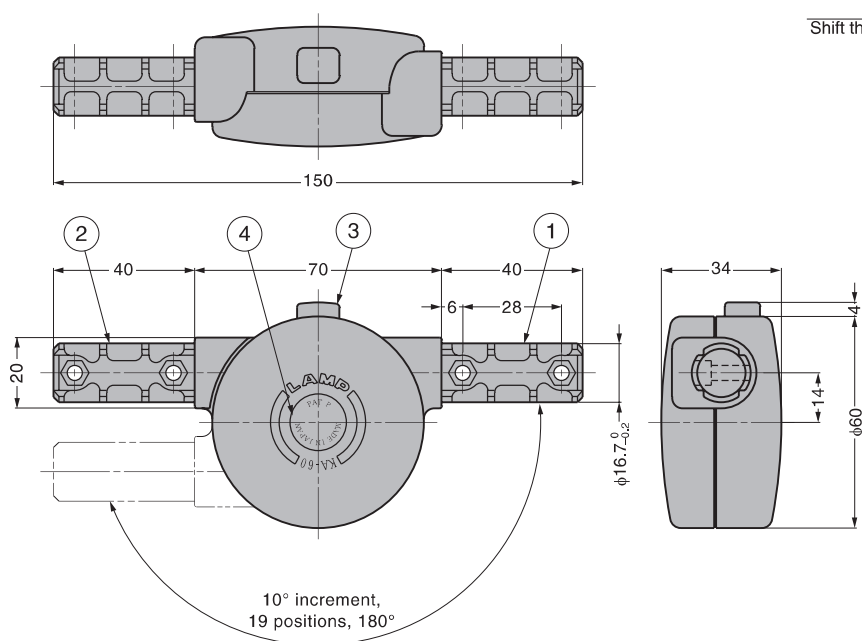
After releasing the lock by pushing the button, angle can be adjusted every 10°.

[Pipe Cut Out Dimensions]

Shift the hole location by 45° away from the welding bead.



Pipe outer diameter : ϕ 19.1
Pipe thickness : t1.2



No.	Part Name	Material	Finish
①	Body A	Aluminium Alloy	Enamel Finish/Ivory
②	Body B		Chrome
③	Release Button	ABS	Black
④	Cap		

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	ϕ 19.1 x t1.2	25	2.5	170	6	60

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
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]

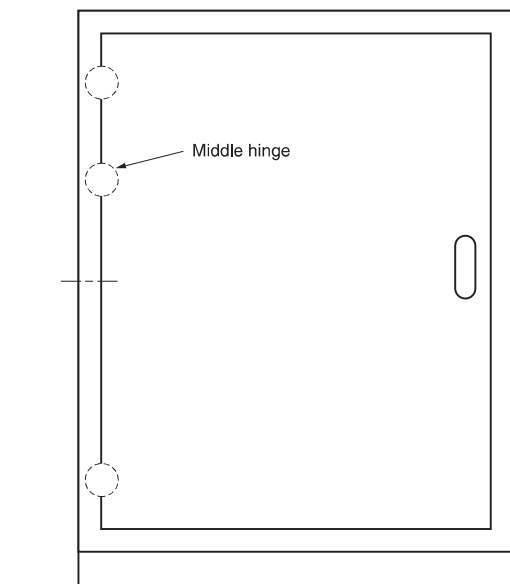
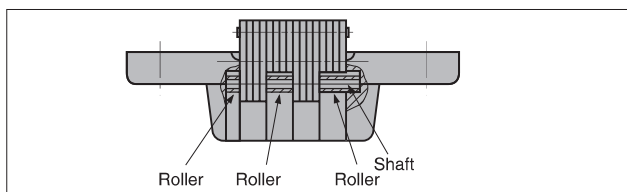
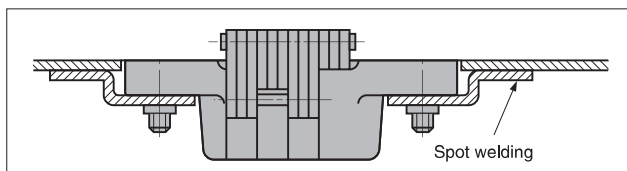
- Distance to door edge must be less than Xmm.
- Roller is supplied to R-100 only.
- Recommended for use in pairs.

[Parts Included]

- Countersunk head wood screw (SUS)
- Countersunk head tapping screw (SUS) (R-70 only)

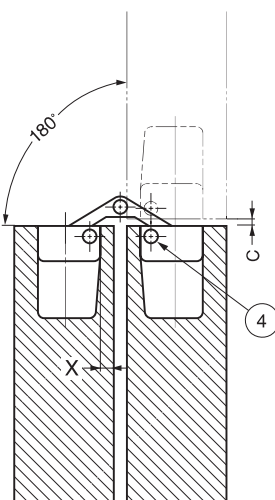
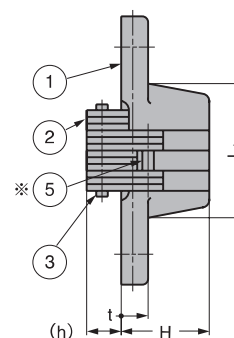
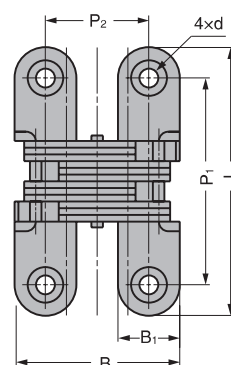


[Metal Door]



(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.

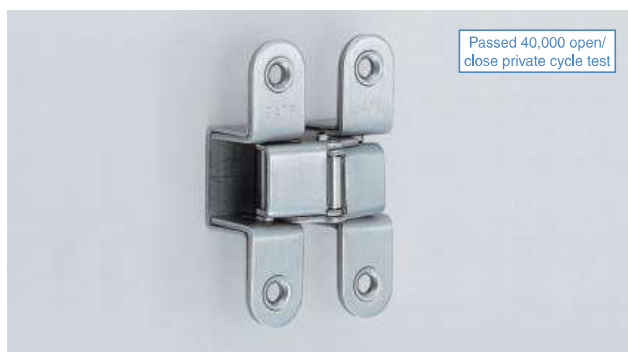


No.	Part Name	Material					Finish
		R-43	R-45	R-60	R-70	R-100	
①	Body	Zinc Alloy					Satin Chrome
②	Arm	Stainless Steel (SUS304)					Plain
③	Shaft	Stainless Steel			Stainless Steel (SUS303)	Stainless Steel	
④	Shaft	Stainless Steel (SUS304)			Stainless Steel (SUS303)	Steel	
⑤	Shaft						
※	Roller (R-100 only)	—					Nickel

RoHS	CAD	Item Code	Item Name	L	L ₁	B	B ₁	P ₁	P ₂	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)
		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
		170-090-084	R-45	45	19	35.7	13	47	22.7	18.5	6	5	φ3.5 φ7	1	3	3.1×20	8					56	20	200
		170-090-081	R-60	60	33	35.2	13	47	22.2	18.5	6.5	6.5	φ4.3 φ8.3	1	3	3.5×20	12					94	10	100
		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	12					157	10	—
		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			Max. 7		342	10	60

Refer to **1** : P.44

CONCEALED HINGE RK-50



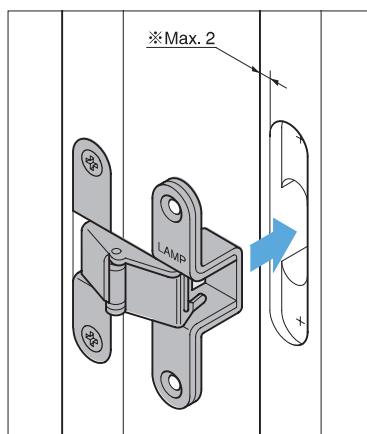
- High corrosion with stainless steel.
- For light door.

[Remarks]

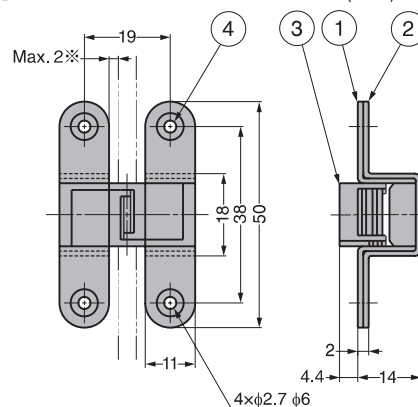
- When increasing the board thickness, be sure to keep the dimensions of ※ marked on below drawings and increase the remaining margins on the opposite side.
- Recommended for use in pairs.

[Parts Included]

- Countersunk head wood screw 2.4×13 (SUS)



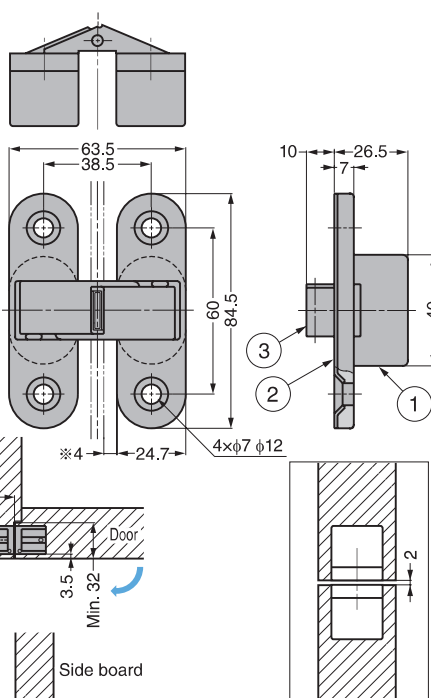
※Distance to door edge must be less than 2mm.



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)
		170-090-086	RK-50	Max. 450	Max. 700	Min. 15	Max. 2.6	180°	28	24	240

CONCEALED HINGE INO-66



- Stainless steel front plate.

[Applications]

- Folding door or window, door of built-in furniture, etc.

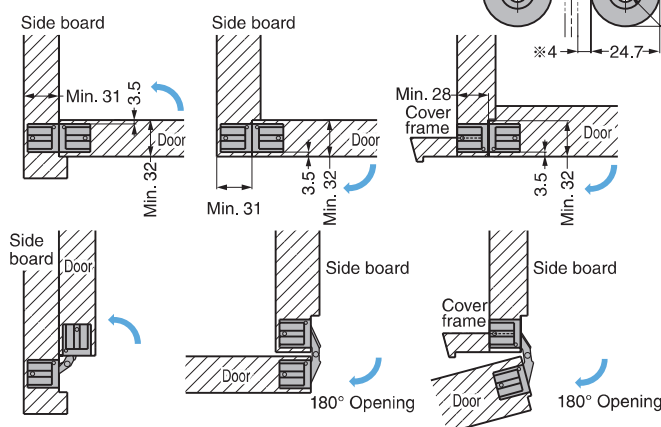
[Remarks]

- When using three hinges, install the middle one 200mm below the upper hinge.
- ※Distance to door edge must be less than 4mm.

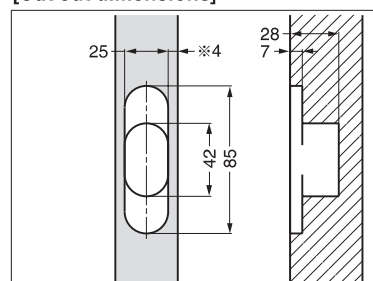
[Recommended Screws]

- Countersunk head wood screw 5.8

[Installation]



[Cut out dimensions]



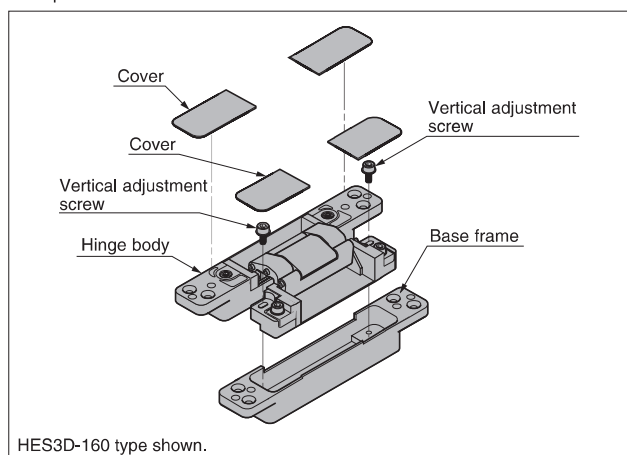
No.	Part Name	Material	Finish
①	Body	PA	-
②	Front Plate	Stainless Steel (SUS304)	Satin
③	Arm		-

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)
		170-095-018	INO-66	Max. 800	Max. 2100	Max. 30	Max. 50	180°	100	24	240

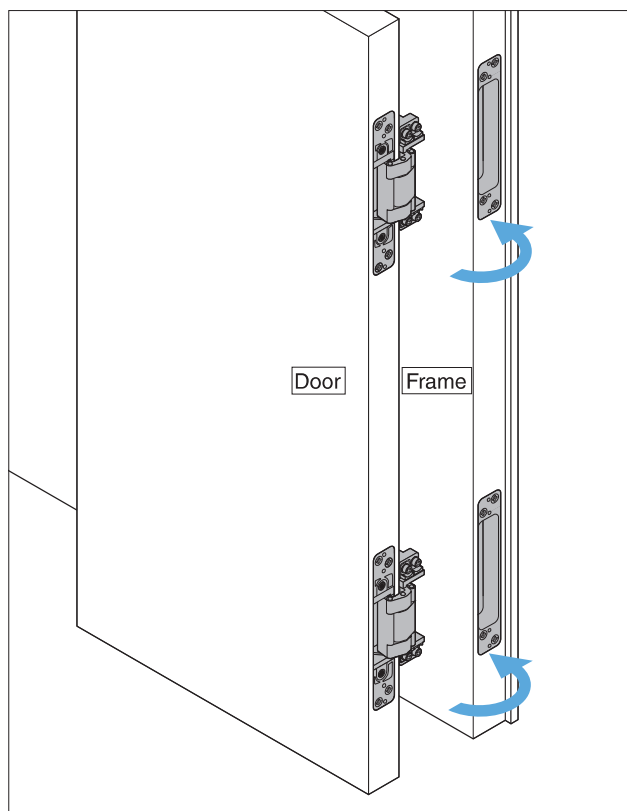
CONCEALED HINGE HES® SERIES

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

a. Exploded View



b. Installation

Refer to **1** : P.91, **2** : P.93, **3** : P.710, **4** : P.713

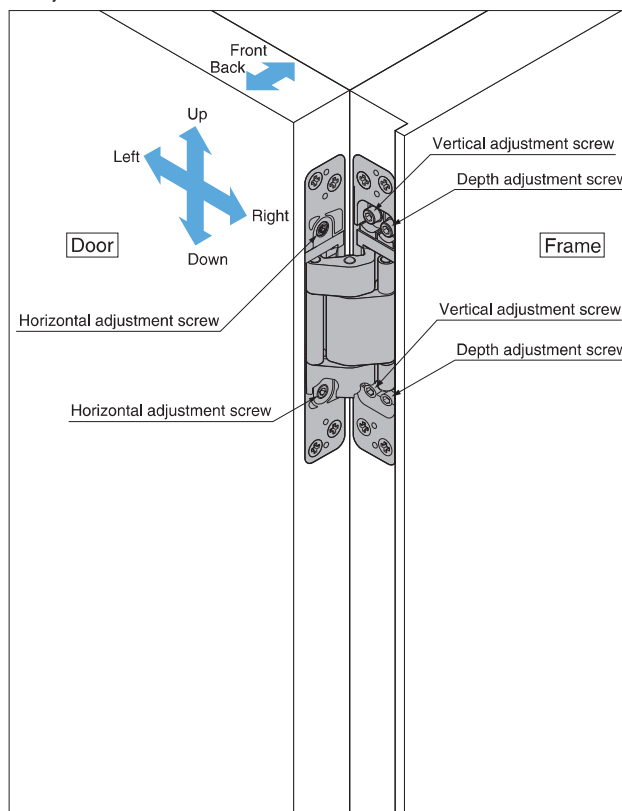
- Hinge is completely hidden when the door is closed. Original design of the door is maintained with improved security.
- Products with 3-way adjustment function (vertical, horizontal, and depth adjustment) and products with temporary holding feature to allow easy door installation are available. Refer to list **1** for applicable products.
- HES3D-160 **2** was awarded the "Good Design Award 2011"
- Can be used together with a door damper.
 - LAPCON DOOR DAMPER LDD-V **3**
 - LAPCON DOOR DAMPER LDD-S **4**

[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 door positions (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.

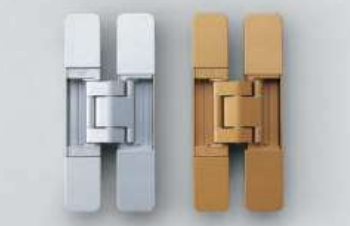
c. Adjustment screws



※ Adjustment directions are those when door is closed.

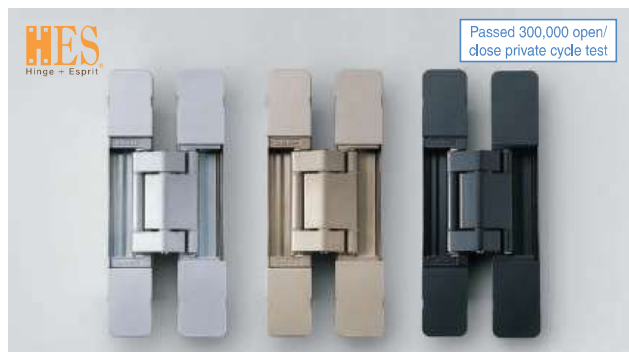
TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

[HES Concealed Hinge Series Digest]

Picture, Item Name	Door Width	Door Height	Door Thickness	Door Weight	3-Way Adjustment Function	Temporary Holding Feature	Page
	Max. 900	Max. 2400	Min. 38	Max. 100 kg/ 2 pcs	Yes	Yes	P.92
				Max. 125kg/ 3 pcs			
3-WAY ADJUSTABLE CONCEALED HINGE HES3D-E190							
	Max. 900	Max. 2400	Min. 35	Max. 45kg/ 2 pcs	Yes	Yes	P.93
				Max. 60kg/ 3 pcs			
3-WAY ADJUSTABLE CONCEALED HINGE HES3D-160							
	Max. 900	Max. 2400	Min. 29	Max. 30kg/ 2 pcs	Yes	Yes	P.94
				Max. 40kg/ 3 pcs			
3-WAY ADJUSTABLE CONCEALED HINGE HES3D-120							
	Max. 600	Max. 1500	Min. 23	Max. 12kg/ 2 pcs	Yes	Yes	P.95
				Max. 16kg/ 3 pcs			
3-WAY ADJUSTABLE CONCEALED HINGE HES3D-90							
	Max. 600	Max. 1200	Min. 19	Max. 9kg /2pcs	Yes	Yes	P.96
				Max. 12kg /3pcs			
3-WAY ADJUSTABLE CONCEALED HINGE HES3D-70							
	Max. 900	Max. 2400	Min. 30	Max. 40kg/ 2 pcs	Yes	Yes	P.97
				Max. 55kg/ 3 pcs			
3-WAY ADJUSTABLE CONCEALED HINGE HES3D-V135LGR							

3-WAY ADJUSTABLE CONCEALED HINGE HES3D-E190

INSTRUCTION



[Parts Included]

- Countersunk head tapping screw 5×30 (8 pcs/hinge) SUS
- Hex key 4

[Sold Separately]

Installation template HES3D-E190-TMP **3**

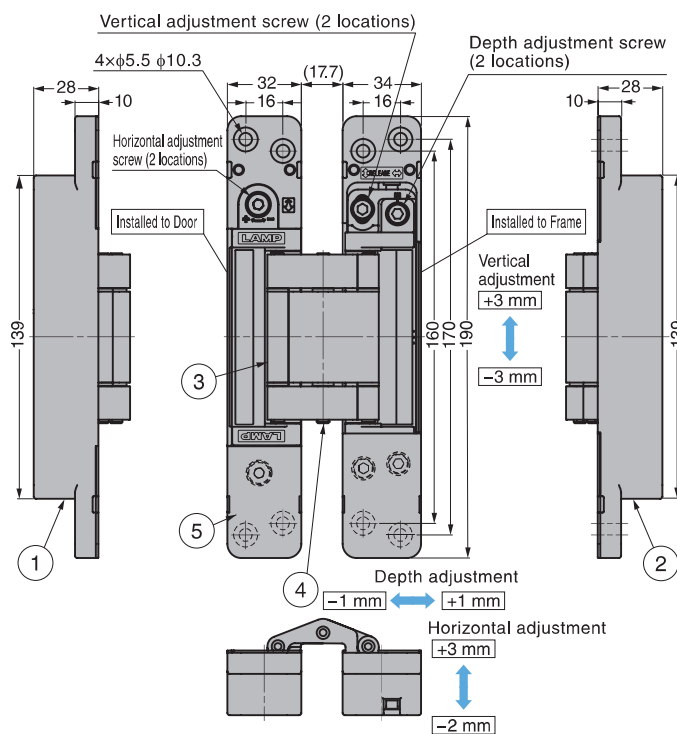
※ Can be reused, so door and frame can be easily cut out with a router.

- 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.
- Unique seven link structure helps to prevent door sagging.
- Order-made colour available.

[Remarks]

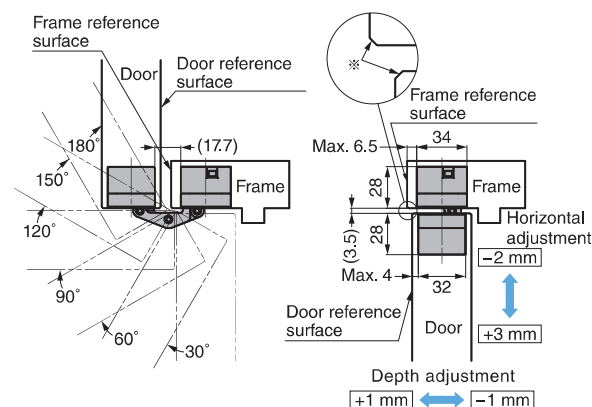
- Can be used with Sugatsune door damper/door closer shown below. Please check and follow product specifications.
 - LAPCON DOOR DAMPER LDD-S **1**
 - LAPCON DOOR DAMPER LDD-V **2**
 - LAPCON DOOR CLOSER LDC-N2
- Using with other door closers might lead to hinge damage.
- For using Sugatsune door closer, please install the door holder separately at the stop position.

Figure below shows the state with the upper screw covers removed.

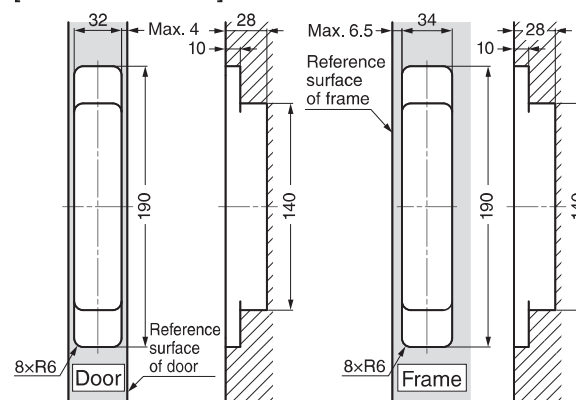


[Locus Chart]

Please process the part (corner of door/frame) of ※ marked on the drawing to C1 or more (or R1 or more).



[Cut Out Dimensions]



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	Aluminium Alloy			
④	Shaft	Stainless Steel	Plain	Plain	Plain
⑤	Cover (2 pairs)	ABS	Satin Chrome	Dull 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)
		170-025-498	HES3D-E190DC	Silver	Max. 900	Max. 2400	Min. 38	Max. 100	Max. 125	180°	1110	2	12
		170-025-499	HES3D-E190DN	Champagne Gold							1113	2	12
		170-025-539	HES3D-E190BL	Black							1110	2	12

Refer to **1** : P.713, **2** : P.710, **3** : P.99

TORQUE
HINGES

DAMPER HINGES

LIFT ASSIST HINGES

DETENT
HINGES

CONCEALED HINGES

BUTT HINGES

PIANO
HINGES

STEP HINGES

LIFT-
OFF

PIVOT

SPRING

CLEAN

HINGES

ALUMINUM
FRAME

DROP HINGES

GLASS DOOR HINGES

SPECIAL HINGES



Passed 300,000 open/
close private cycle test



- 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.
- Unique seven link structure helps to prevent door sagging.
- 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 
 - ・ LAPCON DOOR DAMPER LDD-V 
 - ・ 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.

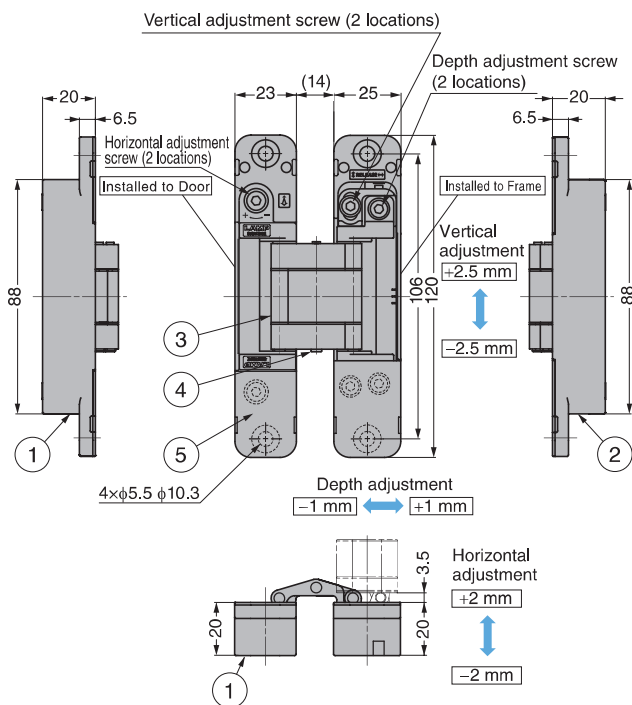
[Parts Included]

- Countersunk head tapping screw 5×20 (4 pcs/hinge) SUS
- Hex key 3

[Sold Separately]

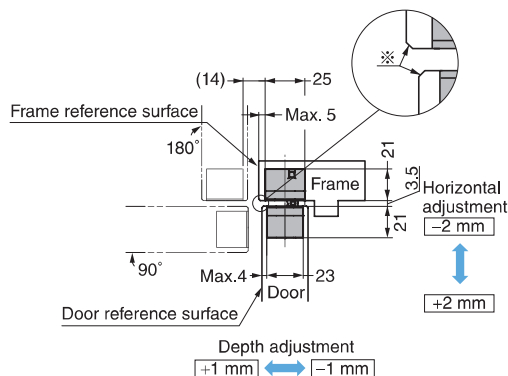
- Installation template HES3D-120-TMP **3**
 - ※Can be reused, so door and frame can be easily cut out with a router.

Figure below shows the state with the upper screw covers removed.

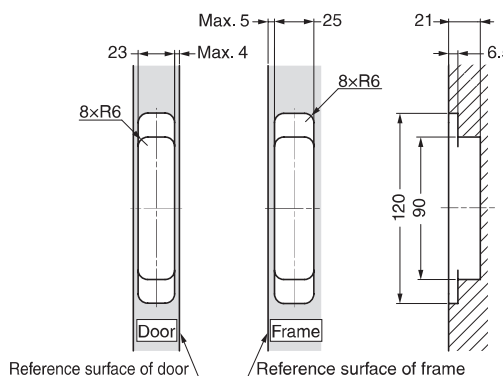


[Locus Chart]

Please process the part (corner of door/frame) of ※ marked on the drawing to C1 or more (or R1 or more).



[Cut Out Dimensions]



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	Dull 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)
		170-022-086	HES3D-120DC	Silver	Max. 900	Max. 2400	Min. 29	Max. 30	Max. 40	180°	410	2	24
		170-022-087	HES3D-120DN	Champagne Gold							415	2	24
		170-022-088	HES3D-120BL	Black							403	2	12

Refer to **1** : P.713, **2** : P.710, **3** : P.99

3-WAY ADJUSTABLE CONCEALED HINGE HES3D-90

INSTRUCTION



- 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.
- Unique seven link structure helps to prevent door sagging.
- 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.

[Parts Included]

- Countersunk head tapping screw 4×20 (4 pcs/hinge) SUS
- Hex key 2

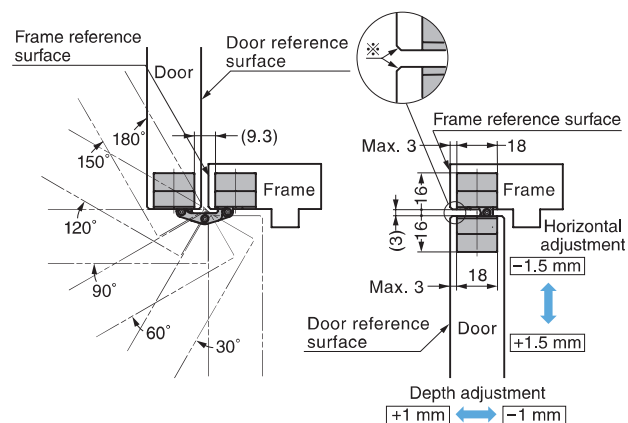
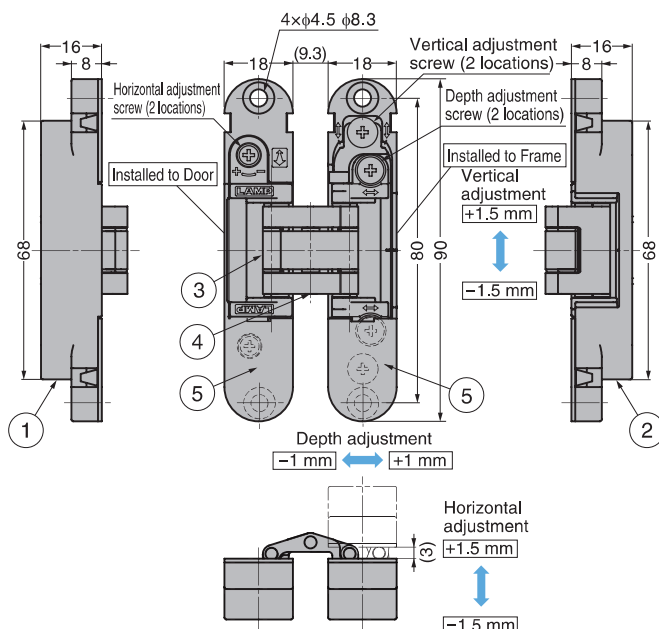
[Sold Separately]

- Installation template HES3D-90-TMP (made to order)
- ※Can be reused, so door and frame can be easily cut out with a router.

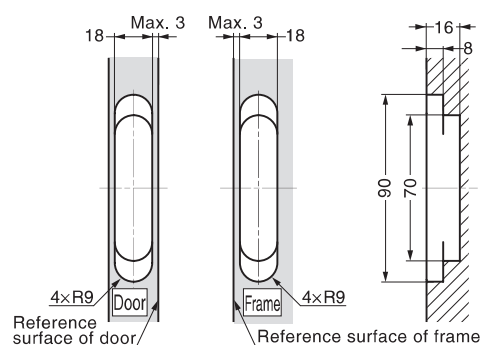
[Locus Chart]

Please process the part (corner of door/frame) of ※ marked on the drawing to C1 or more (or R1 or more).

Figure below shows the state with the upper screw covers removed.



[Cut Out Dimensions]

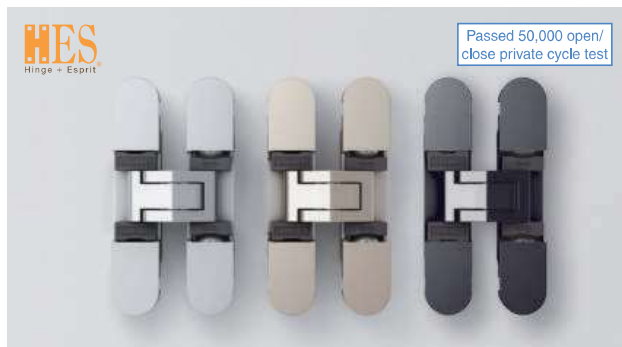


No.	Part Name	Material	Finish		
			DC	DN	BL
①	Body	Zinc Alloy (ZDC)	Satin Chrome	Dull Nickel	Black Enamel Finish
②	Base Frame				
③	Arm				
④	Shaft	Stainless Steel	—	—	—
⑤	Cover (2 pairs)	ABS	Satin Chrome	Dull Nickel	Black

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)
✓	3D	170-029-221	HES3D-90DC	Silver	Max. 600	Max. 1500	Min. 23	Max. 12	Max. 16	180°	195	2	48
✓	3D	170-029-222	HES3D-90DN	Champagne Gold							195	2	48
✓	3D	170-033-588	HES3D-90BL	Black							195	2	48

Refer to 1 : P.710, 713

3-WAY ADJUSTABLE CONCEALED HINGE HES3D-70



- 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.

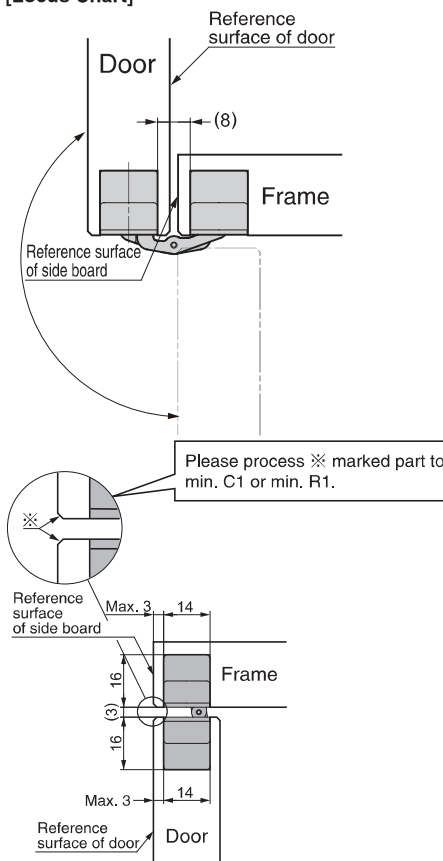
[Remarks]

- Can not be used with LAPCON DOOR DAMPER LDD 1 or LAPCON DOOR CLOSER LDC-N2.
- Use below opening angle 180°.

[Parts Included]

- Countersunk head tapping screw 4×20 (4 pcs/hinge) SUS
- Hex key 2

[Locus Chart]



[Cut Out Dimensions]

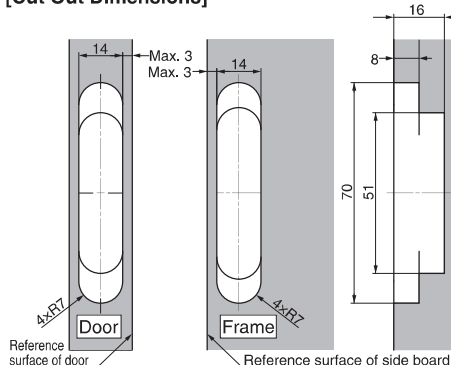
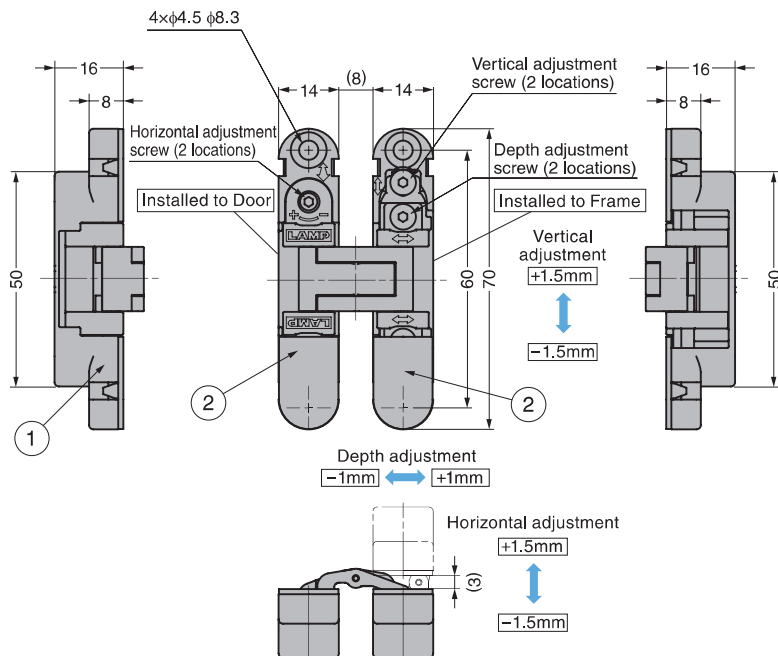


Figure below shows the state with the upper screw covers removed.



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/2 pcs	Door Weight kg/3 pcs	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
CE	3D	170-035-441	HES3D-70DC	Silver	Max. 600	Max. 1200	Min. 19	Max. 9	Max. 12	180°	95	2	48
CE	3D	170-035-442	HES3D-70DN	Champagne Gold								2	48
CE	3D	170-035-443	HES3D-70BL	Black								2	48

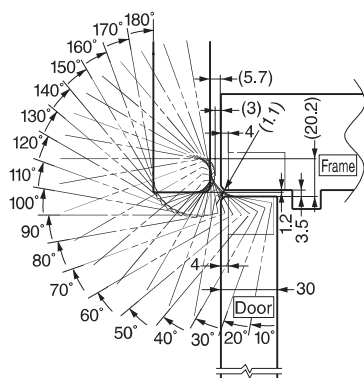
Refer to 1 : P.710, P.713

3-WAY ADJUSTABLE CONCEALED HINGE HES3D-V135LGR

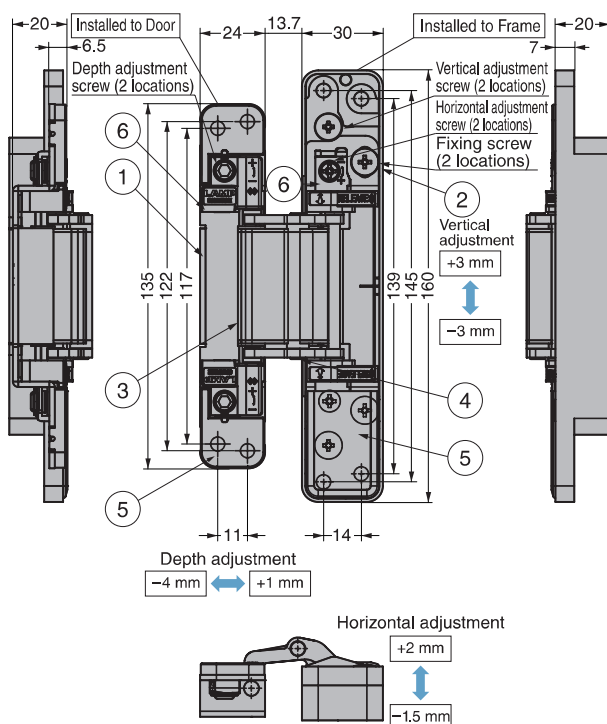
INSTRUCTION

Passed 300,000 open/
close private cycle test

[Locus Chart]



Video Link

Video
Locus & Open/Close Angle

- 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.
- Unique seven link structure helps to prevent door sagging.

[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.

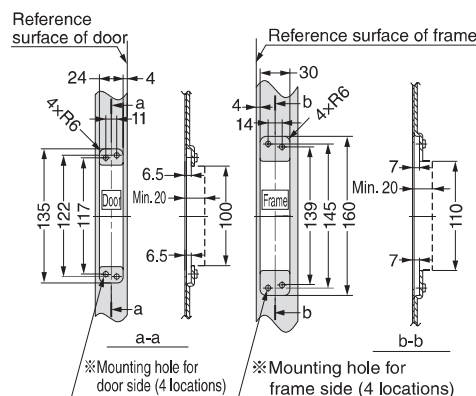
[Parts Included]

- Binding head tapping screw 5×15

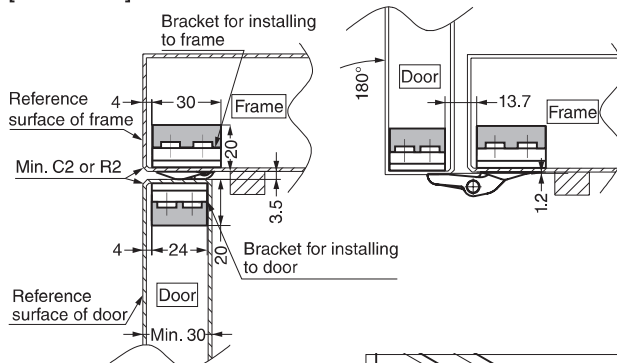
[Sold Separately]

- Installation template HES3D-V135-TMP **4**

[Cut Out Dimensions]

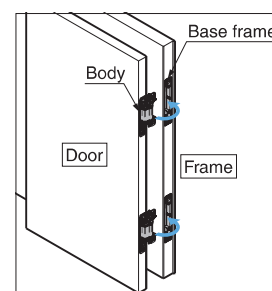


[Installation]



[Temporary Holding Feature]

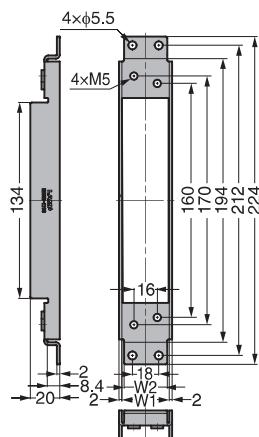
1. Hinge can be split into the body and base frame. Install the body to the door and the base frame to the frame.
2. Push the hinge body horizontally into the base frame in the direction of the arrow. The door is held to the frame due to the temporary holding feature.
3. Temporarily tighten the fixing screws and adjust the door position.
4. After adjustment, tighten the fixing screws completely to fix the hinge body.



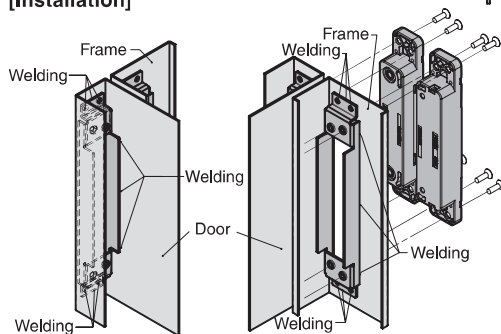
No.	Part Name	Material	Finish / Colour
①	Body	Steel	Nickel
②	Base Frame	POM	Light Grey
③	Arm	Aluminium Alloy	Anodised Silver
④	Shaft	Steel	Nickel
⑤	Cover	POM	Light Grey
⑥	Adjustment Block	Zinc Alloy (ZDC)	Nickel

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)
CE	3D	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.91, **2** : P.713, **3** : P.710, **4** : P.99

BRACKET FOR SHEET METAL **HES3D-E190BKT** For Hinge HES3D-E190

[Installation]

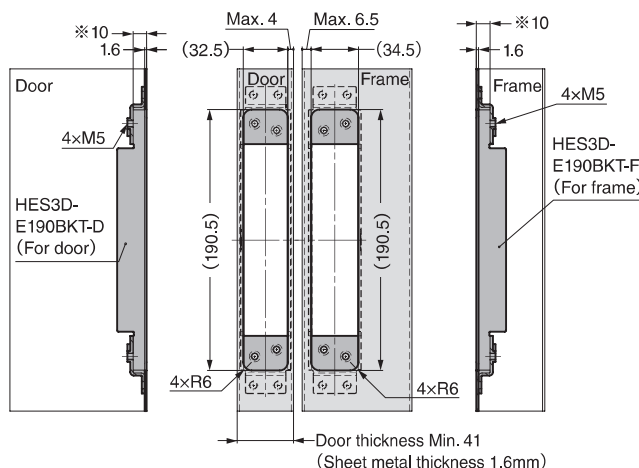


- Brackets for installing HES3D-E190 **1** to steel door (SD) and steel frame.

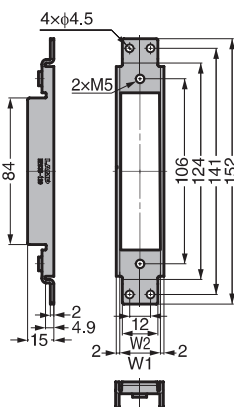
[Remarks]

- 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.

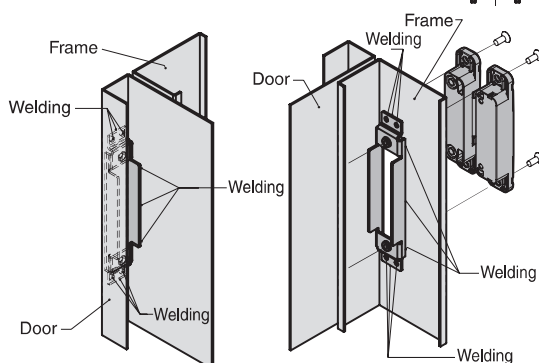
[Cut Out Dimensions] ※Dimensions in case of 1.6 mm thick sheet metal.



RoHS	CAD	Item Code	Item Name	Description	Material	Finish	W1	W2	Weight (g)	Box (pcs)
		170-032-741	HES3D-E190BKT-D	For Door	Steel (SPCC)	Coloured Zinc Chromate (Trivalent)	32.3	29.5	142	50
		170-032-742	HES3D-E190BKT-F	For Frame			34.3	31.5	144	50

Refer to **1** : P.92BRACKET FOR SHEET METAL **HES3D-120BKT** For Hinge HES3D-120

[Installation]

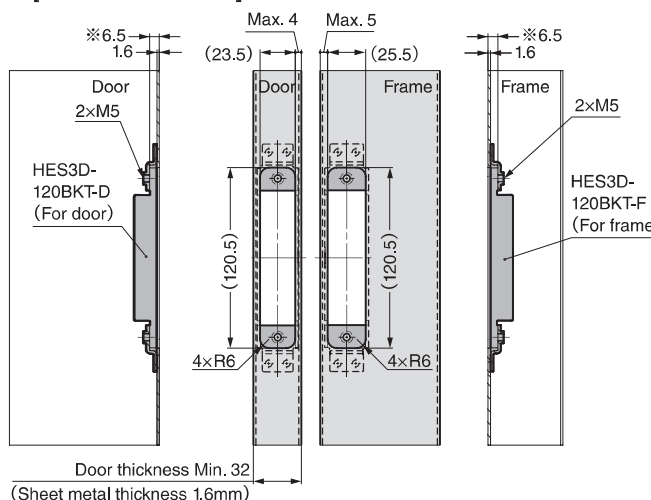


- Brackets for installing HES3D-120 **1** to steel door (SD) and steel frame.

[Remarks]

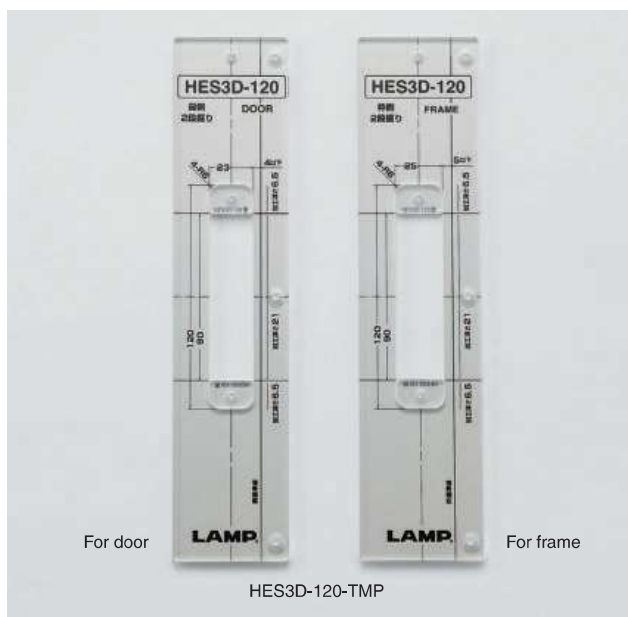
- When the sheet metal thickness of the installation side is 1.6 mm, screw cover surface becomes flush with cabinet surface. The surface may slightly protrude or retract, depending on the board thickness of the installation side.
- As a general-purpose bracket, additional processing may be required for 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.



RoHS	CAD	Item Code	Item Name	Description	Material	Finish	W1	W2	Weight (g)	Box (pcs)
		170-032-739	HES3D-120BKT-D	For Door	Steel (SPCC)	Coloured Zinc Chromate (Trivalent)	23.3	20.5	66	50
		170-032-740	HES3D-120BKT-F	For Frame			25.3	22.5	68	50

Refer to **1** : P.94

INSTALLATION TEMPLATE **HES3D-TMP** For Hinge HES3D

- 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]

- Sold in pairs (for door and frame).

[Parts Included]

- Parts for 2-step grooving (Each 2 pcs for door and for frame)

RoHS	CAD	Item Code	Item Name	Applicable Hinge (Page)	Material	Colour	Weight (g)	Box (pairs)	Carton (pairs)
	—	170-024-569	HES3D-120-TMP	HES3D-120 1	PMMA	Clear	186	1	50
	—	170-024-570	HES3D-160-TMP	HES3D-160 2			224	1	50
	—	170-028-808	HES3D-E190-TMP	HES3D-E190 3			238	1	50
	—	170-024-572	HES3D-V135-TMP	HES3D-V135LGR 4			220	1	50

Refer to **1** : P.94, **2** : P.93, **3** : P.92, **4** : P.97

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

HEAVY DUTY CONCEALED HINGE J95

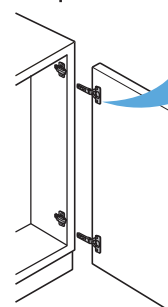
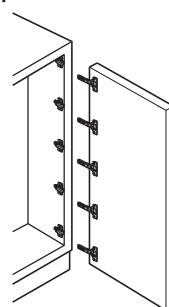
Max. Door Weight : **25 kg** with 2 pcs, **40 kg*** with 3 pcs. ※35kg for glass doors

[Application Example] Chemical storage cabinets, etc.
Operating temperature of J95: -10°C ~ 40°C



[Normal Concealed Hinges]
5 pcs used

[J95]
2 pcs used

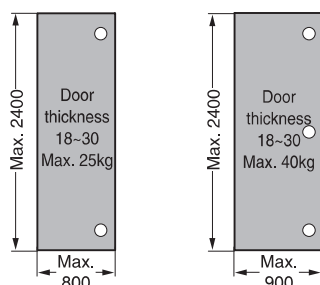


Efficient Installation!

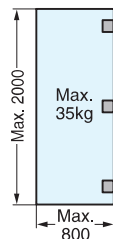
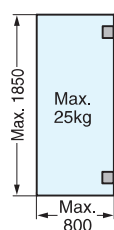
Less usage compared with normal concealed hinges, reducing construction and installation time and providing clean appearance.

[Door Dimensions and Number of Hinges]

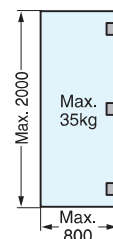
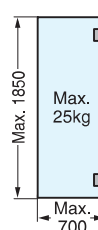
● In case of sheet metal door



● In case of glass door
Glass thickness 8mm



Glass thickness 10 mm

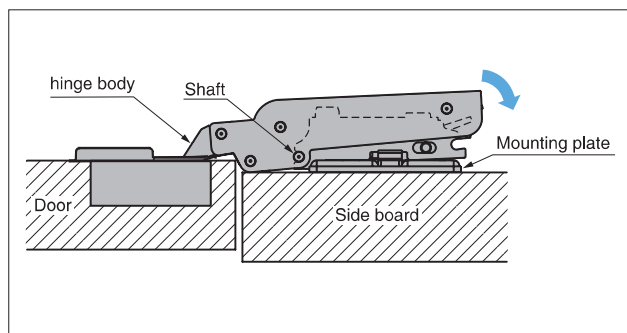


Install the upper and lower hinges within 200mm from the door end. Set equal installation pitch when using 3 pcs.

Simple Installation and Detachment by One-Touch.

[How to Install]

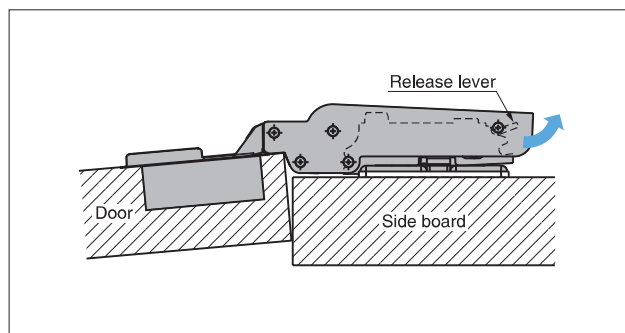
Align shaft of hinge body with front end of mounting plate, and press down back end of hinge body until it snaps into place.



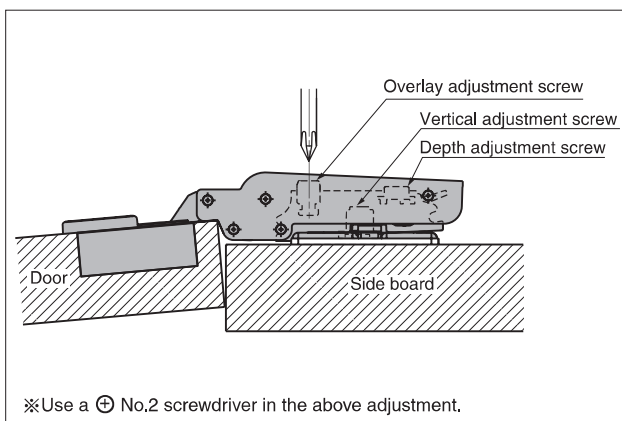
Check if hinge body is properly installed on mounting plate.

[How to Detach]

Push up release lever in direction, and remove hinge body from mounting plate.



Easy and Fast 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.

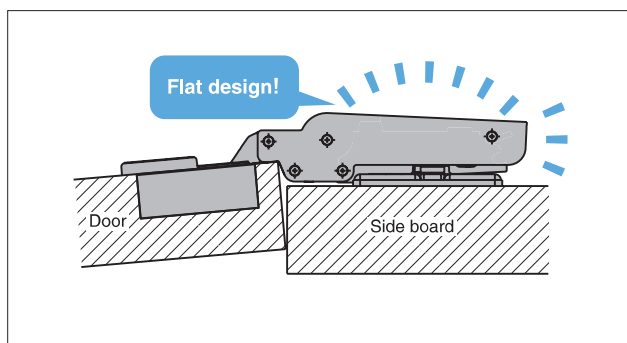
TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

[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.

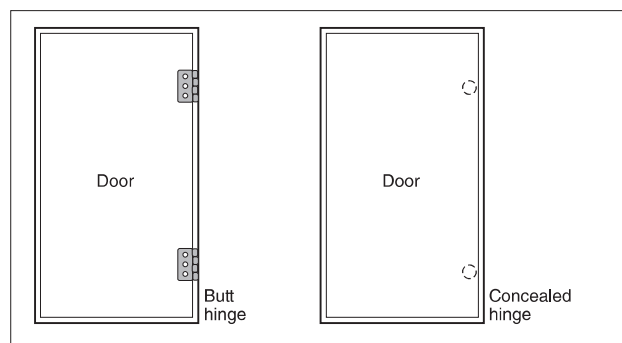
Overlay adjustment (Horizontal adjustment)	+0 mm, -4 mm
	Turning the overlay adjustment screw clockwise ↻ to decrease and counterclockwise ↺ to increase the overlay.
Tilting Adjustment	—
	Turning the overlay adjustment screw counterclockwise or clockwise to adjust.

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.100

95° Opening

25mm Overlay

Overlay 21~25mm
(When Bore Distance is 8 mm)Cup Dia $\phi 40$ Bore Depth 15mm
Door Thickness 18~30mm/Glass Thickness 8, 10mmMounting 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)
		160-026-905	J95-24/25T	Without Catch	Body/Steel, Cup/Zinc Alloy (ZDC)	Nickel	134	100
		160-026-731	J95-C24/25T	With Catch		Nickel	146	100
		—	J95-24/25T BN	Without Catch		Black	134	100
		—	J95-C24/25T BN	With Catch		Nickel	146	100

A mounting plate (sold separately) is required for installation. Please order separately.

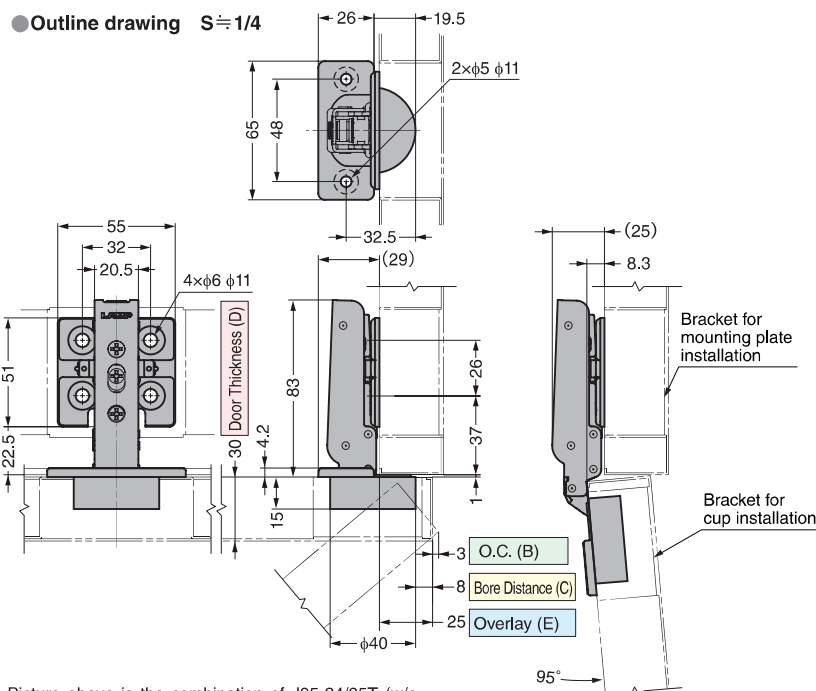
[Sold Separately]

- 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

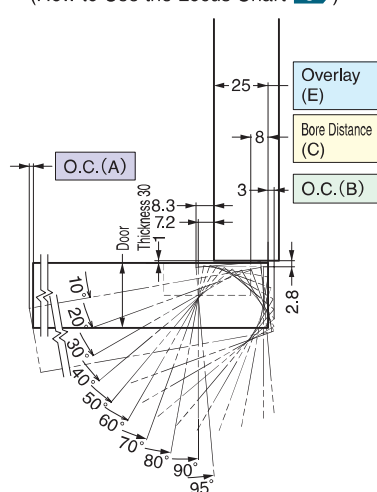
In case of sheet metal door



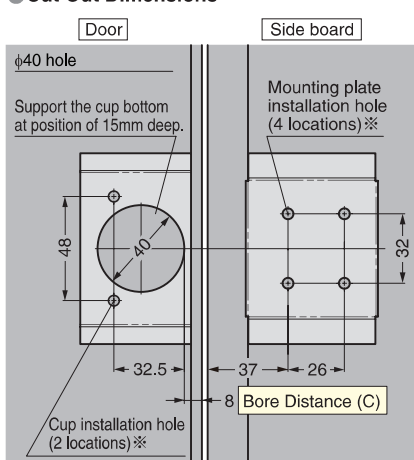
Picture above is the combination of J95-24/25T (w/o catch) or J95-C24/25T (w/catch) and mounting plate J95-P6T (sold separately).

● Locus chart $S \approx 1/4$

(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
30	0.5	0.3	0.3	0.2	0.2	0.2
O.C. (A)						

[Door Dimensions and Number of Hinges] **6**

Refer to **1** : P.108, **2** : P.110, **3** : P.109, **5** : P.111, **6** : P.100

[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



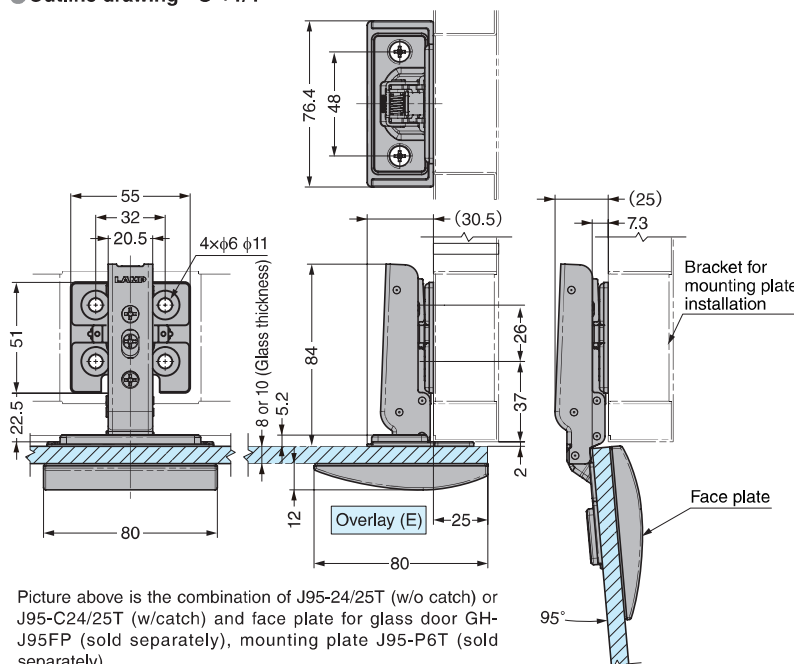
- Safety cover
J95SC-25GR **4**



- Cover for
mounting plate **5**

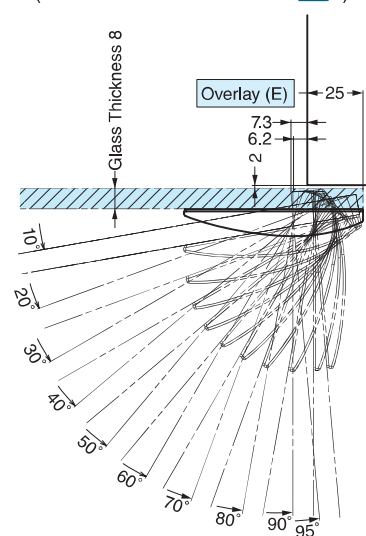
■ In case of glass door

● Outline drawing S ≒ 1/4

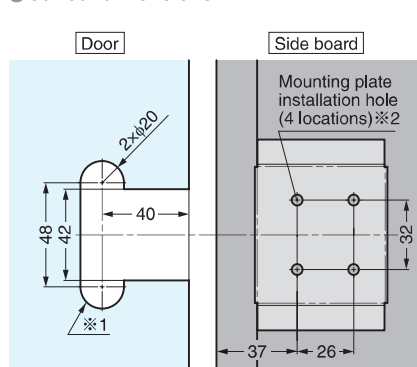


● Locus chart S ≒ 1/4

(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.102, **2** **5** : P.108, **3** : P.110, **4** : P.109, **6** : P.111, **8** : P.100

95° Opening

16mm Overlay

Overlay 12~16mm
(When Bore Distance is 8 mm)Cup Dia $\phi 40$ Bore Depth 15mm
Door Thickness 18~30mm/Glass Thickness 8, 10mmMounting 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)
		160-033-658	J95-24/16T	Without Catch	Body/Steel, Cup/Zinc Alloy (ZDC)	Nickel	143	50
		160-033-657	J95-C24/16T	With Catch		Nickel	155	50
		—	J95-24/16T BN	Without Catch		Black	143	50
		—	J95-C24/16T BN	With Catch		Nickel	155	50

A mounting plate (sold separately) is required for installation. Please order separately.

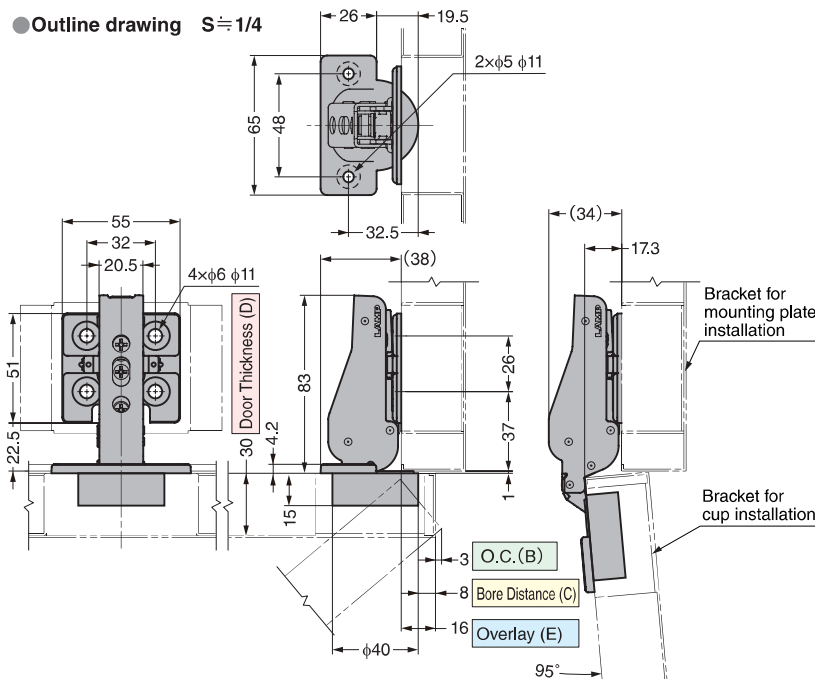
[Sold Separately]

- 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

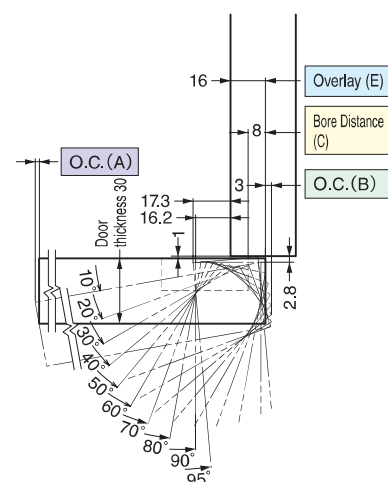
■ In case of sheet metal door



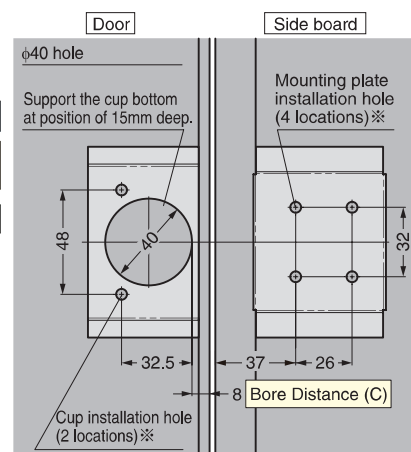
Picture above is the combination of J95-24/16T (w/o catch) or J95-C24/16T (w/catch) and mounting plate J95-P6T (sold separately).

● Locus chart $S \div 1/4$

(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)	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**

Refer to **1** : P.108, **2** : P.110, **3** : P.109, **5** : P.111, **6** : P.100

[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



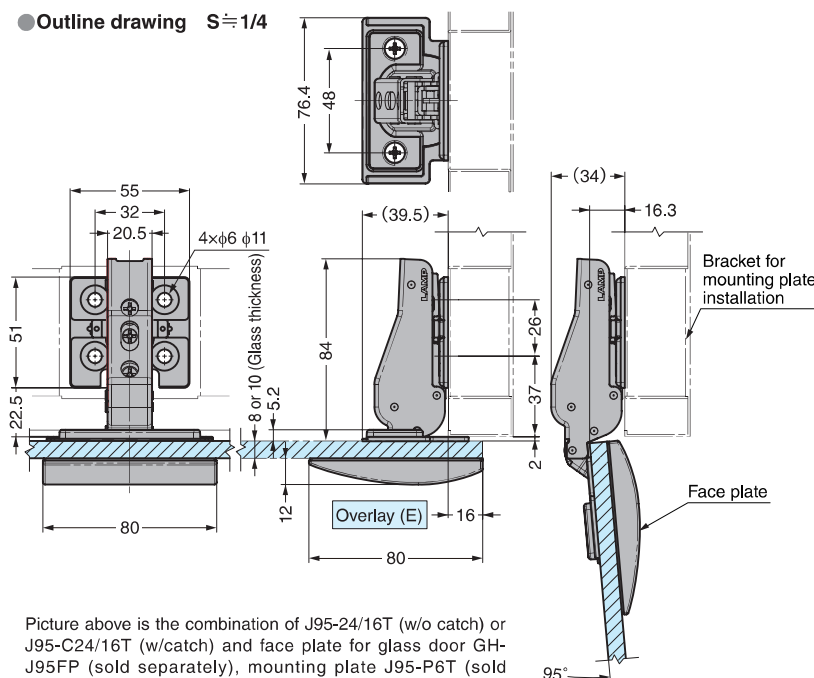
- Safety cover
J95SC-16GR **4**



- Cover for **5**
mounting plate

■ In case of glass door

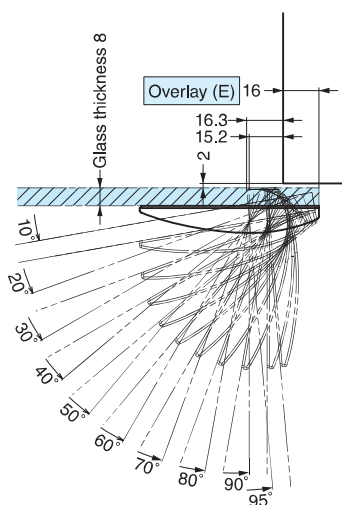
● Outline drawing S ≒ 1/4



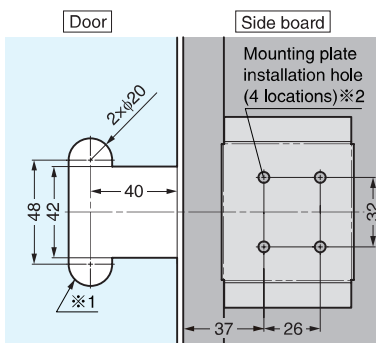
Picture above is the combination of J95-24/16T (w/o catch) or J95-C24/16T (w/catch) and face plate for glass door GH-J95FP (sold separately), mounting plate J95-P6T (sold separately).

● 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.104, **2** **5** : P.108, **3** : P.110, **4** : P.109, **6** : P.111, **8** : P.100

93° Opening

Inset

Cup Dia $\phi 40$ Bore Depth 15mm
Door Thickness 18~30mm/Glass Thickness 8, 10mmMounting 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)
	3D	160-033-660	J95-24/OT	Without Catch	Body/Steel, Cup/Zinc Alloy (ZDC)	Nickel	148	50
	3D	160-033-659	J95-C24/OT	With Catch		Nickel	160	50
	3D	—	J95-24/OT BN	Without Catch		Black	148	50
	3D	—	J95-C24/OT BN	With Catch		Nickel	160	50

A mounting plate (sold separately) is required for installation. Please order separately.

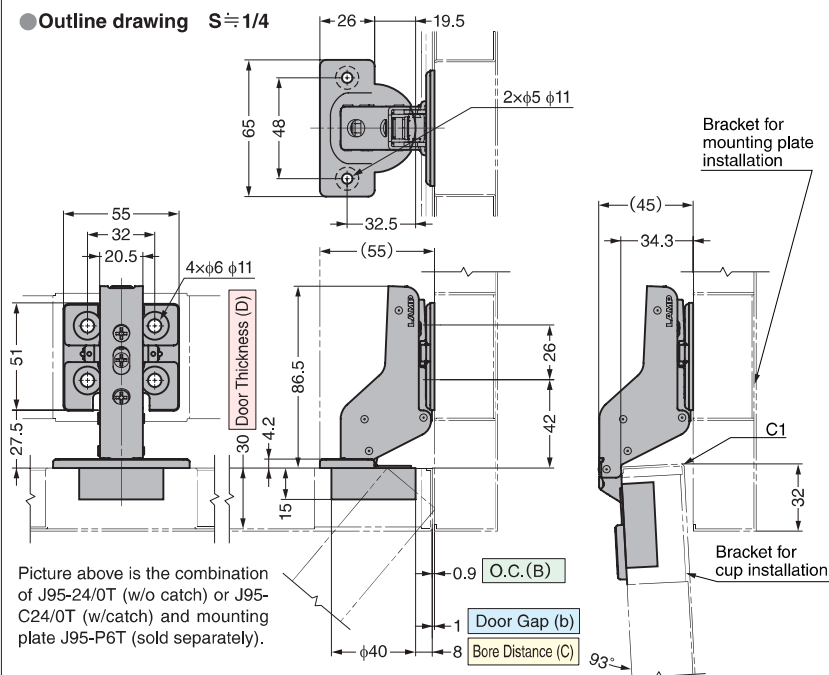
[Sold Separately]

- 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

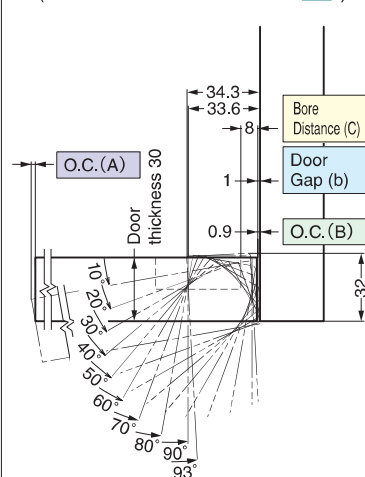
In case of sheet metal door

● Outline drawing $S \div 1/4$ 

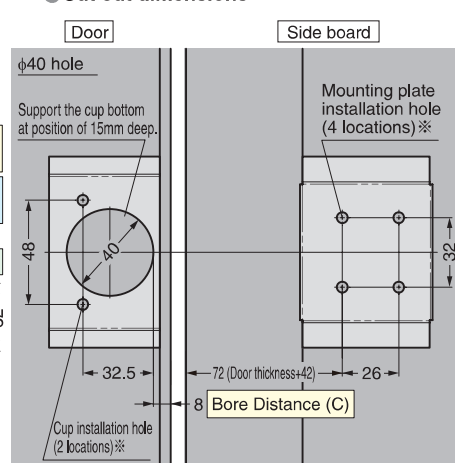
Picture above is the combination of J95-24/OT (w/o catch) or J95-C24/OT (w/catch) and mounting plate J95-P6T (sold separately).

● Locus chart $S \div 1/4$

(How to Use the Locus Chart **5**)

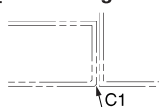


● Cut out dimensions



※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**

Refer to **1** **4** : P.108, **2** : P.110, **3** : P.109, **5** : P.111, **6** : P.100

[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



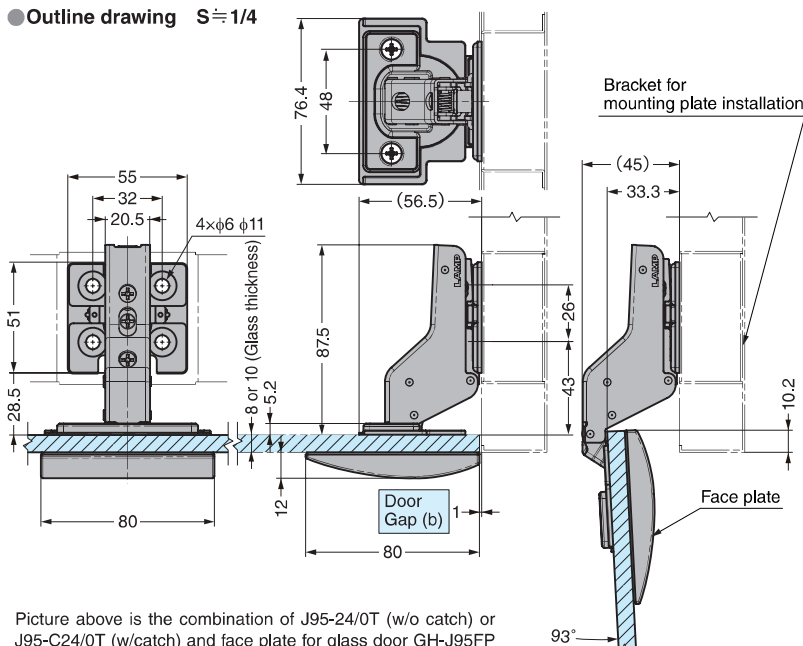
- Safety cover
J95SC-0GR **4**



- Cover for **5**
mounting plate

In case of glass door

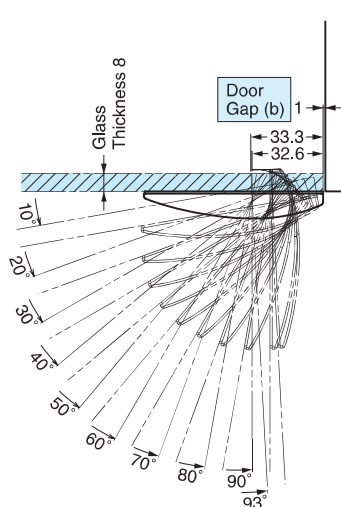
Outline drawing S ≒ 1/4



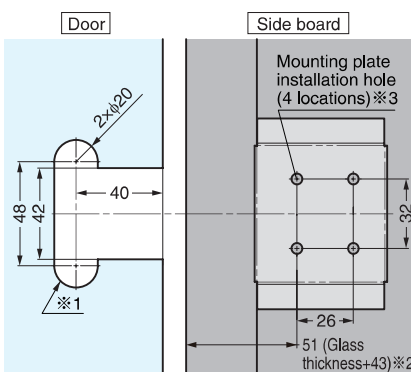
Picture above is the combination of J95-24/OT (w/o catch) or J95-C24/OT (w/catch) and face plate for glass door GH-J95FP (sold separately), mounting plate J95-P6T (sold separately).

Locus chart S ≒ 1/4

(How to Use the Locus Chart **5**)



Cut out dimensions



※1: Use tempered glass. Scattering prevention film is recommended.

※2: The size is 53 when using 10mm thick glass door.

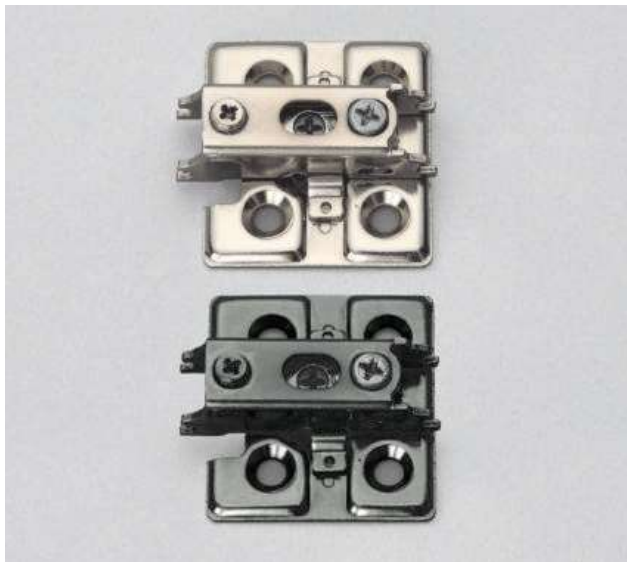
※3: Internal threads need to be made by welding nut or burring.

[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.106, **2** **5** : P.108, **3** : P.110, **4** : P.109, **6** : P.111, **8** : P.100

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES**MOUNTING PLATE J95-P6T** For Heavy Duty Concealed Hinge J95

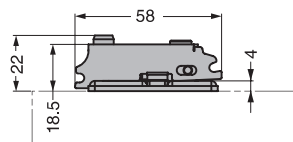
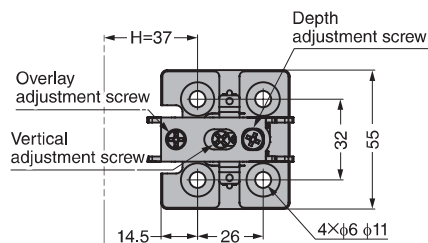
- Depth adjustment: +1.5, -2.5mm
- Vertical adjustment: ± 3 mm
- Overlay (horizontal) adjustment: +0, -4mm
- Value of H: Door thickness +42mm in use of INSET type.

[Sold Separately]

- Cover for mounting plate J95ZC-GR **1**

[Recommended Screws]

- Size 5 countersunk head, or raised countersunk head tapping screw or wood screw.



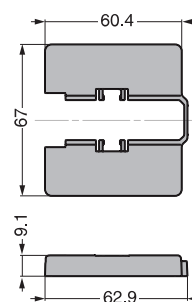
RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
		160-026-732	J95-P6T	Steel/Zinc Alloy (ZDC)	Nickel	94	100
		—	J95-P6T BN		Black Nickel	94	100

Refer to **1** : P.108**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]

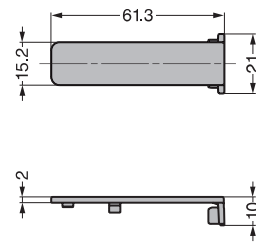
- Do not bend by force. Otherwise, it may be damaged.

**[With Safety Cover and Mounting Plate Cover]**

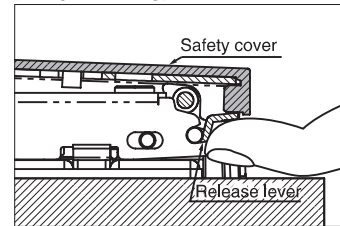
Picture above is for 25mm overlay.

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
		160-032-766	J95ZC-GR	ABS	Grey	9	500
		160-034-743	J95ZC-NI		Nickel	9	500

Refer to **1** : P.108

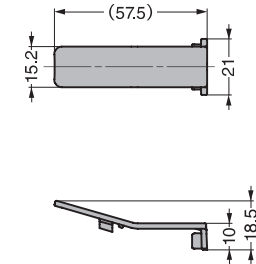
SAFETY COVER J95SC-25 For Heavy Duty Concealed Hinge J95 25mm Overlay

- Nickel plating finish is newly launched.
- For hiding screw holes.

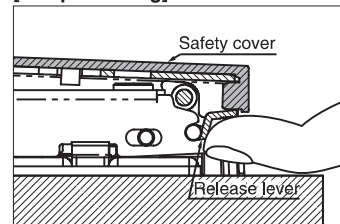
[Fall-preventing]

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)
		160-032-763	J95SC-25GR	ABS	Grey	3	500
		160-034-673	J95SC-25NI		Nickel	9	500

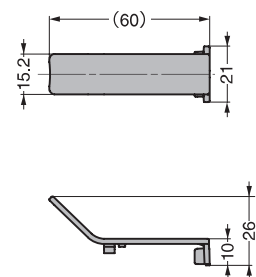
SAFETY COVER J95SC-16 For Heavy Duty Concealed Hinge J95 16mm Overlay

- Nickel plating finish is newly launched.
- For hiding screw holes.

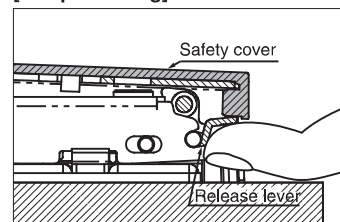
[Fall-preventing]

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)
		160-032-764	J95SC-16GR	ABS	Grey	3	500
		160-034-674	J95SC-16NI		Nickel	9	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)
		160-032-765	J95SC-0GR	ABS	Grey	3	500
		160-034-675	J95SC-0NI		Nickel	9	500

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGESFACE PLATE FOR GLASS DOOR **GH-J95FP** For Heavy Duty Concealed Hinge J95

INSTRUCTION

TEMPERED GLASS



[Application Example]



Japanese traditional pattern also available by made to order.



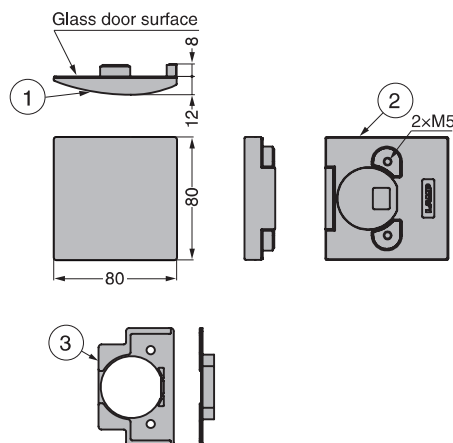
- Used for installing J95 **1** to glass door.

[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		

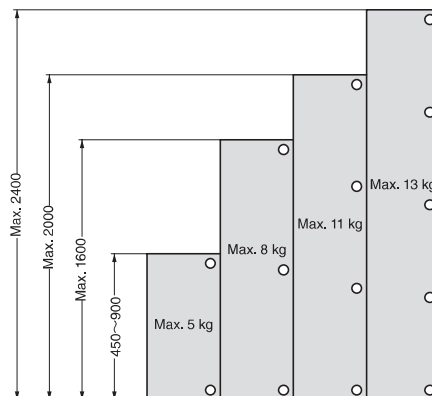
RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
		160-032-418	GH-J95FP-CR	Zinc Alloy (ZDC)	Chrome	320	1	20
		160-033-893	GH-J95FP-SN		Satin Nickel		1	20

Refer to **1** : P.102~107

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.114~116

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, 100-36-19SK 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.

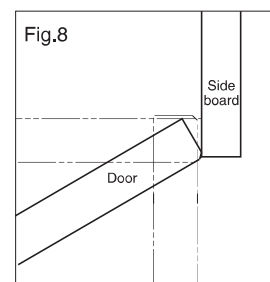
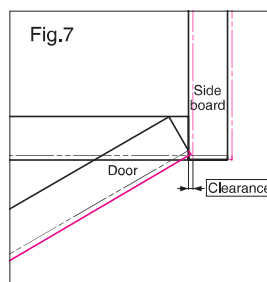
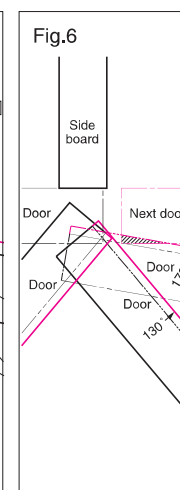
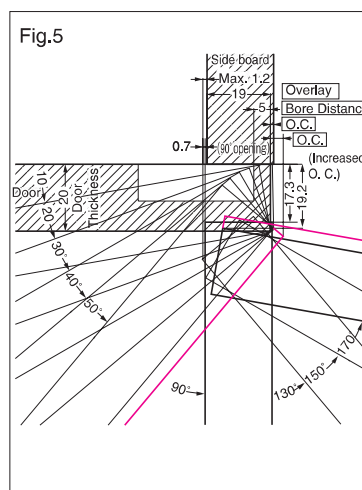
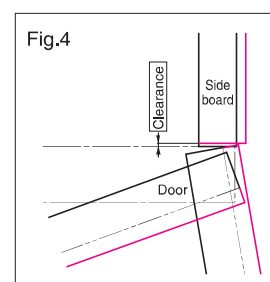
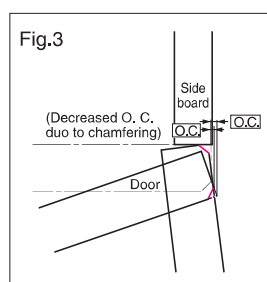
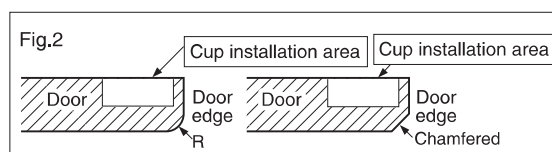
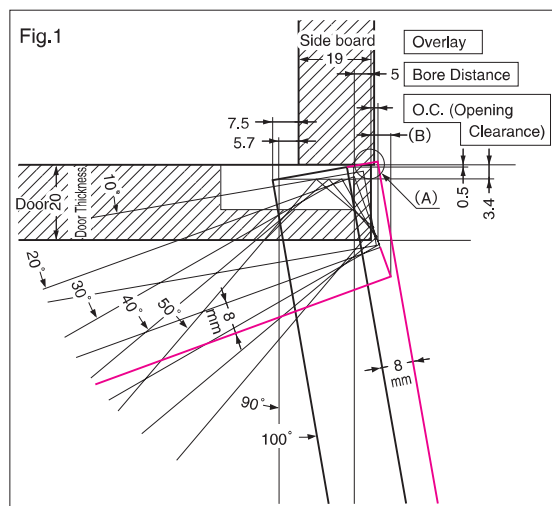
For Inset Door

● 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.

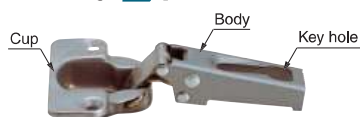
For further details, please contact local representatives.



CONCEALED HINGE 100 SERIES

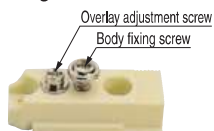
Part Names

[Concealed Hinge 1]

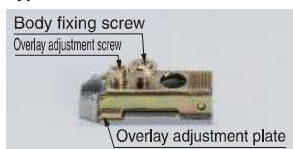


[Mounting Plate 2]

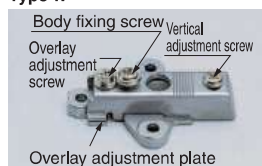
Mounting Plate



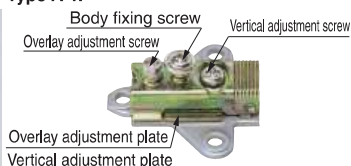
Type A



Type W



Type A-W



[Spacer 3]

Standard type



System type



Body

Install to mounting plate.

Cup

Cut out a $\phi 35$ (or $\phi 26$, $\phi 40$) 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

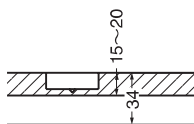
(In case of type W or type A-W mounting plate) Turning door vertical adjustment screw can move the door vertically.

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.



Superior Corrosion Resistance

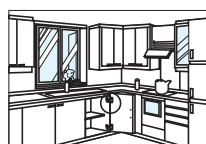
[All Stainless Steel]

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.

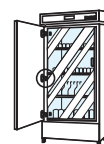
[Satin Chrome]

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)

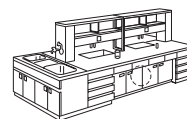
<Main Purpose of Stainless Steel Concealed Hinge>



Kitchen equipment



Medical warehouse



Laboratory



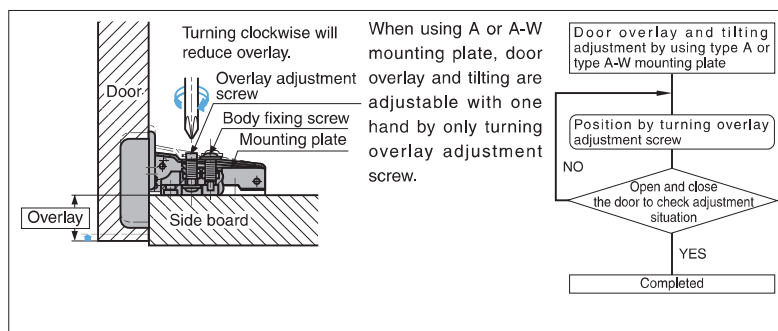
Marine

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.

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.114~116, 2 : P.117, 3 : P.129

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

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]

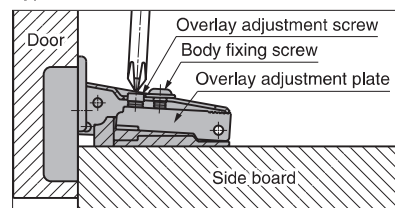
100-04A-W-30, 100-04A-W-30-2, 100-04A-W-32, 100-06AW

Depth Adjustment Overlay Adjustment Tilting Adjustment are the same as type A.

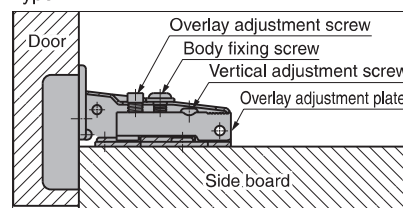
Vertical Adjustment

Loosen the vertical adjustment screw, move the door up and down to select appropriate position, and then tighten the screw.

Type A



Type A-W



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

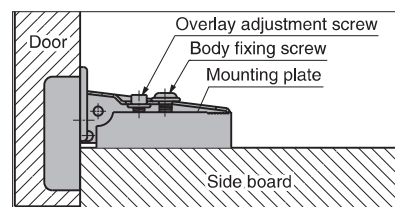
Loosen the body fixing screw, move the door back and forth to select appropriate position, and then tighten the screw.

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.



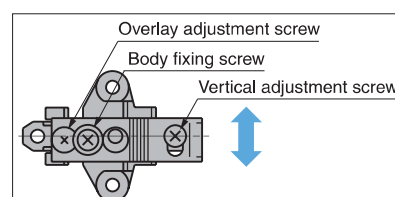
[Type W]

100-04W-30

Depth Adjustment Overlay Adjustment Tilting Adjustment are the same as the above method.

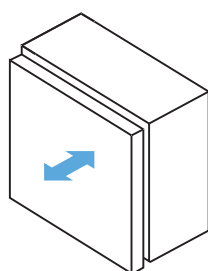
Vertical Adjustment

Loosen the vertical adjustment screw, move the door up and down to select appropriate position, and then tighten the screw.

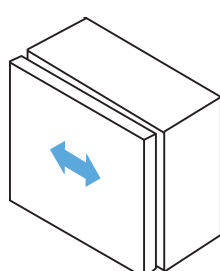


[Remarks]

Body fixing screw may become loose due to door opening and closing. Regularly check and tighten to prevent the door from falling off.

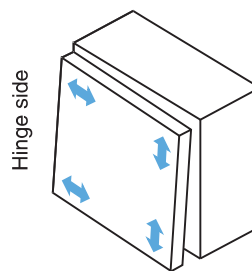


Depth Adjustment

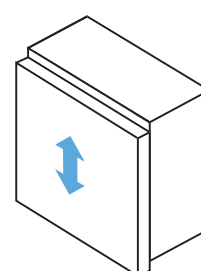


Overlay Adjustment

(Horizontal Adjustment)



Tilting Adjustment



Vertical Adjustment

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
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

100° Opening

19mm Overlay

Overlay
15~19mmCup Dia $\phi 35$ Bore Depth 11mm
Door Thickness 15~20mmStainless 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]

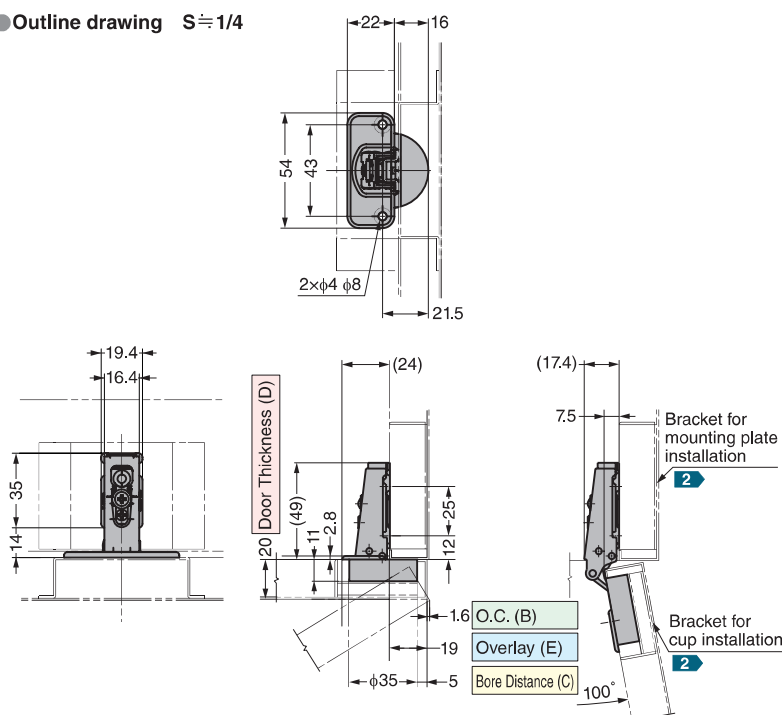
- Stainless steel 100 series mounting plate 1

[Recommended Screws]

- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-865	100-46/19SUS304B	Without Catch	Stainless Steel	Polished	39.1	200
G	3D	160-073-870	100-C46/19SUS304B	With Catch	(SUS304)	Polished	44.1	200

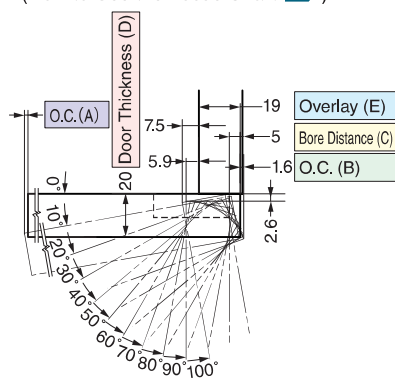
A mounting plate (sold separately) is required for installation. Please order separately.

● Outline drawing $S \div 1/4$ 

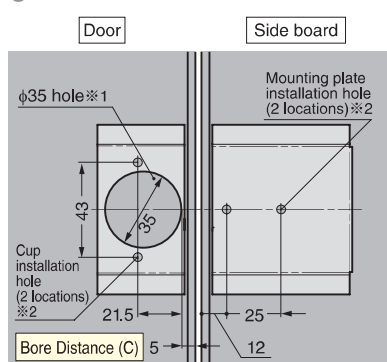
Picture above is the combination of 100-46/19 or 100-C46/19 (w/catch) and mounting plate 100-P3A (sold separately).

● Locus chart $S \div 1/4$

(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. -3mm).

[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.117, 2 : P.131, 3 : P.111, 4 : P.110

100° Opening

14mm Overlay

Overlay
10~14mmCup Dia $\phi 35$ Bore Depth 11mm
Door Thickness 15~20mmStainless 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]

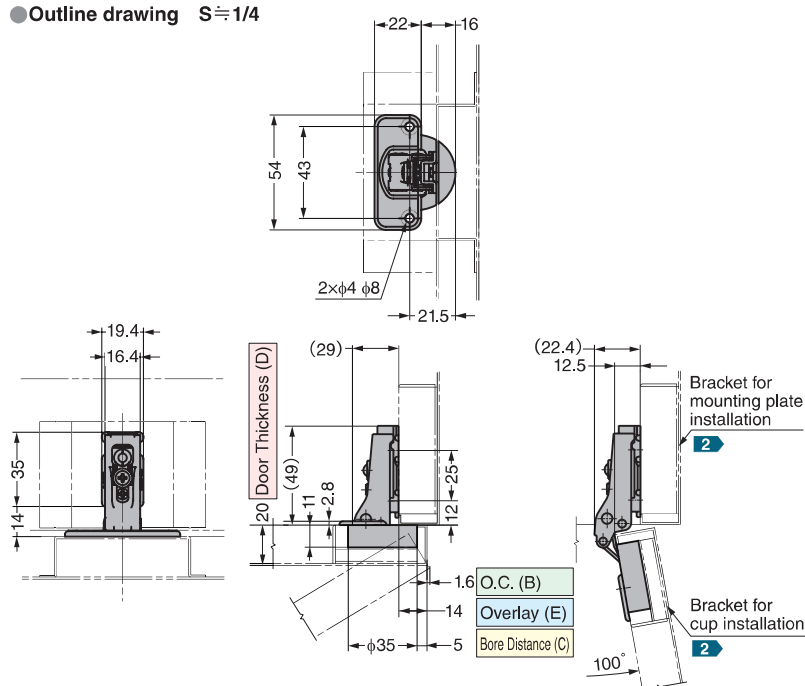
- Stainless steel 100 series mounting plate 1

[Recommended Screws]

- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
		160-073-875	100-46/14SUS304B	Without Catch	Stainless Steel (SUS304)	Polished	39.8	200
		160-073-880	100-C46/14SUS304B	With Catch			44	200

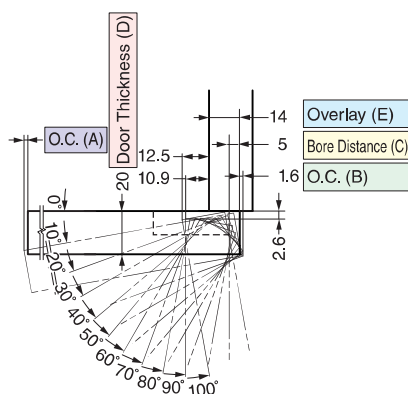
A mounting plate (sold separately) is required for installation. Please order separately.

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES● Outline drawing $S \div 1/4$ 

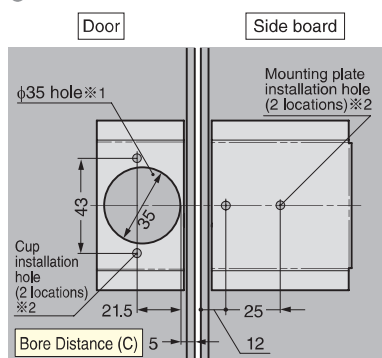
Picture above is the combination of 100-46/14 or 100-C46/14 (w/catch) and mounting plate 100-P3A (sold separately).

● Locus chart $S \div 1/4$

(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. -3mm).

[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

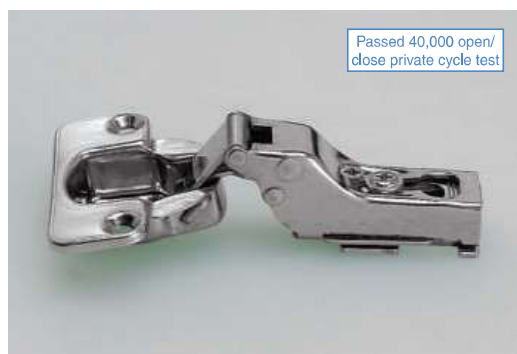
Refer to 1 : P.117, 2 : P.131, 3 : P.111, 4 : P.110

100° Opening

9mm Overlay

Overlay
5~9mmCup Dia $\phi 35$ Bore Depth 11mm
Door Thickness 15~20mmStainless Steel Mounting Plate 1
100 Series

CONCEALED HINGE (STAINLESS STEEL) 100



[Sold Separately]

- Stainless steel 100 series mounting plate 1

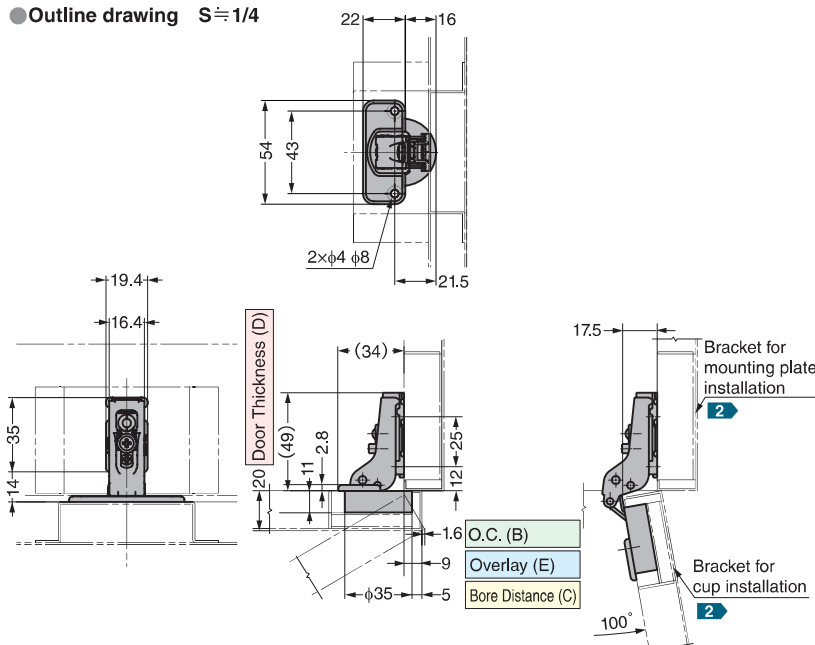
[Recommended Screws]

- M4 raised countersunk head screw

RdHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
G	3D	160-073-883	100-46/9SUS304B	Without Catch	Stainless Steel	Polished	41.3	200
G	3D	160-073-884	100-C46/9SUS304B	With Catch	(SUS304)	Polished	45.9	200

A mounting plate (sold separately) is required for installation. Please order separately.

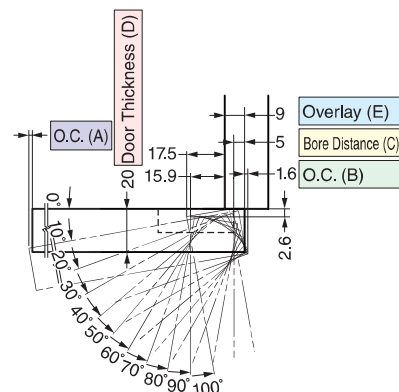
Picture above is the combination of concealed hinge and mounting plate (sold separately).

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES● Outline drawing $S \div 1/4$ 

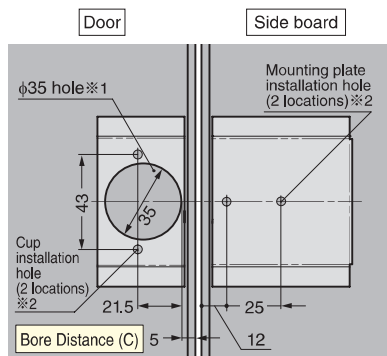
Picture above is the combination of 100-46/9 or 100-C46/9 (w/catch) and mounting plate 100-P3A (sold separately).

● Locus chart $S \div 1/4$

(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. -3mm).

[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

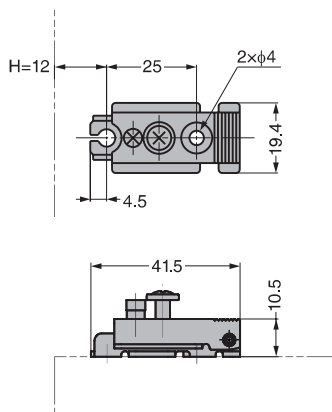
[Door Dimensions and Number of Hinges] 4

Refer to 1 : P.117, 2 : P.131, 3 : P.111, 4 : P.110

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

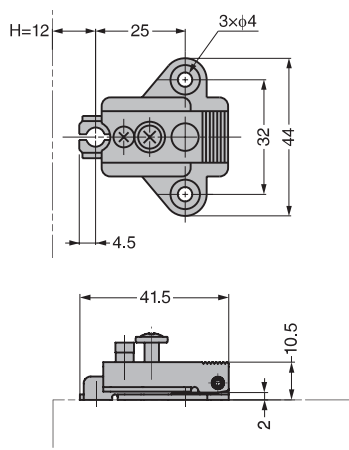
RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
		160-074-155	100-P3A-SUS304B	Stainless Steel (SUS304)	Barrel Polished	21.3	400

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGES

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]

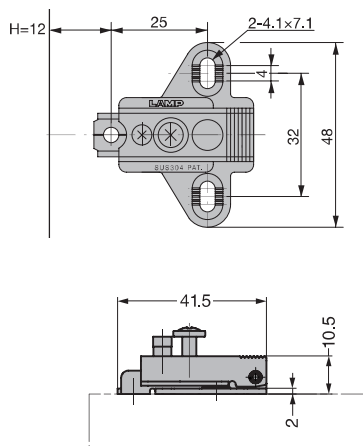
- M4 binding head screw

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
		160-074-149	100-P4A-32-SUS304B	Stainless Steel (SUS304)	Barrel Polished	26	400

BUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAME

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

DROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
		160-079-044	100-P4A/32-3WAY-SUS304B	Stainless Steel (SUS304)	Barrel Polished	40	400

170° Opening

9mm Overlay

Overlay
5~10mmCup Dia $\phi 35$ Bore Depth 11mm
Door Thickness 15~20mmMounting 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]

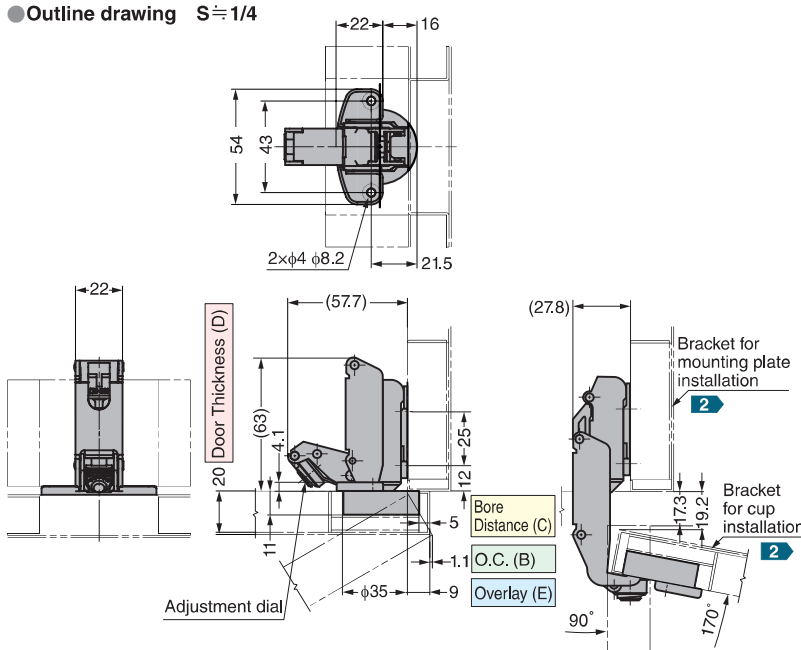
- 100 series mounting plate 1

[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

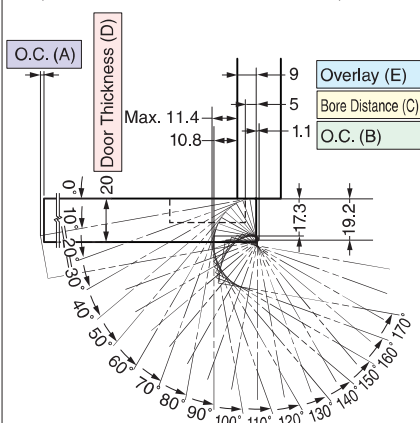
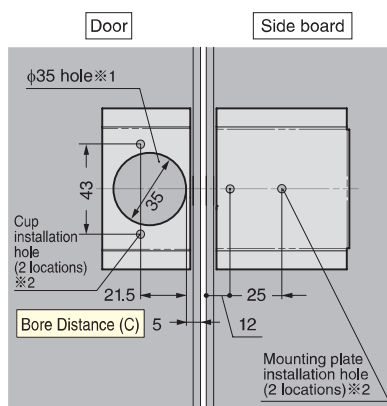
A mounting plate (sold separately) is required for installation. Please order separately.

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES**● Outline drawing S $\div$ 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 $\div$ 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. -3mm).

[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.125~128, 2 : P.131, 3 : P.111, 4 : P.110

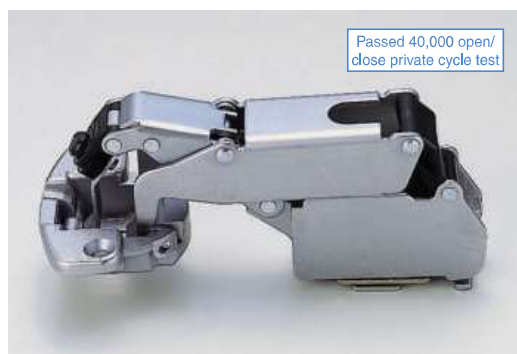
TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

170° Opening

Inset

Cup Dia $\phi 35$ Bore Depth 11mm
Door Thickness 15~20mmMounting 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]

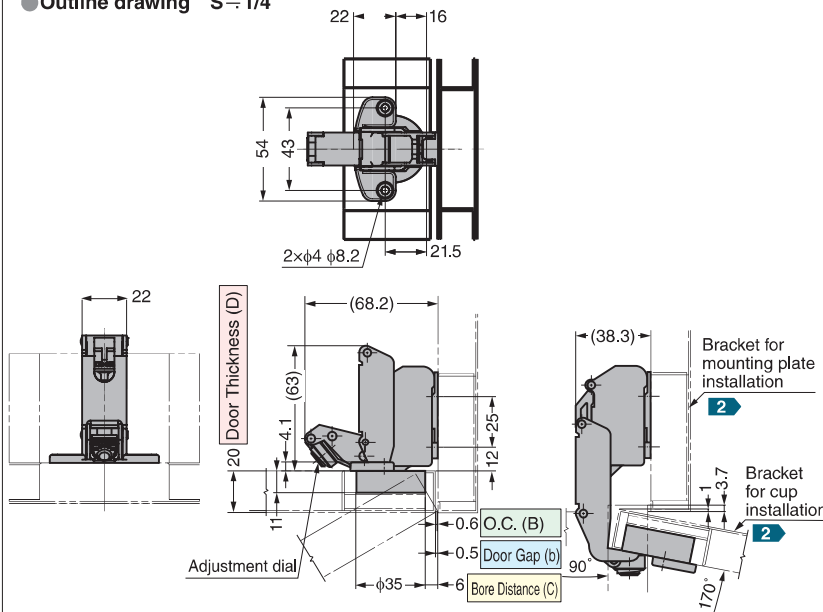
- 100 series mounting plate **1**

[Recommended Screws]

- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
		160-073-393	170-34/0	Without Catch	Zinc Alloy	Satin	152	100
		160-073-403	170-C34/0	With Catch	(ZDC)	Chrome	159.5	100

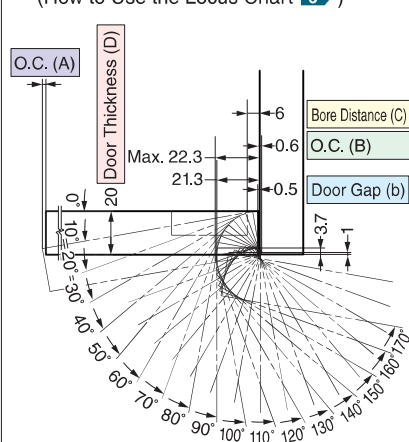
A mounting plate (sold separately) is required for installation. Please order separately.

● Outline drawing $S \approx 1/4$ 

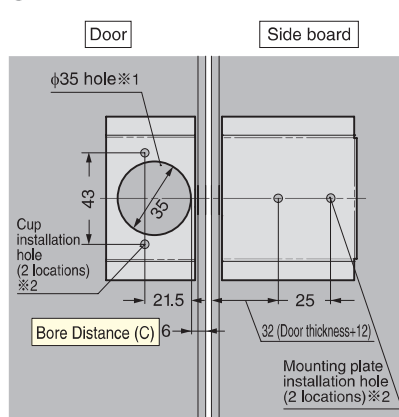
Picture above is the combination of 170-34/0 or 170-C34/0 (w/catch) and mounting plate 100-03A (sold separately).

● Locus chart $S \approx 1/4$

(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 or using spacer (2mm thickness) to adjust overlay (Max. -3mm).

[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

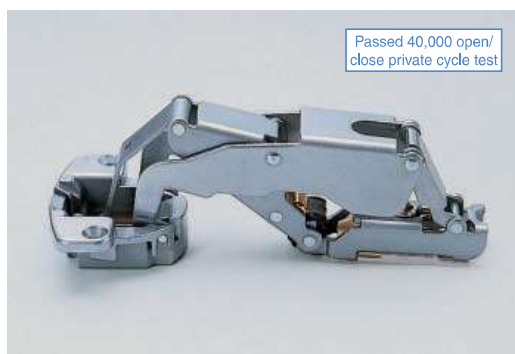
Door Thickness (D)	O.C. (A)		
	Door Width 300	Door Width 400	Door Width 500
15	0.7	0.5	0.5
20	0.7	0.5	0.5
22	0.7	0.5	0.5

[Door Dimensions and Number of Hinges] **4**

Refer to **1** : P.125~128, **2** : P.131, **3** : P.111, **4** : P.110

160° Opening

28mm Overlay

Overlay
19~28mmCup Dia $\phi 40$ Bore Depth 15mm
Door Thickness 18~34mmMounting Plate 1
100 SeriesCONCEALED HINGE **H160** For Thick Door

Picture above is the combination of concealed hinge and mounting plate (sold separately).

[Sold Separately]

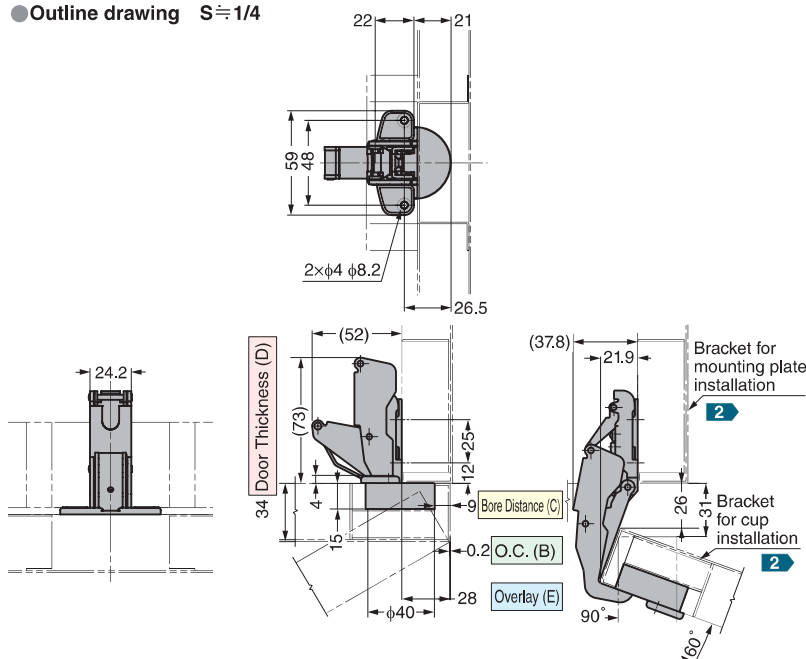
- 100 series mounting plate 1

[Recommended Screws]

- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
		160-073-620	H160-34/28	Without Catch	Body/Steel, Cup/	Satin	181.4	100
		160-073-630	H160-C34/28	With Catch	Zinc Alloy (ZDC)	Chrome	194.4	100

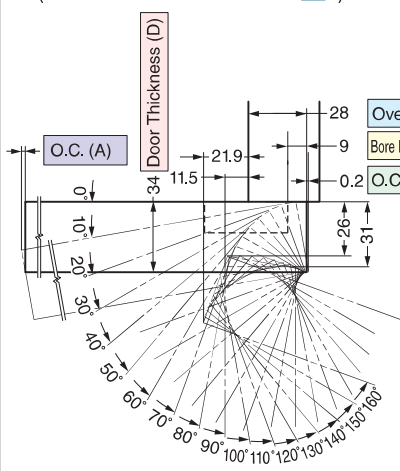
A mounting plate (sold separately) is required for installation. Please order separately.separately.

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES● Outline drawing S $\div$ 1/4

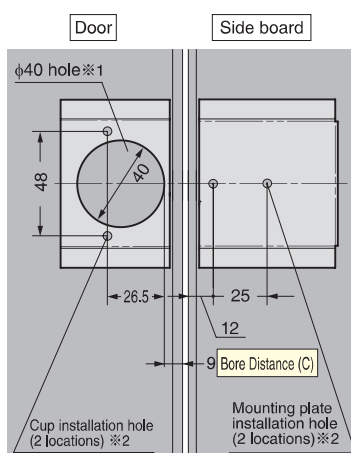
Picture above is the combination of H160-34/28 or H160-C34/28 (w/catch) and mounting plate 100-03A (sold separately).

● Locus chart S $\div$ 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. -3mm).

[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.125~128, 2 : P.131, 3 : P.111, 4 : P.110

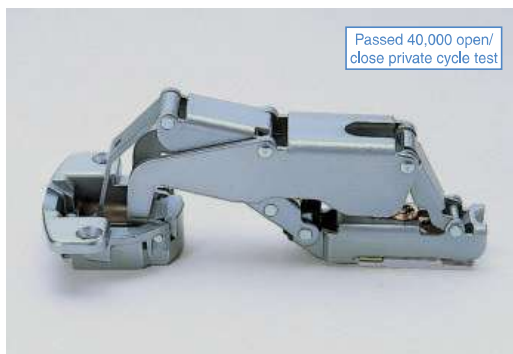
TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

160° Opening

23mm Overlay

Overlay
14~23mmCup Dia $\phi 40$ Bore Depth 15mm
Door Thickness 18~34mmMounting 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]

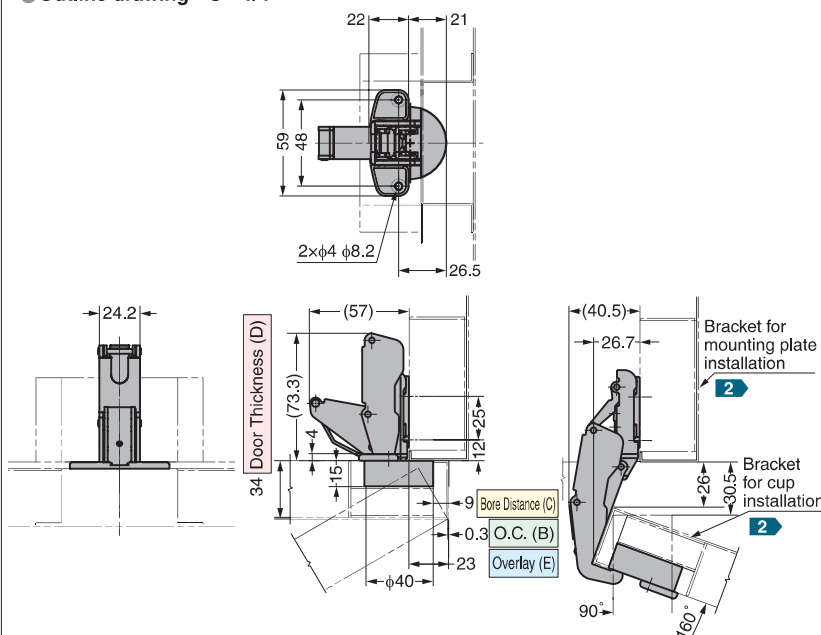
- 100 series mounting plate 1

[Recommended Screws]

- M4 raised countersunk head screw

RoHS	CAD	Item Code	Item Name	Description	Material	Finish	Weight (g)	Box (pcs)
	3D	160-073-621	H160-34/23	Without Catch	Body/Steel, Cup/	Satin	185.4	100
	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.

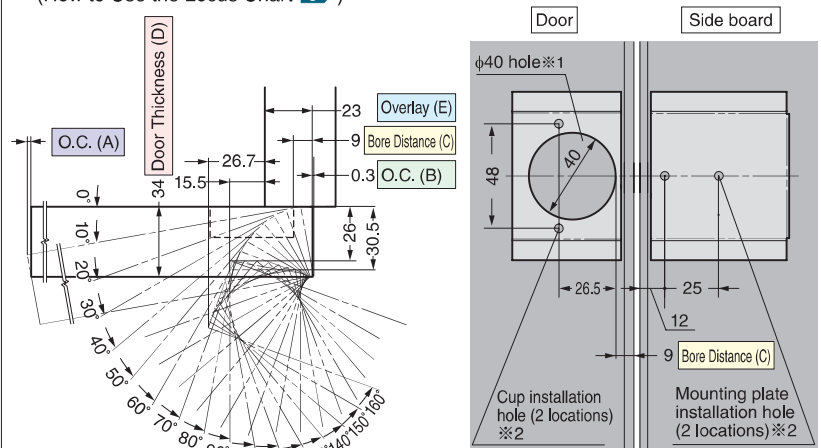
● Outline drawing S $\div$ 1/4

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 $\div$ 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. -3mm).

[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

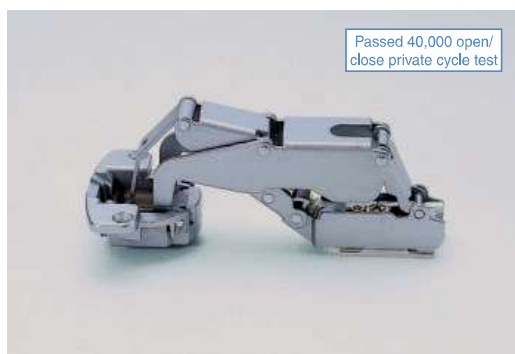
Refer to 1 : P.125~128, 2 : P.131, 3 : P.111, 4 : P.110

160° Opening

18mm Overlay

Overlay
9~18mmCup Dia $\phi 40$ Bore Depth 15mm
Door Thickness 18~34mmMounting Plate 1
100 Series

CONCEALED HINGE H160 For Thick Door

Passed 40,000 open/
close private cycle test

[Sold Separately]

- 100 series mounting plate 1

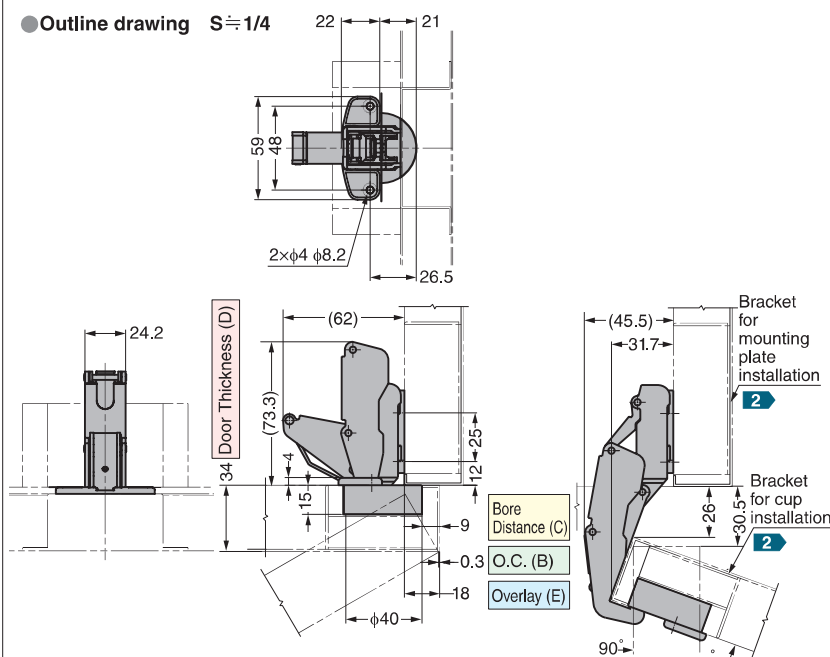
[Recommended Screws]

- 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.

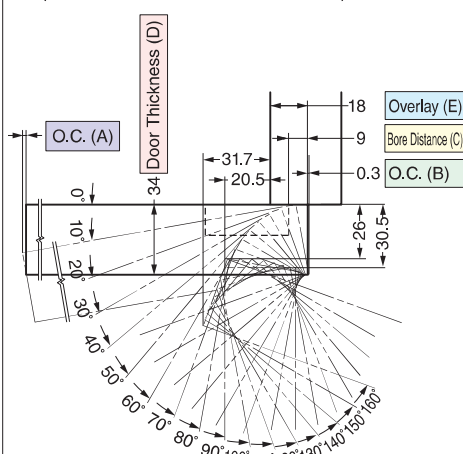
Picture above is the combination of concealed hinge and mounting plate (sold separately).

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES● Outline drawing S $\div$ 1/4

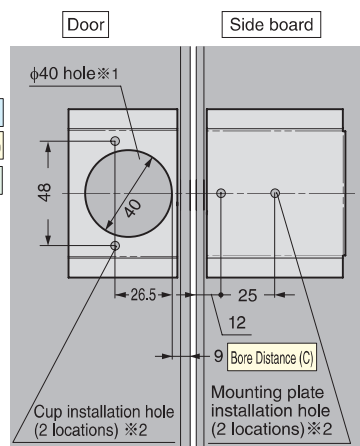
Picture above is the combination of H160-34/18 or H160-C34/18 (w/catch) and mounting plate 100-03A (sold separately).

● Locus chart S $\div$ 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. -3mm).

[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)						
Max. 33	3	4	5	6	7	8	9
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

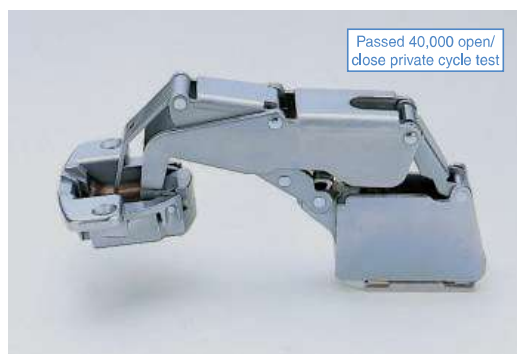
[Door Dimensions and Number of Hinges] 4

Refer to 1 : P.125~128, 2 : P.131, 3 : P.111, 4 : P.110

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

160° Opening

Inset

Cup Dia $\phi 40$ Bore Depth 15mm
Door Thickness 18~34mmMounting Plate **1**
100 SeriesCONCEALED HINGE **H160** For Thick Door

[Sold Separately]

- 100 series mounting plate **1**

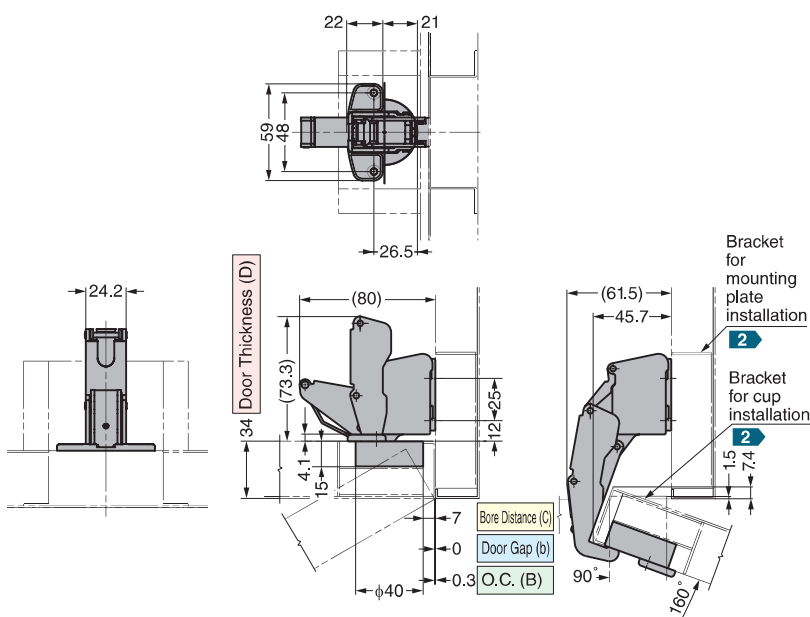
[Recommended Screws]

- 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.

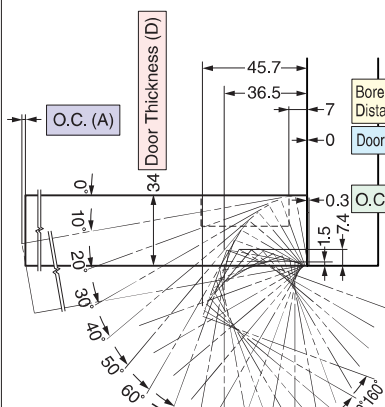
Picture above is the combination of concealed hinge and mounting plate (sold separately).

● Outline drawing $S \div 1/4$ 

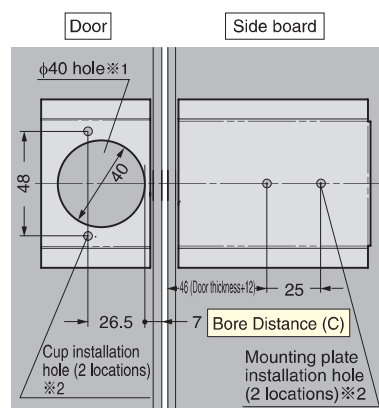
Picture above is the combination of H160-34/0 or H160-C34/0 (w/catch) and mounting plate 100-03A (sold separately).

● Locus chart $S \div 1/4$

(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 or using spacer (2mm thickness) to adjust overlay (Max. -3mm).

[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)]

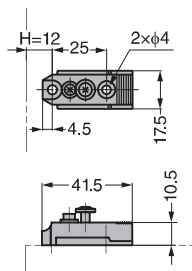
Table-3

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.125~128, **2** : P.131, **3** : P.111, **4** : P.110

MOUNTING PLATE 100-01



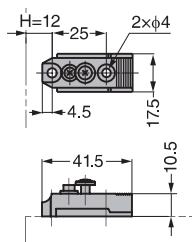
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[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)
		160-074-070	100-01	PA	Ivory	7.3	800

MOUNTING PLATE 100-03



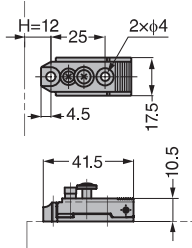
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[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)
		160-074-079	100-03	Zinc Alloy (ZDC)	Satin Chrome	22.3	800

MOUNTING PLATE 100-03A



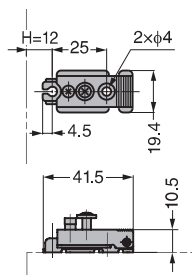
- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[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)
		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)
		160-074-244	100-P3A	Steel	Satin Chrome/Coloured Zinc Chromate	21.4	800

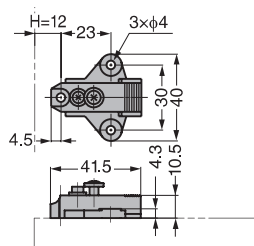
STANDARD TYPE

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

SYSTEM 30 TYPE

MOUNTING PLATE 100-02-30



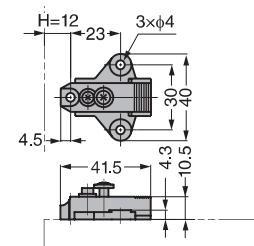
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[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)
		160-074-071	100-02-30	PA	Ivory	8,3	400

MOUNTING PLATE 100-04-30



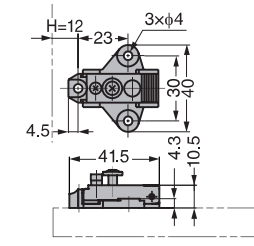
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[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)
		160-074-085	100-04-30	Zinc Alloy (ZDC)	Satin Chrome	28,3	400

MOUNTING PLATE 100-02A-30



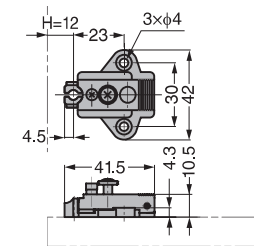
- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[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)
		160-074-074	100-02A-30	PA/Steel	Ivory/Coloured Zinc Chromate	17	400

MOUNTING PLATE 100-04A-30



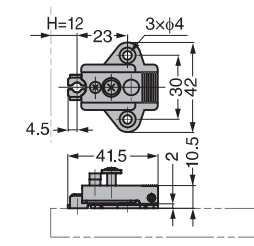
- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[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)
		160-074-087	100-04A-30	Zinc Alloy (ZDC)/Steel	Satin Chrome/Coloured Zinc Chromate	30,7	400

MOUNTING PLATE 100-P4A-30



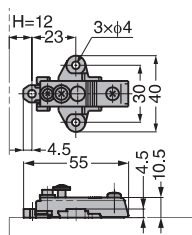
- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[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)
		160-074-161	100-P4A-30	Steel	Satin Chrome/Coloured Zinc Chromate	26,6	400

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]

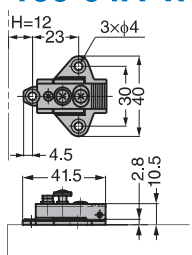
- When using a concealed hinge with wide angle opening, vertical adjustment screw is difficult to adjust.

[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)
		160-074-095	100-04W-30	Zinc Alloy (ZDC)/Steel	Satin Chrome	35.4	200	800

MOUNTING PLATE 100-04A-W-30



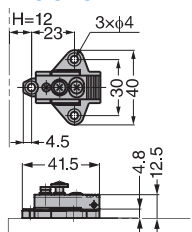
- Height adjustable (± 1.5).
- Standard height: 0mm
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[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)
		160-074-115	100-04A-W-30	Steel	Satin Chrome/Coloured Zinc Chromate	32.1	200	800

MOUNTING PLATE 100-04A-W-30-2



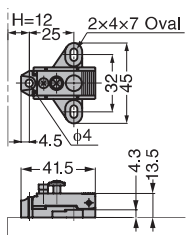
- Overlay and height adjustable (± 1.5).
- Height: 2mm
- Used to make overlay 2mm smaller.
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[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)
		160-074-158	100-04A-W-30-2	Zinc Alloy (ZDC)/Steel	Satin Chrome/Coloured Zinc Chromate	35	200	800

MOUNTING PLATE 100-04A-32-3



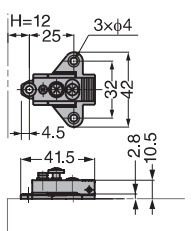
- Overlay adjustable.
- Height: 3mm
- Used to make overlay 3mm smaller.
- Value of H: Door thickness + 17mm in use of INSET type (Door thickness + 12mm in use of INSET type of H160 or 170 hinge).

[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)
		160-074-089	100-04A-32-3	Zinc Alloy (ZDC)/Steel	Satin Chrome/Coloured Zinc Chromate	37.2	400

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)

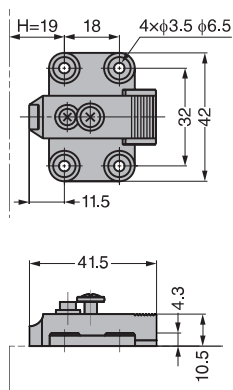
RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
		160-074-116	100-04A-W-32	Steel	Satin Chrome/Coloured Zinc Chromate	32.4	200	800

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

SYSTEM 32 TYPE • 4-HOLE TYPE

MOUNTING PLATE 100-06



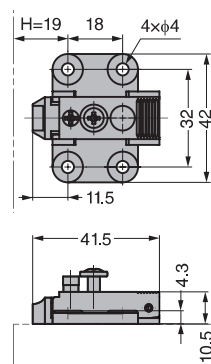
- Standard height: 0mm
- Value of H: Door thickness + 24mm in use of INSET type (Door thickness + 19mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

- Size 3.1 countersunk head screw

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
		160-074-110	100-06	Zinc Alloy (ZDC)	Satin Chrome	28.5	400

MOUNTING PLATE 100-06A



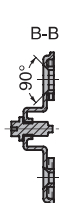
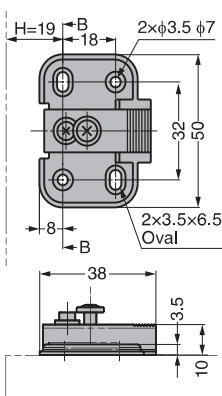
- Overlay adjustable.
- Standard height: 0mm
- Value of H: Door thickness + 24mm in use of INSET type (Door thickness + 19mm in use of INSET type of H160 or 170 hinge).

[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)
		160-074-111	100-06A	Zinc Alloy (ZDC)/Steel	Satin Chrome/ Coloured Zinc Chromate	36.1	400

MOUNTING PLATE 100-P6



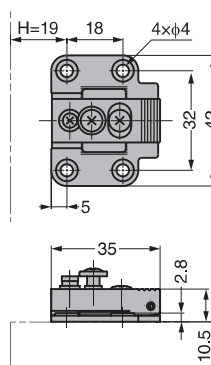
- Standard height: 0mm
- Value of H: Door thickness + 24mm in use of INSET type (Door thickness + 19mm in use of INSET type of H160 or 170 hinge).

[Recommended Screws]

- Size 3.1 countersunk head screw

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
		160-074-160	100-P6	Steel	Satin Chrome	23	400

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)
		160-074-171	100-06AW	Steel	Satin Chrome/ Coloured Zinc Chromate	36.7	400

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)
		160-074-100	100-DP2	PA	Ivory	1.2	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

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)
		160-074-105	100-DP2-30	PA	Ivory	1.5	800	3200

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)
		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)
		160-074-145	100-DP2-06	PA	Ivory	2.1	800	3200

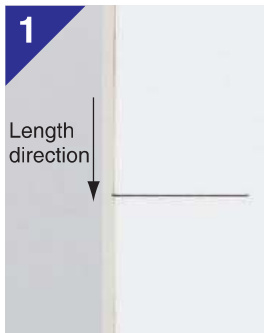
TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES**JIG FOR MOUNTING PLATE FOR 100 SERIES** For Wooden Overlay Door

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)
		160-074-109	JIG	8,5	50	500

[How to Install]**1**

- 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.

2

- Align the V-groove of the jig with the line.

3

- 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).

4

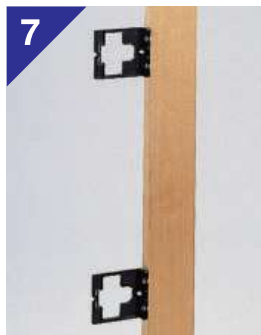
- Hold the jig while fixing the mounting plate with a screw.

[Other Examples]**5**

- Can also be used with mounting plates designed for system type.

6

- Mark the holes for easy installation.

7

- Attach the jig to a bar when installing several mounting plates at the same time.

8

- 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)



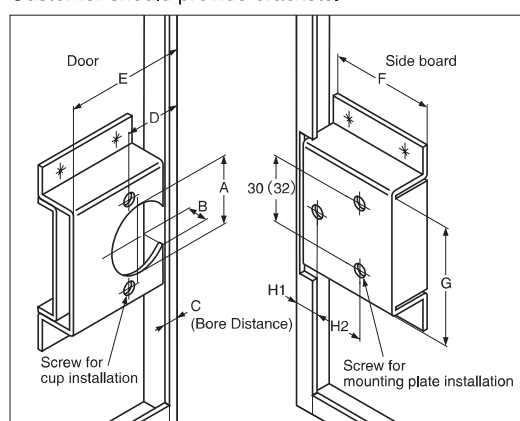
100 (19 mm Overlay)



[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 ($\phi 26$, $\phi 35$, or $\phi 40$)

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 H₁, H₂: 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



TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

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.

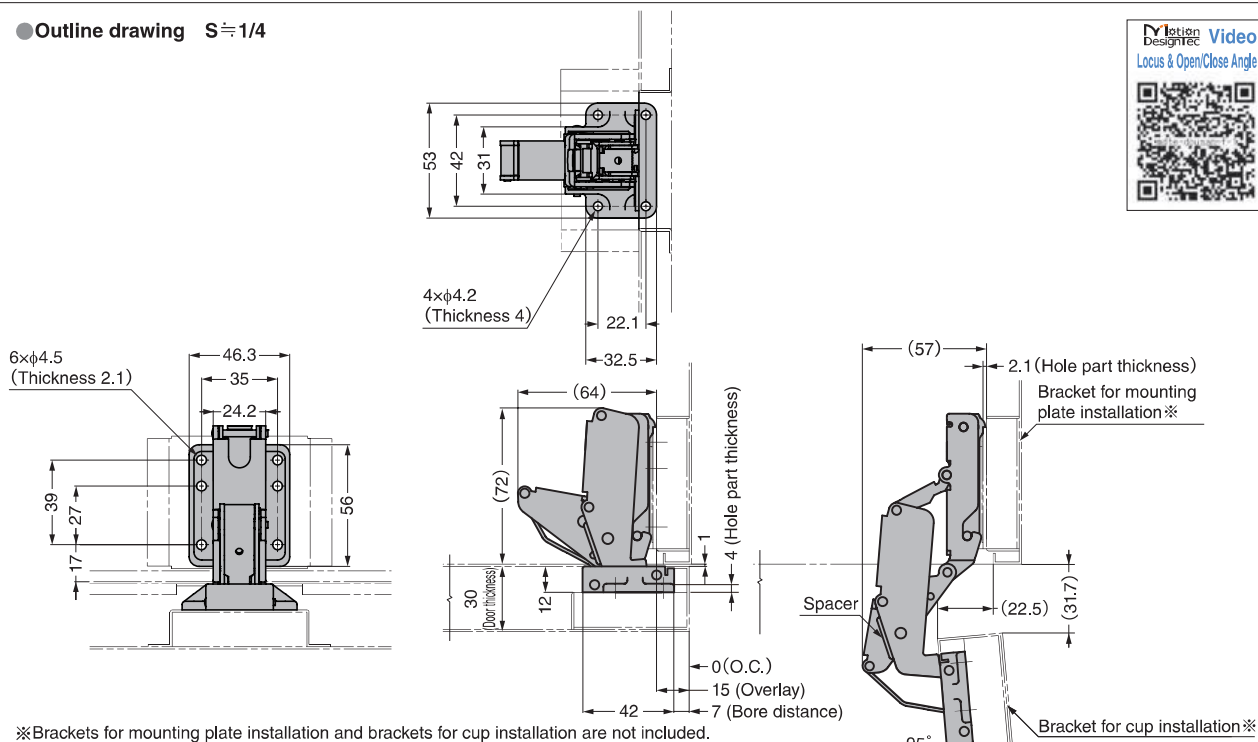
[Applications]

- Small vending machines, ticket vending machines, contiguous doors, door of cabinet embedded in the wall, etc.

[Sold Separately]

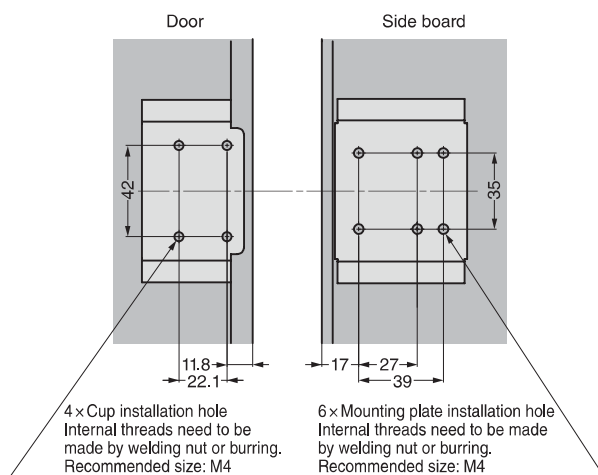
- Mounting plate HT160TZ

● Outline drawing S ≐ 1/4



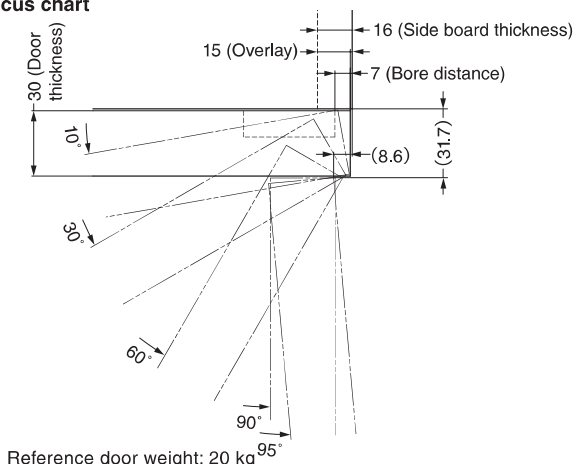
※Brackets for mounting plate installation and brackets for cup installation are not included.

● 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 x H800, installation pitch 550, using 2 pcs vertically)

[Hinge Body]

RoHS	CAD	Item Code	Item Name	Material	Finish / Colour	Weight (g)	Box (pcs)
		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)
		160-070-391	HT160TZ	Steel	Nickel	69.1	200

※Use in combination of hinge body and mounting plate (sold separately).

CONCEALED HINGE FOR SHEET METAL HT160V2 With Mounting Plate



Passed 10,000 open/
close private cycle test

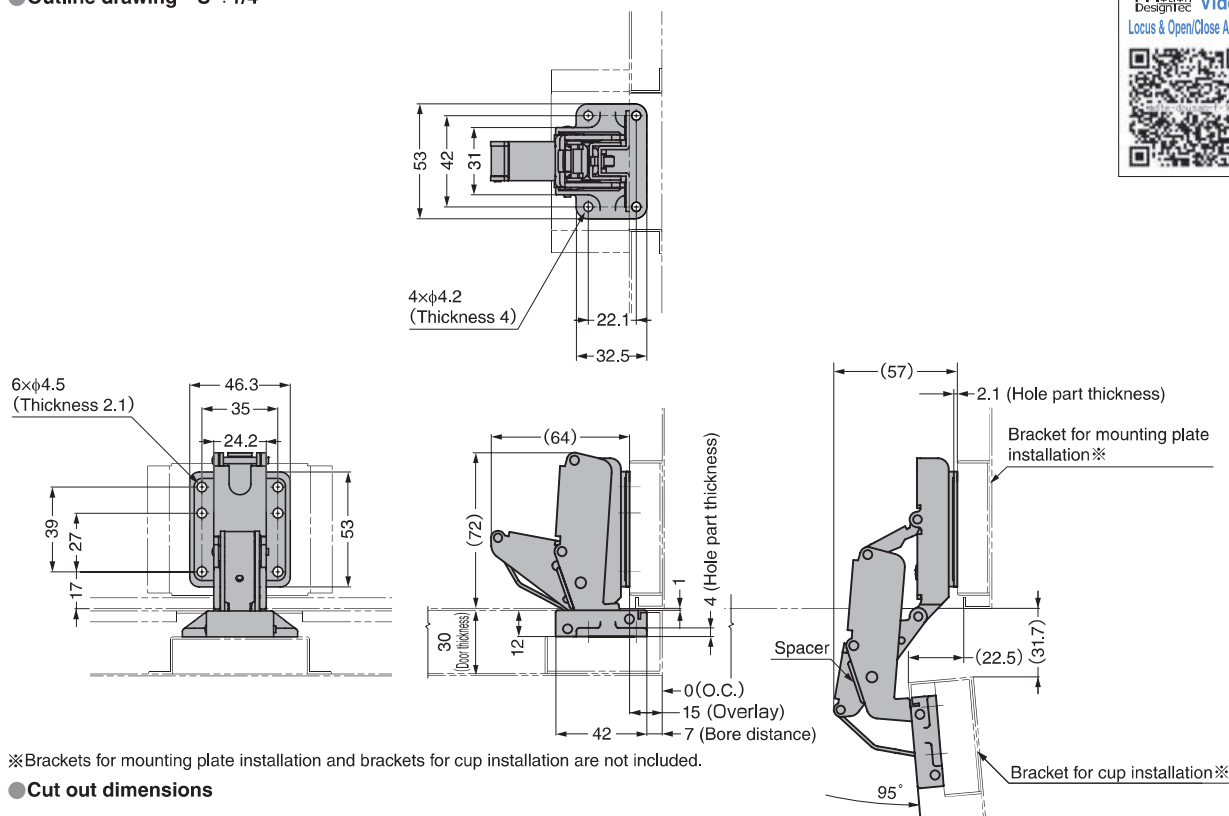
- For sheet metal doors.
- Overlay adjustment (Max. $+0_{-3\text{mm}}$) by turning the overlay adjustment screw.
- Spacer on the slide arms reduces arm wear and door sagging.
- Door opens without interfering with side cabinets or wall.
- For more details, please contact local representatives.

[Applications]

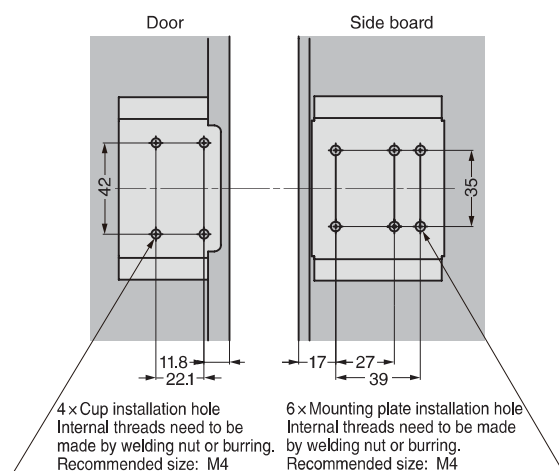
- Small vending machines, ticket vending machines, contiguous doors, door of cabinet embedded in the wall, etc.

[Parts Included]

- Mounting plate

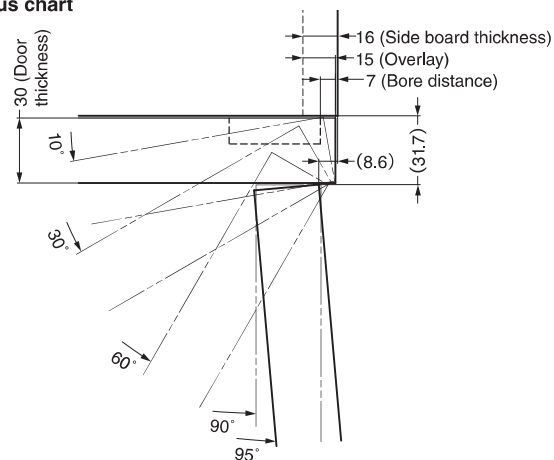
TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES● Outline drawing $S \div 1/4$ 

● 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)
		160-070-393	HT160V2	Body/Steel, Cup/Zinc Alloy (ZDC), Spacer/POM	Body • Cup/Nickel, Spacer/Black	252.6	50

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

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.

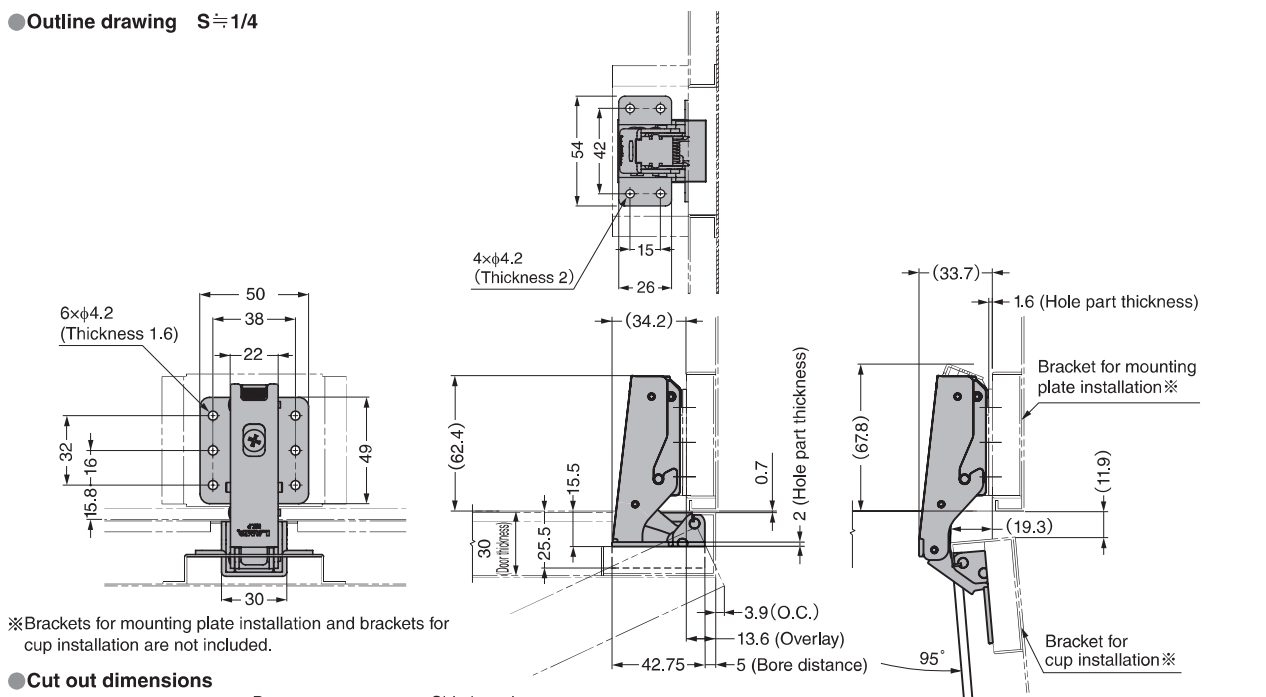
[Applications]

- Small vending machines, ticket vending machines, contiguous doors, door of cabinet embedded in the wall, etc.

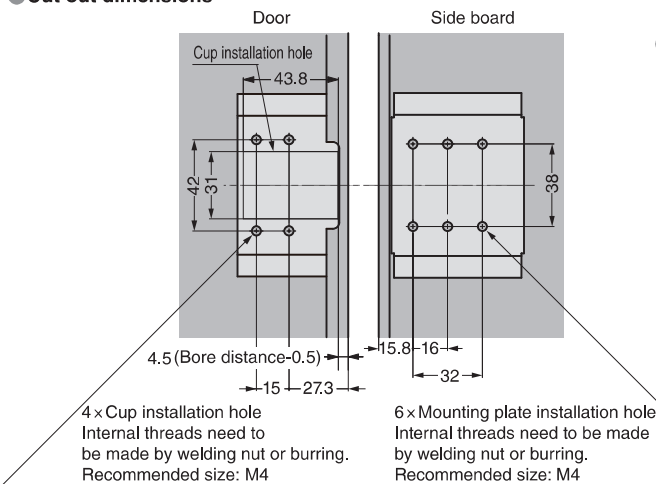
[Sold Separately]

- Mounting plate H95TMZ

● Outline drawing S ÷ 1/4

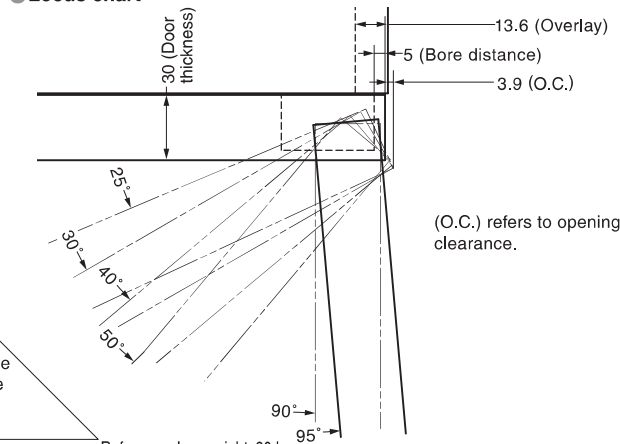


● Cut out dimensions



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 x H800, installation pitch 550, using 2 pcs vertically)

[Hinge Body]

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
		160-070-101	H95TMH	Steel	Nickel	138	100

[Mounting Plate] Sold Separately

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
		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]

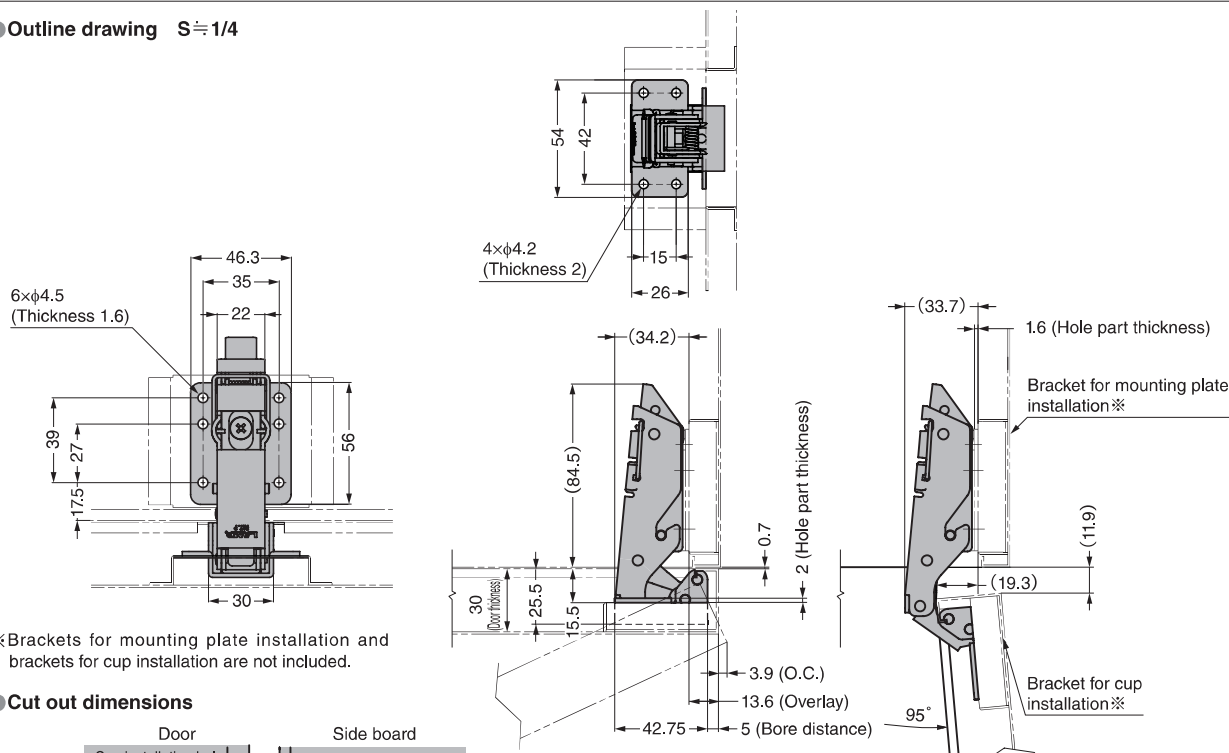
- Small vending machines, ticket vending machines, contiguous doors, door of cabinet embedded in the wall, etc.

[Sold Separately]

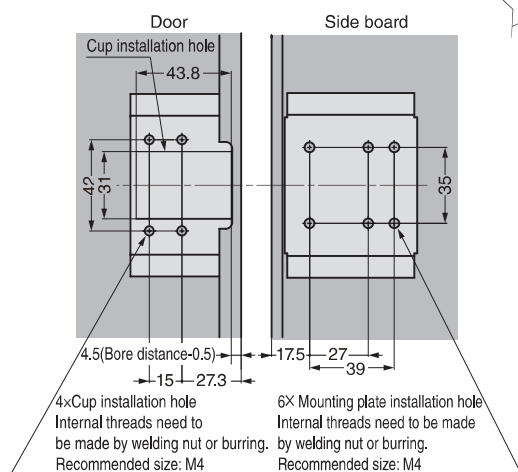
- Mounting plate H95TSZ

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

● Outline drawing S ÷ 1/4

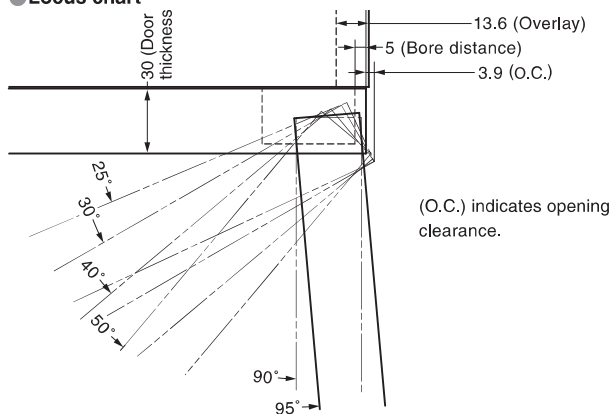


● Cut out dimensions



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 x H800, installation pitch 550, using 2 pcs vertically)**[Hinge Body]**

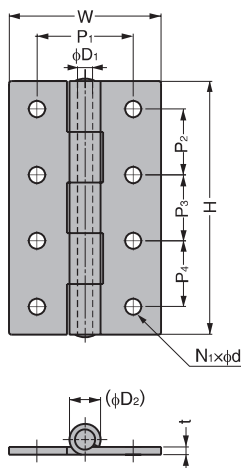
RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)
		160-073-590	H95TSH	Steel	Nickel	150	100

[Mounting Plate] Sold Separately

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

※ Use in combination of hinge body and mounting plate (sold separately).

BUTT HINGE LSA, LSB



● 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**.

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGES

RoHS	CAD	Item Code	Item Name	Holes	Material	Finish	H	W	P ₁	P ₂	P ₃	P ₄	t	d	D ₁	D ₂	N ₁	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	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	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	34	23	23	1.5	3.2	3	6.3	4	69	7	25	100	400
G	3D	170-090-725	LSB-50				50												88	9	30	100	400
G	3D	170-090-716	LSB-65				65	50	30	23	23	2	4.3	4.5	8.8	6	157	16	64	50	200		
G	3D	170-090-717	LSB-75				75										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										363	37	195	10	60		

Refer to **1** : P.15

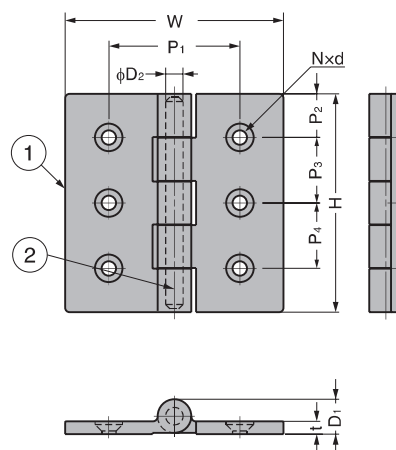
BUTT HINGE LSF

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)	-

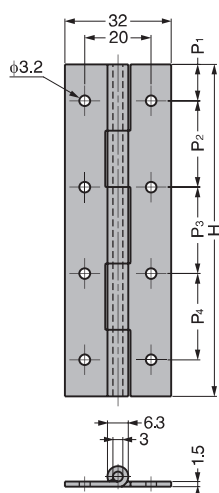
※SCS14 is equivalent of SUS316.

RoHS	CAD	Item Code	Item Name	H	W	P ₁	P ₂	P ₃	P ₄	t	D ₁	D ₂	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	35	5	14	6	3	4	Counterbore for M4	275	28	110	20	100
G	3D	170-090-721	LSF-65	65	65	40		35			14	6		4	Counterbore for M5	353	36	190	20	80
G	3D	170-090-722	LSF-75	75	75	50	17.5	40	30	6	16	8	5	6	Counterbore for M6	500	51	305	10	50
G	3D	170-090-723	LSF-100	100	100	60	20	30			16	8		6	Counterbore for M6	667	68	500	10	30

Refer to **1** : P.15

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.

[With Mounting Holes]

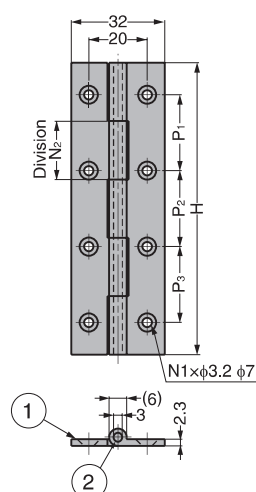
RoHS	CAD	Item Code	Item Name	H	P ₁	P ₂	P ₃	P ₄	Knuckles	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
✓	3D	170-091-180	KHA-25C	25	6	13			3	49	5	13	200	800
✓	3D	170-091-181	KHA-30C	30	7	16			3	59	6	16	200	800
✓	3D	170-091-182	KHA-40C	40	8	24			3	69	7	21	150	600
✓	3D	170-091-199	KHA-50C	50	10	30			3	88	9	26	100	400
✓	3D	170-091-200	KHA-60C	60	8	22	22		5	108	11	31	100	400
✓	3D	170-091-201	KHA-65C	65	8.5	24	24		5	118	12	34	100	400
✓	3D	170-091-202	KHA-75C	75	9.5	28	28		5	137	14	39	50	200
✓	3D	170-091-203	KHA-80C	80		30	30		5	147	15	42	50	200
✓	3D	170-091-204	KHA-90C	90	10	35	35		5	167	17	47	50	200
✓	3D	170-091-205	KHA-100C	100	11	26	26	26	5	186	19	52	50	200

Refer to 1 : P.15

[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)
✓	3D	170-091-170	KHA-25CN	25	3	49	5	13	200	800
✓	3D	170-091-171	KHA-30CN	30	3	59	6	16	200	800
✓	3D	170-091-190	KHA-40CN	40	3	69	7	21	150	600
✓	3D	170-091-191	KHA-50CN	50	3	88	9	26	100	400
✓	3D	170-091-192	KHA-60CN	60	5	108	11	31	100	400
✓	3D	170-091-193	KHA-65CN	65	5	118	12	34	100	400
✓	3D	170-091-194	KHA-75CN	75	5	137	14	39	50	200
✓	3D	170-091-195	KHA-80CN	80	5	147	15	42	50	200
✓	3D	170-091-196	KHA-90CN	90	5	167	17	47	50	200
✓	3D	170-091-179	KHA-100CN	100	5	186	19	52	50	200

BUTT HINGE KHB



● Drawing material, with small shaft diameter.

● Various sizes available.

[Applications]

● Ship, vehicle, kitchen equipment

[Remarks]

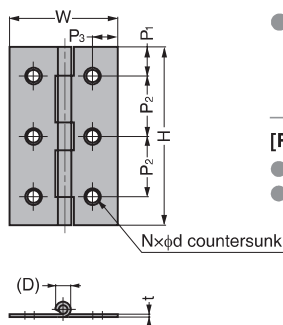
● Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1.

No.	Part Name	Material	Finish
①	Body	Brass	Chrome
②	Shaft		—

RoHS	CAD	Item Code	Item Name	H	P ₁	P ₂	P ₃	N ₁	N ₂	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
✓	3D	170-091-226	KHB-25CR	25	13				4	49	5	17	200	800
✓	3D	170-091-227	KHB-30CR	30	16				4	59	6	20	150	600
✓	3D	170-091-228	KHB-40CR	40	24				4	78	8	28	100	400
✓	3D	170-091-229	KHB-50CR	50	30				4	98	10	35	100	400
✓	3D	170-091-230	KHB-60CR	60	22	22			6	118	12	41	60	240
✓	3D	170-091-231	KHB-65CR	65	24	24			6	127	13	43	60	240
✓	3D	170-091-232	KHB-75CR	75	28	28			6	147	15	52	60	240
✓	3D	170-091-233	KHB-80CR	80	30	30			6	157	16	54	60	240
✓	3D	170-091-234	KHB-90CR	90	35	35			6	177	18	63	50	200
✓	3D	170-091-235	KHB-100CR	100	26	26	26	8	6	206	21	68	50	200

Refer to 1 : P.15

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**.

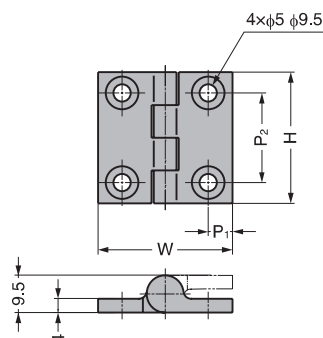
TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGES

RoHS	CAD	Item Code	Item Name	Material	Finish	H	W	P ₁	P ₂	P ₃	t	D	N	d	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
✓	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
✓	3D	170-090-283	F-32A			32	22	4	24	4							6.1	120	4800
✓	3D	170-090-284	F-38A			38	26	5	28	4.5		4.2					8.9	60	3600
✓	3D	170-090-285	F-51A			51	30	6	39	5.5	1	4.4	6	3.9	59	4	13.2	60	2400
✓	3D	170-090-287	F-64A			64	33	6.5	25.5	6.5		5.3					19.4	24	1200
✓	3D	170-090-286	F-76A			76	41	8	30	8							32.5	24	720

Refer to **1** : P.15BUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

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	P ₁	P ₂	Door Width	Door Height	Door Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
✓	3D	170-096-004	28300	Stainless Steel (SCS14)	Polished	38	39	7	26	Max.	Max.	Max.	167	17	55	20	100
✓	3D	170-096-005	28400			50	50	7.5	34	450	700	21	226	23	90	20	—

Refer to **1** : P.15

※SCS14 is equivalent of SUS316.

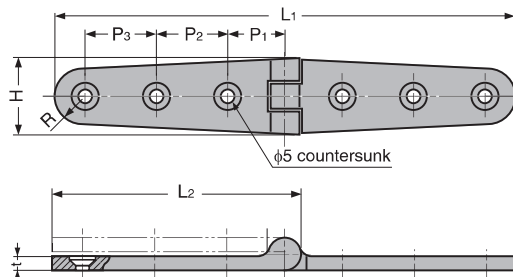
BUTT HINGE 50704, 50706

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	L ₁	L ₂	H	R	P ₁	P ₂	P ₃	t	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
✓	3D	170-096-000	50704	4	Stainless Steel (SCS14)	Polished	105	57	26.5	9	17.5	25	—	4	118	12	75	20	100
✓	3D	170-096-001	50706	6			158	84			19.5	25	25				115	20	100

Refer to **1** : P.15

※SCS14 is equivalent of SUS316.

BUTT HINGE D-S-A

SUS

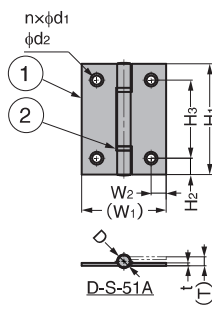
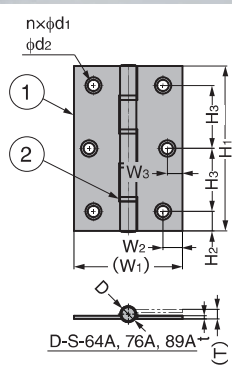
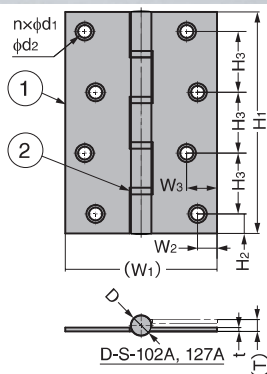


[Remarks]

- 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)

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS304)	Satin
②	Washer	PA	—

RoHS	CAD	Item Code	Item Name	H ₁	H ₂	H ₃	W ₁	W ₂	W ₃	D	t	T	d ₁	d ₂	Knuckles	Washer	Holes n	Screw	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
✓	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
✓	3D	170-090-266	D-S-64A	64	7	25	42.5	8	6	—	—	—	5	7	—	—	—	3.1×16	98	10	36.5	20	800
✓	3D	170-090-267	D-S-76A	76	9	29	50	9	7	7.4	1.5	4.5	5.2	7.5	—	—	6	3.5×22	137	14	59.5	20	480
✓	3D	170-090-268	D-S-89A	89	10.5	34	56.5	10.5	7.5	9.1	—	5.5	5.4	8.3	5	4	—	3.8×25	196	20	91.6	10	280
✓	3D	170-090-269	D-S-102A	102	9	28	70	9	14	9.5	1.8	—	6	—	—	—	8	—	226	23	132.5	10	200
✓	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.15

BUTT HINGE D-S-B

SUS

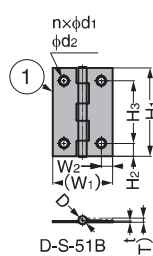
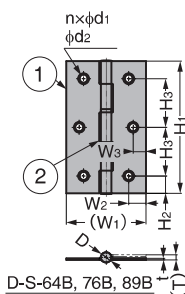
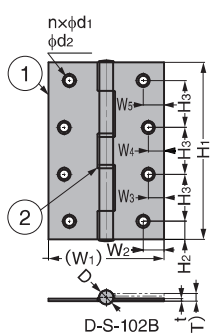
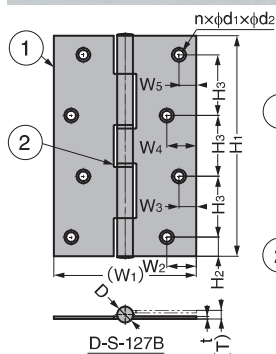


[Remarks]

- 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)

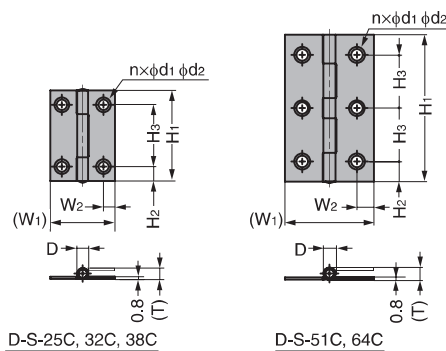
PIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

No.	Part Name	Material	Finish
①	Body	Stainless Steel (SUS430)	Polished
②	Washer	PA	—

RoHS	CAD	Item Code	Item Name	H ₁	H ₂	H ₃	W ₁	W ₂	W ₃	W ₄	W ₅	D	t	T	d ₁	d ₂	Knuckles	Washer	Holes n	Screw	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
✓	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	—	0	4	2.7×13	49	5	15.2	20	1200
✓	3D	170-090-272	D-S-64B	64	8	24	40	9	5.5	—	—	—	—	—	4.2	—	—	—	—	—	59	6	23.8	20	1000
✓	3D	170-090-273	D-S-76B	76	10	28	46	10	7.5	—	—	6	1.0	3	4.5	6.2	—	—	6	2.9×20	88	9	37.8	20	700
✓	3D	170-090-274	D-S-89B	89	9.5	35	56	—	8	—	—	7	1.2	4	—	—	—	—	—	—	127	13	63.6	10	400
✓	3D	170-090-275	D-S-102B	102	10.5	27	66.5	—	9	9	12	8.2	—	—	4.5	5.5	7.5	—	—	—	186	19	96.4	10	300
✓	3D	170-090-276	D-S-127B	127	11	35	82	10	17	10	17	9.2	1.5	5	—	8	—	—	8	3.8×25	235	24	161.5	6	180

Refer to 1 : P.15

BUTT HINGE D-S-C



[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]

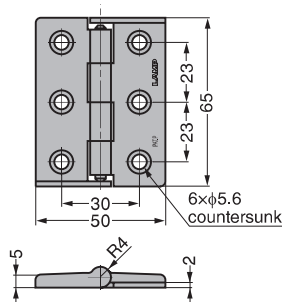
- Countersunk head wood screw (SUS)

RoHS	CAD	Item Code	Item Name	Material	Finish	H ₁	H ₂	H ₃	W ₁	W ₂	D	T	d ₁	d ₂	Knuckles	Holes n	Screw	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
✓	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	2.4x10	20	2	4.4	100	3000
✓	3D	170-090-278	D-S-32C			31.5		21.5	22.5	4								29	3	5.7	100	3000
✓	3D	170-090-279	D-S-38C			38	5.5	27	26	5	3.9	3.9	3.8							7.7	50	2000
✓	3D	170-090-280	D-S-51C			51	7	18.5	31	6							2.7x13	49	5	12.9	50	1500
✓	3D	170-090-281	D-S-64C			64	9	23	33	6.2	4.2	4.2	4	5.6	5	6	2.7x16	59	6	19.4	50	1000

Refer to 1 : P.15

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

BUTT HINGE HG-BF1



- Rim on edges may reduce load.
- Rim on edges may reduce warpage and increase strength.
- Rim on edges prevents shaft from falling off.

[Remarks]

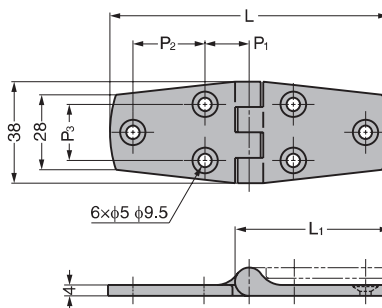
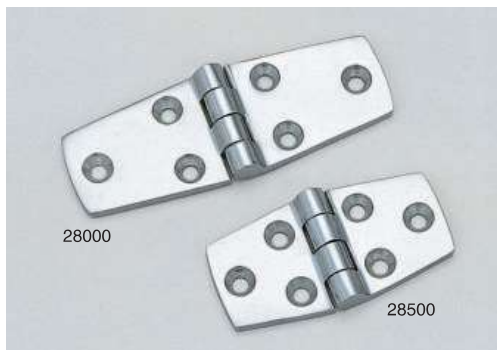
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1.

RoHS	CAD	Item Code	Item Name	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
✓	3D	170-091-560	HG-BF1	Stainless Steel (SUS304)	Barrel Polished	157	16	63	20	120

Refer to 1 : P.15

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.

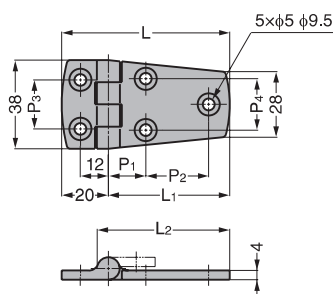
RoHS	CAD	Item Code	Item Name	Material	Finish	L	L ₁	P ₁	P ₂	P ₃	Door Width	Door Height	Door Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
✓	3D	170-096-002	28500	Stainless Steel (SCS14)	Polished	74	42	13	17	20	Max.	Max.	Max.	167	17	85	20	100
✓	3D	170-096-003	28000			104	57	16.5	27	21	450	700	21			115	20	100

Refer to 1 : P.15

※SCS14 is equivalent of 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	L ₁	L ₂	P ₁	P ₂	P ₃	P ₄	Door Width	Door Height	Door Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		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
		170-096-007	27800	Stainless Steel (SCS14)	Polished	72	52	57	16	27	22	21	450	700	21	167	17	85	20	100

Refer to 1 : P.15

※SCS14 is equivalent of SUS316.

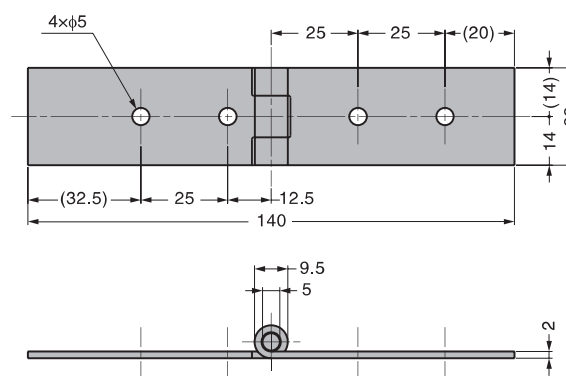
BUTT HINGE SYR140

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	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Finish	Weight (g)	Carton (pcs)
		170-099-045	SYR140	Stainless Steel (SUS304)	69	7	Plain	74	300

Refer to 1 : P.15

BUTT HINGE LSS

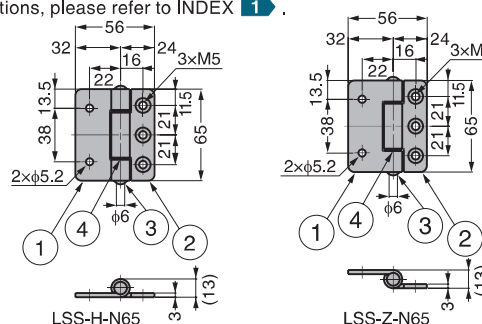
SUS



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)
		170-090-542	LSS-H-A65	Without screw holes	245	25	125	30	120
		170-090-541	LSS-H-N65	With screw holes				30	120
		170-090-548	LSS-Z-A65	Without screw holes				30	120
		170-090-547	LSS-Z-N65	With screw holes				30	120

Refer to 1 : P.15

BUTT HINGES

PIANO HINGES

STEP HINGES

LIFT-OFF HINGES

PIVOT HINGES

SPRING HINGES

CLEAN ROOM HINGES

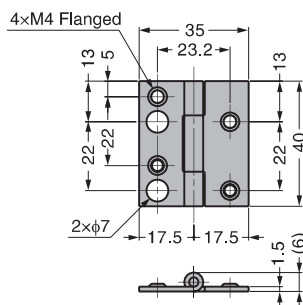
HINGES FOR ALUMINUM FRAME

DROP HINGES

GLASS DOOR HINGES

SPECIAL HINGES

BUTT HINGE SBR40



- Hinge will not be in contact with screw heads while closing.
- Hinge is internal threaded.

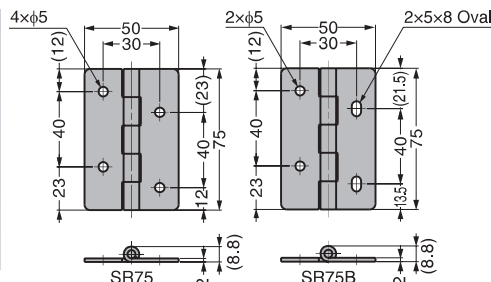
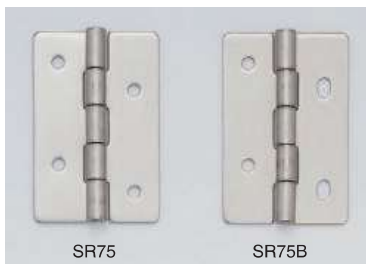
[Remarks]

- 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)
		170-099-088	SBR40	Stainless Steel (SUS304)	Plain	69	7	21	20

Refer to **1** : P.15

BUTT HINGE SR75, SR75B



[Applications]

- Measuring instruments, precision instruments, etc.

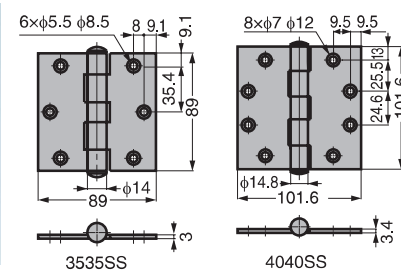
[Remarks]

- 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)
		170-099-086	SR75	Stainless Steel (SUS304)	Plain	186	19	76	250
		170-099-047	SR75B					76	100

Refer to **1** : P.15

BUTT HINGE 3535SS, 4040SS



[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.

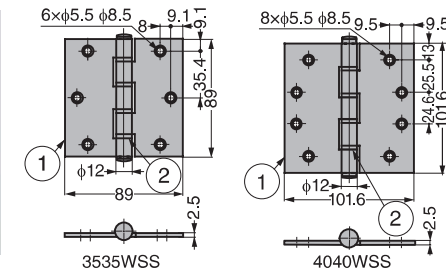
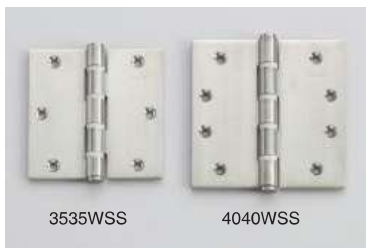
[Parts Included]

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)
		170-920-181	3535SS	Stainless Steel (SUS304)	Satin	333	34	145	2	100
		170-920-182	4040SS			431	44	195	2	100

Refer to **1** : P.15

BUTT HINGE (W/WASHER) 3535WSS, 4040WSS



- 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

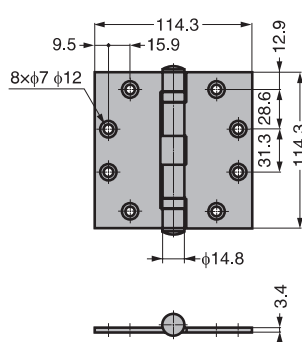
RoHS	CAD	Item Code	Item Name	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-029-834	3535WSS	245	25	195	2	100
		170-029-835	4040WSS	294	30	250	2	50

No.	Part Name	Material	Finish / Colour
①	Body	Stainless Steel (SUS304)	Satin
②	Washer	PA	White

Refer to **1** : P.15

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)
		170-920-184	4545BSS	Stainless Steel (SUS304)	Satin	481	49	420	2	50

Refer to 1 : P.15

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGES

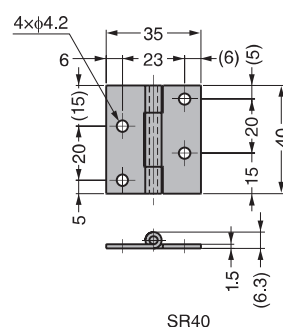
BUTT HINGE SR

SUS

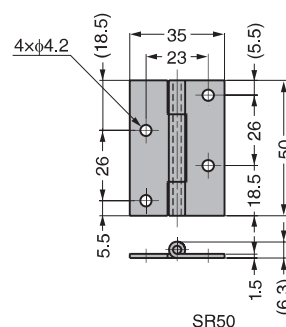


[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1.



SR40



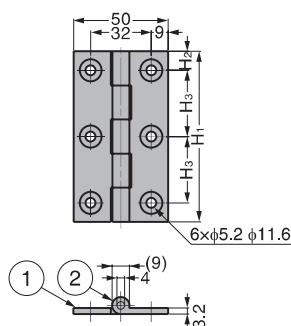
SR50

RoHS	CAD	Item Code	Item Name	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Carton (pcs)
		170-099-044	SR40	Stainless Steel (SUS304)	Plain	69	7	22	500
		170-099-042	SR50			88	9	27	500

Refer to 1 : P.15

BUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAME

BUTT HINGE KHBL



- Drawing material, with small shaft diameter.

[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		Plain

RoHS	CAD	Item Code	Item Name	H ₁	H ₂	H ₃	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-099-479	KHBL-60CR	60	9	21	167	17	95	—	—
		170-099-761	KHBL-90CR	90	10	35	255	26	140	—	—

Refer to 1 : P.15

DROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

BUTT HINGE FHS

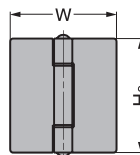


[Applications]

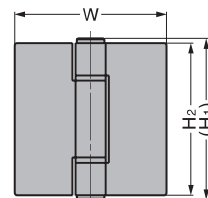
- Ship, kitchen equipment

[Remarks]

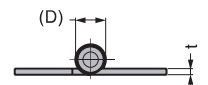
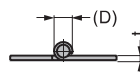
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1.



FHS-50, FHS-60, FHS-75



FHS-100, FHS-125, FHS-150



RoHS	CAD	Item Code	Item Name	Material	Finish	H ₁	H ₂	W	D	t	Knuckles	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-090-479	FHS-50	Stainless Steel (SUS304)	Satin	-	50	50	12	3	3	186	19	90	-	-
		170-090-478	FHS-60				60	64				226	23	130	-	-
		170-090-477	FHS-75				75	70				275	28	170	-	-
		170-090-476	FHS-100			110	100	100	20	4	5	490	50	520	-	40
		170-090-475	FHS-125			135	125	100				569	58	635	-	-
		170-090-474	FHS-150			160	150	120				637	65	850	-	-

Refer to 1 : P.15

BUTT HINGE LSK-1157



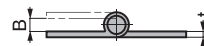
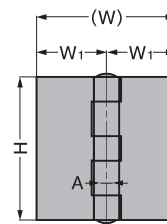
- Additional drilling is also possible. For further details, please contact local representatives.

[Applications]

- Power distribution box, control board, vehicle, ship, etc.

[Remarks]

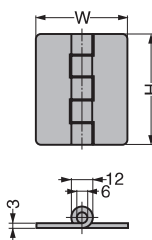
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1.



RoHS	CAD	Item Code	Item Name	Material	Finish	H	W ₁	W	A	B	t	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-090-445	LSK-1157-1	Stainless Steel (SUS304)	Satin	51	25	50	6	6	2.5	127	13	76	10	250
		170-090-446	LSK-1157-2			64	32	64	7	7	3	235	24	141	10	150
		170-090-447	LSK-1157-3			76	37	74				284	29	188	10	100
		170-090-448	LSK-1157-4			89	43.5	87	8	8	4	333	34	257	10	80
		170-090-449	LSK-1157-5			101.6	49.5	99				500	51	417	10	50
		170-090-450	LSK-1157-6			127	59.5	119	11	11		579	59	681	6	30
		170-090-451	LSK-1157-7			152	71.5	143	12	12		647	66	928	4	20

Refer to 1 : P.15

BUTT HINGE D-CH



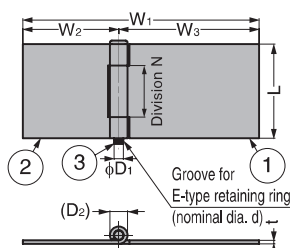
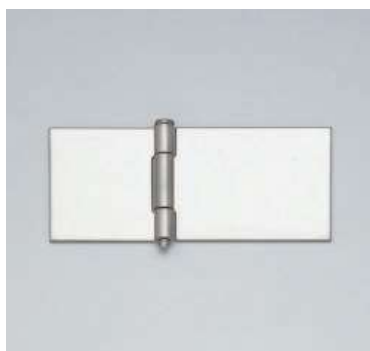
[Remarks]

- 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)
		170-090-395	D-CH-60	Steel (SPHC)	Coloured Zinc	60	50	3	177	18	105	—	—
		170-090-396	D-CH-90		Chromate	90	60	5	275	28	180	—	—
		170-090-398	D-CH-100		(Trivalent)	100	80		294	30	245	—	—

Refer to **1** : P.15

BUTT HINGE OLYA



- Shaft detachable.

[Remarks]

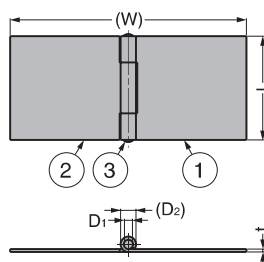
- E-type retaining ring is not included.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1.

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	W ₁	W ₂	W ₃	t	d	D ₁	D ₂	N	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-099-772	OLYA-128S	51	128	52	76	2	4	5	9.5	3	127	13	120	—	—
		170-099-771	OLYA-185S	65	185	30	155	3	5	6	12.5	5	245	25	330	—	—

Refer to **1** : P.15

BUTT HINGE YHS



[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	D ₁	D ₂	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-099-428	YHS-32	32	90	1.5	3.5	7	59	6	45	—	—
		170-099-427	YHS-38	38	82	1.2	3	5,6			35	—	—
		170-099-426	YHS-51	51	116	1.5	4	7,2			98	10	85

Refer to **1** : P.15

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



- 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.

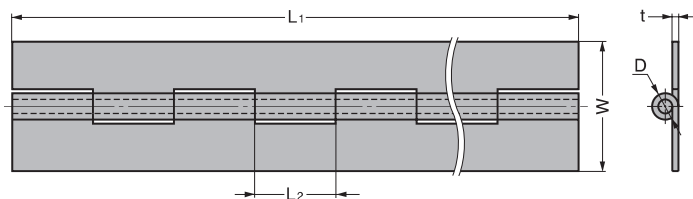
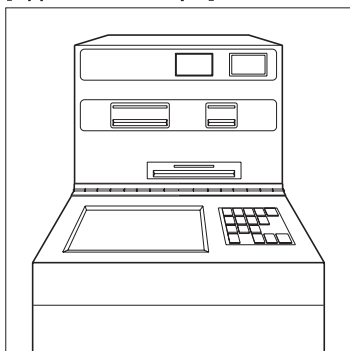
[Applications]

- 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]

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

RoHS	CAD	Item Code	Item Name	Material	Finish	L ₁	L ₂	W	t	D	Load Capacity N/pc	Load Capacity kgf/pc	Weight (g)	Box (pcs)	Carton (pcs)		
		170-099-376	LSN8-25-300	Stainless Steel (SUS304)	Polished	300	25	12.5	0.8	2.6	137	14	690	10	50		
		170-099-377	LSN8-25-600			600					275	28	134	10	50		
		170-099-362	LSN8-25-1000			1000					461	47	240	10	50		
		170-099-187	LSN8-25-1800			1800					716	73	400	10	50		
		170-099-378	LSN8-32-300			300	32				137	14	79	10	50		
		170-099-372	LSN8-32-600			600					275	28	166	10	50		
		170-099-361	LSN8-32-1000			1000					461	47	265	10	50		
		170-099-186	LSN8-32-1800			1800					716	73	420	10	50		
		170-099-198	LSN8-38-1000			1000	38				461	47	0	10	50		
		170-099-184	LSN8-38-1800			1800					716	73	500	10	50		
		170-149-329	LSN15-32-300			300		255	26	165	10	50					
		170-099-373	LSN15-32-350			350	20	32	1.5	3.5	304	31	192	10	50		
		170-149-330	LSN15-32-450			450					392	40	247	10	50		
		170-149-331	LSN15-32-600			600					520	53	337	10	50		
		170-099-982	LSN15-32-750			750					598	61	410	10	50		
		170-099-374	LSN15-32-850			850					628	64	461	10	50		
		170-099-375	LSN15-32-900			900					667	68	491	10	50		
		170-099-808	LSN15-32-1000			1000					745	76	545	10	50		
		170-099-030	LSN15-38-1000		1000	38					609	10	50				
		170-099-031	LSN15-38-1800		1800		1370				140	1300	5	25			
		170-090-709	LSN15-50-1000		1000	50	100				4.0	10.0	745	76	400	5	25
		170-099-182	LSN15-50-1800		1800								1370	140	1400	5	25
		170-099-029	LSN20-50-1000		1000								981	100	1096	5	25
		170-012-596	LSN30-100-1000		Plain	50		3.0	8.0	1370			140	3175	1	5	
		170-012-597	LSN30-100-2000			2000	2550			260	6350	1	5				
		170-012-598	※LSN40-100-500			500	981			100	2400	1	—				
		170-012-599	※LSN40-100-1000			1000	90			1770	180	4600	1	—			

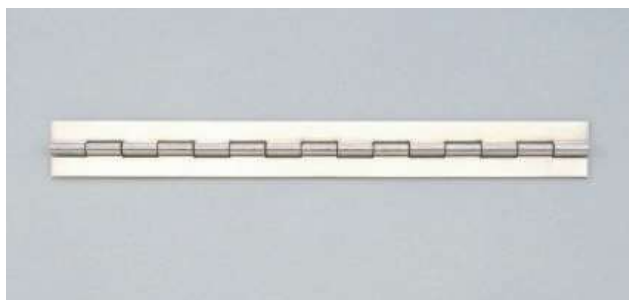
Refer to **1** : P.15

※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.

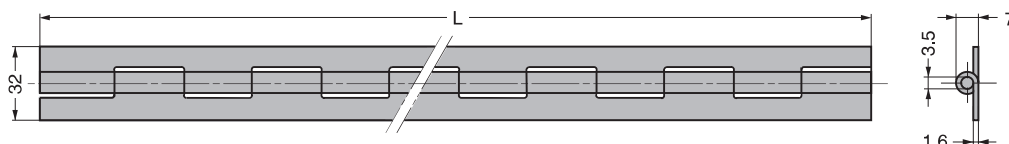
PIANO HINGE LH



- 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**.



RoHS	CAD	Item Code	Item Name	Material	Finish	L	Load Capacity N/pc	Load Capacity kgf/pc	Weight (g)	Box (pcs)
		170-095-505	LH-30A	Steel (SPCC)	Clear Zinc Chromate	300	216	22	175	30
		170-095-508	LH-35A			350	255	26	205	30
		170-090-507	LH-45A			450	324	33	265	30
		170-095-512	LH-60A			600	431	44	350	10
		170-095-515	LH-75A			750	539	55	437	10
		170-095-518	LH-85A			850	569	58	493	10
		170-095-521	LH-90A			900	598	61	522	10
		170-095-524	LH-100A			1000	618	63	551	10

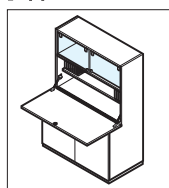
Refer to **1** : P.15

PIANO HINGE LHN

SUS



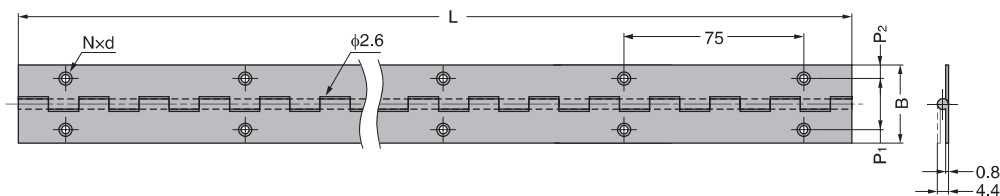
[Application Example]



- Length from 1200 to 2100mm suitable for various application.
- Can be cut to any length.

[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**.



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)
		170-097-846	LHN-32-1200	Stainless Steel (SUS304)	Polished	1200	32	20	6	32	φ 4	549	56	400	30
		170-097-847	LHN-32-1500			1500				40		588	60	400	30
		170-097-848	LHN-32-1872			1872				50		745	76	400	30
		170-097-849	LHN-32-2100			2100				56		834	85	600	30
		170-097-850	LHN-38-1200			1200	38	22.5	7.75	32	φ 5.2	549	56	400	30
		170-097-843	LHN-38-1500			1500				40		588	60	400	30
		170-097-844	LHN-38-1872			1872				50		745	76	600	30
		170-097-845	LHN-38-2100			2100				56		834	85	650	30

Refer to **1** : P.15TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

TABLETOP PIANO HINGE HG-MH

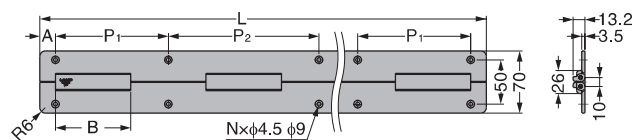
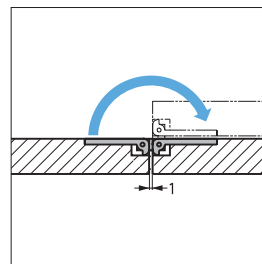
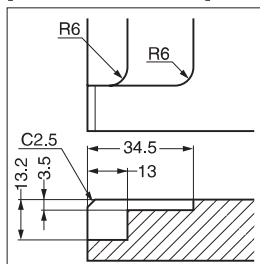


- Double pivot hinge allows 180° opening.
- 400mm, 800mm, 1100mm length available.
- Can be cut easily. In case of cutting the hinge, attention should be paid to prevent the shaft from coming off.

[Remarks]

- No stopper mechanism.
- Do not bear the door weight by hinge alone.

[Cut Out Dimensions]

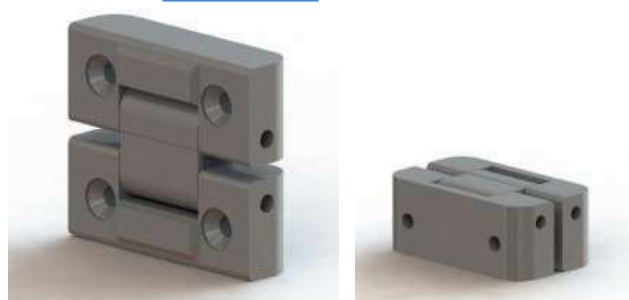


RoHS	CAD	Item Code	Item Name	Material	Finish	L	A	P ₁	P ₂	B	Qty of Holes N	Weight (g)	Box (pcs)
		170-012-587	HG-MH400S	Aluminium Alloy	Anodised/Stainless Finish	400	15	111	148	74	8	452	15
		170-012-588	HG-MH400BR		Anodised/Brown							452	15
		170-012-589	HG-MH400BL		Anodised/Black							452	15
		170-012-590	HG-MH800S		Anodised/Stainless Finish	800	17.5	127.5	170	85	12	908	10
		170-012-591	HG-MH800BR		Anodised/Brown							908	10
		170-012-592	HG-MH800BL		Anodised/Black							908	10
		170-012-593	HG-MH1100S		Anodised/Stainless Finish	1100	16.5	145.5	194	97	14	1236	8
		170-012-594	HG-MH1100BR		Anodised/Brown							1236	8
		170-012-595	HG-MH1100BL		Anodised/Black							1236	8

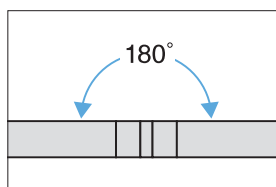
DUAL AXIS TORQUE HINGE

Under Development

Free stop

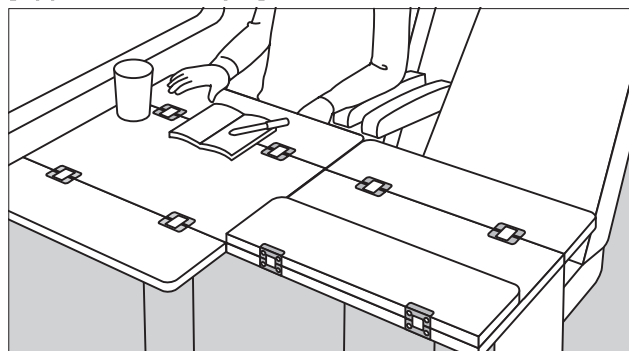


- Swivels 180° .
- Suitable for folding table of shop and train, etc.



No projection from the top surface of the door when fully opened. And the design of door is maintained as the mounting screws are not visible.

[Application Example]



Box seat table of train

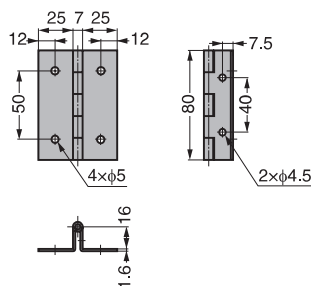
Fully opened



Mounting screws do not protrude when closed.



BUTT HINGE ROH-80

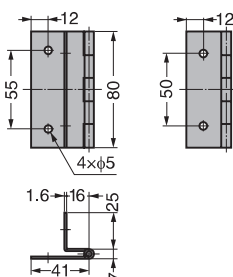


No.	Part Name	Material	Finish
①	Body A	Steel (SPCC)	Nickel
②	Body B		
③	Shaft	Stainless Steel (SUS304)	Plain

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

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

BUTT HINGE KOH-80



[Remarks]

● Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1.

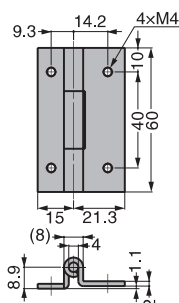
No.	Part Name	Material	Finish
①	Body A	Steel (SPCC)	Nickel
②	Body B		
③	Shaft	Stainless Steel (SUS304)	Plain

RoHS	CAD	Item Code	Item Name	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
—	3D	170-149-316	KOH-80	127	13	94	50	200

Refer to 1 : P.15

STEP HINGE DH60N

SUS



[Remarks]

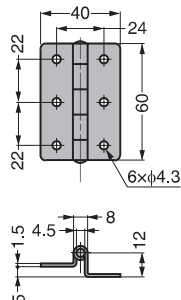
● Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1.

RoHS	CAD	Item Code	Item Name	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Carton (pcs)
—	3D	170-099-128	DH60N	Stainless Steel (SUS304)	Plain	147	15	51.2	150

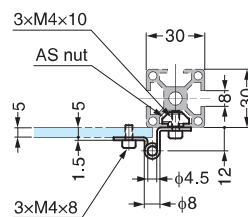
Refer to 1 : P.15

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)
—	3D	170-098-159	DH-60C	Stainless Steel (SUS304)	Polished	108	11	52	80	320

Refer to 1 : P.15

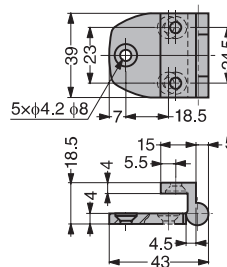
BUTT HINGE 28100

SUS316



[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX **1**.

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

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)
		170-096-006	28100	Stainless Steel (SCS14)	Polished	Max. 450	Max. 700	Max. 21	167	17	78.5	20	100

Refer to **1** : P.15

※SCS14 is equivalent of SUS316.

LIFT-OFF HINGE LSX-100

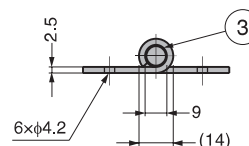
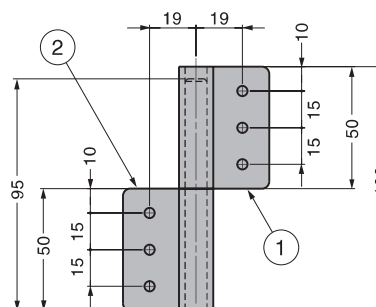
SUS



- 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**.



LSX-100R
(LSX-100L is symmetrical)

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)
		170-090-341	LSX-100L	Left-handed	294	30	170	20	80
		170-090-340	LSX-100R	Right-handed				20	80

Refer to **1** : P.15

LIFT-OFF HINGE KN

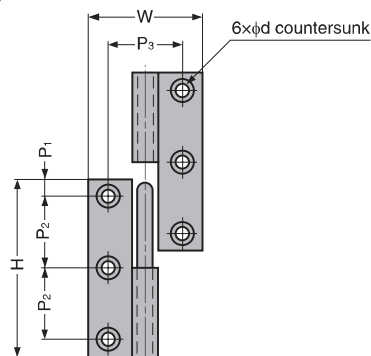
SUS



● 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	Holes	Material	Finish	H	W	P ₁	P ₂	P ₃	D ₁	t	d	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		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
		170-090-743	KN-50CR	Right-handed				64	36	8	24	108				11	30	100	400	
		170-090-744	KN-64CL	Left-handed				75	38	7.5	30	8.5				2	167	17	38	100
		170-090-745	KN-64CR	Right-handed									60	50	200					
		170-090-746	KN-75CL	Left-handed									60	50	200					
		170-090-747	KN-75CR	Right-handed																

Refer to 1 : P.15

LIFT-OFF HINGE NH-40

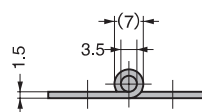
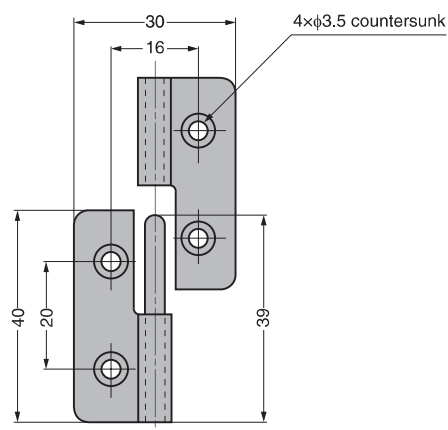
SUS



● 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.



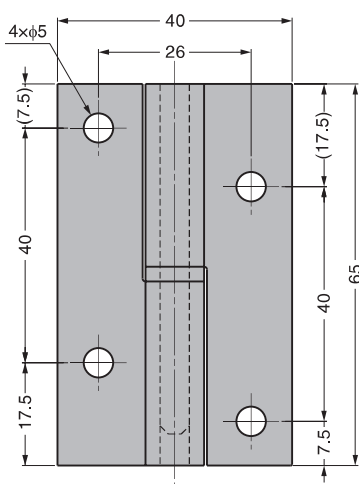
Right-handed type shown.
Left-handed type is symmetrical.

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)
		170-090-339	NH-40CL	Left-handed	Stainless Steel (SUS304)	Polished	69	7	21	150	600
		170-090-337	NH-40CR	Right-handed						150	600

Refer to 1 : P.15

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

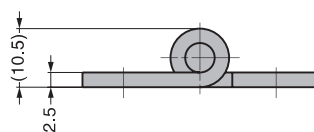
LIFT-OFF HINGE SNR65



● 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)
		170-099-046	SNR65L	Left-handed	Stainless Steel (SUS304)	Plain	177	18	76.2	200
		170-099-043	SNR65R	Right-handed						200

Refer to **1** : P.15

LIFT-OFF HINGES

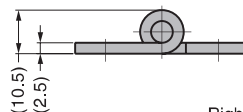
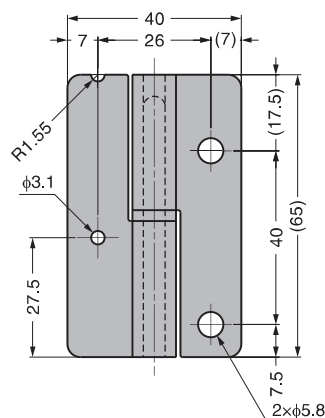
LIFT-OFF HINGE SNRK65



● 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 SNRK65R shown.
Right-handed type SNRK65L is symmetrical.

RoHS	CAD	Item Code	Item Name	Type	Material	Finish	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Carton (pcs)
		170-099-084	SNRK65L	Left-handed	Stainless Steel (SUS304)	Plain	167	17	75	150
		170-099-085	SNRK65R	Right-handed						150

Refer to **1** : P.15

LIFT-OFF HINGE **BN**

SUS

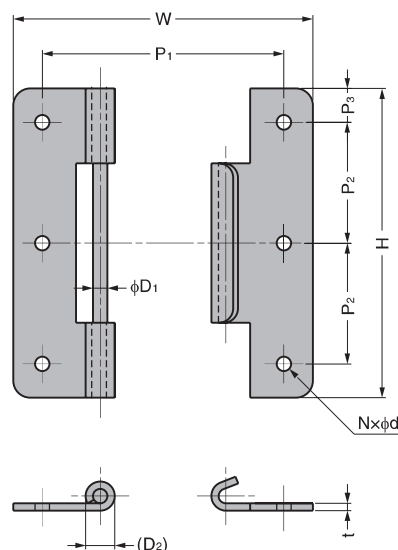


[Applications]

- 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	P ₁	P ₂	P ₃	d	D ₁	D ₂	t	N	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-099-498	BN-50S	Stainless Steel (SUS304)	Polished	50	30	20	20	5	3	3	6	1.5	6	88	9	6	—	—
		170-099-497	BN-64S			64	36	24	25	7	3	3	6	1.5	6	118	12	8	—	—

Refer to **1** : P.15TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESLIFT-OFF HINGE **SKH**

SUS



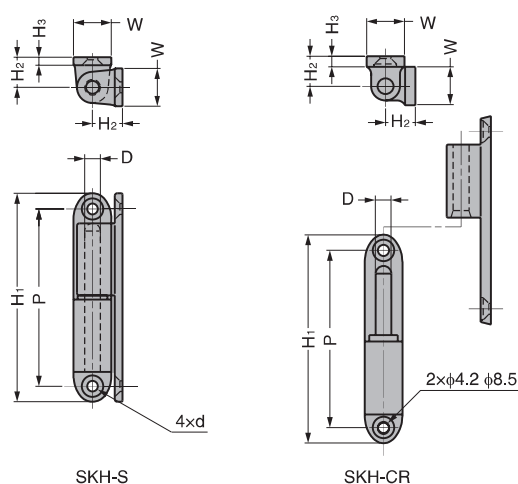
SKH-35CR

[Applications]

- Control board, various enclosures

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX **1**.



SKH-S

SKH-CR

RoHS	CAD	Item Code	Item Name	Material	Finish	H ₁	H ₂	H ₃	W	P	D	d	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-099-129	SKH-51S	Stainless Steel (SUS304)	Barrel Polished	51	8	2.5	11	40	4	Counterbore for M3	78	8	30	—	—
		170-090-818	SKH-60S			60	9.5	3	13	48	5	Counterbore for M3	118	12	50	—	—
		170-099-328	SKH-80S			80	11.5	4.5	14.5	68	6	Counterbore for M4	284	29	95	—	—

Refer to **1** : P.15PIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

LIFT-OFF HINGE HNH

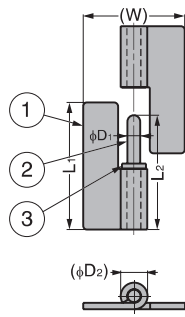


Right-handed

● 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	L ₁	L ₂	W	D ₁	D ₂	t	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-091-064	HNH-50CL	Left-handed	Stainless Steel (SUS304)	50	45	40	5	10.5	2.5	127	13	60	30	240
		170-091-057	HNH-50CR	Right-handed											30	240
		170-091-054	HNH-65CL	Left-handed		65	60	50				177	18	89	20	160
		170-091-055	HNH-65CR	Right-handed											20	160
		170-091-060	HNH-75CL	Left-handed		75	70	70	6	12	3	245	25	165	10	80
		170-091-053	HNH-75CR	Right-handed											10	80
		170-091-050	HNH-100CL	Left-handed		100	90	82	8	16	4	422	43	347	5	40
		170-091-051	HNH-100CR	Right-handed											5	40

Refer to 1 : P.15

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



ZweiL 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]

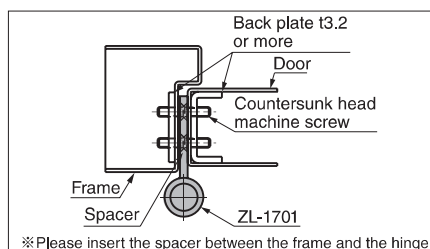
ZL-1701-10

- Countersunk head wood screw 4.1×38
- Countersunk head machine screw M5×16 (head diameter $\phi 8$)

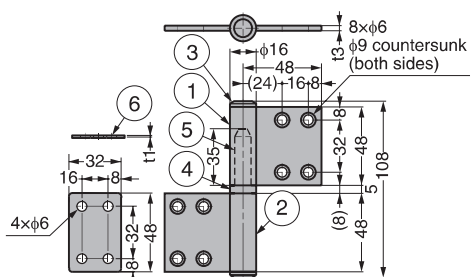
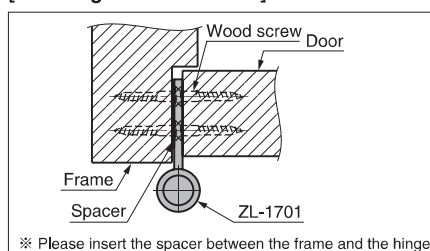
ZL-1701-12

- Countersunk head wood screw 4.8×38
- Countersunk head machine screw M5×16 (head diameter $\phi 9$)

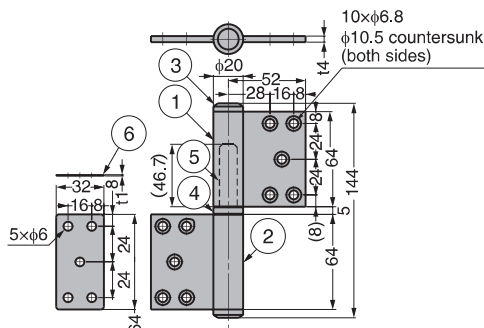
[Installing to Metal Door]



[Installing to Wooden Door]



71-1701-10



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)
—		170-091-691	ZL-1701-10	314	32	305	8
—		170-091-690	ZL-1701-12	559	57	560	6

Refer to **1** : P.15

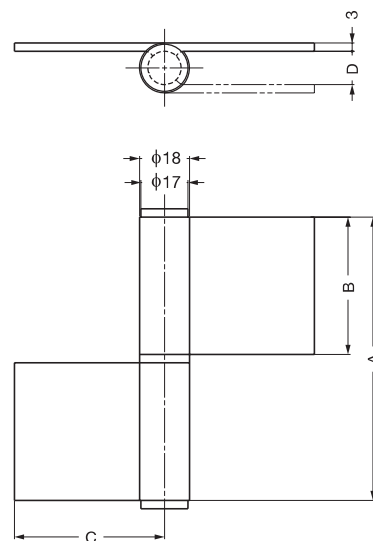
LIFT-OFF HINGE (WELD-ON) S-6166-2



Right-handed

Left-handed

- Weld-on type stainless steel lift-off hinge.
- Handed: Specific left and right hand mounting.
- Door weight: Max. 40kg/pair.



Material	Finish
Stainless Steel (304)	Satin

RoHS	CAD	Item Code	Item Name	Type	A	B	C	D	Weight (g)	Box (pcs)	Carton (pcs)
—	—	170-099-400	S-6166-2-L	Left-handed	102	49.5	55	12	300	12	60
—	—	170-099-401	S-6166-2-R	Right-handed							

LIFT-OFF HINGES

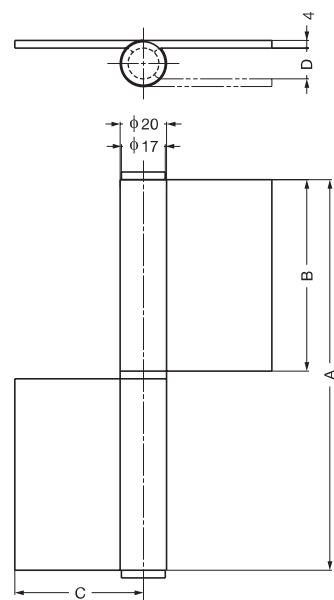
LIFT-OFF HINGE (WELD-ON) S-6166-6



Right-handed

Left-handed

- Weld-on type stainless steel lift-off hinge.
- Handed: Specific left and right hand mounting.
- Door weight: Max. 90kg/pair.



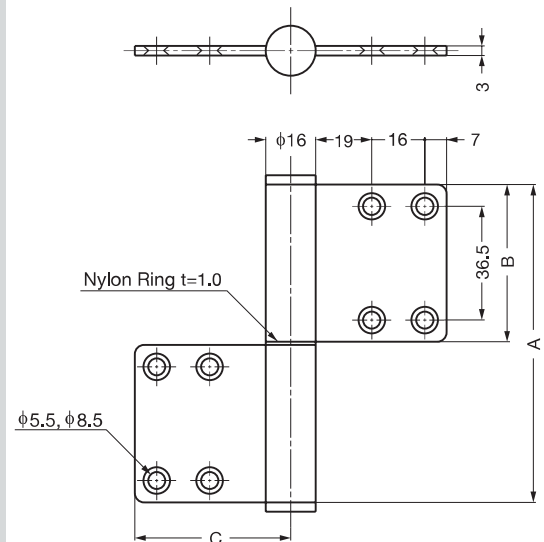
Material	Finish
Stainless Steel (304)	Satin

RoHS	CAD	Item Code	Item Name	Type	A	B	C	D	Weight (g)	Box (pcs)	Carton (pcs)
—	—	170-099-402	S-6166-6-L	Left-handed	152	74.5	55	12	570	8	40
—	—	170-099-403	S-6166-6-R	Right-handed							

LIFT-OFF HINGE S-6173-2



- Screw hole is countersunk from both sides.
- Non-Handed: Can be installed on left or right side.
- Door weight: Max. 40kg/pair.



Material	Finish
Stainless Steel (304)	Satin

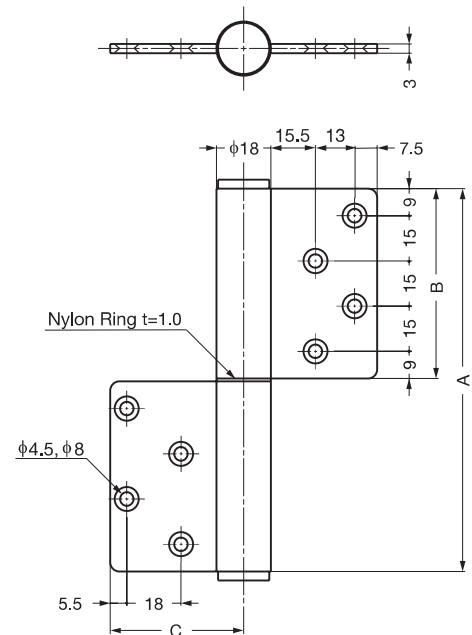
RoHS	CAD	Item Code	Item Name	A	B	C	Weight (g)	Box (pcs)	Carton (pcs)
—	—	170-099-404	S-6173-2	102	50,5	50	240	12	60

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGES

LIFT-OFF HINGE S-6173-5



- Screw hole is countersunk from both sides.
- Non-Handed: Can be installed on left or right side.
- Door weight: Max. 50kg/pair.



Material	Finish
Stainless Steel (304)	Satin

RoHS	CAD	Item Code	Item Name	A	B	C	Weight (g)	Box (pcs)	Carton (pcs)
—	—	170-099-405	S-6173-5	127	63	45	330	8	40

PIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

LIFT-OFF HINGE (WELD-ON) HG-LSH



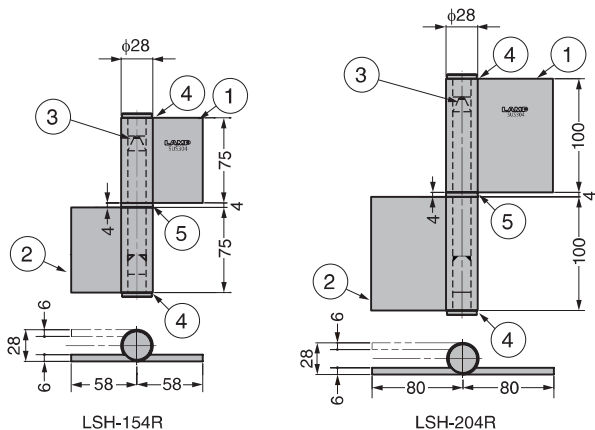
- Uses 6mm thick stainless steel for heavy duty doors.
- Oilless ring provides smooth movement.
- With head caps for beautiful appearance.

[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.



No.	Part Name	Material	Finish
①	Door Side Leaf	Stainless Steel (SUS304)	Satin
②	Frame Side Leaf		Plain
③	Pin		
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)
		170-034-219	HG-LSH-154L	Left-handed	1961	200	1020	6	12
		170-034-220	HG-LSH-154R	Right-handed				6	12
		170-034-221	HG-LSH-204L	Left-handed	2177	222	1540	—	6
		170-034-222	HG-LSH-204R	Right-handed				—	6

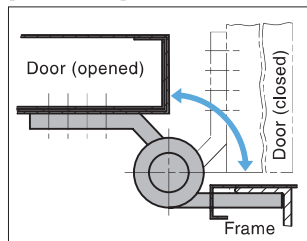
Refer to 1 : P.15

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

LIFT-OFF HINGE HG-KM



[Installation]



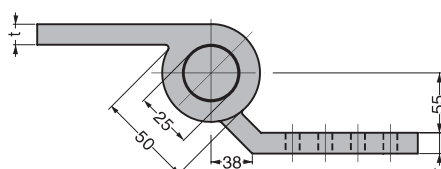
- Ultra thick hinge for ultra heavy doors.
- Thrust bearing in movable part provides smooth movement.

[Applications]

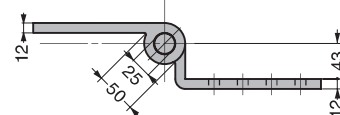
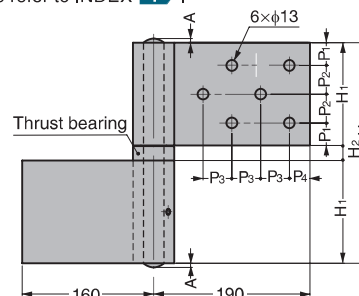
- Large doors, gate doors, and other rotation mechanism of heavy objects, etc.

[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-KM20-250



HG-KM12-268

RoHS	CAD	Item Code	Item Name	Material	Finish	H	H ₁	H ₂	P ₁	P ₂	P ₃	P ₄	A	t	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (kg)	Box (pcs)
☑	3D	170-090-452	HG-KM12-268	Stainless	Satin	268	125	18	27.5	35	35	25	5	12	2940	300	8.3	1
—	3D	170-090-453	HG-KM19-275	Steel		275	25	25	30	30	25	10	19	4810	490	19.8	1	
—	3D	—	※HG-KM20-250	(SUS304)		250	114	22	28	29	25	23	20	4610	470	18.1	1	

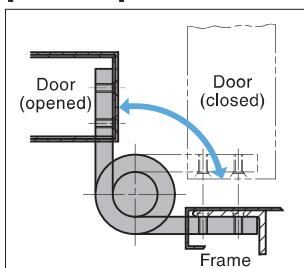
Refer to **1** : P.15

✕ Made to order.

LIFT-OFF HINGE HG-KH



[Installation]



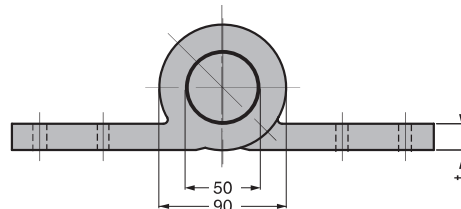
- Ultra thick hinge for ultra heavy doors.
- Thrust bearing in movable part provides smooth movement.

[Applications]

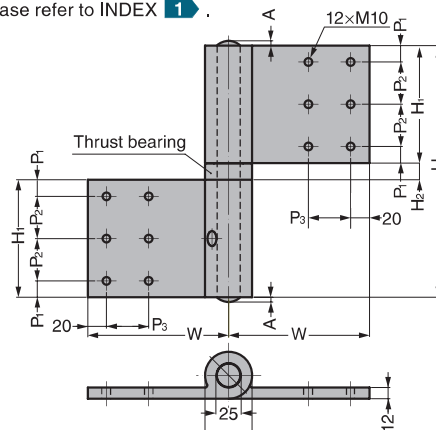
- Large doors, gate doors, and other rotation mechanism of heavy objects, etc.

[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-KH20-250



HG-KH12-268

RoHS	CAD	Item Code	Item Name	Material	Finish	H	H ₁	H ₂	W	P ₁	P ₂	P ₃	A	t	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (kg)	Box (pcs)
		170-090-454	HG-KH12-268	Stainless	Satin	268	125	18	150	17.5	45	45	5	12	2940	300	7.4	1
		170-090-455	HG-KH19-275	Steel		275		22						19	4810	490	17.2	1
—		—	※HG-KH20-250	(SUS304)		250	114	22	140	17	40	40	10	20	4610	470	16.6	1

Refer to **1** : P.15

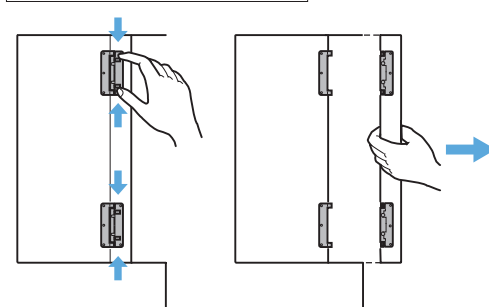
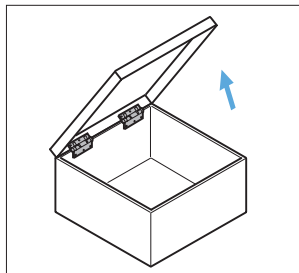
※Made to order.

QUICK RELEASE HINGE **HG-OT** Quick Installation Type

- 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.

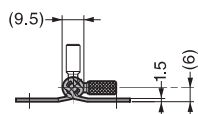
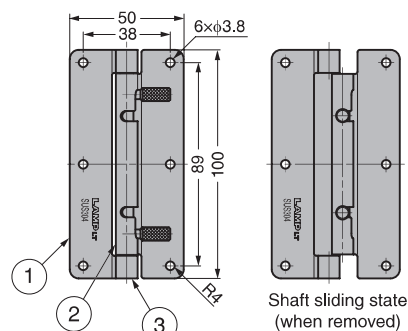
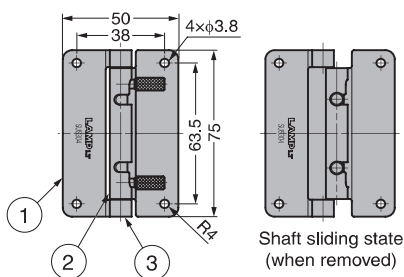
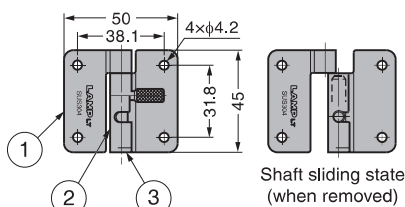
[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX **1**.

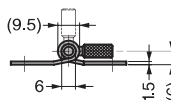
[Application Example]

Retract the shaft and rotate it to the cabinet side.

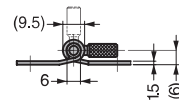
Can be installed and removed in the front direction.

[Retracted Shaft]

HG-OTA45L



HG-OTA75



HG-OTA100

No.	Part Name	Material	Finish
①	Plate	Stainless Steel (SUS304)	Satin
②	Hinge Pin	Stainless Steel (SUS303)	
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)
		170-090-944	HG-OTA45R	Right-handed	With screw holes	29	3	40	30	300
		170-090-946	HG-OTB45R		Without screw holes				30	300
		170-090-945	HG-OTA45L	Left-handed	With screw holes	29	3	40	30	300
		170-090-947	HG-OTB45L		Without screw holes				30	300
		170-090-942	HG-OTA75	Non-handed	With screw holes	59	6	70	40	160
		170-090-943	HG-OTB75		Without screw holes				40	160
		170-090-940	HG-OTA100		With screw holes	69	7	90	30	120
		170-090-941	HG-OTB100		Without screw holes				30	120

Refer to **1** : P.15

PIVOT HINGE **HG-PV-30C**

SUS



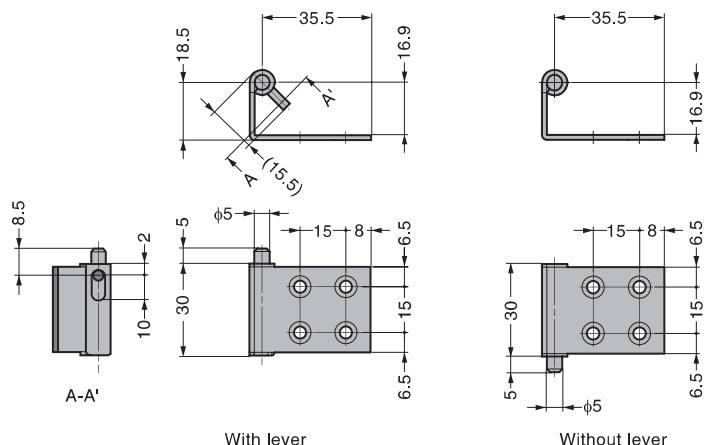
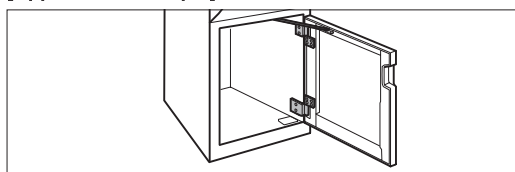
- Small detachable pivot hinge.
- Door is easily detached only by using the lever.

[Applications]

- Light doors of financial equipment, etc.

[Remarks]

- Sold in pairs (upper and lower).

[Application Example]

With lever

Without lever

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.

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGES

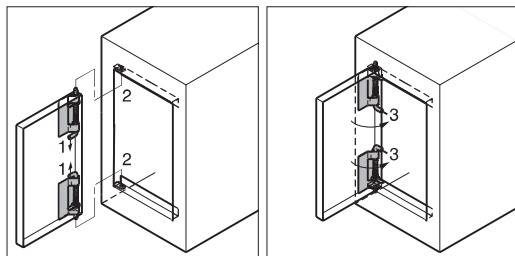
RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
		170-098-215	HG-PV-30C	Stainless Steel (SUS304)	Barrel Polished	54	100	200

SPRING LOADED PIVOT HINGE **HG-PV60AC**

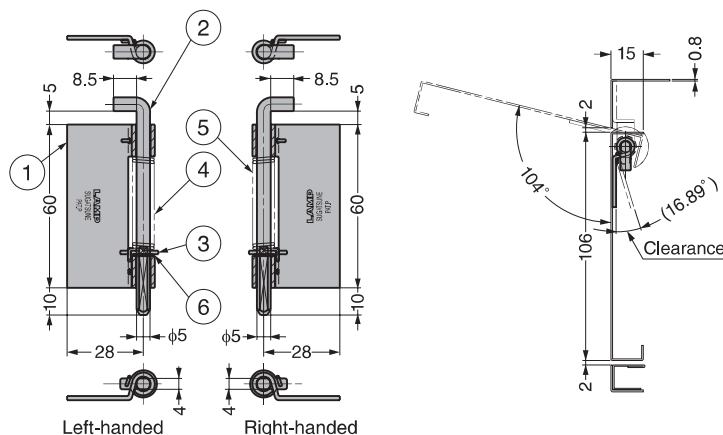
SUS

PIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

HG-PV60AC-R (Right-handed)

[Installation]

- Spring loaded for self closing.
- Easy door installation and removal.
- Compact self-closing mechanism saves space.

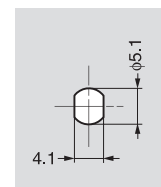


Left-handed

Right-handed

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]

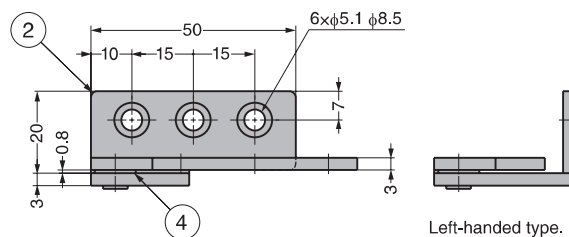
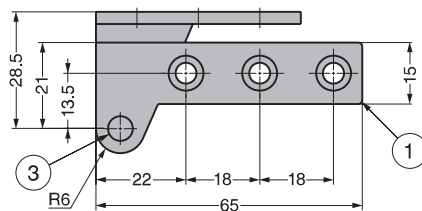
RoHS	CAD	Item Code	Item Name	Type	Door Weight kg/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-090-988	HG-PV60AC-L	Left-handed	2	38	50	200
		170-090-987	HG-PV60AC-R	Right-handed			50	200

PIVOT HINGE PL-65 For Overlay Door



[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)

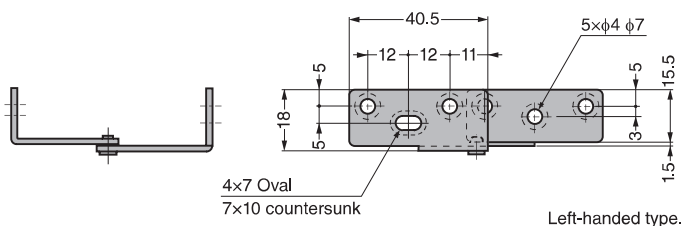
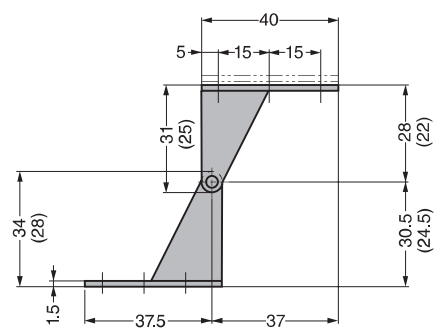
RoHS	CAD	Item Code	Item Name	Type	Weight (g)	Box (pcs)	Carton (pcs)
		170-099-190	PL-65R	Right-handed (for right-lower / left-upper)	55	40	400
		170-099-191	PL-65L	Left-handed (for left-lower / right-upper)		40	400

PIVOT HINGE WP1, WP3 For Overlay Door



[Remarks]

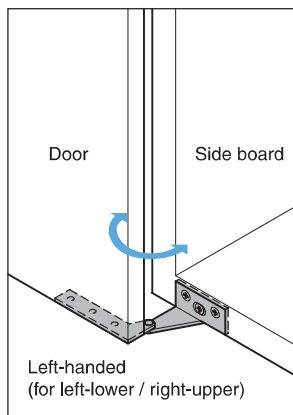
- Recommended for use in pairs.
- Dimensions in () is for WP3.



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)
		170-090-257	WP1R	Right-handed (for right-lower / left-upper)	Stainless Steel (SUS430)	Plain	Max. 300	Max. 700	Max. 24	Max. 1.8	23	100	1000
		170-090-258	WP1L	Left-handed (for left-lower / right-upper)					Max. 18		21	100	1000
		170-090-259	WP3R	Right-handed (for right-lower / left-upper)								100	1000
		170-090-260	WP3L	Left-handed (for left-lower / right-upper)								100	1000

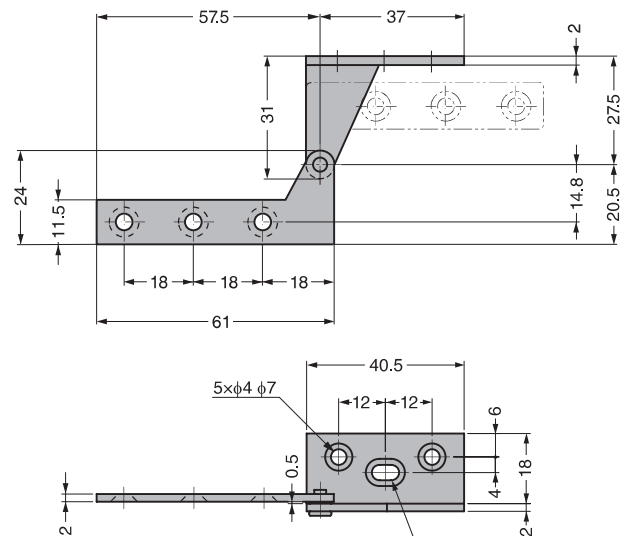
PIVOT HINGE **PL-60** For Overlay Door

SUS



[Remarks]

- Recommended for use in pairs.



Left-handed type.

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)
		170-090-263	PL-60R	Right-handed (for right-lower / left-upper)	Stainless Steel (SUS430)	Plain	Max.	Max.	22	Max.	27	100	1000
		170-090-264	PL-60L	Left-handed (for left-lower / right-upper)			450	700		2.6		100	1000

TORQUE HINGES

DAMPER HINGES

LIFT ASSIST HINGES

DETENT HINGES

CONCEALED HINGES

BUTT HINGES

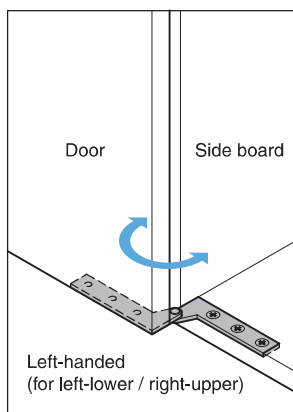
PIANO HINGES

STEP HINGES

LIFT-OFF HINGES

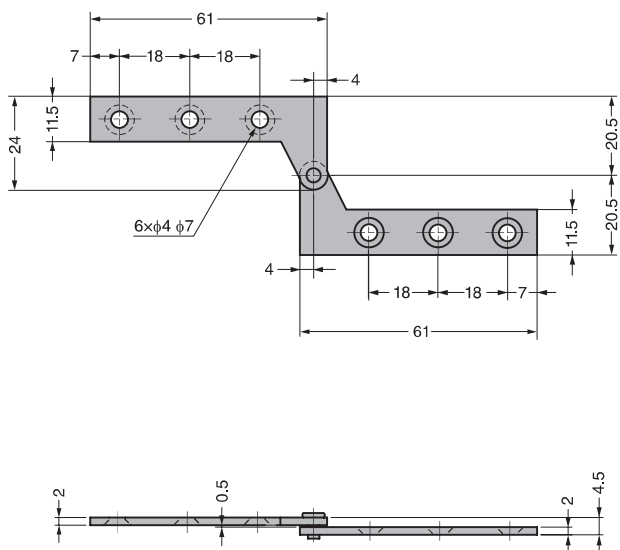
PIVOT HINGE **PP-60** For Inset Door

SUS



[Remarks]

- Recommended for use in pairs.



Right-handed type.

RoHS	CAD	Item Code	Item Name	Type	Material	Finish	Door Width	Door Height	Door Weight kg/set	Weight (g)	Box (pcs)	Carton (pcs)
		170-090-261	PP-60R	Right-handed (for right-lower / left-upper)	Stainless Steel (SUS430)	Plain	Max.	Max.	Max.2.6	22	100	1000
		170-090-262	PP-60L	Left-handed (for left-lower / right-upper)			450	700			100	1000

PIVOT HINGES

SPRING HINGES

CLEAN ROOM HINGES

HINGES FOR ALUMINIUM FRAME

DROP HINGES

GLASS DOOR HINGES

SPECIAL HINGES

HIGH DURABILITY SPRING HINGE HG-SHL

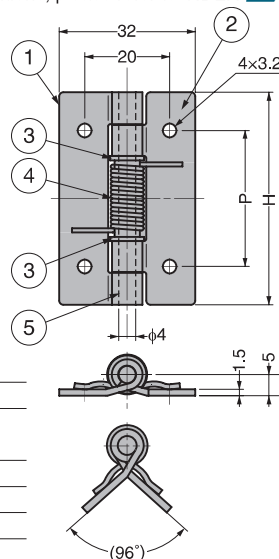
High durability

Passed 1,000,000 open/
close private cycle test

- Stainless steel construction suitable for corrosive environments.
- High durability.

[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.

※When applying the torque given
in the table below

No.	Part Name	Material	Finish
①	Body 1	Stainless Steel (SUS304)	Barrel Polished
②	Body 2		
③	Collar	Stainless Steel (SUS303)	—
④	Spring	Stainless Steel (SUS304)	—
⑤	Shaft	Stainless Steel (SUS303)	—

RoHS	CAD	Item Code	Item Name	H	P	Torque Moment cN·m	Torque Moment kgf·cm	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
✓	3D	170-024-384	HG-SHL32	32	18	4.7	0.48	39	4	20	50	500
✓	3D	170-024-385	HG-SHL50	50	32	8.9	0.91	59	6	30	50	500
✓	3D	170-024-386	HG-SHL60	60	40	14.0	1.43			38	50	500

Refer to 1 : P.15

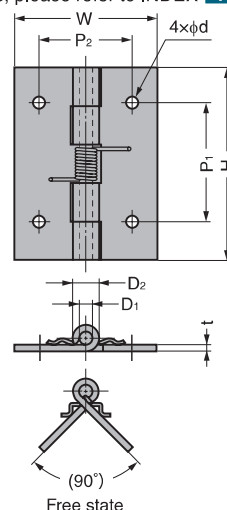
SPRING HINGE HG-SH

SPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

- 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.

※When applying the torque given
in the table below

RoHS	CAD	Item Code	Old Item Code	Item Name	Material	Finish	H	W	P ₁	P ₂	D ₁	D ₂	d	t	Torque Moment cN·m	Torque Moment kgf·cm	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-098-515	—	HG-SH-20C	Stainless Steel (SUS304)	Barrel Polished	20	14	—	—	1	2.2	—	0.5	9.7	0.99	9.8	1	1.5	800	3200
		170-098-520	—	HG-SH-25C			25	32	14	20	3	5.8	—	1.2	6.5	0.66	29	3	10	300	1200
		170-098-517	170-098-521	HG-SH-38C			38	32	26	—	—	6.5	3.2	—	14.7	1.5	59	6	20	200	800
		170-098-518	※170-098-522	HG-SH-51C			51	38	32	25	—	—	—	—	13.5	1.38	69	7	35	130	520

Refer to 1 : P.15

※Item code of the product was changed.

SPRING HINGE SH-C

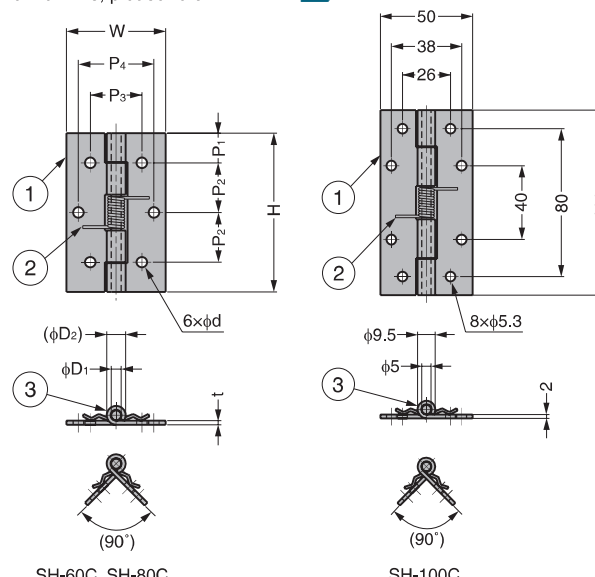
SUS



● All parts made of stainless steel.

[Remarks]

● Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1.



SH-60C, SH-80C

SH-100C

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

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	P ₁	P ₂	P ₃	P ₄	D ₁	D ₂	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)
✓	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	-
✓	3D	170-099-787	SH-80C	80	50	2	15	25	38	38	5	9.5	5.3	32.8	3.34	157	16	86	-	-
✓	3D	170-099-786	SH-100C	Above Drawing	Above Drawing	Above Drawing	Above Drawing	Above Drawing	Above Drawing	Above Drawing	Above Drawing	Above Drawing	Above Drawing	97.7	9.96	196	20	110	150	-

Refer to 1 : P.15

SPRING HINGE HG-BF3-2

SUS



HG-BF3-2L-SC

HG-BF3-2R-SO

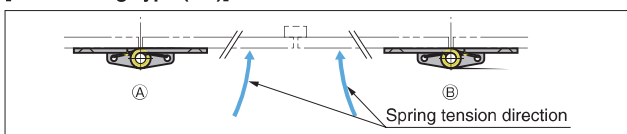
● Self-closing type (SC) and self-opening type (SO) available.

● Spring ends cannot be accessed for safety.

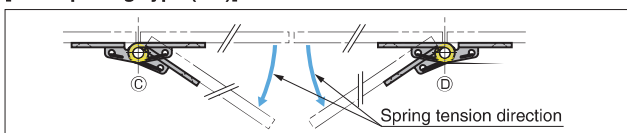
[Remarks]

● Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1.

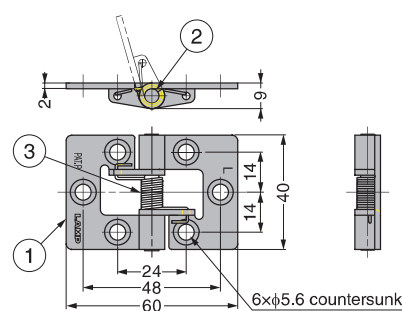
[Self-Closing Type (SC)]



[Self-Opening Type (SO)]



※ (A) and (C) are marked with "L", (B) and (D) 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)
✓	3D	170-091-562	HG-BF3-2L-SC	(A)	SC/Left-opening	69	7	41	20	120
✓	3D	170-091-564	HG-BF3-2R-SC	(B)	SC/Right-opening				20	120
✓	3D	170-091-561	HG-BF3-2L-SO	(C)	SO/Left-opening				20	120
✓	3D	170-091-563	HG-BF3-2R-SO	(D)	SO/Right-opening				20	120

Refer to 1 : P.15

COMBINATION HINGE HG-VH8 DIGEST



- Hinges with multiple inserts, such as damper, spring and torque unit, etc.
- By combining hinges with different motion functions, or using hinges without parts built-in at one side, it is possible to realise marvellous opening and closing actions.
- For hinges with built-in springs, the spring tension can be adjusted with a hex key.
- Refer to the product page **1** for details.

Refer to **1** : P.16~17

SPRING HINGE SA

- 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).
- Soft-close by using with LAPCON DOOR DAMPER LDD-S 1 and LDD-V 2 (in case of door weight 15 to 40kg).

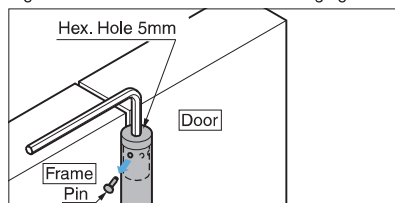
[Remarks]

- In case of noise, apply lubricant (grease) to washer and torsion spring.

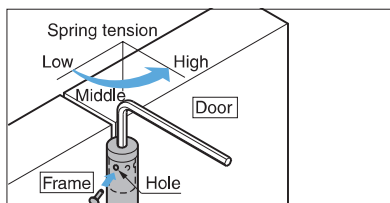


[How to Adjust Spring Tension]

Figure below shows the case of left-hanging.

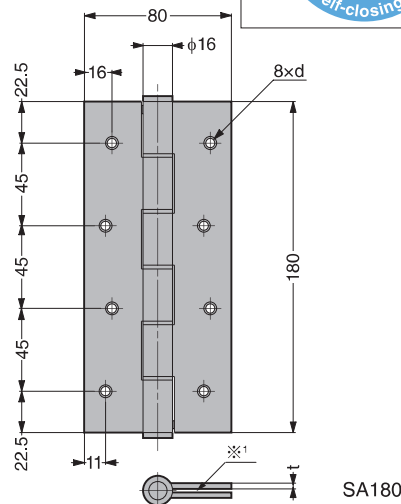
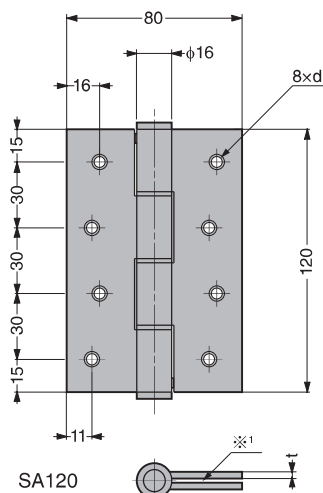
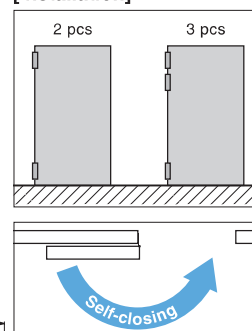


Loosen shaft with a hex key and remove the pin.



Adjust spring tension with three steps. Put the pin to the hole and fix.

[Installation]



※¹ After the door is closed, leaves are not parallel to each other. ※² The value in case of door width 1000mm or less

RoHS	CAD	Item Code	Item Name	Material	Finish	t	d	Load Capacity N/2 pcs※ ²	Load Capacity kgf/2 pcs※ ²	Load Capacity N/3 pcs※ ²	Load Capacity kgf/3 pcs※ ²	Weight (g)	Box (pcs)
		170-090-810	SA120-5314-01	Aluminium	Anodised	4	φ 5	196	20	294	30	175	2
		170-090-811	SA180-5814-01	Alloy			φ 8	392	40	588	60	260	2
		170-090-812	SA120-5314-05	Stainless Steel	Plain	2.5	φ 5.5	196	20	294	30	303	2
		170-090-813	SA180-5814-05	(SUS304)		3	φ 9	392	40	588	60	526	2

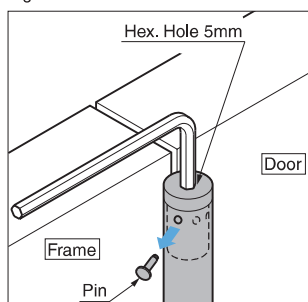
Refer to **1** : P.713, **2** : P.710

SPRING HINGE ST150-6314-05

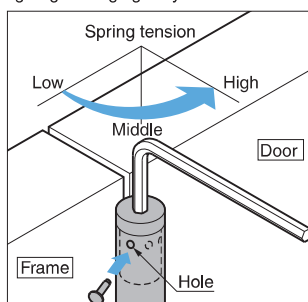
SUS

**[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.

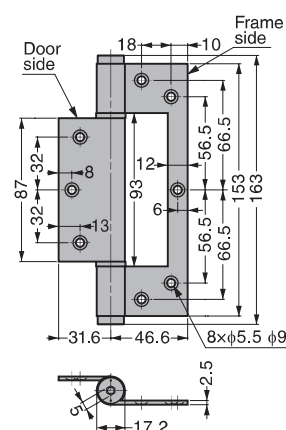
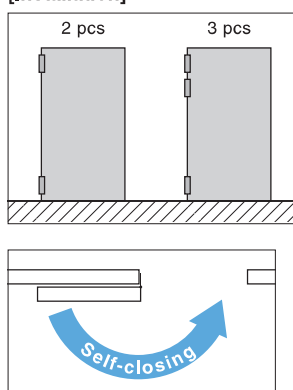


Adjust spring tension with three steps. Put the pin to the hole and fix.

- 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.
- Soft-close by using with LAPCON DOOR DAMPER LDD-S **1** and LDD-V **2** (in case of door weight 15 to 40kg).
- Aluminium hinge also available by made to order.

[Remarks]

- In case of noise, apply lubricant (grease) to washer and torsion spring.

[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)
		170-022-486	ST150-6314-05	Stainless Steel (SUS304)	Plain	400	40	600	60	336	2

Refer to **1** : P.713, **2** : P.710

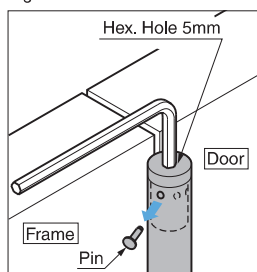
ALUMINIUM SPRING LIFT-OFF HINGE PM120



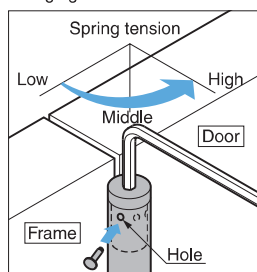
Picture above is PM120-524401L.

[How to Adjust Spring Tension]

Figure below shows the case of left-hanging.



Loosen shaft with a hex key and remove the pin.

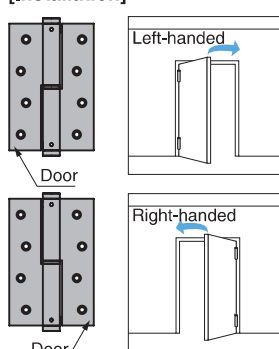


Adjust spring tension with three steps. Put the pin to the hole and fix.

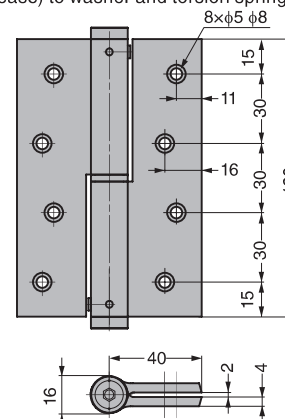
- Spring loaded for self-closing.
- Spring tension adjustable with three steps with a hex key.
- Easy to remove the door.
- Black, white, golden or bronze colours and R10 corner rounding also available by made to order.
- Soft-close by using with LAPCON DOOR DAMPER LDD-S **1** and LDD-V **2** (in case of door weight 15 to 40kg).

[Remarks]

- In case of noise, apply lubricant (grease) to washer and torsion spring.

[Installation]

Use right-handed hinge if door is hung on the right (viewing from the side of pulling the door).



Left-handed type.

※ ¹ After the door is closed, leaves are not parallel to each other.

※ ² The value in case of door width 1000mm or less

RoHS	CAD	Item Code	Item Name	Type	Material	Finish	Load Capacity N/2 pcs ※ ²	Load Capacity kgf/2 pcs ※ ²	Load Capacity N/3 pcs ※ ²	Load Capacity kgf/3 pcs ※ ²	Weight (g)	Box (pcs)
		170-022-484	PM120-524401L	Left-handed	Aluminium	Anodised	200	20	300	30	172	2
		170-022-485	PM120-525401R	Right-handed	Alloy							2

Refer to **1** : P.713, **2** : P.710

SPRING HINGE (DOUBLE ACTION) DA

Passed 500,000 open/
close private cycle test

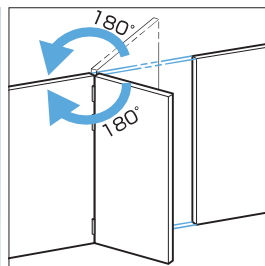
- Opens in both directions inside and outside.
- Spring loaded for self-closing.
- Spring tension adjustable with three steps with a hex key.
- Opening angle is 180°.
- All parts including shaft and spring made of stainless steel (SUS304).

[Relationship Between Door Height and Door Weight]

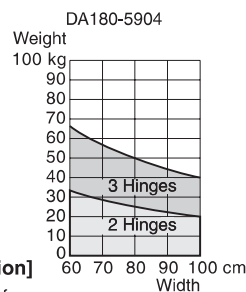
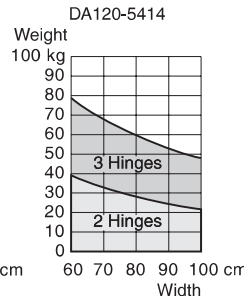
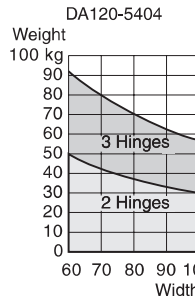
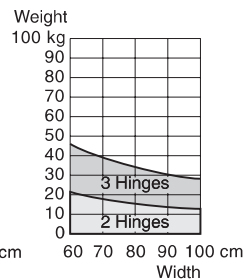
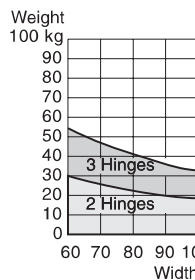
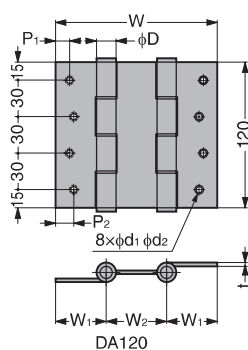
	DA120	DA180
Recommended Door Height	1800~2500 mm	
Min. Door Height	500 mm	800 mm
Door Weight	Door Height: Max. 1800mm	
	Reduce by 1.1 kg for lowering 100mm each time.	Reduce by 2.1kg for lowering 100mm each time.

[Remarks]

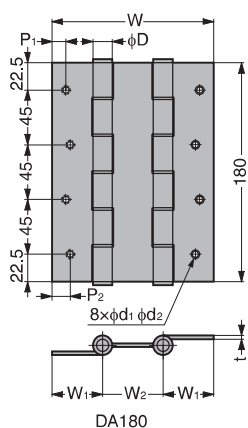
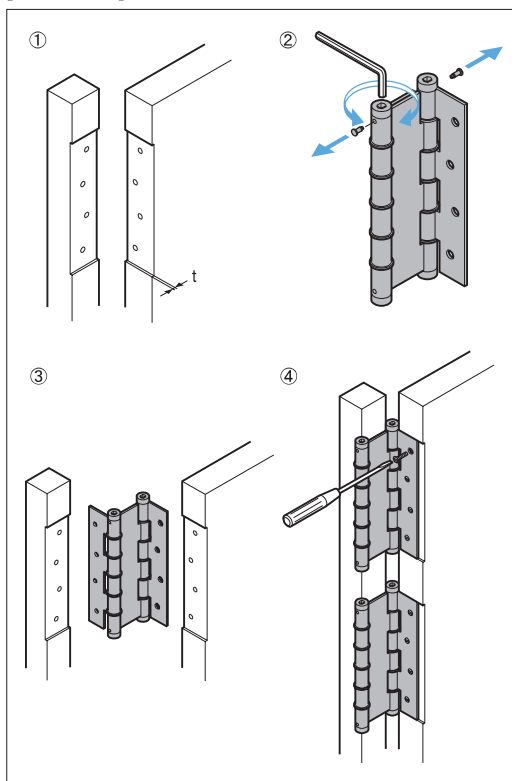
- In case of noise, apply lubricant (grease) to washer and torsion spring.



Hinges for double action door.

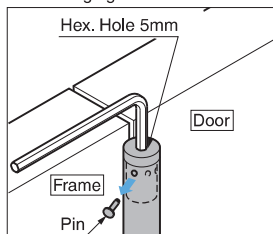


[Installation]

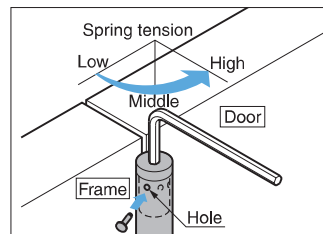


[How to Adjust Spring Tension]

- 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	W ₁	W ₂	P ₁	P ₂	D	t	d ₁	d ₂	Max. Door Thickness	Opening Angle	Screw	Weight (g)	Box (pcs)
		170-090-803	DA120-5404-01	Aluminium Alloy	Anodised	101	29.5	42	6.5	11.5	16	4	5	8	30	180°	—	275	2
		170-090-804	DA120-5414-01			40	320	2											
		170-090-805	DA120-5414-05			Stainless Steel (SUS304)	Plain	133	40	53					11			16	17
		170-090-806	DA180-5904-01	Aluminium Alloy	Anodised	101	29.5	42	6.5	11.5	16	4	5	8	30		—	407	2
		170-090-807	DA180-5914-01			40	466	2											
		170-090-808	DA180-5914-05			Stainless Steel (SUS304)	Plain	133	40	53					11			16	18
		170-090-809	DA180-5934-01	Aluminium Alloy	Anodised	157	48.5	60	19.5	24.5	16	4	5	8	50			510	2

CLEAN ROOM HINGE HG-CV-127

SUS



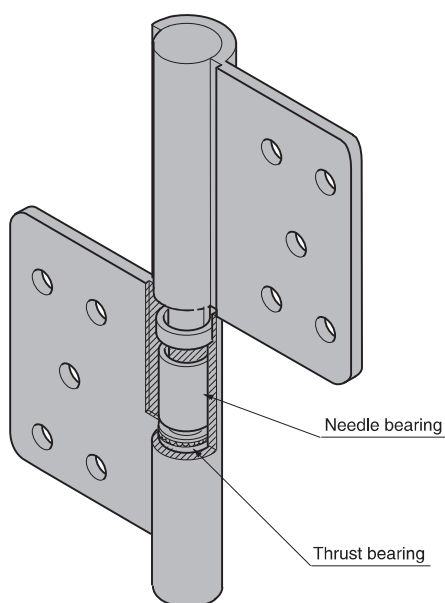
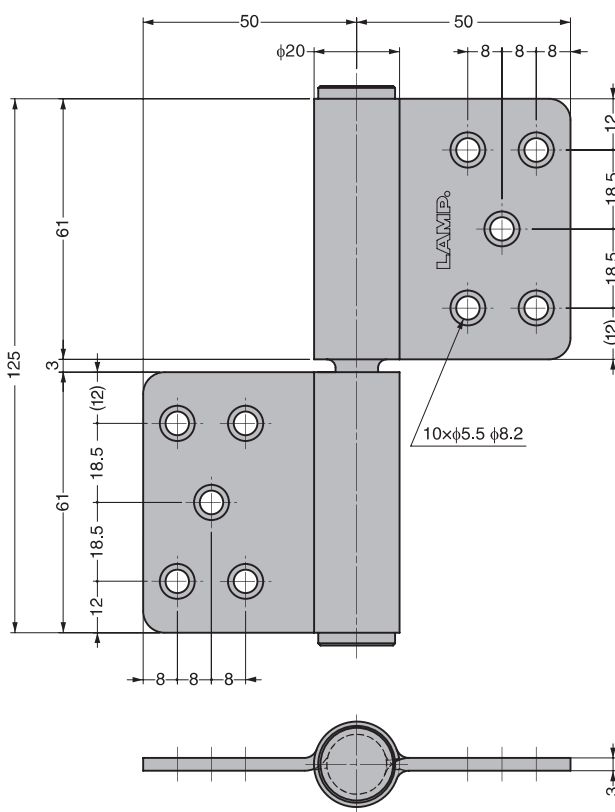
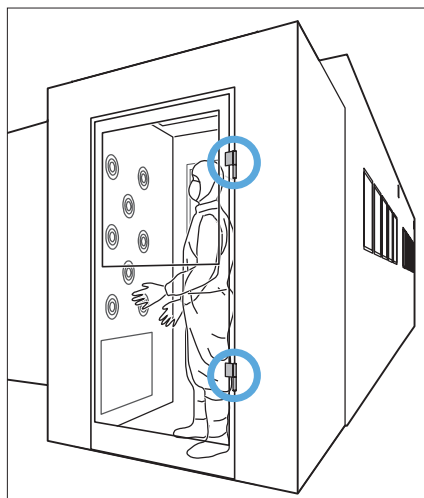
- Suitable for use in a clean room.
- Built-in thrust bearing and needle bearing reduce metal-to-metal friction.
- Seal of rotating part prevents metal powder from scattering.
- Welded curl part provides excellent durability.

[Applications]

- Semiconductor manufacturing equipment, clean room, etc.

[Remarks]

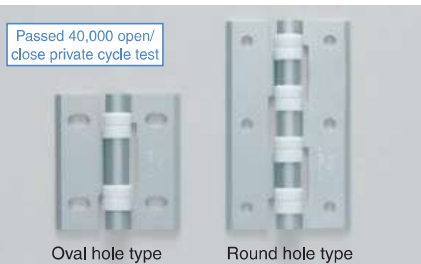
- Install the shaft downwards on the door side.
- Load capacity and open/close test under the following conditions: door size H2000×W900mm, door weight 100kg, two hinges used, installation pitch 1600mm.

**[Application Example]**

Drawing above is HG-CV-127R.

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

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)
		170-013-013	HG-CV-127L	Left-handed	Stainless Steel (SUS304)	Satin	981	100	388	5	50
		170-014-422	HG-CV-127R	Right-handed						5	50



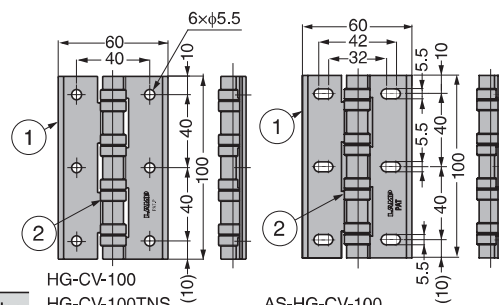
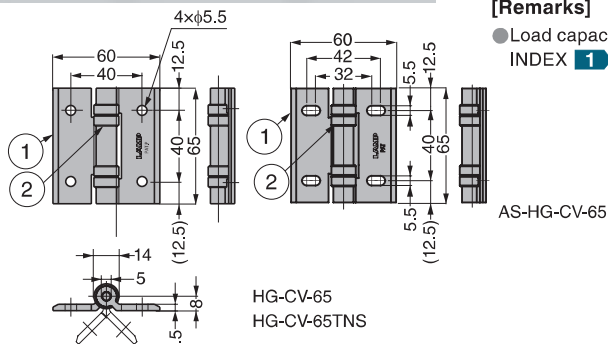
- Plastic caps at rotating part prevent metal-to-metal friction and metal powder scattering.
- When opening and closing door, plastic caps will not interfere with frame .
- Aluminium alloy material, light weight and excellent design.
- Round hole type, precision type and oval hole type available. For 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** .



RoHS	CAD	Item Code	Item Name	Type	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-091-441	HG-CV-65	Round	147	15	50	20	240
		170-091-442	HG-CV-100	Hole Type	226	23	78	20	160
		170-099-151	HG-CV-65TNS	Precision	147	15	50	20	240
		170-099-152	HG-CV-100TNS	Type	226	23	78	20	160
		170-090-537	AS-HG-CV-65	Oval Hole	147	15	49	20	240
		170-090-540	AS-HG-CV-100	Type	226	23	76	20	160

Refer to **1** : P.15

Reference door weight (HG-CV65): 8kg

Reference door weight (HG-CV100): 13kg

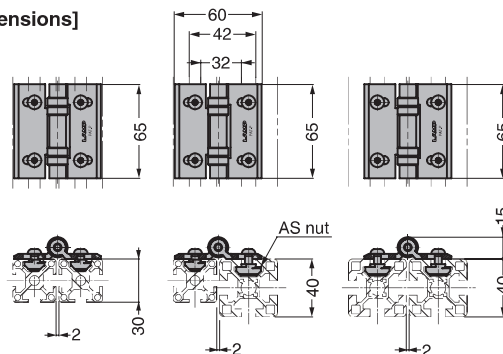
(In case of door size W600 × 800, using 2 pcs vertically)

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)
	–	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 x 10: 4 pcs	–
	–	170-041-528	AS-HG-CV65-30-8	Groove width 8 mm	Hinge AS-HG-CV-65: 1pc AS nut AS-8M5: 4 pcs	–
	–	170-041-529	AS-HG-CV65-40-8		Hexagon socket head cap screw M5 x 14: 4 pcs	–
	–	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 x 14: 4 pcs	–
	–	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 x 10: 6pcs	–
	–	170-041-532	AS-HG-CV100-30-8	Groove width 8 mm	Hinge AS-HG-CV-100: 1pc AS nut AS-8M5: 6pcs	–
	–	170-041-533	AS-HG-CV100-40-8		Hexagon socket head cap screw M5 x 14: 6pcs	–
	–	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 x 14: 6pcs	–

Refer to **1** : FRONT P.20, **2** : P.706

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.

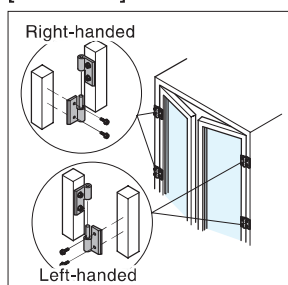
[Applications]

- 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**.

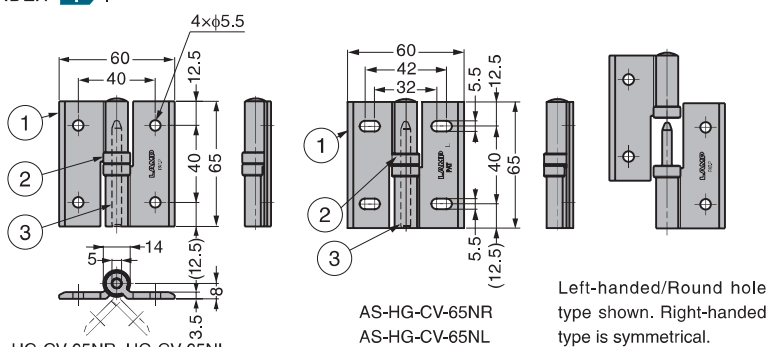
[Installation]



Reference door weight: 8kg

(In case of door size W600 x 800, using 2 pcs vertically)

RoHS	CAD	Item Code	Item Name	Description	Load Capacity N/2 pcs	Load Capacity kg/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-091-452	HG-CV-65NR	Right-handed/Round Hole	108	11	49	20	240
		170-091-451	HG-CV-65NL	Left-handed/Round Hole			20	20	240
		170-090-538	AS-HG-CV-65NR	Right-handed/Oval Hole			48	20	240
		170-090-539	AS-HG-CV-65NL	Left-handed/Oval Hole			20	20	240

Refer to **1** : P.15

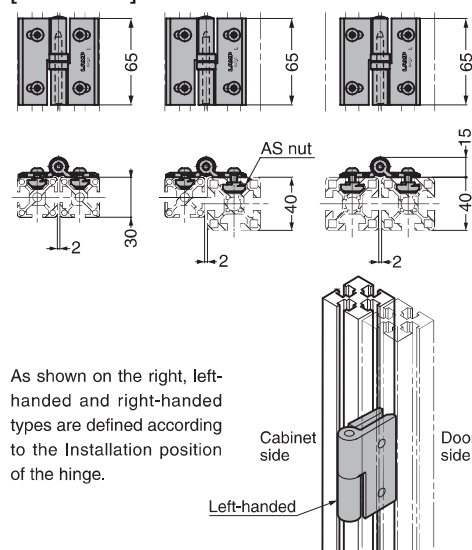
No.	Part Name	Material	Finish / Colour
①	Body	Aluminium Alloy	Anodised Silver
②	Cover	POM	White
③	Shaft	Stainless Steel (SUS303)	Plain



Parts Set For Installing to Aluminium Frame

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

[Dimensions]

Refer to **1** : FRONT P.20, **2** : P.706

[AS Parts Set] Parts set of screws and AS nuts

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (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 x 10: 4pcs	—
		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 x 10: 4pcs	—
		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 x 10: 4pcs	—
		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 x 10: 4pcs	—
		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 x 14: 4pcs	—
		170-041-541	AS-HG-CV65NL-40-8	Groove Width 10 mm	Hinge AS-HG-CV-65NL: 1pc AS Nut AS-8M5: 4pcs Hexagon Socket Head Cap Screw M5 x 14: 4pcs	—
		170-041-538	AS-HG-CV65NR-40-10		Hinge AS-HG-CV-65NR: 1pc AS Nut AS-10M5: 4pcs Hexagon Socket Head Cap Screw M5 x 14: 4pcs	—
		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 x 14: 4pcs	—

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

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]

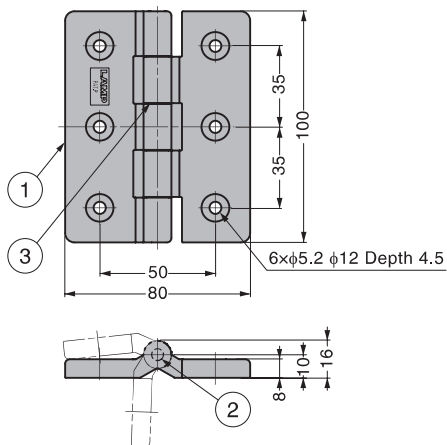
- Semiconductor manufacturing equipment, liquid crystal manufacturing equipment, etc.

[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)



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)
		170-020-836	HG-P100	98	10	74	30	240

Refer to 1 : P.15

BUTT HINGE FOR ALUMINIUM FRAME AS-HG-IS

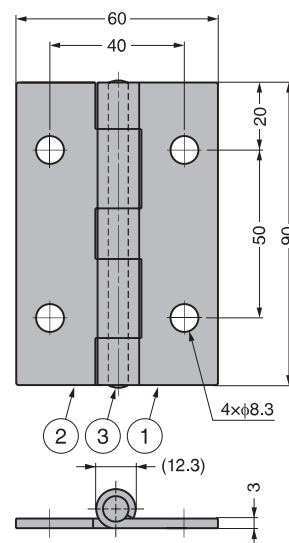
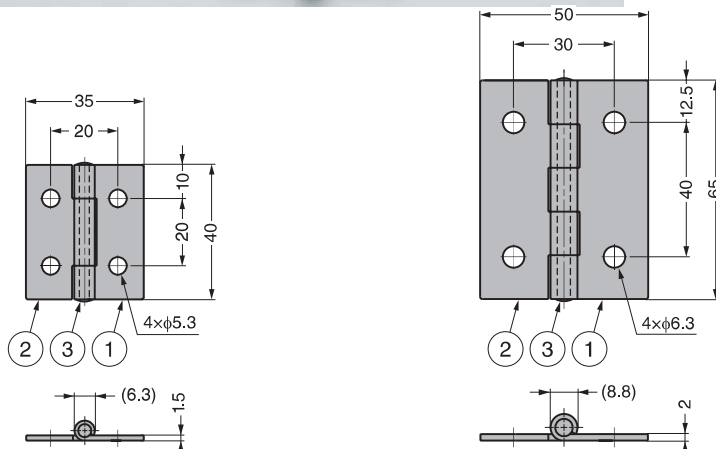
SUS



- 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.



RoHS	CAD	Item Code	Item Name	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-098-116	AS-HG-IS40	69	7	21	400	—
		170-098-117	AS-HG-IS65	157	16	99	50	200
		170-098-118	AS-HG-IS90	333	34	169	10	80

Refer to 1 : P.15

No.	Part Name	Material	Finish
①	Body 1	Stainless Steel (SUS304)	Mirror
②	Body 2		Mirror
③	Shaft		—

LIFT-OFF HINGE FOR ALUMINIUM FRAME AS-HG-AL-N



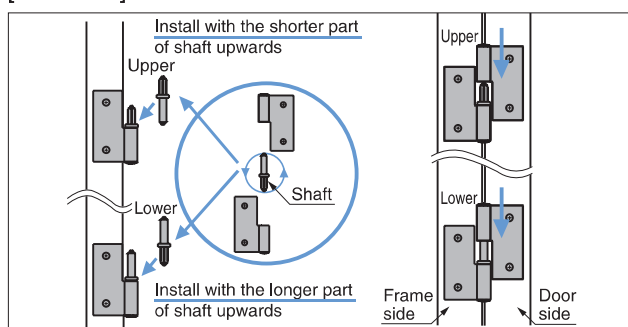
- Aluminium alloy material, light weight and excellent design.
- Resin covering rotating part and shaft end prevents metal-to-metal friction and metal powder scattering.
- Unique shaft design for easy installation
- Shaft with rib will not fall off when door is detached.
- Suitable for aluminium frames from various manufacturers.

[Applications]

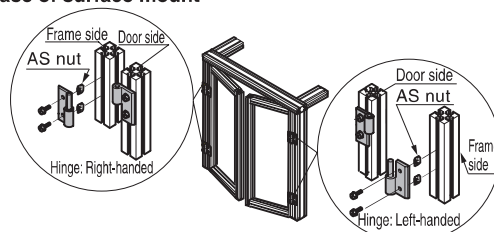
- Semiconductor manufacturing equipment, aluminium frame, household equipment, etc.

[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**.

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES**[Installation]**

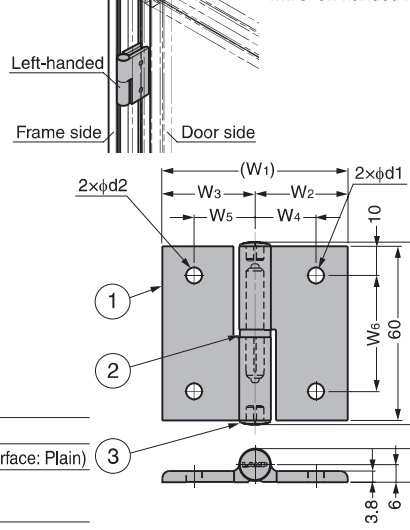
- **Shaft**
Install upper and lower hinges with the longer and shorter part of shaft reversed.
- **Door installation**
Hang the door on to the lower hinge first, and then on to the upper hinge.
Different shaft length reduces installation time.

[Installation]**In case of surface mount**

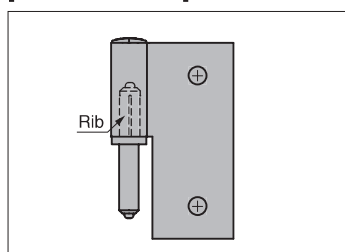
As shown above, in case of surface mount, use left-handed hinge for right-hanging while right-handed hinge for left-hanging.

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.



Right-handed/Round hole type shown. Left-handed type is symmetrical.

[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.

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	W ₁	W ₂	W ₃	W ₄	W ₅	W ₆	d ₁	d ₂	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-018-210	AS-HG-AL-NL3020	Round Holes, Left-handed	43	18		11			4.5		78	8	34	20	240
		170-018-209	AS-HG-AL-NR3020	Round Holes, Right-handed			25		16						34	20	240
		170-018-212	AS-HG-AL-NL3030	Round Holes, Left-handed	50										37	20	240
		170-018-211	AS-HG-AL-NR3030	Round Holes, Right-handed		25			16		5.5				37	20	240
		170-018-214	AS-HG-AL-NL3040	Round Holes, Left-handed	57					40	5.5				40	20	240
		170-018-213	AS-HG-AL-NR3040	Round Holes, Right-handed											40	20	240
		170-020-921	AS-HG-AL-NL4020	Round Holes, Left-handed	50	18	32	11	21		4.5				38	20	240
		170-020-920	AS-HG-AL-NR4020	Round Holes, Right-handed											38	20	240
		170-018-216	AS-HG-AL-NL4040	Round Holes, Left-handed	64	32		21			5.5				46	20	240
		170-018-215	AS-HG-AL-NR4040	Round Holes, Right-handed											46	20	240
		170-020-684	AS-HG-AL-NL3020N	No Holes, Left-handed	43	18									—	—	—
		170-020-685	AS-HG-AL-NR3020N	No Holes, Right-handed			25	—	—	—	—	—			—	—	—
		170-020-686	AS-HG-AL-NL3030N	No Holes, Left-handed	50										—	—	—
		170-020-687	AS-HG-AL-NR3030N	No Holes, Right-handed		25									—	—	—

Refer to **1** : P.15



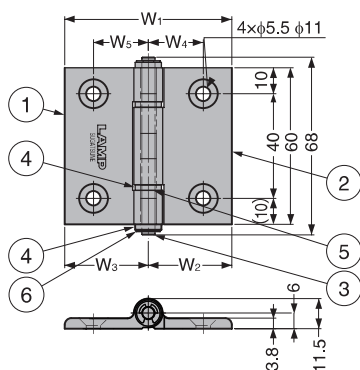
BUTT HINGE FOR ALUMINIUM FRAME AS-HG-AL



- 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**.



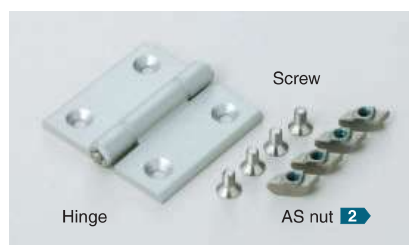
No.	Part Name	Material	Finish / Colour
①	Body A	Aluminium Alloy	Anodised Silver
②	Body B		
③	Shaft	Stainless Steel (SUS303)	Plain
④	Bush	POM	Natural
⑤	Washer	PEEK	
⑥	E-type Retaining Ring	Stainless Steel (SUS304)	–

RoHS	CAD	Item Code	Item Name	W ₁	W ₂	W ₃	W ₄	W ₅	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-011-679	AS-HG-AL-M3020	43	18		11		147	15	41	20	300
		170-011-680	AS-HG-AL-M3030	50	25	25	16	16			45	20	300
		170-011-681	AS-HG-AL-M3040	57	32		21				48	20	300
		170-011-682	AS-HG-AL-M4040	64		32		21			53	20	300

Refer to **1** : P.175, **2** : P.15



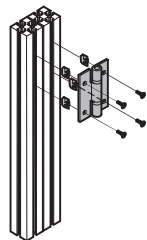
Parts Set for Installing to Aluminium Frame Please refer to the series introduction page **1** for details about AS series.



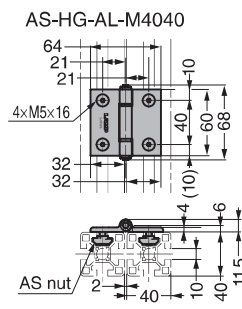
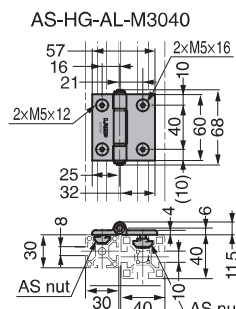
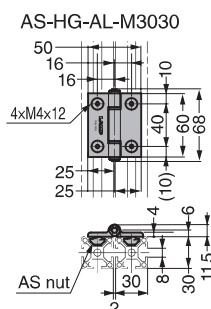
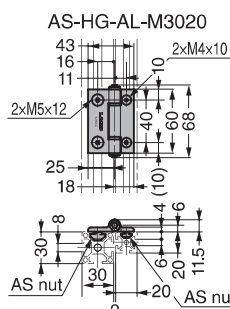
[AS Parts Set] Parts set of screws and AS nuts

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (g)
	–	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 x 12 : 2pcs AS Nut AS-8M4 : 2pcs Hexagon Socket Countersunk Head Screw M4 x 10 : 2pcs	–
	–	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 x 12 : 4pcs	–
	–	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 x 16 : 2pcs AS Nut AS-8M5 : 2pcs Hexagon Socket Countersunk Head Screw M5 x 12 : 2pcs	–
	–	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 x 16 : 4pcs	–
	–	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 x 16 : 4pcs	–

[Installation]



[Dimensions]



Refer to **1** : FRONT P.20, **2** : P.706

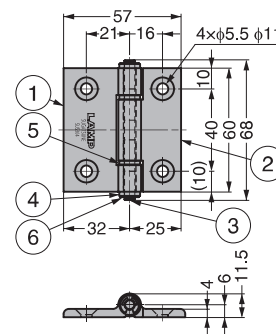
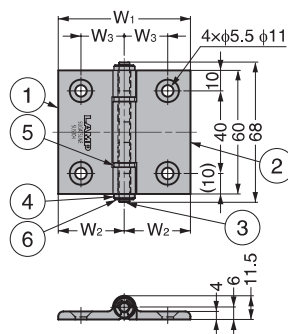
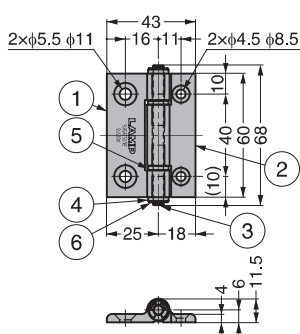
BUTT HINGE FOR ALUMINIUM FRAME AS-HG-SUS



- 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**.



RoHS	CAD	Item Code	Item Name	Drawing	W ₁	W ₂	W ₃	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-011-886	AS-HG-SUS-M3020	Fig.A	-	-	-	294	30	96	10	100
		170-011-887	AS-HG-SUS-M3030	Fig.B	50	25	16			102	10	100
		170-011-888	AS-HG-SUS-M3040	Fig.C	-	-	-			112	10	100
		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 (SUS303)	Plain
④	Bush	POM	Natural
⑤	Washer	PEEK	
⑥	E-type Retaining Ring	Stainless Steel	-

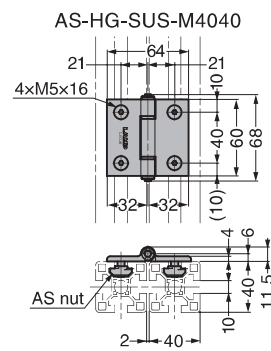
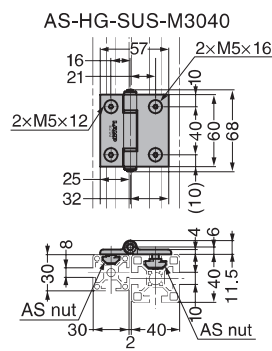
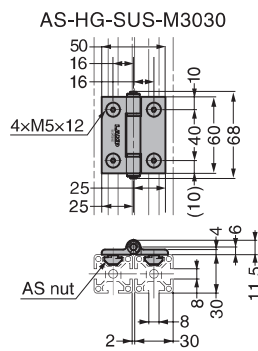
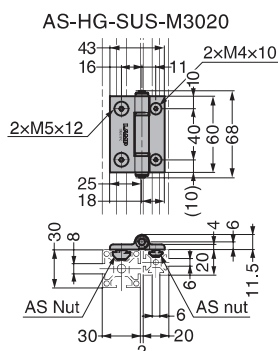
Refer to **1** : P.174, **2** : P.15

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)
	-	170-013-727	AS-HG-SUS-M3020-8	Groove width 6 mm	Hinge AS-HG-SUS-M3020 : 1pc AS Nut AS-8M5 : 2pcs AS Nut AS-6M4 : 2pcs Hexagon Socket Countersunk Head Screw M4 x 10 : 2pcs Hexagon Socket Countersunk Head Screw M5 x 12 : 2pcs	-
	-	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 x 12 : 4pcs	-
	-	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 x 12 : 2pcs Hexagon Socket Countersunk Head Screw M5 x 16 : 2pcs	-
	-	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 x 16 : 4pcs	-
	-	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 x 16 : 4pcs	-

[Dimensions]



Refer to **1** : FRONT P.20, **2** : P.706

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

PIVOT HINGE FOR ALUMINIUM FRAME AS-AF-25D

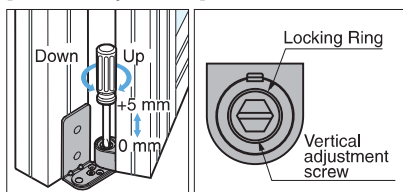


- Compact and space-saving.
- Horizontally and vertically adjustable after door installation.
- Robust structure thanks to 3mm thick stainless steel bracket.
- Door fall-preventing function provides safety.
- Use AS nuts for installation.
- Sold in pairs.

[Remarks]

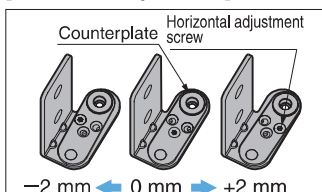
- When installing, ensure that upper and lower hinge shafts are aligned.

[Vertical Adjustment]

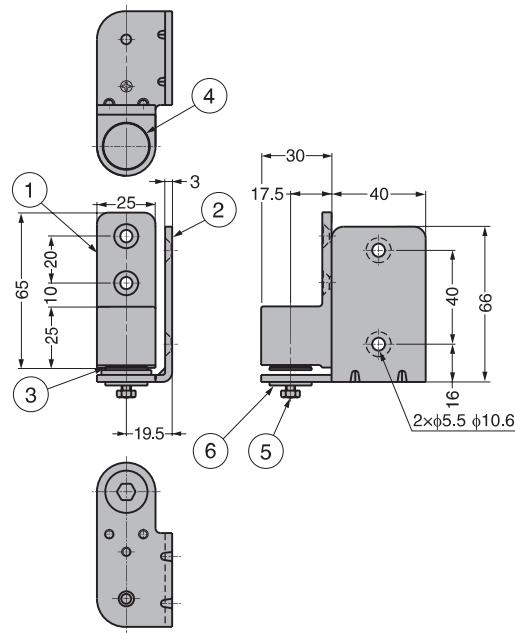


1. Remove the plastic cap from the hinge body.
2. Loosen the lock ring with a hex key.
3. Turn the vertical adjustment screw with a slotted screwdriver to adjust to an arbitrary position. (Adjustment range +5mm)
4. After that, tighten the lock ring to complete.

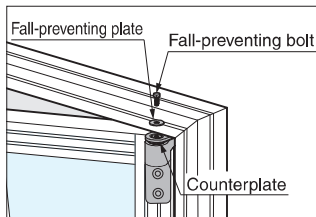
[Horizontal Adjustment]



1. Remove the horizontal adjustment screw from the counterplate.
2. Choose one from the three holes (adjustment position -2mm, 0mm, 2mm) of the counterplate and secure with the horizontal adjustment screw.

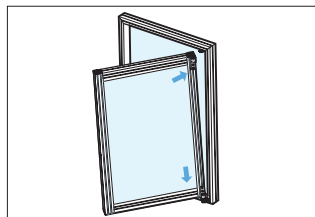


[Fall-preventing]



- After door installation and vertical adjustment, mount the fall-preventing plate and fall-preventing bolt to the top of the upper hinge.
- The fall-preventing bolt prevents the door from accidental falling off.

[How to Install Door]



1. Insert the body of the lower hinge into the counterplate.
2. Install the door while pressing the pivot on the bottom of the body of the upper hinge.
3. Shake the door gently to make sure that it will not come off.

No.	Part Name	Material	Finish / Colour
①	Body	Zinc Alloy (ZDC)	Soft Chrome
②	Bracket	Stainless Steel (SUS304)	Barrel Polished
③	Counterplate	POM	White
④	Cover	ABS	Grey
⑤	Fall-preventing Bolt	Stainless Steel (SUS303)	-
⑥	Fall-preventing Plate	Stainless Steel (SUS304)	

RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Door Thickness	Door Weight kg	Weight (g)	Box (pairs)	Carton (pairs)
-	3D	170-090-693	AS-AF-25D	Max. 900	Max. 2200	33~42	Max. 35	369	1	20

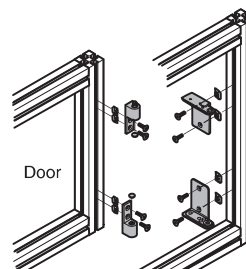


Parts Set for Installing to Aluminium Frame Please refer to the series introduction page 1 for details about AS series.



※Picture above shows 2 sets.

[Installation]



[AS Parts Set] Parts set of screws and AS nuts

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (g)
-	-	170-041-616	AS-AF-25D-40-10-30-8	Groove width 8 mm Groove width 10 mm	Hinge AS-AF-25D : 1 pair AS nut AS-10M5 : 2 pcs Hexagon socket countersunk head screw M5 × 14 : 2pcs AS nut AS-8M5 : 2 pcs Hexagon socket countersunk head screw M5 × 12 : 2pcs	-

Refer to 1 : FRONT P.20, 2 : P.706

DROP HINGE (ADJUSTABLE TYPE) SDH-P



- 3-way adjustment.

Overlay: 16-19mm / Horizontal: ± 1 mm / Door gap: 1-3mm

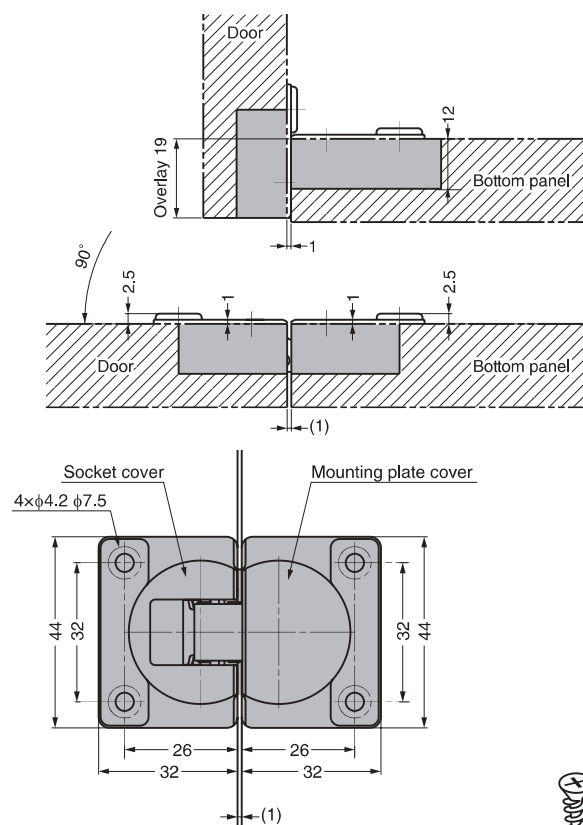
- Can be used with soft-down stay SDS-100 **1**, SDS-100TV, NSDX-10(R/L) **2**, NSDX-10(R/L)K-TV, CSD-10-TV.
- Bore depth: 12mm

[Recommended Screws]

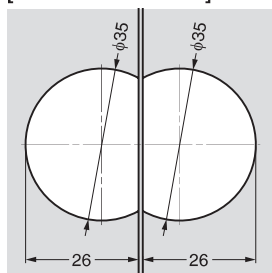
- Pan head tapping screw 3.5 x 15

Hinges and covers are packed separately.

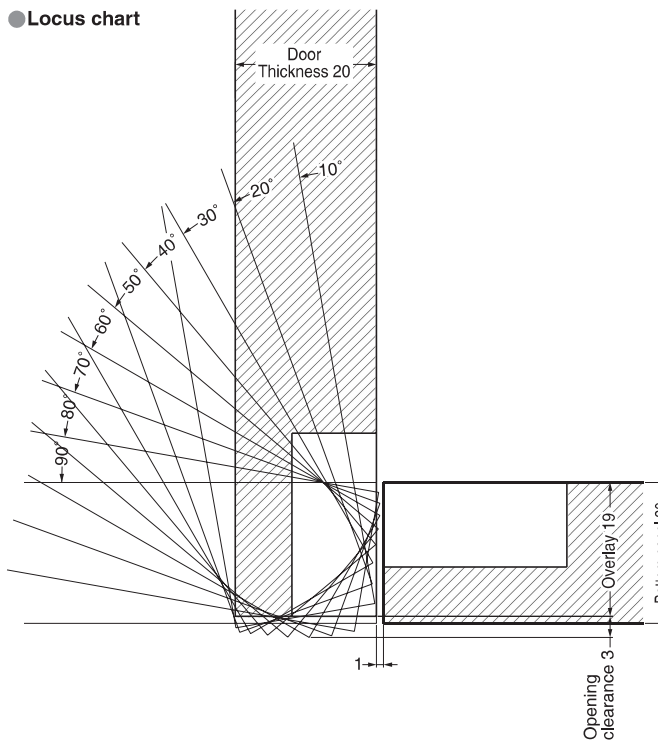
● Outline drawing



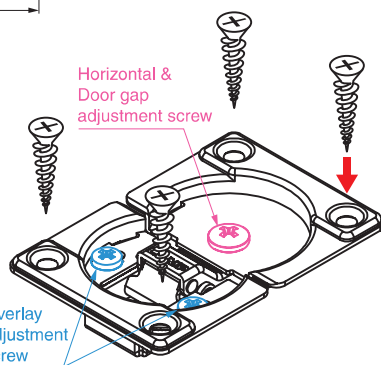
[Cut Out Dimensions]



● Locus chart

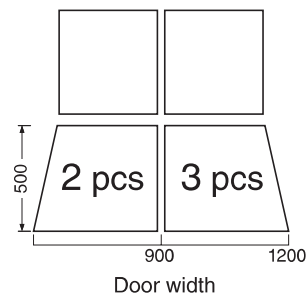


Example (door thickness : 20 mm / bottom panel : 20 mm / overlay : 19 mm)



[Number of Hinges]

In case of door thickness up to 20 mm, Material: Particle board.



[Drop Hinge+Cover]

RoHS	CAD	Item Code	Item Name
		170-035-444	SDH-P-BL-SET
		170-037-357	SDH-P-WT-SET
		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)
		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)
		170-034-769	SDH-PC-BL	Socket Cover + Mounting Plate Cover	ABS	Black	4	100
		170-034-828	SDH-PC-WT			White	4	100
		170-034-829	SDH-PC-NI			Nickel	4	100

Refer to **1** : P.244, **2** : P.242

DROP HINGE (ADJUSTABLE TYPE) SDH-001



- 3-way adjustment, Overlay: 14~16mm / Door gap: +1mm / Horizontal: ± 1 mm
- 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.

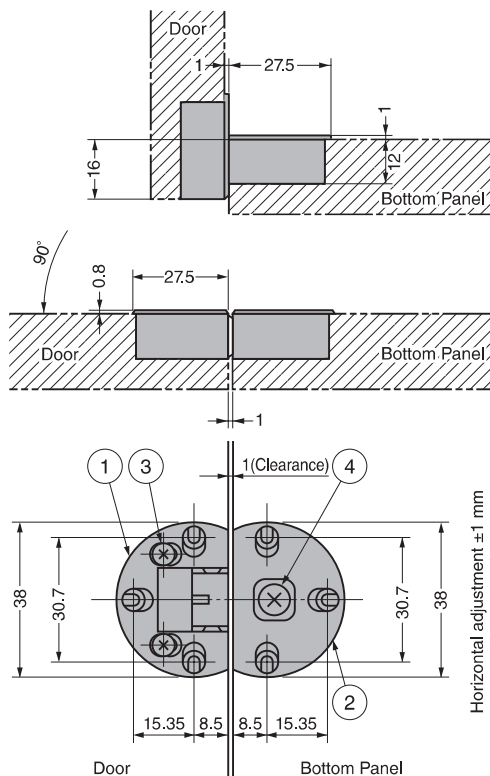
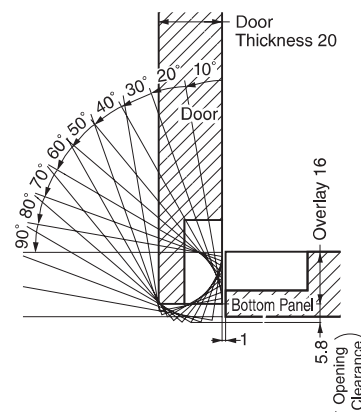
[Remarks]

- Use with a stay for downward-opening.

[Recommended Screws]

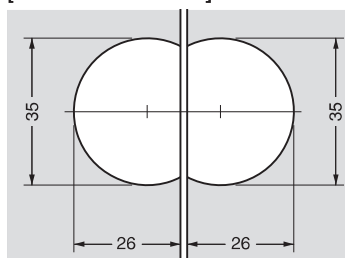
- Pan head tapping screw 3×13

● Outline drawing

● Locus chart (How to Use the Locus Chart **3**)

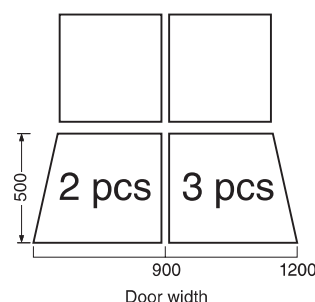
A gap equivalent to opening clearance is required for door opening and closing. Drawing above is door thickness 20 mm, bottom panel thickness 20 mm and 16 mm overlay. The value of opening clearance may change with the door thickness. Please confirm in the locus chart.

[Cut Out Dimensions]



[Number of Hinges]

In case of door thickness up to 20 mm.
Material: particle board.



No.	Part Name	Material	Finish
①	Fixing Socket	Zinc Alloy	Nickel /
②	Mounting Plate	(ZDC)	Black Enamel Finish
③	Overlay Adjustment Screw	Steel	-
④	Body Fixing Screw	(SWCH)	

[Application Example]



Combination with HEAVY DUTY SOFT-DOWN STAY
HDS-10 **4**

[Hinge]

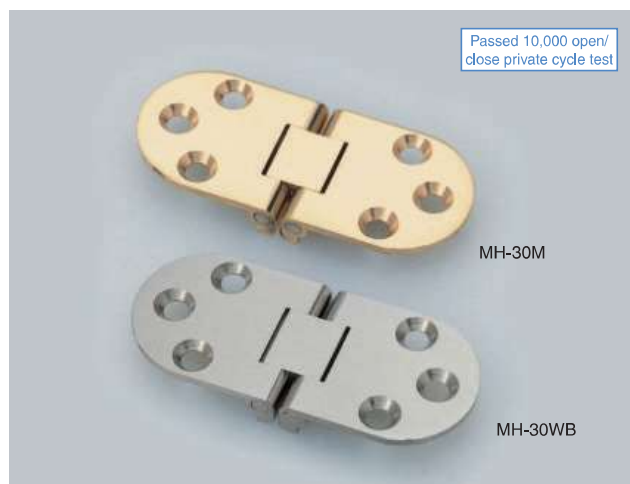
RoHS	CAD	Item Code	Item Name	Material	Finish	Overlay	Recommended Door Thickness	Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
		170-090-471	SDH-001	Zinc Alloy	Nickel	14~16	16~20	90°	85	50	200
-		170-010-648	SDH-001BL	(ZDC)	Black Enamel Finish				85	50	200

Refer to **1** : P.244, **2** : P.242

[Pan Head Tapping Screw 3×13] Black

RoHS	CAD	Item Code	Item Name	1 pack	Weight (g)	Box (pcs)
	-	170-011-885	SDH-001-S-BL	300 pcs	179	300

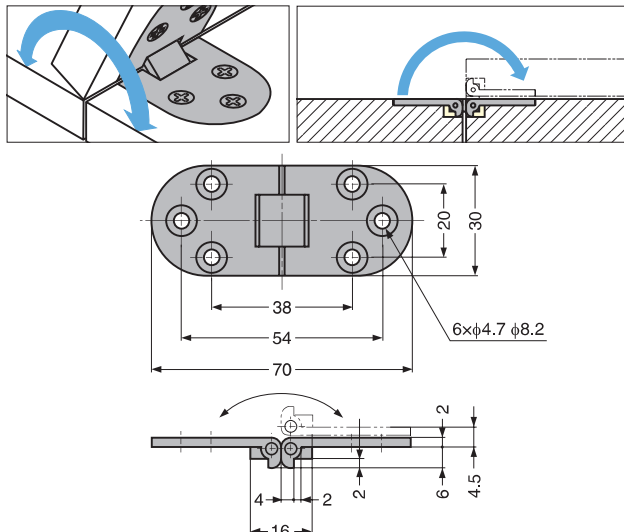
TABLETOP HINGE MH-30



● 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.15

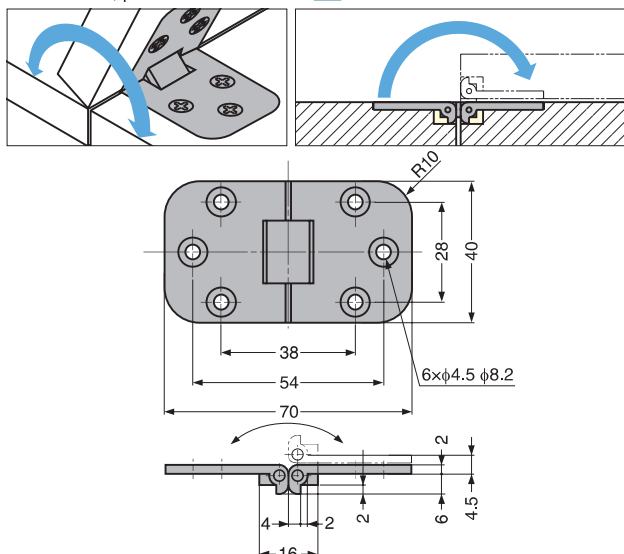
TABLETOP HINGE MH-40



● 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.15

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

GLASS DOOR HINGE **XL-GH03-48-0** For Inset Door

SUS 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.

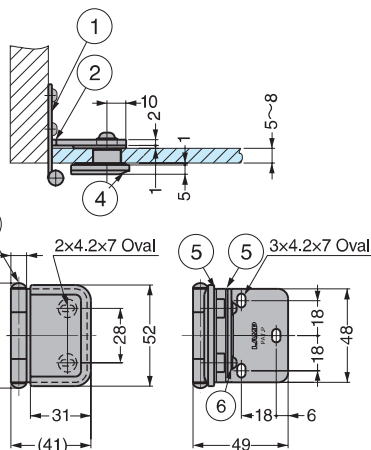
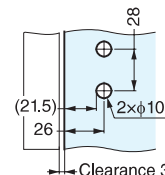
● Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX **1**.

[Parts Included]

● Spacer (2 pcs)

● Truss head screw M4x12 (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	Zinc Alloy (ZDC)	Chrome	Natural
④	Plate			
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)
CE	3D	170-098-651	XL-GH03-48-0CR	Max. 650	Max. 900	5, 6, 8	118	12	132	10	100
-	3D	170-098-652	XL-GH03-48-0GC	650	900	5, 6, 8			144	10	100

Refer to **1** : P.15

※ Load capacity has priority over glass size.

GLASS DOOR HINGE **XL-GH03-48-8** For Overlay Door

SUS 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.

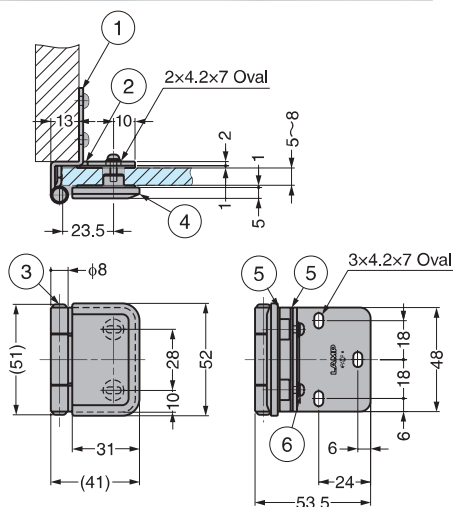
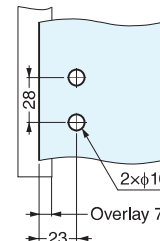
● Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX **1**.

[Parts Included]

● Spacer (2 pcs)

● Truss head screw M4x12 (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	Zinc Alloy (ZDC)	Chrome	Natural
④	Plate			
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)
CE	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	650	900	5, 6, 8			148	10	100

Refer to **1** : P.15

※ 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 $\pm 1\text{mm}$, Horizontally $\pm 1.2\text{mm}$.
- Inset door hinge is also available.

[Remarks]

- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX 1.

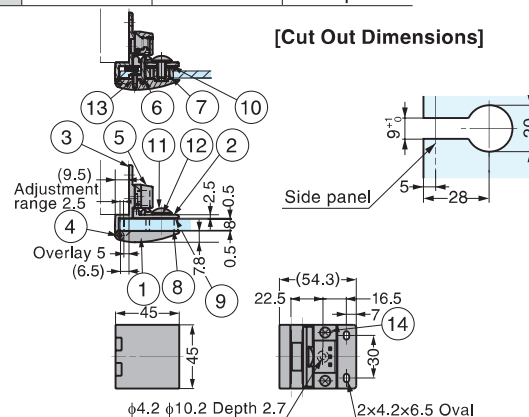
[Recommended Screws]

- 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
②	Fixing Plate C		CR: Chrome
③	Hinge Plate		GC: Gold
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		



RoHS	CAD	Item Code	Item Name	Finish	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kg/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.15

※ 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 $\pm 1\text{mm}$, Horizontally $\pm 1.2\text{mm}$.
- 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.

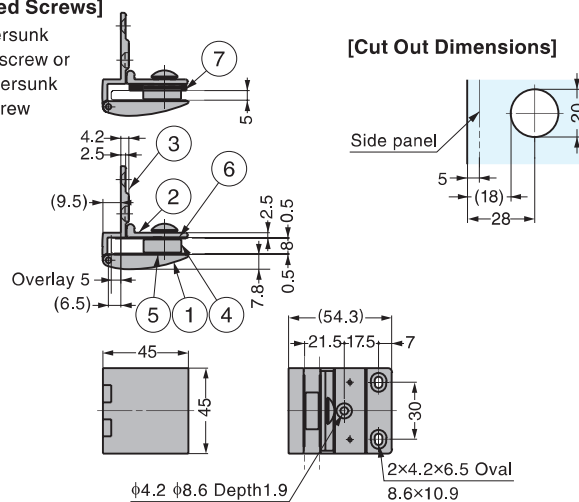
[Recommended Screws]

- 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
②	Fixing Plate B		CR: Chrome
③	Hinge Plate		GC: Gold
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		



RoHS	CAD	Item Code	Item Name	Finish	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kg/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.181, 2 : P.15

※ Load capacity has priority over glass size.

GLASS DOOR LIFT-OFF HINGE GH36-NCR For Inset Door

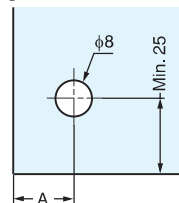


● Hinge for glass/acrylic doors.

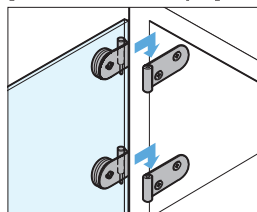
[Remarks]

- 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]

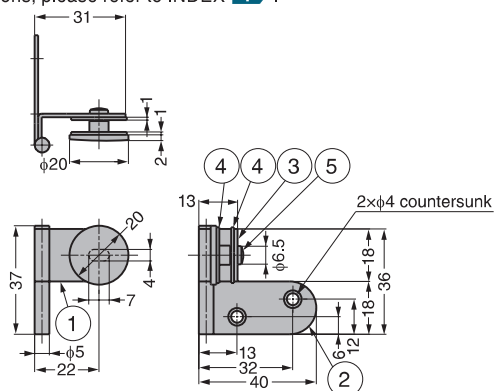


[Installation Example]



Boring position changes with the glass thickness.

Glass Thickness	A
4	19
5	18
6	17



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

No.	Part Name	Material	Finish / Colour
①	Body (Male)	Steel (SPCC)	Chrome
②	Body (Female)		
③	Plate	Brass	Clear
④	Washer	PVC	
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	170-097-958	GH36-NCRR	Right-handed	Max.	Max.	4, 5, 6	39	4	24.5	100	400
—	3D	170-097-957	GH36-NCRL	Left-handed	Max.	Max.	4, 5, 6	39	4	24.5	100	400

Refer to 1 : P.15

※ Load capacity has priority over glass size.

TORQUE
HINGES

DAMPER
HINGES

LIFT
ASSIST
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DETENT
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CONCEALED
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BUTT
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SPRING
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CLEAN
ROOM
HINGES

HINGES FOR
ALUMINIUM
FRAME

DROP
HINGES

GLASS
DOOR
HINGES

SPECIAL
HINGES

GLASS DOOR HINGE **GH34-0** For Inset Door

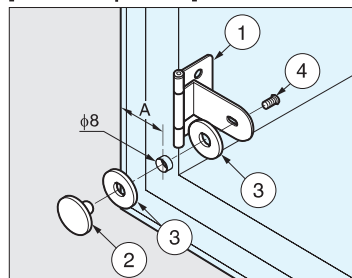
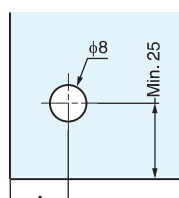
TEMPERED GLASS



● 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
②	Plate	Brass	
③	Washer	PVC	Clear
④	Screw	Steel	Nickel, Paint/Black

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	170-083-513	GH34-0CR	Chrome	Max.	Max.	4, 5, 6	39	4	23.5	150	900
—	3D	170-025-831	GH34-0BL	Paint/Black	450	700					150	900

Refer to **1** : P.183, **2** : P.15

※ Load capacity has priority over glass size.

GLASS DOOR HINGE **GH34-0CR-K** For Inset Door

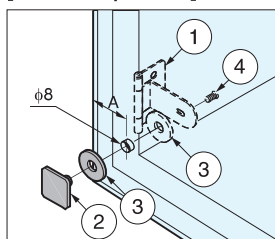
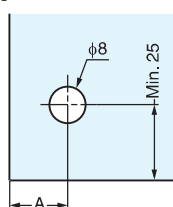
TEMPERED GLASS



- 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.183, **2** : P.15

※ Load capacity has priority over glass size.

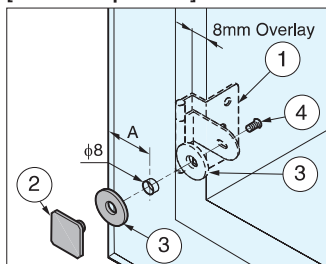
GLASS DOOR HINGE **GH34-8CR-K** For Overlay Door

- Hinge for glass/acrylic doors.
- Round plate type GH34-8CR **1** also available.

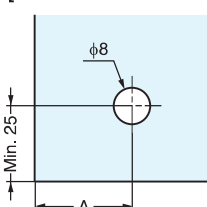
[Remarks]

- 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)
		170-019-482	GH34-8CR-K	Max. 450	Max. 700	4, 5, 6	39	4	37	50	500

Refer to **1** : P.189, **2** : P.15

※ Load capacity has priority over glass size.

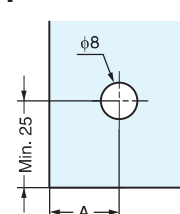
GLASS DOOR HINGE (W/ CATCH) **GHC34-8CR-K** For Overlay Door

- Hinge for glass/acrylic doors.
- Round plate type GHC34-8CR **1** also available.

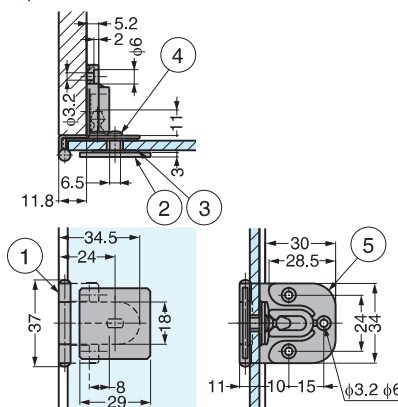
[Remarks]

- 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.



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)
		170-019-480	GHC34-8CR-K	Max. 450	Max. 700	4, 5, 6	39	4	43	40	600

Refer to **1** : P.191, **2** : P.15

※ Load capacity has priority over glass size.

GLASS DOOR HINGE GH34-OSS For Inset Door

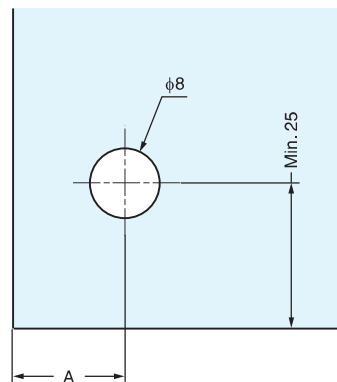


● Hinge for glass/acrylic doors.

[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.

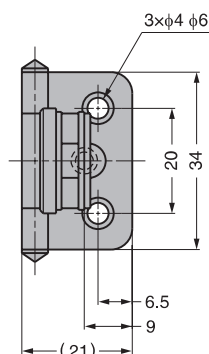
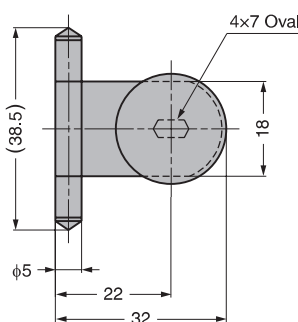
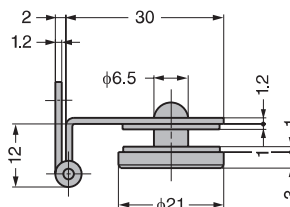
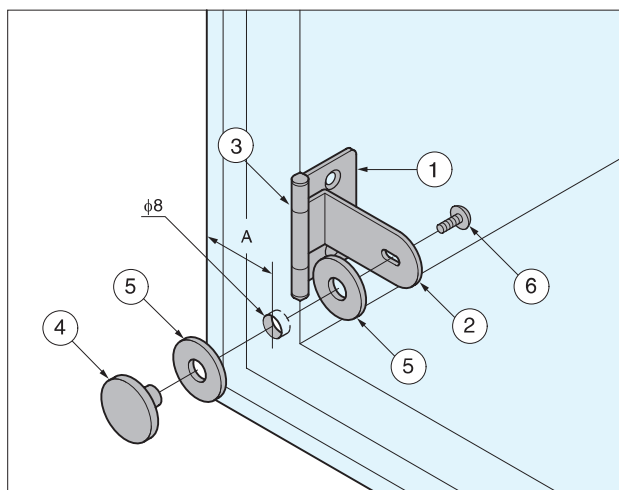
[Cut Out Dimensions]



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

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

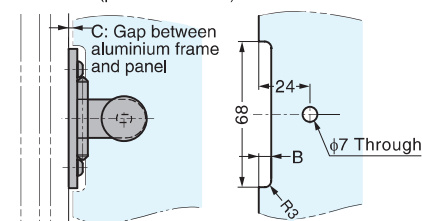
RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-083-529	GH34-OSS	Max. 450	Max. 700	4, 5, 6	49	5	15	150	900

Refer to 1 : P.15

※ Load capacity has priority over glass size.

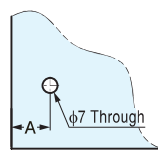
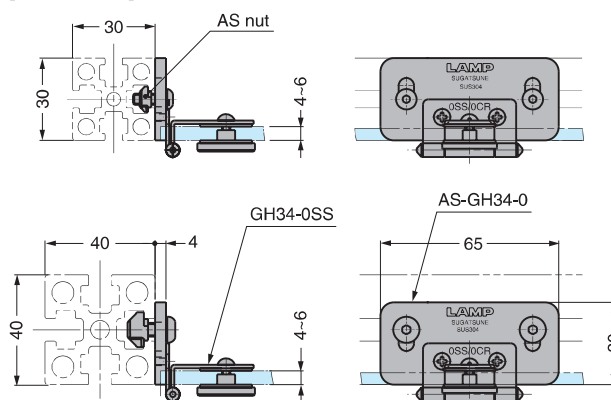
TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES**AS Parts Set for Installing to Aluminium Frame** Please refer to the series introduction page [1](#) for details about AS series.

Installation (panel with notch)

Panel with notch
Cut Out Dimensions

Panel Thickness	B	C
4	5	2
5	6	2
6	7	2

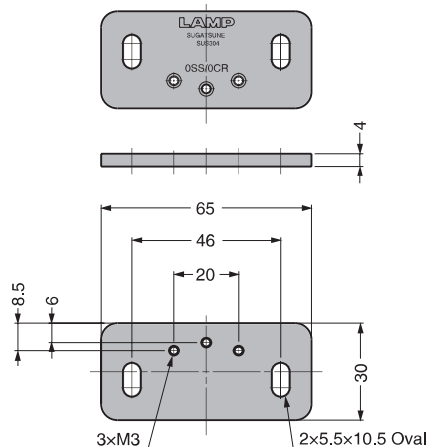
[Dimensions]

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)
		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 x 5 : 3pcs Bracket AS-GH34-0 : 1pc Hexagon Socket Button Head Screw M4 x 12 : 2pcs	—
		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 x 5 : 3pcs Bracket AS-GH34-0 : 1pc Hexagon Socket Button Head Screw M4 x 12 : 2pcs	—
		170-041-606	AS-GH34-0SS-40-8		Hinge GH34-0SS : 1pc AS Nut AS-8M5 : 2pcs Countersunk Head Screw M3 x 5 : 3pcs Bracket AS-GH34-0 : 1pc Hexagon Socket Button Head Screw M5 x 14 : 2pcs	—
		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 x 5 : 3pcs Bracket AS-GH34-0 : 1pc Hexagon Socket Button Head Screw M5 x 14 : 2pcs	—

Refer to **1** : FRONT P.20, **2** : P.706**AS BRACKET FOR GH34-0SS AS-GH34-0**

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
		170-080-020	AS-GH34-0	Stainless Steel (SUS304)	Barrel Polished	52	50	250

GLASS DOOR HINGE GH34-8SS For Overlay Door

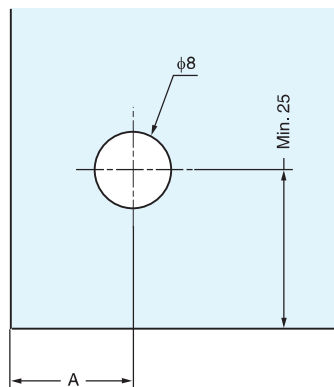


● Hinge for glass/acrylic doors.

[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**.

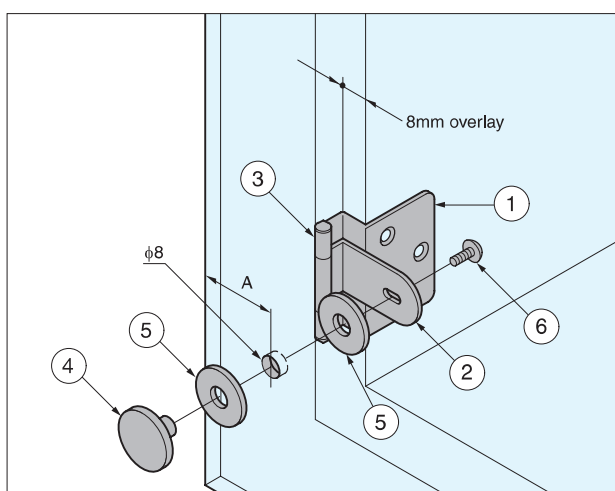
[Cut Out Dimensions]



Boring position changes with the glass thickness.

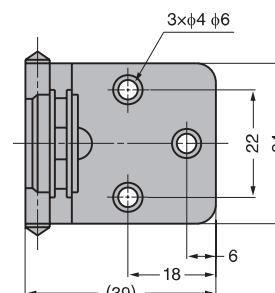
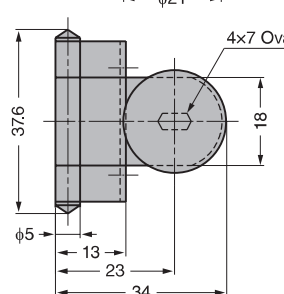
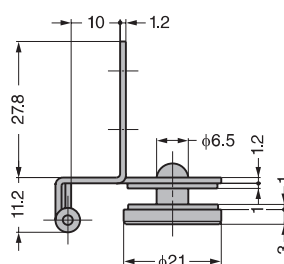
Glass Thickness	A	Overlay
4	19	8
5	18	7
6	17	6

[Parts Composition]



No.	Part Name	Material	Finish / Colour
①	Body	Stainless Steel (SUS304)	Plain
②	Arm		
③	Shaft	Stainless Steel	Circular Satin Anodised Silver
④	Plate	Aluminium Alloy	
⑤	Washer	PVC	Clear
⑥	※Screw	Stainless Steel	Plain

※Truss head screw M3×6



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

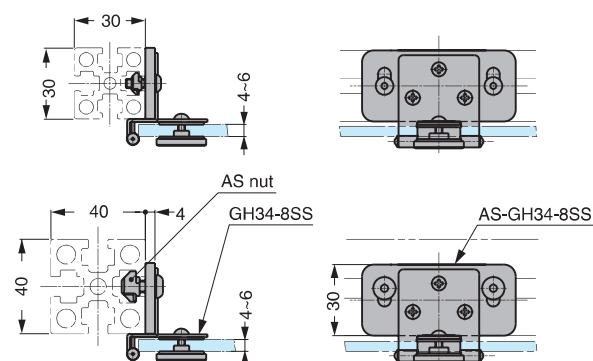
GLASS
DOOR
HINGES

SPECIAL
HINGES

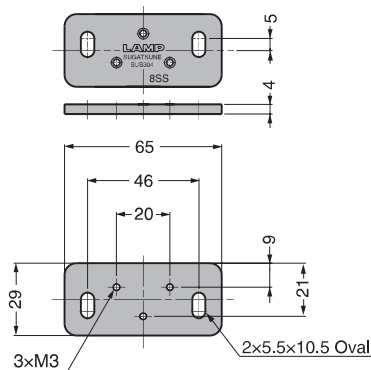
RoHS	CAD	Item Code	Item Name	Door Width	Door Height	Glass Thickness	Load Capacity N/2 pcs	Load Capacity kgf/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-083-530	GH34-8SS	Max. 450	Max. 700	4, 5, 6	49	5	21	100	600

Refer to **1** : P.15

※ Load capacity has priority over glass size.

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES**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)
		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 x 5 : 3pcs Bracket AS-GH34-8SS : 1pc Hexagon Socket Button Head Screw M4 x 12 : 2pcs	—
		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 x 5 : 3pcs Bracket AS-GH34-8SS : 1pc Hexagon Socket Button Head Screw M4 x 12 : 2pcs	—
		170-041-586	AS-GH34-8SS-40-8		Hinge GH34-8SS : 1pc AS Nut AS-8M5 : 2pcs Countersunk Head Screw M3 x 5 : 3pcs Bracket AS-GH34-8SS : 1pc Hexagon Socket Button Head Screw M5 x 14 : 2pcs	—
		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 x 5 : 3pcs Bracket AS-GH34-8SS : 1pc Hexagon Socket Button Head Screw M5 x 14 : 2pcs	—

Refer to **1** : FRONT P.20, **2** : P.706**AS BRACKET FOR GH34-8SS AS-GH34-8SS**

RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
		170-080-021	AS-GH34-8SS	Stainless Steel (SUS304)	Barrel Polished	52	50	500

GLASS DOOR HINGE **GH34-8** For Overlay Door



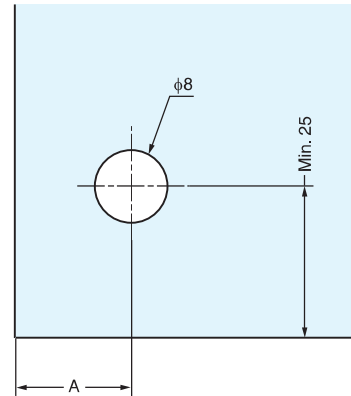
Passed 30,000 open/
close private cycle test

● 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** .

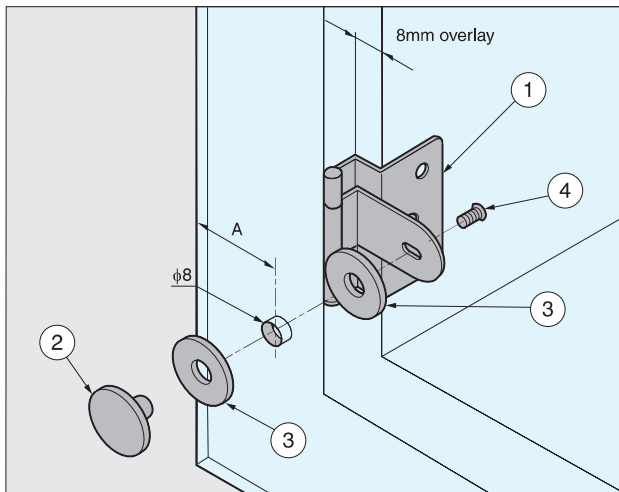
[Cut Out Dimensions]



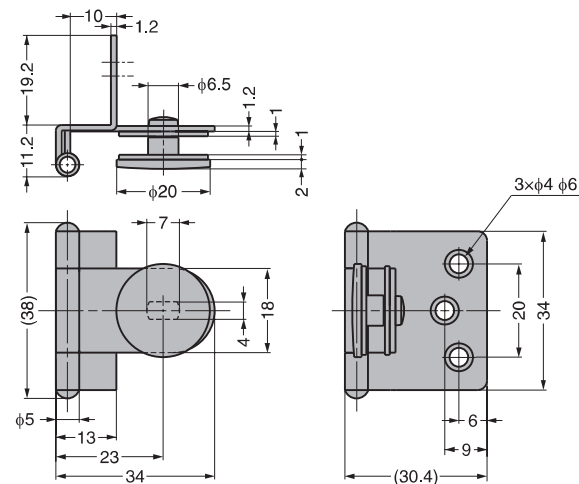
Boring position changes with the glass thickness.

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
②	Plate	Brass	
③	Washer	PVC	Clear
④	Screw	Steel	Nickel, Paint/Black



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)
-		170-083-528	GH34-8CR	Chrome	Max.	Max.	4, 5, 6	Max. 4	39	4	25	50	500
-		170-025-832	GH34-8BL	Paint/Black	450	700						50	500

Refer to **1** : P.184, **2** : P.15

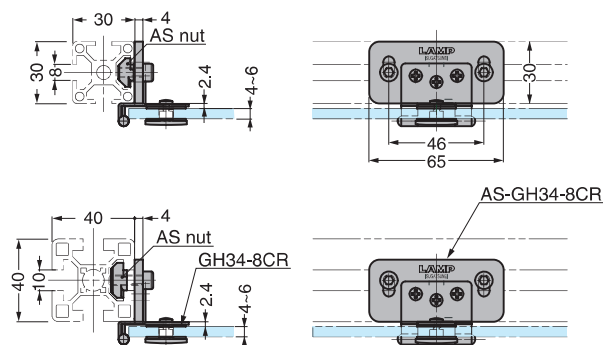
※ Load capacity has priority over glass size.

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

AS Parts Set for Installing to Aluminium Frame

Please refer to the series introduction page [1](#) for details about AS series.

[Dimensions]

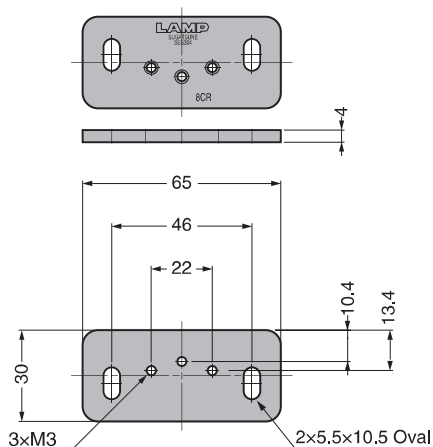


[AS Parts Set] Parts set of brackets, screws and AS nuts used for installing to aluminium frame

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts	Weight (g)
-	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 x 5 : 3pcs Bracket AS-GH34-8CR : 1pc Hexagon Socket Button Head Screw M4 x 12 : 2pcs	-
-	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 x 5 : 3pcs Bracket AS-GH34-8CR : 1pc Hexagon Socket Button Head Screw M4 x 12 : 2pcs	-
-	3D	170-041-590	AS-GH34-8CR-40-8		Hinge GH34-8CR : 1pc AS Nut AS-8M5 : 2pcs Countersunk Head Screw M3 x 5 : 3pcs Bracket AS-GH34-8CR : 1pc Hexagon Socket Button Head Screw M5 x 14 : 2pcs	-
-	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 x 5 : 3pcs Bracket AS-GH34-8CR : 1pc Hexagon Socket Button Head Screw M5 x 14 : 2pcs	-

Refer to [1](#) : FRONT P.20, [2](#) : P.706

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

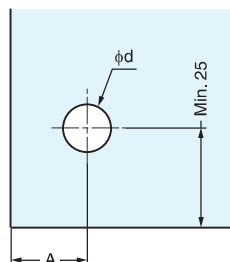
GLASS DOOR HINGE (W/ CATCH) **GHC34-8** For Overlay Door

- Hinge for glass/acrylic doors.
- Square plate type GH34-8CR-K **1** also available

[Remarks]

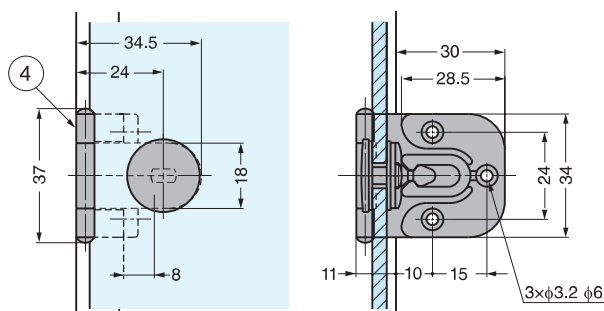
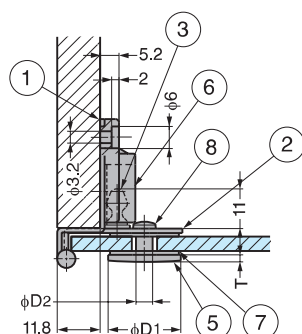
- Recommended for use in pairs.
- Use screw loosening prevention agent when mounting screws.
- Load capacity is the value when using two hinges. For calculation conditions, please refer to INDEX **2**.

[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	Stainless Steel	Steel	
②	Arm	(SPCC)	(SUS304)	(SPCC)	
③	Striker	Brass	Stainless Steel	Brass	Copper Alloy
		(SUS303)	(SUS304)		
④	Shaft	Steel	Stainless Steel	Steel	
		(SWCH)	(SUS304)		
⑤	Plate	Copper Alloy	Aluminium Alloy	Brass	Copper 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	Plain	Nickel		

GLASS DOOR HINGES

SPECIAL HINGES

RoHS	CAD	Item Code	Item Name	D ₁	D ₂	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
—	3D	170-083-508	GHC34-8B	21	8	10	3				49	5	32	40	600
—	3D	170-083-523	GHC34-8CR	20	6.5	8	2				39	4	36	40	600
—	3D	170-083-516	GHC34-8CR-W											40	600

Refer to **1** : P.184, **2** : P.15

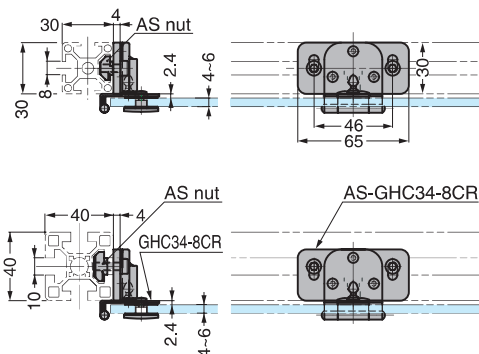
※ Load capacity has priority over glass size.

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

AS Parts Set for Installing to Aluminium Frame

Please refer to the series introduction page [1](#) for details about AS series.

[Dimensions]

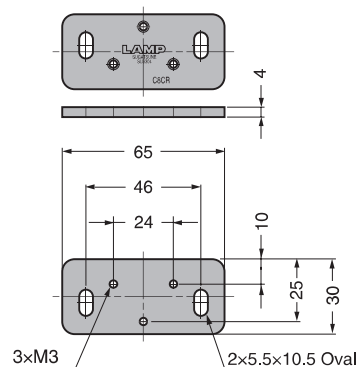


[AS Parts Set] Parts set of brackets, screws and AS nuts used for installing to aluminium frame

RoHS	CAD	Item Code	Item Name	Aluminium Frame	Parts (Hinges)	Parts (Others)	Weight (g)
—	3D	170-041-600	AS-GHC34-8B-30-6	Groove Width 6 mm	GHC34-8B : 1pc	AS Nut AS-6M4 : 2pcs	—
—	3D	170-041-592	AS-GHC34-8CR-30-6		GHC34-8CR : 1pc	Pan Head Screw M3 x 8 : 3pcs	—
—	3D	170-041-596	AS-GHC34-8CR-W-30-6		GHC34-8CR-W : 1pc	Bracket AS-GHC34-8CR : 1pc Hexagon Socket Button Head Screw M4 x 12 : 2pcs	—
—	3D	170-041-601	AS-GHC34-8B-30-8	Groove Width 8 mm	GHC34-8B : 1pc	AS Nut AS-8M4 : 2pcs	—
—	3D	170-041-593	AS-GHC34-8CR-30-8		GHC34-8CR : 1pc	Pan Head Screw M3 x 8 : 3pcs	—
—	3D	170-041-597	AS-GHC34-8CR-W-30-8		GHC34-8CR-W : 1pc	Bracket AS-GHC34-8CR : 1pc Hexagon Socket Button Head Screw M4 x 12 : 2pcs	—
—	3D	170-041-602	AS-GHC34-8B-40-8	Groove Width 10 mm	GHC34-8B : 1pc	AS Nut AS-8M5 : 2pcs	—
—	3D	170-041-594	AS-GHC34-8CR-40-8		GHC34-8CR : 1pc	Pan Head Screw M3 x 8 : 3pcs	—
—	3D	170-041-598	AS-GHC34-8CR-W-40-8		GHC34-8CR-W : 1pc	Bracket AS-GHC34-8CR : 1pc Hexagon Socket Button Head Screw M5 x 14 : 2pcs	—
—	3D	170-041-603	AS-GHC34-8B-40-10	Groove Width 10 mm	GHC34-8B : 1pc	AS Nut AS-10M5 : 2pcs	—
—	3D	170-041-595	AS-GHC34-8CR-40-10		GHC34-8CR : 1pc	Pan Head Screw M3 x 8 : 3pcs	—
—	3D	170-041-599	AS-GHC34-8CR-W-40-10		GHC34-8CR-W : 1pc	Bracket AS-GHC34-8CR : 1pc Hexagon Socket Button Head Screw M5 x 14 : 2pcs	—

Refer to [1](#) : FRONT P.20, [2](#) : P.706

AS BRACKET FOR GHC34-8 AS-GHC34-8CR



RoHS	CAD	Item Code	Item Name	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
—	3D	170-080-023	AS-GHC34-8CR	Stainless Steel (SUS304)	Barrel Polished	54	50	500

CONCEALED HINGE (SURFACE MOUNT) **T-90-200** For Both Overlay And Inset Doors

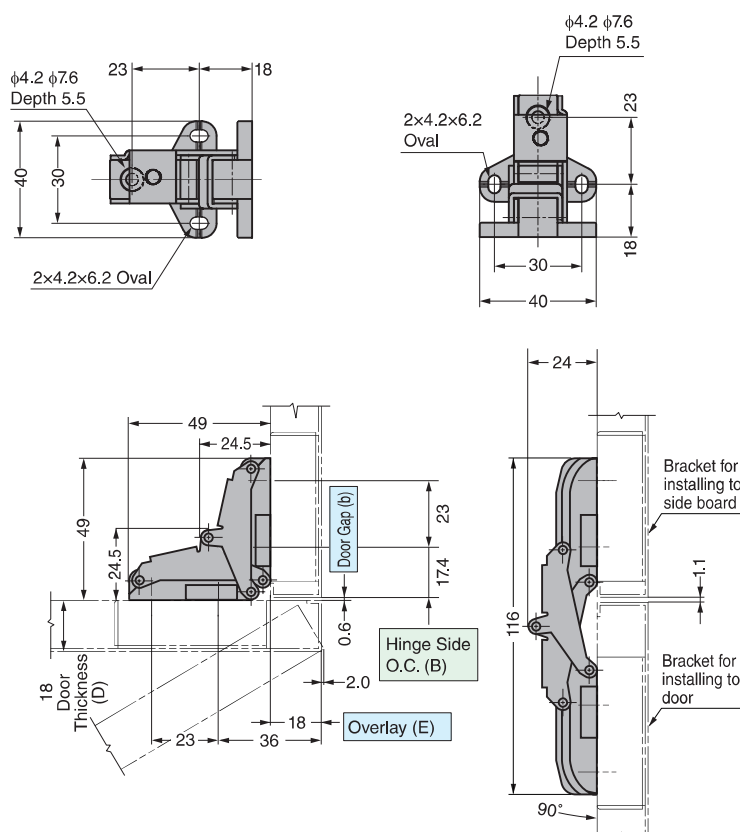
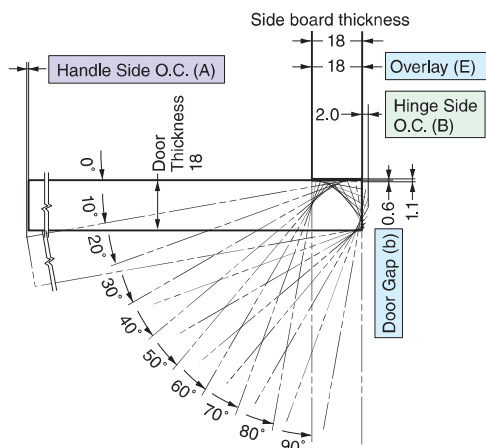
● Can be used for overlay and inset.

[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	SP	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.

[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)	Overlay (E)	Overlay (E)	Overlay (E)
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)]

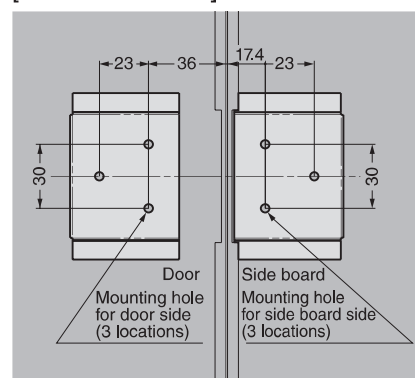
Table -2

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

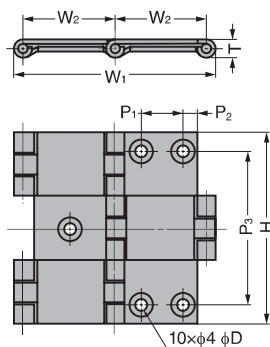
CLEAN ROOM HINGES

HINGES FOR ALUMINIUM FRAME

DROP HINGES

GLASS DOOR HINGES

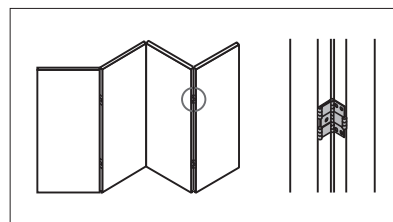
SPECIAL HINGES



[Remarks]

● Recommended for use in pairs.

[Application Example]



RoHS	CAD	Item Code	Item Name	Material	Finish	H	W ₁	W ₂	T	P ₁	P ₂	P ₃	D	Door Width	Door Height	Door Weight kg/2 pcs	Weight (g)	Box (pcs)	Carton (pcs)
		170-090-065	HG-BH60	Stainless Steel	Satin	60	74	29	5.5	13.5	4.8	47	6.5	Max. 450	Max. 700	Max. 2.6	65	20	260
		170-090-066	HG-BH70			70	78	35			6.8	57						130	10
		170-090-067	HG-BH80	(SUS304)		80	94	43.2	7.5	22	6.8	66	7				175	10	120



- 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]

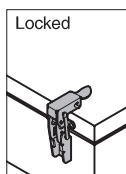
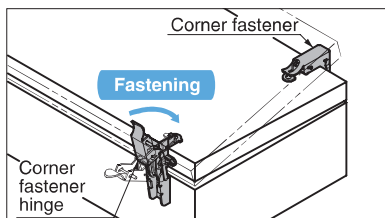
- Doors and covers required for dustproof and drip-proof.
- Doors and covers required for vibration proof.
- Measurement equipment, communication equipment, machine tools, etc.



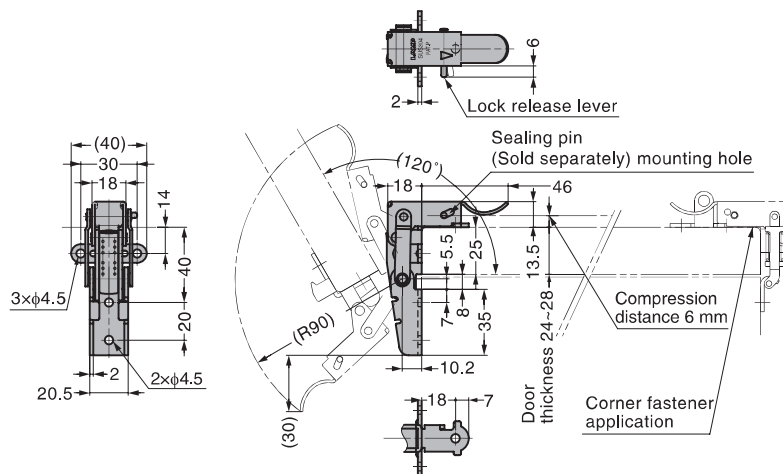
Step 1.
After locked.

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)
		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.678

CONCEALED HINGE (W/ STAY) HG-YS65C

SUS



- Combination of hinge and stay.
- Slim shape. (Refer to ※ following "Cut Out Dimensions".)
- Stay with catch holds door in opened position.
- Catch is spring type. When door is pushed with a stronger force (refer to the retaining torque), the spring extends and the catch is released.
- Non-handed.
- Removable pin allows easy door installation and removal.

[Applications]

- Measurement equipment, communication equipment, control cabinet, etc.

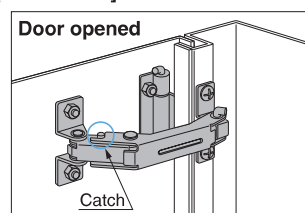
[Remarks]

- E-type retaining ring not included.
- Use screw lock to fix mounting screws of stay and hinge.
- Retaining torque varies. It is not guaranteed value.

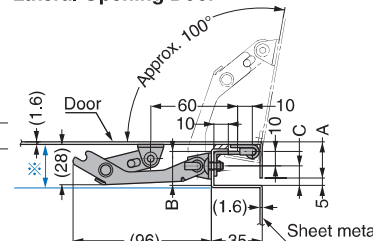
[Parts Included]

- Mounting screws for stay and hinge: truss head screw M5×10 2pcs

[Installation]



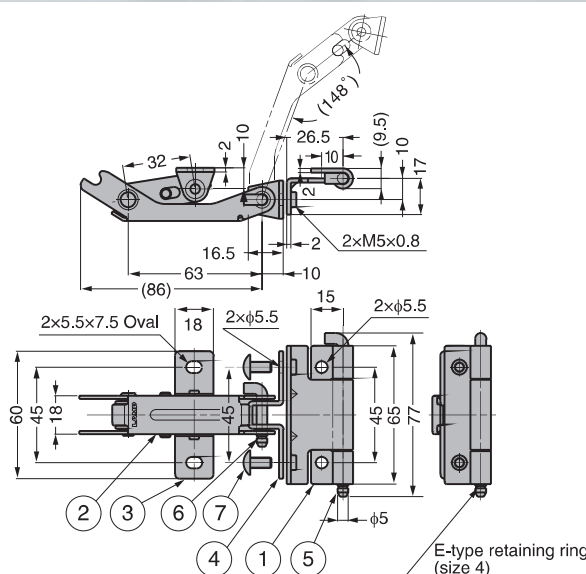
Lateral Opening Door



[Cut Out Dimensions]

A	B	C
20	19	8.5
21	20	9.5
22	21	10.5
23	22	11.5
24	23	12.5
25	24	13.5

※It can also be used for top-opening lid, but the retaining torque varies. Besides, retaining torque is not two times when using two hinges due to installation fluctuation.



No.	Part Name	Material	Finish
①	Hinge	Stainless Steel (SUS304)	Polished
②	Stay		
③	Bracket		
④	Hinge Bracket		
⑤	Pin		
⑥	Hinge Bracket Pin	SUS	-
⑦	Truss Head Screw M5 × 10 (Included)		

RoHS	CAD	Item Code	Item Name	Door Weight kg (Per Pair)	Retaining Torque cN·m/pc	Retaining Torque kgf·cm/pc	Weight (g)	Box (pcs)	Carton (pcs)
✓	3D	170-100-087	HG-YS65C	Approx. 10 (Max.)	Approx. 294	Approx. 30	190	10	100

CORNER FASTENER (W/ LOCK) STF-C64A, STF-C64B DIGEST

SUS



- Designed to allow front operation.
- Locks when fastened to prevent accidental release.
- With hole for padlock.
- Available with or without spring.
- Applicable door thickness: 14~28mm
- Refer to the product page [1](#) for details.



● After locked



● Pull the lever and lift the latch to open the lid.



● After opened

DROP HINGES

GLASS DOOR HINGES

SPECIAL HINGES

Refer to [1](#) : P.678

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

MONITOR BRACKET KA-T100S50 With Torque & Auxiliary Lock

INSTRUCTION

Free stop

Passed 20,000 open/
close private cycle test

- Can be quickly installed and removed.
- Free stops in a range of 180° (swivel) and 40° (tilt).
- Auxiliary lock prevents monitor from sagging due to minute vibration. Also suitable for touch screen.
- Auxiliary lock temporarily releases if a heavy load is applied when locked.
- Bracket holes based on VESA standard (75×75mm, 100×100mm).
- Applicable monitor size: 12~22.9 inch (Up to about 10.0kg)

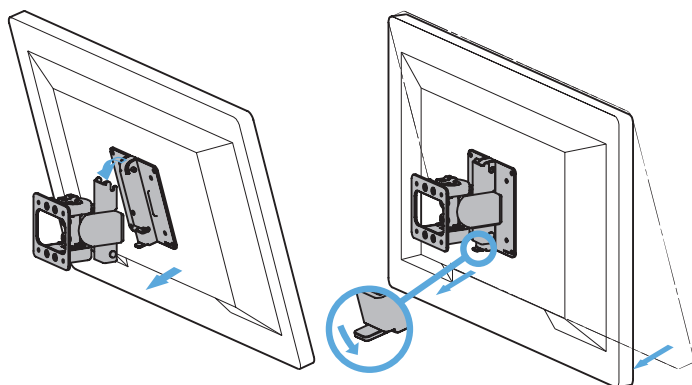
[Applications]

- Liquid crystal monitors for machine tools, OA equipment and medical equipment, etc.

[Remarks]

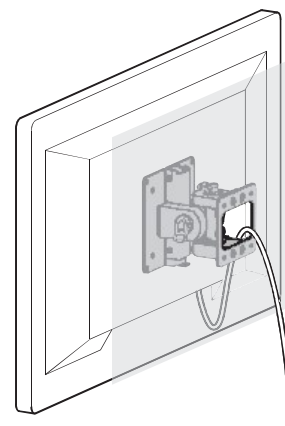
- Do not forcibly move the monitor after applying the auxiliary lock.
- After installing the monitor, make sure that the release lever is locked.
- Do not operate continuously (repeatedly in a short time).

[How to Install and Remove Monitor]



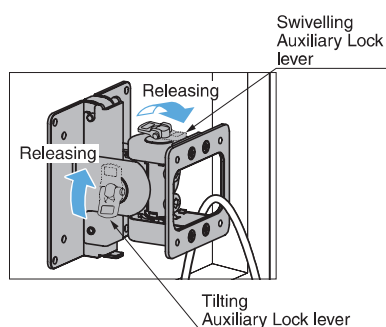
Monitor may be installed with one touch.

Push down the release lever and tilt the monitor, then the monitor can be removed.



Wire hole allows you to put power cable and monitor cable out of the mounting surface.

[Auxiliary Lock Operation]

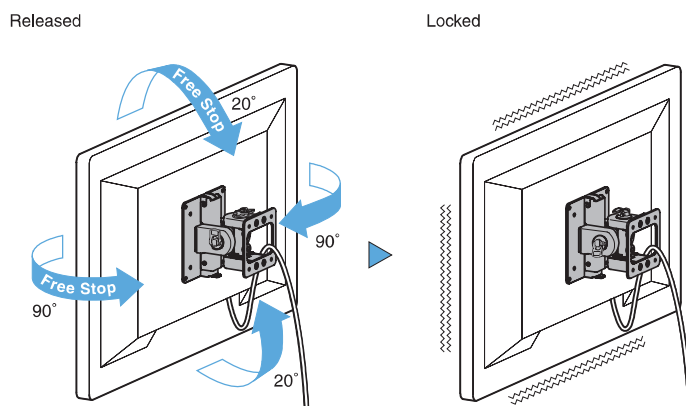


Locked

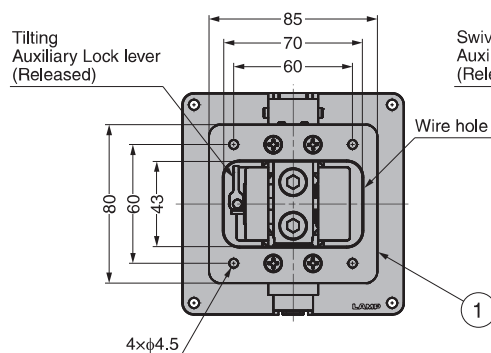
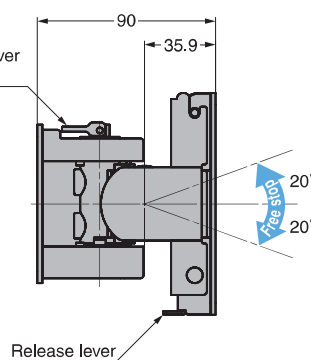
Released

Releases with auxiliary lock lever.

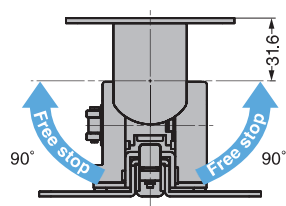
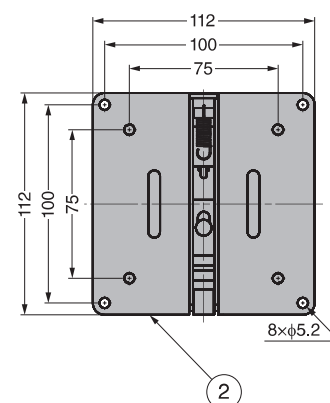
[How to Adjust Angle]

Can hold at any angle within $\pm 20^\circ$ in tilting and $\pm 90^\circ$ in swivelling.

Keeps the monitor in position even while subject.

Swivelling
Auxiliary Lock lever
(Released)

Release lever



No.	Part Name	Material	Finish / Colour
①	Body (Wall Side)	Steel (SPCC)/ ABS	Black
②	Base (Monitor Side)		

RoHS	CAD	Item Code	Item Name	Mounting	Torque (Tilting) N·m/pc	Torque (Tilting) kgf·cm/pc	Torque (Swivelling) N·m/pc	Torque (Swivelling) kgf·cm/pc	Weight (kg)	Box (pcs)	Carton (pcs)
		210-033-587	KA-T100S50	Wall Mount	10.0 ± 20%	102.0 ± 20%	5.0 ± 20%	51.0 ± 20%	1	1	—

TORQUE
HINGESDAMPER
HINGESLIFT
ASSIST
HINGESDETENT
HINGESCONCEALED
HINGESBUTT
HINGESPIANO
HINGESSTEP
HINGESLIFT-
OFF
HINGESPIVOT
HINGESSPRING
HINGESCLEAN
ROOM
HINGESHINGES FOR
ALUMINIUM
FRAMEDROP
HINGESGLASS
DOOR
HINGESSPECIAL
HINGES

MONITOR BRACKET TV

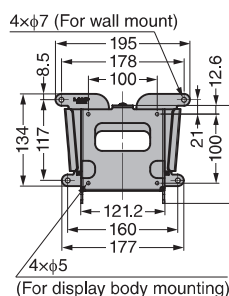
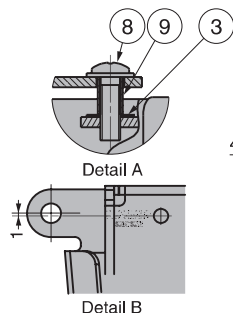


- Used to fix a small display on the wall.
- Fixed type (TV-400SK) and adjustable type (TV-410SK) are available.
- Adjustable type (TV-410SK) can adjust the angle of the display about 20° from the vertical state to the front. Can hold the display at any angle within the adjustment range.
- Hole pitch (100×100mm) of mounting bracket on the monitor side conforming to the VESA standard.

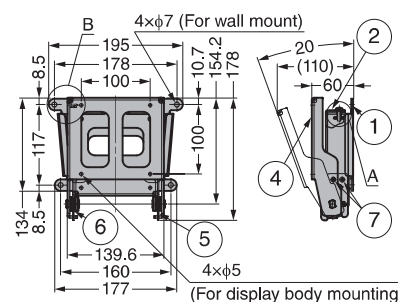
[Remarks]

- Do not apply load on small display when using.
- Durability varies depending on operating environment and frequency. Confirm the adaptability for the purpose of use in advance. For details on durability test, please contact local representative.

[Installation (Adjustable Type)]



TV-400SK



TV-410SK

No.	Part Name	Material	Finish / Colour
①	Bracket	Steel (SPCC)	Black Paint
②	Fixed Plate	Steel (SPCC)	Black Paint
③	Fall-preventing Washer	PA	Natural
④	Adjustable Plate	Steel (SPCC)	Black Paint
⑤	Hinge R	Steel (SPCC), etc	Clear Zinc Chromate (Trivalent), etc
⑥	Hinge L	Steel (SPCC), etc	Clear Zinc Chromate (Trivalent), etc
⑦	Countersunk head machine screw	Steel (SWCH)	Clear Zinc Chromate (Trivalent)
⑧	Washer Faced Pan Head Screw	Steel (SWCH)	Clear Zinc Chromate (Trivalent)
⑨	Wrapped Bush	Steel (SPCC)	Clear Zinc Chromate (Trivalent)

RoHS	CAD	Item Code	Item Name	Mounting	Type	Max. Monitor Weight kg/pc	Weight (kg)	Box (Unit)
✓	3D	210-010-646	TV-400SK	Wall	Fixed	8	0.85	1
✓	3D	210-010-647	TV-410SK	Mount	Adjustable	8	1.15	1

MONITOR BRACKET KA-150



- Total length can be changed by adjusting the pole length. Pole length can be adjusted as order basis. For further details, please contact local representatives.
- Ball-shaped holding part allows adjusting to any angle (loosen the screw and adjust).
- Mounting hole pitch (75×75mm) on the monitor mounting side conforming to the VESA standard.

[Remarks]

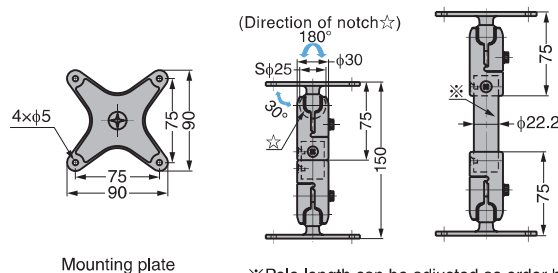
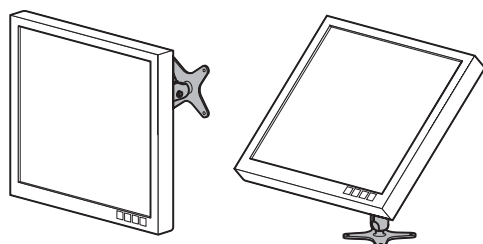
- Monitor mount is used for moving and adjusting monitor position. Do not apply load on display when using.
- Durability varies depending on operating environment and frequency. Confirm the adaptability for the purpose of use in advance. For details on durability test, please contact local representative.

[Parts Included]

- Hex key (for fixing the mounting base)

[Recommended Screws]

- Tapping screw 4.5 or M4 screw



RoHS	CAD	Item Code	Item Name	Material	Finish / Colour	Load Capacity N·m/pc	Load Capacity kgf·m/pc	Weight (g)	Box (unit)	Carton (unit)
—	3D	210-030-578	KA-150	Aluminium Alloy	Silver Enamel Finish	4.4	0.45	383	1	40