



STANDARD FRAME

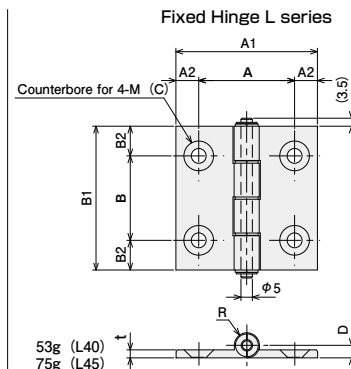
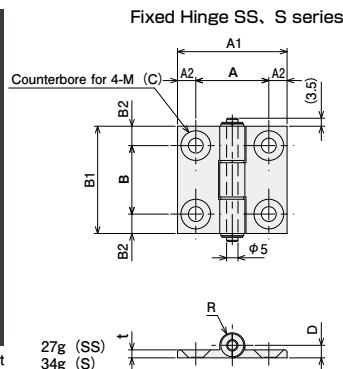
Door•Panel

Clean Equipment

Fixed Hinge



Material/Aluminium Alloy Alumite Treatment
 ■Environment RoHS Compliant Green Procurement



Name	Item No.	A	B	A1	A2	B1	B2	(C)	D	t	R	Indication of the Load (N/Piece)
Fixed Hinge SS	SFA-211	21	25	36	7.5	47	11	5	5	3.5	5	49
Fixed Hinge SS Kit (Fixed Hinge SS(Stainless)Kit)	SFK-211 (SFK-211S)						8.5					
Fixed Hinge S	SFA-221	32	30	48	8	63	13	6	5.5	4.5	5.5	73
Fixed Hinge S Kit (Fixed Hinge S (Stainless) Kit)	SFK-221 (SFK-221S)						10					
Fixed Hinge L40(M6)	SFA-231	42	37	62	10	63	10			4.5		73
Fixed Hinge L40(M6)Kit (Fixed Hinge L40(M6)Stainless Kit)	SFK-231 (SFK-231S)											
Fixed Hinge L45(M6)	SFA-241	47	43	80	16.5	63				4.5		73
Fixed Hinge L45(M6)Kit (Fixed Hinge L45(M6)Stainless Kit)	SFK-241 (SFK-241S)											

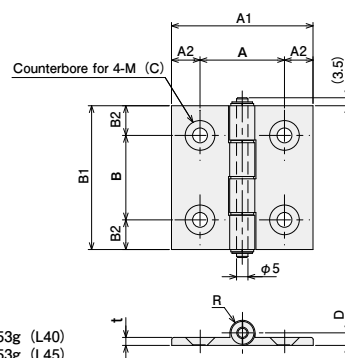
(Fixed Hinge SS Kit) ● Fixed Hinge SS×1 ● Hexagon Socket Flat Head Cap Screw(M5×8)×4 ● T Nut SS(M5)×4	(Fixed Hinge S Kit) ● Fixed Hinge S×1 ● Hexagon Socket Flat Head Cap Screw(M6×10)×4 ● T Nut S(M6)×4	(Fixed Hinge L40(M6)Kit) ● Fixed Hinge L40(M6)×1 ● Hexagon Socket Flat Head Cap Screw(M6×12)×4 ● T Nut L(M6)×4	(Fixed Hinge L45(M6)Kit) ● Fixed Hinge L45(M6)×1 ● Hexagon Socket Flat Head Cap Screw(M6×15)×4 ● T Nut L(M6)×4
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※Bolt and Nut for (Stainless) Kit is stainless.
 Bolt of Stainless Kit is small flat screw with cross hole.

Fixed Hinge for Irregular Shape Frame



Material/Aluminium Alloy Alumite Treatment
 ■Environment RoHS Compliant Green Procurement



Name	Item No.	A	B	A1	A2	B1	B2	(C)	D	t	R	Indication of the Load (N/Piece)
Fixed Hinge L40-S	SFA-281	37	37	62	12.5	63	13	6	5.5	3.5	5.5	73
Fixed Hinge L40-S Kit (Fixed Hinge L40-S (Stainless) Kit)	SFK-281 (SFK-281S)											
Fixed Hinge L45-S	SFA-291	39	39	62	11.5	63	13	6	5.5	3.5	5.5	73
Fixed Hinge L45-S Kit (Fixed Hinge L45-S (Stainless) Kit)	SFK-291 (SFK-291S)											

(Fixed Hinge L40-S Kit) ● Fixed Hinge L40-S×1 ● Hexagon Socket Flat Head Cap Screw(M6×10)×2 ● Hexagon Socket Flat Head Cap Screw(M6×12)×2	(Fixed Hinge L45-S Kit) ● Fixed Hinge L45-S×1 ● Hexagon Socket Flat Head Cap Screw(M6×10)×2 ● Hexagon Socket Flat Head Cap Screw(M6×15)×2	● T Nut L(M6)×2 ● T Nut S(M6)×2	● T Nut L(M6)×2 ● T Nut S(M6)×2
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※Bolt and Nut for (Stainless) Kit is stainless.
 Bolt of Stainless Kit is small flat screw with cross hole.



Parts

How to order

Item No. Quantity (pcs)

SFA-211



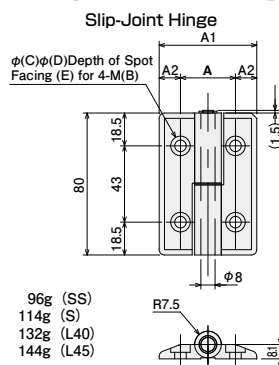
Slip-Joint Hinge / Irregular Shape Slip-Joint Hinge



Electroless nickel plating
 ■Environment **RoHS** Compliant **Green** Procurement
 ■Material Aluminum Die-Casting (ADC12)

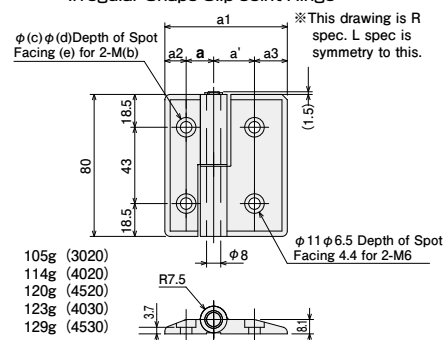


Acrylic Paint



96g (SS)
 114g (S)
 132g (L40)
 144g (L45)

Irregular Shape Slip-Joint Hinge



105g (3020)
 114g (4020)
 120g (4520)
 123g (4030)
 129g (4530)

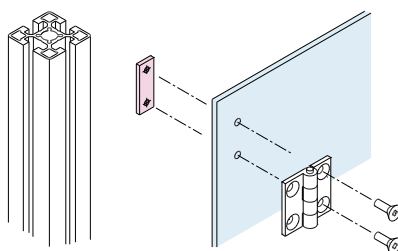
Name	Item No.				A	A1	A2	(B)	(C)	(D)	(E)	Indication of the Load (N/Piece)
	Single Item		(Bolt + Nut Kit (Stainless))									
	Electroless Nickel Plating	Acrylic Paint	Electroless Nickel Plating	Acrylic Paint								
Slip-Joint Hinge SS-L	SFA-2N2	SFA-2N2P	(SFK-2N2S)	(SFK-2N2P)	26	41	7.5	5	5.5	9.5	4.1	73
Slip-Joint Hinge SS-R	SFA-2N1	SFA-2N1P	(SFK-2N1S)	(SFK-2N1P)								
Slip-Joint Hinge S-L	SFA-2N4	SFA-2N4P	(SFK-2N4S)	(SFK-2N4P)	31	55	12	6	6.5	11	4.4	98
Slip-Joint Hinge S-R	SFA-2N3	SFA-2N3P	(SFK-2N3S)	(SFK-2N3P)								
Slip-Joint Hinge L40-L	SFA-2N6	SFA-2N6P	(SFK-2N6S)	(SFK-2N6P)	41	73	16					
Slip-Joint Hinge L40-R	SFA-2N5	SFA-2N5P	(SFK-2N5S)	(SFK-2N5P)								
Slip-Joint Hinge L45-L	SFA-2N8	SFA-2N8P	(SFK-2N8S)	(SFK-2N8P)	46	83	18.5					
Slip-Joint Hinge L45-R	SFA-2N7	SFA-2N7P	(SFK-2N7S)	(SFK-2N7P)								

Kit Contents	(Slip-Joint Hinge SS-L(R)Kit) ● Slip-Joint Hinge SS-L(R)×1 ● Hexagon Socket Low Head Bolt(M5×8)Stainless×4 ● ST Nut SS(M5)×4	(Slip-Joint Hinge S-L(R)Kit) ● Slip-Joint Hinge S-L(R)×1 ● Hexagon Socket Low Head Bolt(M6×12)Stainless×4 ● ST Nut S(M6)×4	(Slip-Joint Hinge L40-L(R)Kit) ● Slip-Joint Hinge L40-L(R)×1 ● Hexagon Socket Low Head Bolt(M6×15)Stainless×4 ● ST Nut L(M6)×4	(Slip-Joint Hinge L45-L(R)Kit) ● Slip-Joint Hinge L45-L(R)×1 ● Hexagon Socket Low Head Bolt(M6×15)Stainless×4 ● ST Nut L(M6)×4

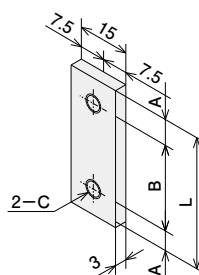
Name	Item No.				a	a'	a1	a2	a3	(b)	(c)	(d)	(e)	Indication of the Load (N/Piece)
	Single Item		(Bolt · Nut Kit (Stainless))											
	Electroless Nickel Plating	Acrylic Paint	Electroless Nickel Plating	Acrylic Paint										
Slip-Joint Hinge 3020-L	SFA-2D2	SFA-2D2P	(SFK-2D2S)	(SFK-2D2P)	13	15.5	48		12	5	5.5	9.5	4.1	73
Slip-Joint Hinge 3020-R	SFA-2D1	SFA-2D1P	(SFK-2D1S)	(SFK-2D1P)										
Slip-Joint Hinge 4020-L	SFA-2D4	SFA-2D4P	(SFK-2D4S)	(SFK-2D4P)		20.5	57	7.5	16					
Slip-Joint Hinge 4020-R	SFA-2D3	SFA-2D3P	(SFK-2D3S)	(SFK-2D3P)										
Slip-Joint Hinge 4520-L	SFA-2D6	SFA-2D6P	(SFK-2D6S)	(SFK-2D6P)										
Slip-Joint Hinge 4520-R	SFA-2D5	SFA-2D5P	(SFK-2D5S)	(SFK-2D5P)		23	62		18.5					
Slip-Joint Hinge 4030-L	SFA-2E2	SFA-2E2P	(SFK-2E2S)	(SFK-2E2P)	15.5	20.5	64		16	6	6.5	11	4.4	98
Slip-Joint Hinge 4030-R	SFA-2E1	SFA-2E1P	(SFK-2E1S)	(SFK-2E1P)				12						
Slip-Joint Hinge 4530-L	SFA-2E4	SFA-2E4P	(SFK-2E4S)	(SFK-2E4P)		23	69		18.5					
Slip-Joint Hinge 4530-R	SFA-2E3	SFA-2E3P	(SFK-2E3S)	(SFK-2E3P)										

Kit Contents	(Slip-Joint Hinge 3020-L(R)Kit) ● Slip-Joint Hinge 3020-L(R)×1 ● Hexagon Socket Low Head Bolt(M5×8)Stainless×2 ● Hexagon Socket Low Head Bolt(M6×12)Stainless×2 ● ST Nut SS(M5)×2 ● ST Nut S(M6)×2	(Slip-Joint Hinge 4020-L(R)Kit) ● Slip-Joint Hinge 4020-L(R)×1 ● Hexagon Socket Low Head Bolt(M5×8)Stainless×2 ● Hexagon Socket Low Head Bolt(M6×15)Stainless×2 ● ST Nut SS(M5)×2 ● ST Nut L(M6)×2	(Slip-Joint Hinge 4520-L(R)Kit) ● Slip-Joint Hinge 4520-L(R)×1 ● Hexagon Socket Low Head Bolt(M5×8)Stainless×2 ● Hexagon Socket Low Head Bolt(M6×15)Stainless×2 ● ST Nut SS(M5)×2 ● ST Nut L(M6)×2	(Slip-Joint Hinge 4030-L(R)Kit) ● Slip-Joint Hinge 4030-L(R)×1 ● Hexagon Socket Low Head Bolt(M6×12)Stainless×2 ● Hexagon Socket Low Head Bolt(M6×15)Stainless×2 ● ST Nut S(M6)×2 ● ST Nut L(M6)×2	(Slip-Joint Hinge 4530-L(R)Kit) ● Slip-Joint Hinge 4530-L(R)×1 ● Hexagon Socket Low Head Bolt(M6×12)Stainless×2 ● Hexagon Socket Low Head Bolt(M6×15)Stainless×2 ● ST Nut S(M6)×2 ● ST Nut L(M6)×2

Plate Nut for Fixed Hinge



※Use it when the door is resin panel.



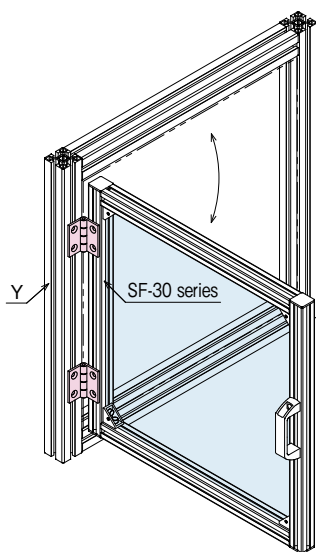
■Material/Technical Data

Material	Stainless
Weight	13g (SS) 16g (S) 20g (L40) 22g (L45)
Environment	RoHS Compliant Green Procurement

Name	Item No.	A	B	L	C
Plate Nut for SS Hinge	SFB-303	7.5	25	40	M5
Plate Nut for S Hinge	SFB-304		30	45	M6
Plate Nut for L40 Hinge	SFB-305	9	37	55	
Plate Nut for L45 Hinge	SFB-306	10	43	63	

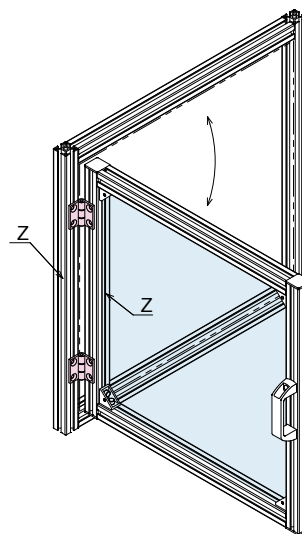
Choice of Fixed Hinge

In case door-side frame is SF30 series and the body frame is SF40 or 45 series.



Y	Fixed Hinge Name	Item No.
SF-40 series	Fixed Hinge L40-S	SFA-281
SF-45 series	Fixed Hinge L45-S	SFA-291

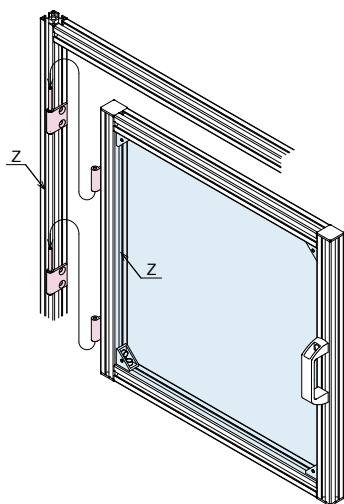
In case frames at door and body are the same series.



Z	Fixed Hinge Name	Item No.
SF-20 series	Fixed Hinge SS	SFA-211
SF-30 series	Fixed Hinge S	SFA-221
SF-40 series	Fixed Hinge L40 (M6)	SFA-231
SF-45 series	Fixed Hinge L45 (M6)	SFA-241

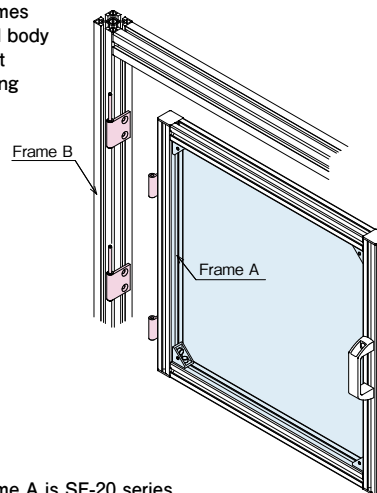
Choice of Free Hinge and Slip-Joint Hinge

In case frames at door and body are the same series. (This drawing is L type)



Z	Hinge Name	Item No.
SF-20 series	Free Hinge SS-L (R)	SFA-21L (SFA-21R)
	Slip-Joint Hinge SS-L (R)	SFA-2N2 (SFA-2N1)
SF-30 series	Free Hinge S-L (R)	SFA-22L (SFA-22R)
	Slip-Joint Hinge S-L (R)	SFA-2N4 (SFA-2N3)
SF-40 series	Free Hinge L40 (M6)-L (R)	SFA-23L (SFA-23R)
	Slip-Joint Hinge L40-L (R)	SFA-2N6 (SFA-2N5)
SF-45 series	Free Hinge L45 (M6)-L (R)	SFA-24L (SFA-24R)
	Slip-Joint Hinge L45-L (R)	SFA-2N8 (SFA-2N7)

In case frames at door and body are different (This drawing is L type)



In case frame A is SF-20 series.

Frame B	Hinge Name	Item No.
SF-30 series	Free Hinge 3020-L (R)	SFA-25L (SFA-25R)
	Slip-Joint Hinge 3020-L (R)	SFA-2D2 (SFA-2D1)
SF-40 series	Free Hinge 4020-L (R)	SFA-26L (SFA-26R)
	Slip-Joint Hinge 4020-L (R)	SFA-2D4 (SFA-2D3)
SF-45 series	Free Hinge 4520-L (R)	SFA-27L (SFA-27R)
	Slip-Joint Hinge 4520-L (R)	SFA-2D6 (SFA-2D5)

In case frame A is SF-30 series.

Frame B	Hinge Name	Item No.
SF-40 series	Free Hinge 4030-L (R)	SFA-28L (SFA-28R)
	Slip-Joint Hinge 4030-L (R)	SFA-2E2 (SFA-2E1)
SF-45 series	Free Hinge 4530-L (R)	SFA-29L (SFA-29R)
	Slip-Joint Hinge 4530-L (R)	SFA-2E4 (SFA-2E3)

SF20
SS SizeSF30
S SizeSF40-45
L Size

Complex Parts

Door · Panel
Clean Equipment

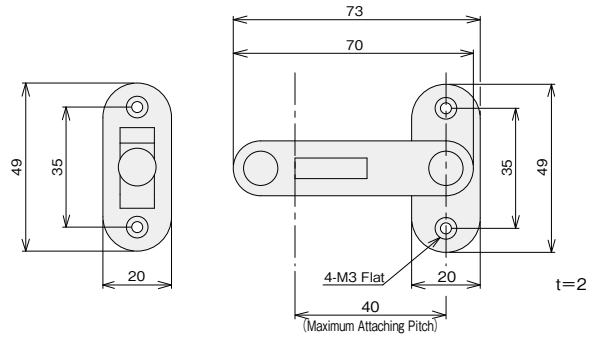
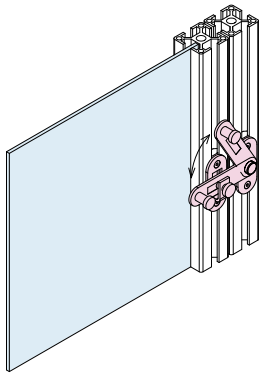
Technical Data

Door・Panel Parts Free Size Hinge

Door Lock



- Material Stainless SUS304
- Weight 54.9g
- Environment RoHS Compliant Green Procurement



Name	Stainless Door Lock
Item No.	SFA-3A1

Example of mounting

Small Flat Screw with Cross Hole(M3)2 pcs
Length : See Table

Small Flat Screw with Cross Hole(M3)2 pcs
Length : See Table

T Nut※(M3)
2 piece

T Nut ※(M3)
2 piece

Frame	Screw Length(mm)
For 20	6
For 30	8

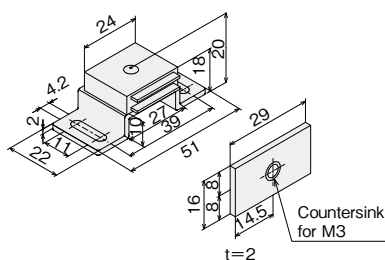
※Please select by the Frame Shape.
It's usable with Lock Nut as well.

SF Door•Panel Parts Magnet Catch

Magnet Catch N (For Frame Rim Door)



Magnet Catch N (Adsorbability:29.4N)



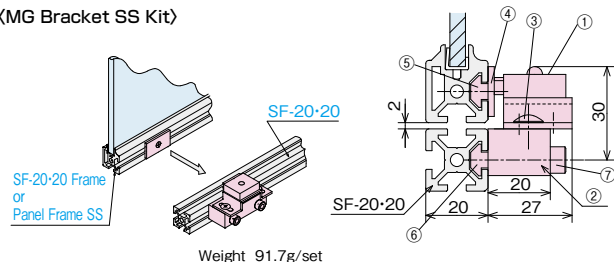
Name	Magnet Catch N
Item No.	SFA-40A

Material/Technical Data

	Magnet Catch Housing	Magnet	MG Bracket
Material	Stainless	Ferrite	Aluminum
	Dark Brown Painting		
Weight	35g (Magnet Catch N)		

In case of Door Frame 20mm (Include Panel Frame)

Door Frame 20mm • Body Frame 20mm
(MG Bracket SS Kit)

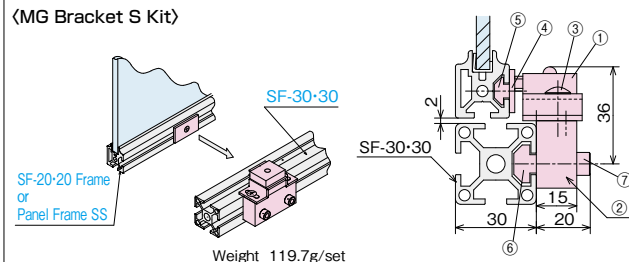


Kit Contents

- ① Magnet Catch Nx1
- ② MG Bracket SSx1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x6)x1
- ⑤ T Nut SS M3x1
- ⑥ T Nut SS M5x2
- ⑦ Hexagon Socket Bolt (M5x25)x2

Name	MG Bracket SS Kit
Item No.	SFK-4AA

Door Frame 20mm • Body Frame 30mm
(MG Bracket S Kit)

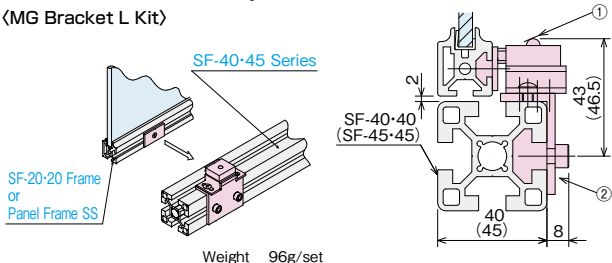


Kit Contents

- ① Magnet Catch Nx1
- ② MG Bracket Sx1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x6)x1
- ⑤ T Nut SS M3x1
- ⑥ T Nut SS M5x2
- ⑦ Hexagon Socket Bolt (M5x22)x2

Name	MG Bracket S Kit
Item No.	SFK-4AB

Door Frame 20mm • Body Frame 40mm • 45mm
(MG Bracket L Kit)

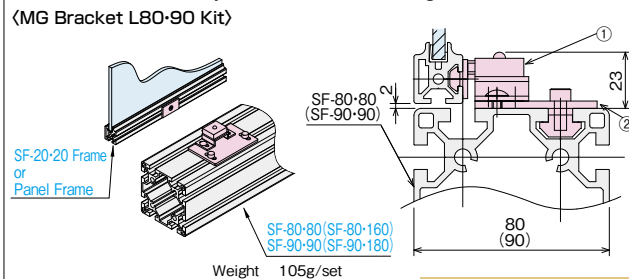


Kit Contents

- ① Magnet Catch Nx1
- ② MG Bracket Lx1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x6)x1
- ⑤ T Nut SS M3x1
- ⑥ T Nut SS M5x2
- ⑦ Hexagon Socket Bolt (M5x15)x2

Name	MG Bracket L Kit
Item No.	SFK-4AC

Door Frame 20mm • Body Frame 80mm (2 lines of grooves) • 90mm
(MG Bracket L80-90 Kit)



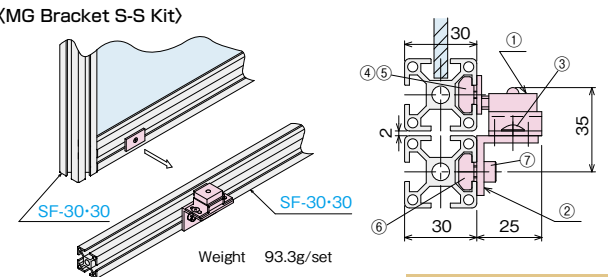
Kit Contents

- ① Magnet Catch Nx1
- ② MG Bracket L80-90x1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x6)x1
- ⑤ T Nut SS M3x1
- ⑥ T Nut L M5x2
- ⑦ Hexagon Socket Bolt (M5x14)x2

Name	MG Bracket L80-90 Kit
Item No.	SFK-4AK

In case of Door Frame 30mm

Door Frame 30mm • Body Frame 30mm
(MG Bracket S-S Kit)

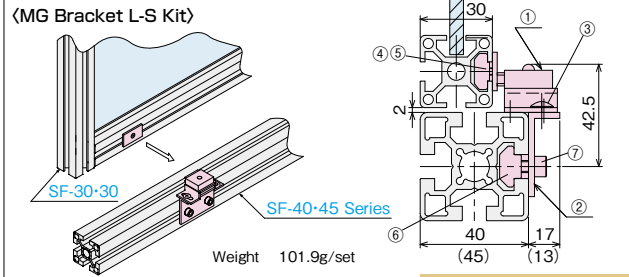


Kit Contents

- ① Magnet Catch Nx1
- ② MG Bracket S-Sx1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x8)x1
- ⑤ T Nut S M3x1
- ⑥ T Nut L M5x2
- ⑦ Hexagon Socket Bolt (M5x10)x2

Name	MG Bracket S-S Ki
Item No.	SFK-4AH

Door Frame 30mm • Body Frame 40mm • 45mm
(MG Bracket L-S Kit)



Kit Contents

- ① Magnet Catch Nx1
- ② MG Bracket L-Sx1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x8)x1
- ⑤ T Nut S M3x1
- ⑥ T Nut L M5x2
- ⑦ Hexagon Socket Bolt (M5x12)x2

Name	MG Bracket L-S Kit
Item No.	SFK-4AE



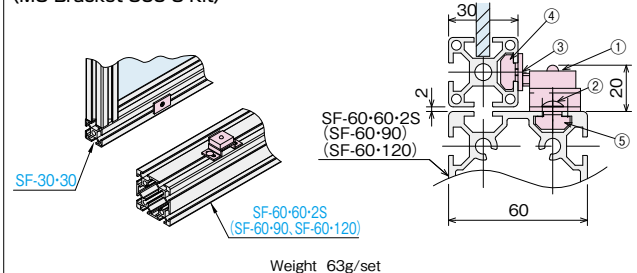
Parts

How to order

Item No. Quantity (pcs)

SFA-40A

Door Frame $\square$ 30mm • Body Frame $\square$ 60mm (2 lines of grooves)
(MG Bracket S60-S Kit)



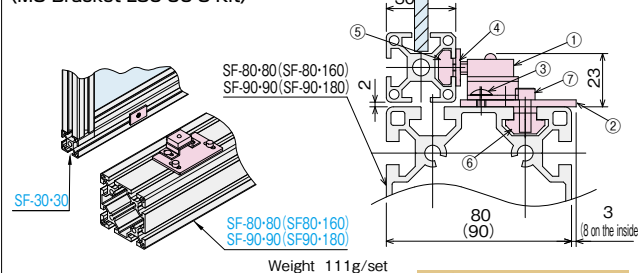
Name MG Bracket S60-S Kit

Item No. SFK-4AN

Kit Contents

- ① Magnet Catch Nx1
- ② Truss Screw (M4x10)x2
- ③ Flat-Head Screw (M3x8)x1
- ④ T Nut S M3x1
- ⑤ T Nut S M4x2

Door Frame $\square$ 30mm • Body Frame $\square$ 80mm (2 lines of grooves) • $\square$ 90mm
(MG Bracket L80-90-S Kit)



Name MG Bracket L80-90-S Kit

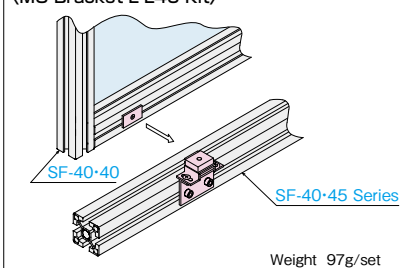
Item No. SFK-4AL

Kit Contents

- ① Magnet Catch Nx1
- ② MG Bracket L80-90x1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x8)x1
- ⑤ T Nut S M3x1
- ⑥ T Nut L M5x2
- ⑦ Hexagon Socket Bolt (M5x14)x2

■ In case of Door Frame $\square$ 40mm

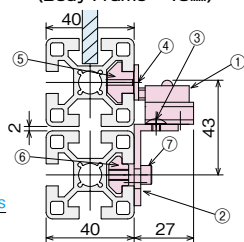
Door Frame $\square$ 40mm • Body Frame $\square$ 40mm
(MG Bracket L-L40 Kit)



Name MG Bracket L-L40 Kit

Item No. SFK-4AM

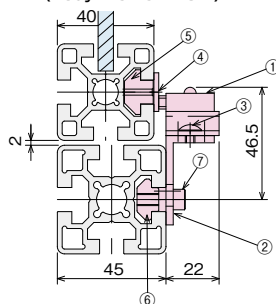
(Body Frame $\square$ 40mm)



Kit Contents

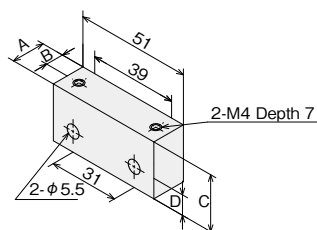
- ① Magnet Catch Nx1
- ② MG Bracket Lx1
- ③ Truss Screw (M4x5)x2
- ④ Flat-Head Screw (M3x10)x1
- ⑤ Accessory Nut L M3x1
- ⑥ T Nut L M5x2
- ⑦ Hexagon Socket Bolt (M5x15)x2

(Body Frame $\square$ 45mm)

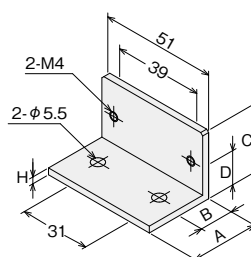


■ Bracket for Magnet Catch Kit (For Frame Door)

(Square Bracket)



(L-Shape Bracket)



(Square Bracket)

Material : A6063 Alumite Treatment

Item No.	Kit Name	Bracket Name	A	B	C	D
SFK-4AA	MG Bracket SS Kit	MG Bracket SS	20	15	15	5
SFK-4AB	MG Bracket S Kit	MG Bracket S	15	8	25	9

(Unit : mm)

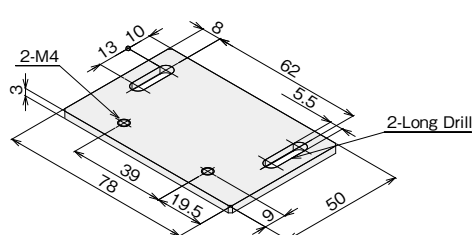
(L-Shape Bracket)

Material : A6063 Alumite Treatment

Item No.	Kit Name	Bracket Name	A	B	C	D	H
SFK-4AH	MG Bracket S-S Kit	MG Bracket S-S	25	15	25	15	3
SFK-4AE	MG Bracket L-S Kit	MG Bracket L-S	35	22.5	13	5.5	2.5

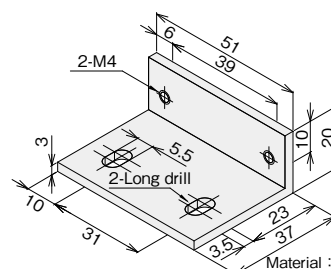
(Unit : mm)

(MG Bracket L80-90)



Material : A6063 Alumite Treatment

(MG Bracket L)



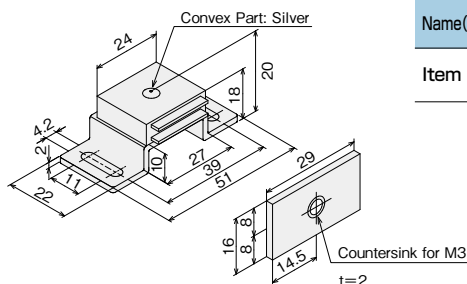
Material : A6063 Alumite Treatment

Door·Panel Parts Magnet Catch

Magnet Catch J(For Resin Panel Door)

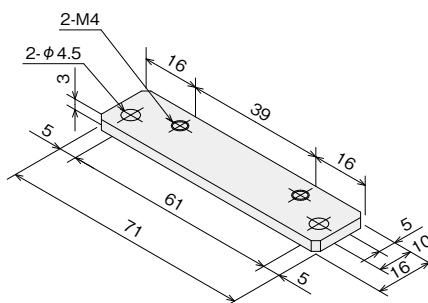
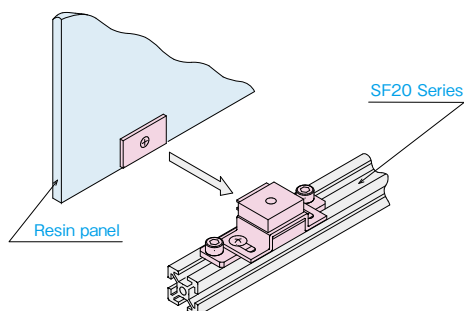


Magnet Catch J(Adsorbability:14.7N)



Name(Single Item)	Magnet Catch J
Item	SFA-40B

MG20P Bracket Kit



Name(Bolt and Nut Kit)	MG20P Bracket Kit
Item No.	SFK-4AD

Kit Contents

- Magnet Catch Jx1
- MG20P Bracketx1
- Truss Screw(M4x5)x2
- Flat-Head Screw(M3x10)x1
- Hexagon Socket Bolt (M4x8)x2
- Cap Nut(M3)x1
- T Nut SS(M4)x2

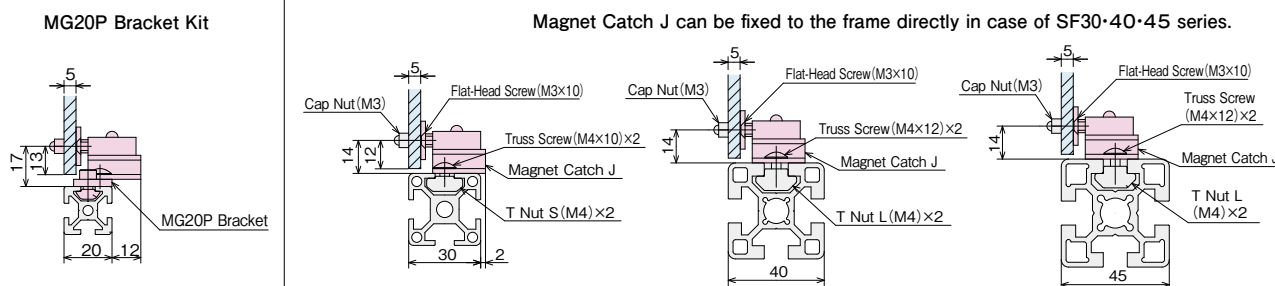
Material/Technical Data

Material Stainless(Magnet Catch Housing/MP20P Bracket)
 Ferrite(Magnet)
 Dark Brown Painting
 Weight 38g (Magnet Catch J)
 24g (MG20P Bracket)

Use Example of Magnet Catch Installation

〈Dimension when using Resin Door〉

Magnet Catch J can be fixed to the frame directly in case of SF30·40·45 series.



※Please order by single item regarding screws for Magnet Catch in case of SF30·40·45.



Parts

How to order

Item No.

Quantity (pcs)

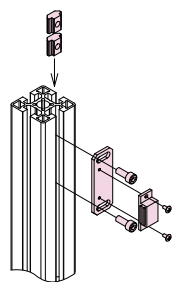
SFA-40B



Magnet Catch G (For Resin Panel Door)

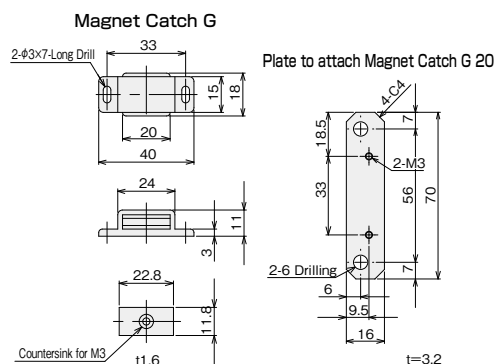


Magnet Catch G (Adsorbability : 10N)

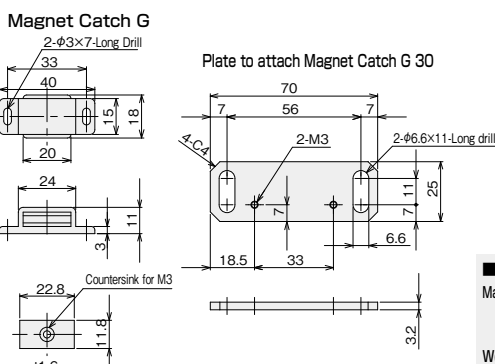


Name(Single Item)	Magnet Catch G
Item No.	SFA-498

Magnet Catch G-SS Kit



Magnet Catch G-S/L Kit(Common)

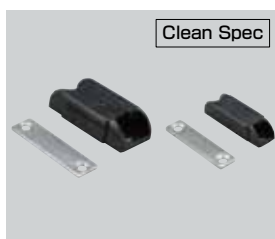
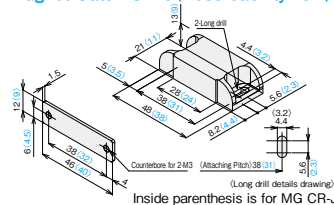


Material/Technical Data	
Material	ABS(Magnet Catch) SPCC Uni-Chrome (Door Side-Setting Plate)
Weight	14g(Magnet Catch G)

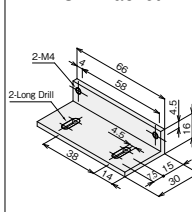
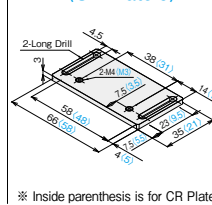
Attaching Frame	SF20 Series	SF30 Series	SF40-45 Series
Name(Bolt and Nut Kit)	Magnet Catch G-SS Kit	Magnet Catch G-S Kit	Magnet Catch G-L Kit
Item No.	SFK-4X4	SFK-4X5	SFK-4X6

Kit Contents	(Magnet Catch G-SS Kit)	(Magnet Catch G-S Kit)	(Magnet Catch G-L Kit)
	● Magnet Catch Gx1 ● Plate to attach Magnet Catch G 20x1 ● Cap Nut(M3)x2 ● Truss Screw(M3x6)x2 ● Hexagon Socket Bolt (M5x8)x2 ● T Nut SS(M5)x2 ● Flat-Head Screw(M3x8)x2	● Magnet Catch Gx1 ● Plate to attach Magnet Catch G 30x1 ● Cap Nut(M3)x2 ● Truss Screw(M3x6)x2 ● Hexagon Socket Bolt (M6x10)x2 ● T Nut S(M6)x2 ● Flat-Head Screw(M3x10)x2	● Magnet Catch Gx1 ● Plate to attach Magnet Catch G 30x1 ● Cap Nut(M3)x2 ● Truss Screw(M3x6)x2 ● Hexagon Socket Bolt (M6x15)x2 ● T Nut L(M6)x2 ● Flat-Head Screw(M3x10)x2

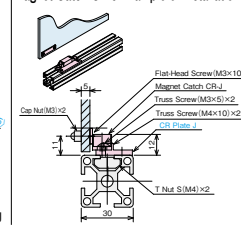
Magnet Catch CR-N (For Frame Rim Door)/J (For Resin Panel Door)

Magnet Catch CR-N (Adsorbability:23N)
Magnet Catch CR-J (Adsorbability:13N)

CR Bracket

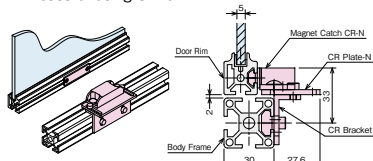
CR Plate-N
(CR Plate-J)

Magnet Catch CR-J Example of installation

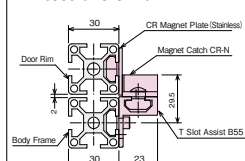


Installing Example of Magnet Catch CR-N Kit

※In case of using S Kit



※In case of S-S Kit



Name	Magnet Catch CR		Magnet Catch CR-N						CR Plate-N (CR Plate-J)
	N	J	S Kit	S-S Kit	L Kit	L-S Kit	L40-L40 Kit	L45-L Kit	
Item No.	SFA-44A	SFA-44B	SFK-4EA	SFK-4EC	SFK-4EB	SFK-4ED	SFK-4EE	SFK-4EF	SFA-4EA(SFA-4EB)

■Kit contents

	S Kit	S-S Kit	L Kit	L-S Kit	L40-L40 Kit	L45-L Kit
Door Rim	□20mm	□30mm	□20mm	□30mm	□40mm	□40mm
Body Frame	□30mm	□30mm	□40-45mm	□40-45mm	□40mm	□40-45mm
Kit Contents	● Magnet Catch CR-Nx1 ● CR Plate-Nx1 ● CR Bracketx1 ● Cross-Recessed Small Flat Screw M3x6(Stainless)x2 ● ST Nut SS(M3)x2 ● Truss Screw M4x6(Stainless)x4 ● Truss Screw M4x10(Stainless)x2 ● ST Nut S(M4)x2	● Magnet Catch CR-Nx1 ● T Slot Assist B55x1 ● CR Magnet Platex1 ● Cross-Recessed Small Flat Screw M3x6(Stainless)x2 ● ST Nut SS(M3)x2 ● Truss Screw M4x6(Stainless)x4 ● Truss Screw M4x12(Stainless)x2 ● ST Nut L(M4)x2	● Magnet Catch CR-Nx1 ● CR Plate-Nx1 ● CR Bracketx1 ● Cross-Recessed Small Flat Screw M3x6(Stainless)x2 ● ST Nut SS(M3)x2 ● Truss Screw M4x6(Stainless)x4 ● Truss Screw M4x12(Stainless)x2 ● ST Nut L(M4)x2	● Magnet Catch CR-Nx1 ● CR Plate-Nx1 ● CR Bracketx1 ● Cross-Recessed Small Flat Screw M3x6(Stainless)x2 ● ST Nut SS(M3)x2 ● Truss Screw M4x6(Stainless)x4 ● Truss Screw M4x12(Stainless)x2 ● ST Nut L(M4)x2	● Magnet Catch CR-Nx1 ● T Slot Assist B55x1 ● CR Magnet Platex1 ● Cross-Recessed Small Flat Screw M3x6(Stainless)x2 ● Accessory Nut L-M3x2 ● Truss Screw M4x10(Stainless)x2 ● ST Nut S(M4)x2 ● Truss Screw M4x12(Stainless)x2 ● ST Nut L(M4)x2	● Magnet Catch CR-Nx1 ● CR Plate-Nx1 ● CR Bracketx1 ● Cross-Recessed Small Flat Screw M3x6(Stainless)x2 ● Accessory Nut L-M3x2 ● Truss Screw M4x10(Stainless)x2 ● Truss Screw M4x12(Stainless)x2 ● ST Nut L(M4)x2

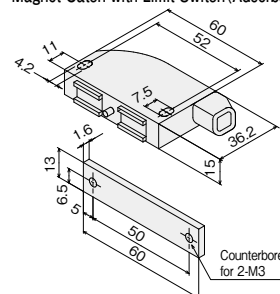
Material/Technical Data	
Material	A6063(CR Plate-CR Bracket) Resin(Housing) Neodymium(Magnet)
Weight	16.7g(Magnet Catch CR-N (Single Item)) 8.9g(Magnet Catch CR-J (Single Item))
Environment	RoHS Compliant

Door·Panel Parts Magnet Catch with Limit Switch

Magnet Catch with Limit Switch



Magnet Catch with Limit Switch (Adsorbability:29.4N)



Name	Magnet Catch with Limit Switch
Item No.	SFA-42A

Material/Technical Data	
Material	PBT (Case)
	Ferrite (Magnet)
Weight	52.5g
	(Magnet Catch with Limit Switch)

Switch Spec: ON when door is closed. 1 ○ — ○ 2			
Rated Voltage [V]	Resistant Load [A]	Lumped Load [A]	Induction Load [A]
AC125	5	1.5	3
AC250	5	—	3
DC30	5	—	1.5

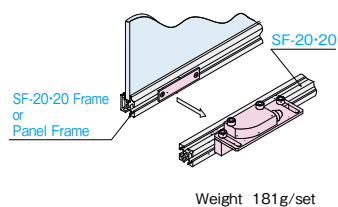
Purpose Example

Name	Door	Component
ML Bracket SS Kit	SF-20-20 or Panel Frame SS	SF-20-20 Series
ML Bracket S Kit		SF-30-30 Series
ML Bracket L Kit		SF-40-45 Series
ML Bracket S-S Kit		SF-30-30 Series
ML Bracket L-S Kit	SF-30-30	SF-40-45 Series
ML Plate	Resin Panel	SF-20-20 Series
		SF-30-30 Series
		SF-40-45 Series

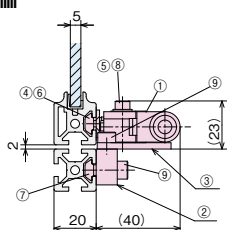
※ Bolt and Nut isn't included to ML Plate.

■ In case of Door Frame □20mm (Include Panel Frame)

Door Frame □20mm · Body Frame □20mm
(ML Bracket SS Kit)



Weight 181g/set

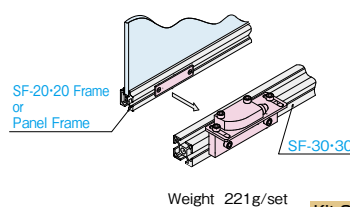


Kit Contents

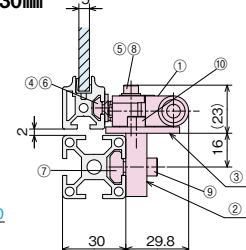
- ① Magnet Catch with Limit Switch×1
- ② ML Bracket SS×1
- ③ ML Plate×1
- ④ Flat-Head Screw (M3×6)×2
- ⑤ For Flat Washer M4×2
- ⑥ T Nut SS M3×2
- ⑦ T Nut SS M5×2
- ⑧ Hexagon Socket Bolt (M4×18)×2
- ⑨ Hexagon Socket Bolt (M5×15)×4

Name	ML Bracket SS Kit
Item No.	SFK-4CA

Door Frame □20mm · Body Frame □30mm
(ML Bracket S Kit)



Weight 221g/set

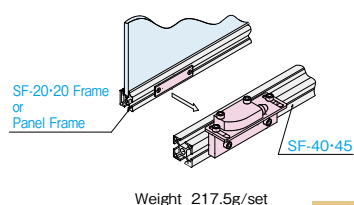


Kit Contents

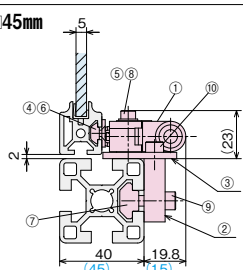
- ① Magnet Catch with Limit Switch×1
- ② ML Bracket S×1
- ③ ML Plate×1
- ④ Flat-Head Screw (M3×6)×2
- ⑤ For Flat Washer M4×2
- ⑥ T Nut SS M3×2
- ⑦ T Nut S M5×2
- ⑧ Hexagon Socket Bolt (M4×18)×2
- ⑨ Hexagon Socket Bolt (M5×15)×2
- ⑩ Hexagon Socket Bolt (M5×18)×2

Name	ML Bracket S Kit
Item No.	SFK-4CB

Door Frame □20mm · Body Frame □40mm · □45mm
(ML Bracket L Kit)



Weight 217.5g/set

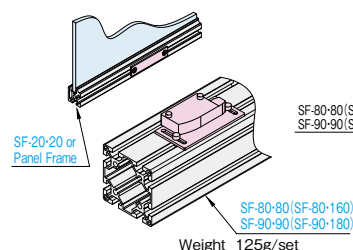


Kit Contents

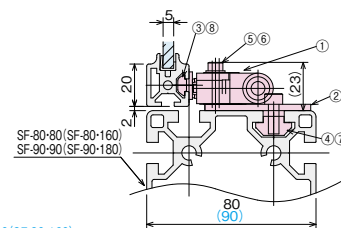
- ① Magnet Catch with Limit Switch×1
- ② ML Bracket L×1
- ③ ML Plate×1
- ④ Flat-Head Screw (M3×6)×2
- ⑤ For Flat Washer M4×2
- ⑥ T Nut SS M3×2
- ⑦ T Nut L M5×2
- ⑧ Hexagon Socket Bolt (M4×18)×2
- ⑨ Hexagon Socket Bolt (M5×15)×2
- ⑩ Hexagon Socket Bolt (M5×22)×2

Name	ML Bracket L Kit
Item No.	SFK-4CC

Door Frame □20mm · Body Frame □80mm (2 lines of grooves) · □90mm
(ML Bracket L80-90 Kit)



Weight 125g/set



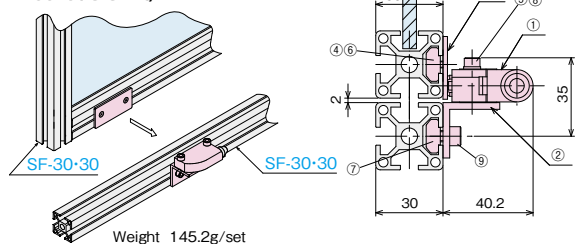
Kit Contents

- ① Magnet Catch with Limit Switch×1
- ② ML Bracket L80-90×1
- ③ T Nut SS M3×2
- ④ T Nut L M5×2
- ⑤ For Flat Washer M4×2
- ⑥ Hexagon Socket Bolt (M4×18)×2
- ⑦ Hexagon Socket Bolt (M5×15)×2
- ⑧ Flat-Head Screw (M3×6)×2

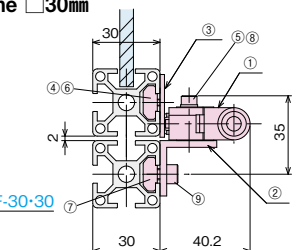
Name	ML Bracket L80-90 Kit
Item No.	SFK-4CJ

■ In case of Door Frame □30mm

Door Frame □30mm · Body Frame □30mm
(ML Bracket S-S Kit)



Weight 145.2g/set

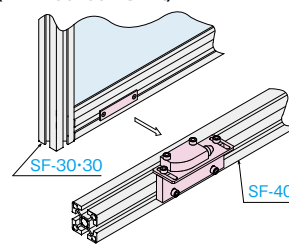


Kit Contents

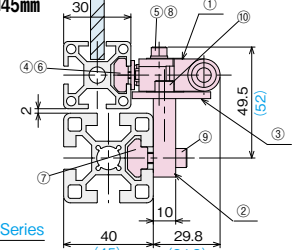
- ① Magnet Catch with Limit Switch×1
- ② ML Bracket S-S×1
- ③ ML Magnet Plate×1
- ④ Flat-Head Screw (M3×8)×2
- ⑤ For Flat Washer M4×2
- ⑥ T Nut S M3×2
- ⑦ T Nut S M5×2
- ⑧ Hexagon Socket Bolt (M4×20)×2
- ⑨ Hexagon Socket Bolt (M5×10)×2

Name	ML Bracket S-S Kit
Item No.	SFK-4CD

Door Frame □30 · Body Frame □40mm · □45mm
(ML Bracket L-S Kit)



Weight 284.7g/set



Kit Contents

- ① Magnet Catch with Limit Switch×1
- ② ML Bracket L-S×1
- ③ ML Plate×1
- ④ Flat-Head Screw (M3×8)×2
- ⑤ For Flat Washer M4×2
- ⑥ T Nut S M3×2
- ⑦ T Nut L M5×2
- ⑧ Hexagon Socket Bolt (M4×18)×2
- ⑨ Hexagon Socket Bolt (M5×15)×2
- ⑩ Hexagon Socket Bolt (M5×22)×2

Name	ML Bracket L-S Kit
Item No.	SFK-4CF



Parts

How to order

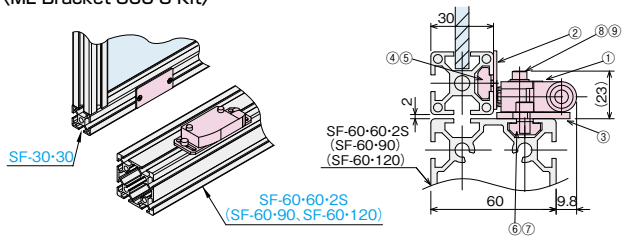
Item No.

Quantity (pcs)

SFA-42A



Door Frame □30mm · Body Frame □60mm (2 lines of grooves)
(ML Bracket S60-S Kit)



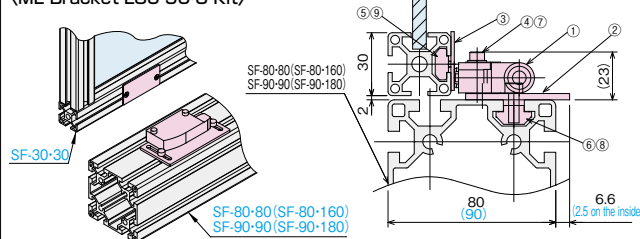
Weight 179g/set

Kit Contents

- ①Magnet Catch with Limit Switch×1
②ML Magnet Plate 1×1
③ML Plate×1
④Flat-Head Screw (M3×8)×2
⑤T Nut S M3×2 ⑥T Nut S M5×2
⑦Hexagon Socket Bolt (M5×10)×2
⑧For Flat Washer M4×2
⑨Hexagon Socket Bolt (M4×18)×2

Name	ML Bracket S60-S Kit
Item No.	SFK-4CN

Door Frame □30mm · Body Frame □80mm (2 lines of grooves) · □90mm
(ML Bracket L80-90-S Kit)



Weight 162g/set

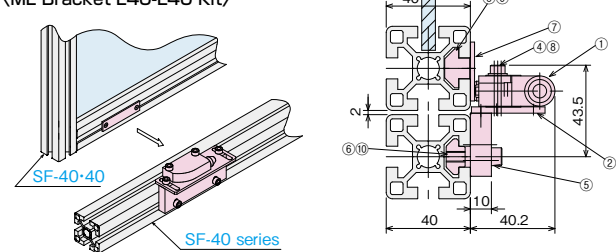
Kit Contents

- ①Magnet Catch with Limit Switch×1
②ML Bracket L80-90×1
③ML Magnet Plate 1×1
④For Flat Washer M4×2
⑤T Nut S M3×2 ⑥T Nut L M5×2
⑦Hexagon Socket Bolt (M4×18)×2
⑧Hexagon Socket Bolt (M5×14)×2
⑨Cross-Recessed Small Flat Screw (M3×8)×2

Name	ML Bracket L80-90-S Kit
Item No.	SFK-4CK

■In case of Door Frame □40mm

Door Frame □40mm · Body Frame □40mm
(ML Bracket L40-L40 Kit)



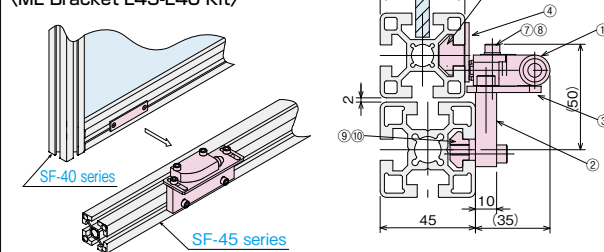
Weight 266g/set

Kit Contents

- ①Magnet Catch with Limit Switch×1
②ML Plate×1 ③Flat-Head Screw (M3×10)×2
④For Flat Washer M4×2 ⑤ML Bracket×1
⑥T Nut L M5×2
⑦ML Magnet Plate 1×1
⑧Hexagon Socket Bolt (M4×18)×2
⑨Accessory Nut L (M3)×2
⑩Hexagon Socket Bolt (M5×22)×2

Name	ML Bracket L40-L40 Kit
Item No.	SFK-4CL

Door Frame □40mm · Body Frame □45mm
(ML Bracket L45-L40 Kit)



Weight 293g/set

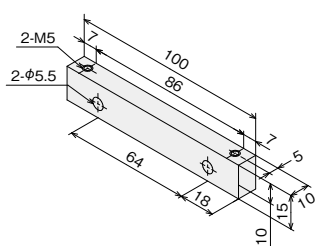
Kit Contents

- ①Magnet Catch with Limit Switch×1
②ML Bracket L-S×1 ③ML Plate×1
④ML Magnet Plate 1×1
⑤Flat-Head Screw (M3×10)×2
⑥Accessory Nut L (M3)×2
⑦Hexagon Socket Bolt (M4×18)×2
⑧For Flat Washer M4×2 ⑨T Nut L (M5)×2
⑩Hexagon Socket Bolt (M5×22)×2

Name	ML Bracket L45-L40 Kit
Item No.	SFK-4CM

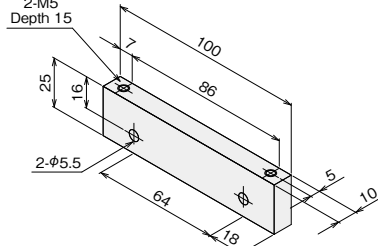
■Bracket for Magnet Catch with Limit Switch Kit (For Frame Rim Door)

(ML Bracket SS)



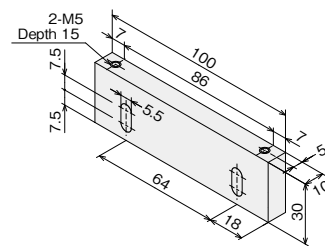
Material/A6063 Alumite Treatment

(ML Bracket S)



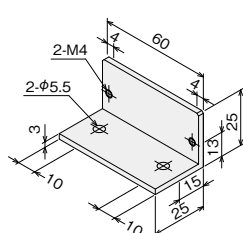
Material/A6063 Alumite Treatment

(ML Bracket)



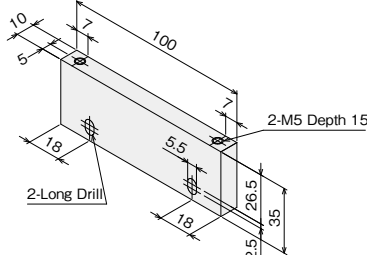
Material/A6063 Alumite Treatment

(ML Bracket S-S)



Material/A6063 Alumite Treatment

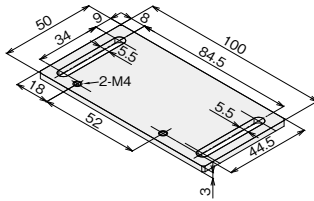
(ML Bracket L-S)



Material/A6063 Alumite Treatment

Door•Panel Parts Magnet Catch with Limit Switch

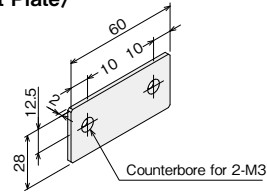
<ML Bracket L80•90>



Material/Technical Data

Material Aluminium Alloy
Alumite Treatment
Weight 36.4g
Environment RoHS Compliant
Green Procurement

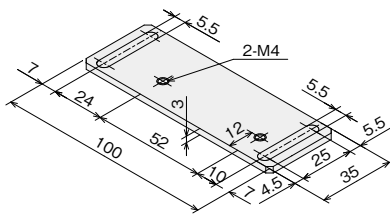
★ <ML Magnet Plate 1> ★ <CR Magnet Plate>



Material/Technical Data

	ML Magnet Plate1	CR Magnet Plate
Material	SPCC	Stainless (SUS430)
Weight	25.2g	25.6g
Environment	★ RoHS Compliant	★ Green Procurement

<ML Plate>

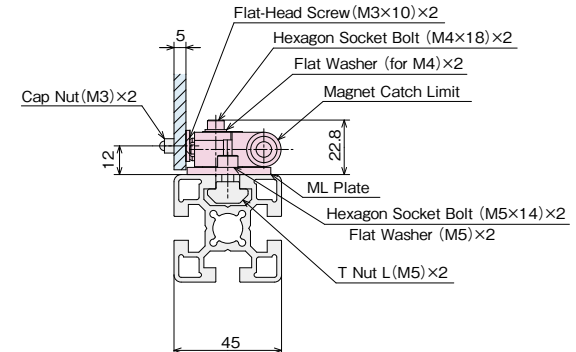
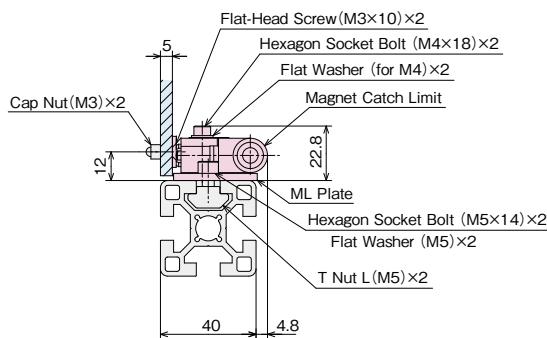
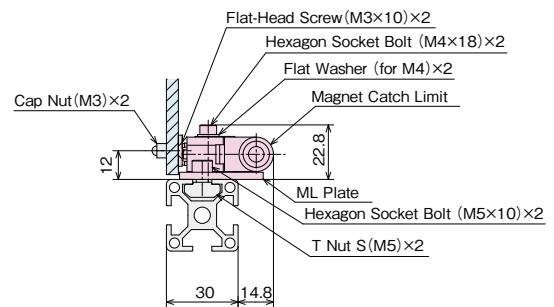
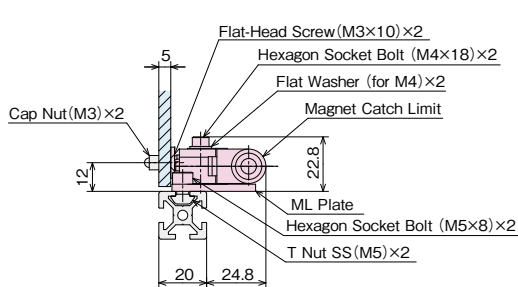


Name	ML Plate
Item No.	SFA-42E

Material/Technical Data

Material SUS304
Weight 70.9g
Environment RoHS Compliant
Green Procurement

Dimension Indication when using Resin Panel t5 Door



※Bolt and Nut aren't included,



Parts

How to order

Item No. Quantity (pcs)

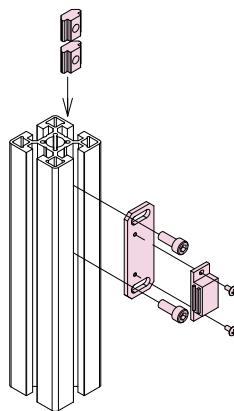
SFA-42E



Magnet Catch G with Limit Switch

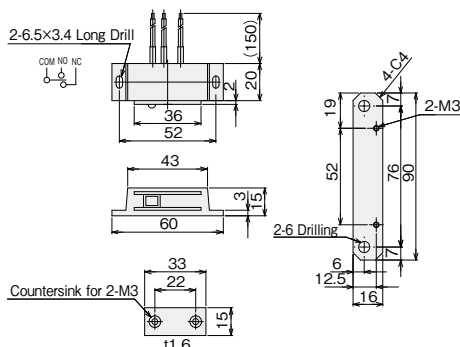


Magnet Catch G with Limit Switch
(Adsorbability: 19N)

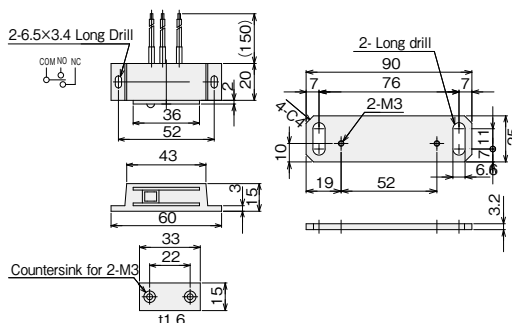


Name(Single Item)	Magnet Catch G with Limit Switch
Item No.	SFA-499

MG-G Limit SS Kit



MG-G Limit S/L Kit(Common)



Material/Technical Data

Material ABS (Magnet Catch with G Limit Switch)
SPCC Uni-chrome (Door Side-Installing Plate)
Weight 40g (Magnet Catch with G Limit Switch)
Retentivity 3

Attaching Frame	SF20 Series	SF30 Series	SF40·45 Series
Name(Bolt and Nut Kit)	MG-G Limit SS Kit	MG-G Limit S Kit	MG-G Limit L Kit
Item No.	SFK-4X1	SFK-4X2	SFK-4X3

Kit Contents	〈MG-G Limit SS Kit〉	〈MG-G Limit S Kit〉	〈MG-G Limit L Kit〉
	● Magnet Catch G with Limit Switch×1 ● T Nut SS (M5)×2 ● MG-G Limit Installing Plate 20×1 ● Truss Screw (M3×6)×2 ● Flat-Head Screw (M3×8)×2 ● Hexagon Socket Bolt (M5×8)×2 ● Cap Nut (M3)×2	● Magnet Catch G with Limit Switch×1 ● T Nut S (M6)×2 ● MG-G Limit Installing Plate 30×1 ● Truss Screw (M3×6)×2 ● Flat-Head Screw (M3×10)×2 ● Hexagon Socket Bolt (M6×10)×2 ● Cap Nut (M3)×2	● Magnet Catch G with Limit Switch×1 ● T Nut L (M6)×2 ● MG-G Limit Installing Plate 30×1 ● Truss Screw (M3×6)×2 ● Flat-Head Screw (M3×10)×2 ● Hexagon Socket Bolt (M6×15)×2 ● Cap Nut (M3)×2

Door·Panel Parts Safty Door Switch Kit

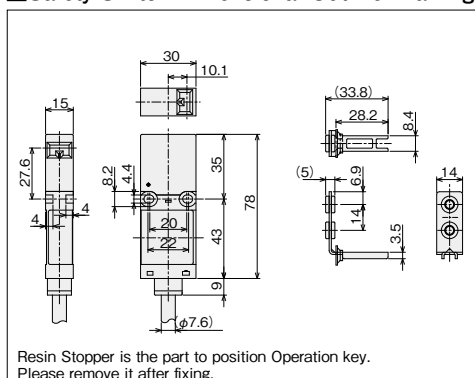
Safty Door Switch Kit A



Kit selection

Combination of Rim and Door		Name	Item No.
Frame at Rim-side	Door Side		
□20 Series	Resin panel Door t=5	Safty Switch Kit SS-PA	SFK-471A
□30 Series		Safty Switch Kit S-PA	SFK-472A
□40·45 Series		Safty Switch Kit L-PA	SFK-473A
□20 Series	□20 Series Frame Door	Safty Switch Kit SS-SSA	SFK-HE4A
□30 Series		Safty Switch Kit S-SSA	SFK-HE5A
□40 Series		Safty Switch Kit L40-SSA	SFK-HE6A
□45 Series		Safty Switch Kit L45-SSA	SFK-HE7A
□30 Series	□30 Series Frame Door	Safty Switch Kit S-SA	SFK-HE8A
□40 Series		Safty Switch Kit L40-SA	SFK-HE9A
□45 Series		Safty Switch Kit L45-SA	SFK-HF1A

Safty Switch Dimensional Outline Drawing



We also sell Safty Switch as a Single Item.

Name	Item No.
HS6B Safty Switch(with Operation Key)	SFK-HS6B

Spec

IEC Model[HS6B-03B01] Safty Switch
 [HS9Z-A62] Operation Key
 Environment **RoHS** Compliant

Operation Characteristics

Direct Circuit Operation Power*	60N and up
Direct Circuit Operation Stroke*	8mm and up

* Power and stroke to separate when assuming the case which contact-point deposits with the power of 10N per 1 contact point.

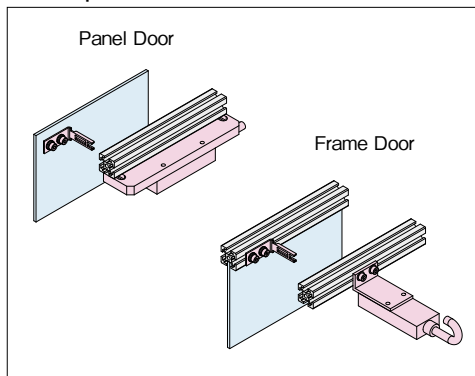
Safty Standard

ISO14119
 EN1088
 IEC60947-5-1
 EN60947-5-1 (DEMKO Approval)
 GS-ET-15 (BG Approval)
 UL508 (UL Listing Approval)
 CSA C22.2 No.14 (c-UL Listing Approval)

Operation Characteristics

Contact Point	Contact Symbol	Operation Characteristics	
3NC		(Completion of inserting Operation Key)	(Completion of pulling out Operation Key)
		Stroke	
		11-12	□:Contact Point ON (Close)
		21-22	□:Contact Point OFF (Open)

Example of Use



Kit Contents

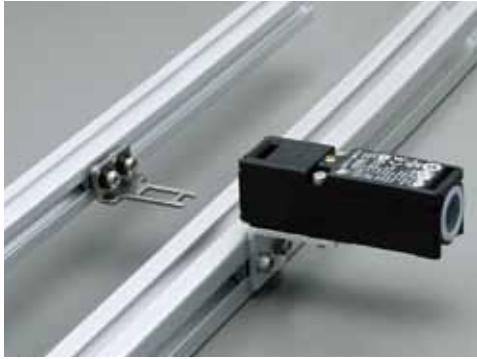
*Please refer the next page regarding part's shape detail and installing position.

		Kit Component													
		Install at Rim-side									Install at door side				
		①	②	Dimension of Part Drawing						③	④	⑤	⑥	⑦	⑧
A	B			C	D	E	F								
Resin panel Door	Safty Switch Kit SS-PA	SDP Plate×1							Hexagon Socket Bolt (M4×20) Stainless×2	Hexagon Socket Bolt (M4×10) Stainless×2		ST Nut SS (M4)×2	Truss Screw (M4×15) Stainless×2	Hexagon Nut (M4) Stainless Kind 1×2	
	Safty Switch Kit S-PA		Hexagon Socket Bolt (M4×12) Stainless×2	ST Nut S (M4)×2											
	Safty Switch Kit L-PA		Hexagon Socket Bolt (M4×15) Stainless×2	ST Nut L (M4)×2											
Frame Door	Safty Switch Kit SS-SSA	HS6B Safty Switch (with Operation Key) ×1	Safty Switch Bracket SS-SS×1	50	42.2	18.5	14	0	3	Hexagon Socket Bolt (M4×18) Stainless×2	Hexagon Socket Bolt (M4×8) Stainless×2	Flat Washer M4 Stainless×2	ST Nut SS (M4)×2	Flat Washer M4 Stainless×2	ST Nut SS (M4)×2
	Safty Switch Kit S-SSA		Safty Switch Bracket S-SS×1	32.2	27	17.5	3		Hexagon Socket Bolt (M5×12) Stainless×2		ST Nut S (M5)×2				
	Safty Switch Kit L40-SSA		Safty Switch Bracket L40-SS×1	40	22.2	36	21.5	5	5		Hexagon Socket Bolt (M5×15) Stainless×2	ST Nut L (M5)×2			
	Safty Switch Kit L45-SSA		Safty Switch Bracket L45-SS×1		17.2	40	24								
	Safty Switch Kit S-SA		Safty Switch Bracket S-S×1	50	43	32	22.5	3	3		Hexagon Socket Bolt (M5×12) Stainless×2	ST Nut S (M5)×2			
	Safty Switch Kit L40-SA		Safty Switch Bracket L40-S×1	40	33	48	26.5	5	Hexagon Socket Bolt (M5×15) Stainless×2				ST Nut L (M5)×2		
	Safty Switch Kit L45-SA		Safty Switch Bracket L45-S×1		28	40	30	3			5				



Parts
 How to order
 Item No. Quantity (pcs)
SFK-471A □□

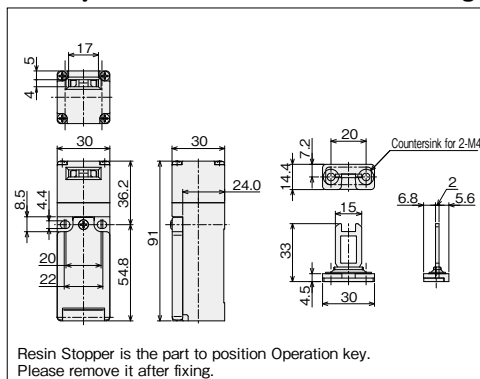
Safty Switch Kit B



■Kit selection

Combination of Rim and Door		Name	Item No.
Frame at Rim-side	Door Side		
□20 Series	Resin panel Door t=5	Safty Switch Kit SS-PB	SFK-HFAB
□30 Series		Safty Switch Kit S-PB	SFK-HFBB
□40·45 series		Safty Switch Kit L-PB	SFK-HFCB
□20 Series	□20 Series Frame Door	Safty Switch Kit SS-SSB	SFK-HE4B
□30 Series		Safty Switch Kit S-SSB	SFK-HE5B
□40 Series		Safty Switch Kit L40-SSB	SFK-HE6B
□45 Series		Safty Switch Kit L45-SSB	SFK-HE7B
□30 Series	□30 Series Frame Door	Safty Switch Kit S-SB	SFK-HE8B
□40 Series		Safty Switch Kit L40-SB	SFK-HE9B
□45 Series		Safty Switch Kit L45-SB	SFK-HF1B

■Safety Switch Dimensional Outline Drawing



■We also sell Safty Switch as a Single Item.

Name	Item No.
HS5B Safty Switch(with Operation Key)	SFK-HS5B

■Spec

IEC Model[HS5B-02B]Safty Switch

[HS9Z-A52]Operation Key

Environment **RoHS** Compliant

■Operation Characteristics

Direct Circuit Operation Power [※]	60N and up
Direct Circuit Operation Stroke [※]	8mm and up

※ Power and stroke to separate when assuming the case which contact-point deposits with the power of 10N per 1 contact point.

■Safety Standard

ISO14119/EN1088/

IEC60947-5-1/EN60947-5-1 (TÜV Approval)

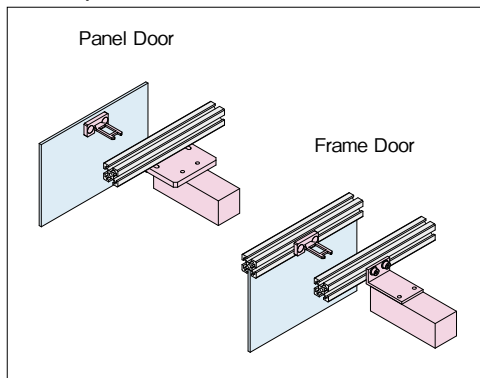
GS-ET-15(BG Approval)/UL508(UL Listing Approval)/

CSA C22.2No.14(c-UL Listing Approval)

■Operation Characteristics

Contact Point	Contact Symbol	Operation Characteristics	
2NC		(Completion of inserting Operation Key)	(Completion of pulling out Operation Key)

■Example of use



■Kit Contents

※Please refer the next page regarding part's shape detail and installing position.

		Kit Component													
		Install at Rim-side										Install at door side			
		①	②	Dimension of Part Drawing						③	④	⑤	⑥	⑦	⑧
A	B			C	D	E	F								
Resin panel Door	Safty Switch Kit SS-PB	SDP Plate B×1							Hexagon Socket Bolt (M4×12) Stainless×2	Flat Washer M4 Stainless×2	ST Nut SS (M4)×2	Flat-Head Screw (M4×15) Stainless×2	Spring Washer M4 Stainless×2	Cap Nut (M4) Stainless×2	
	Safty Switch Kit S-PB		ST Nut S (M4)×2												
	Safty Switch Kit L-PB		ST Nut L (M4)×2												
Frame Door	Safty Switch Kit SS-SSB	HS5B Safty Switch (with Operation Key) x1	Safty Switch Bracket SS-SS×1	50	42.2	18.5	14	0	3	Hexagon Socket Bolt (M4×30) Stainless×2	Flat Washer M4 Stainless×2	ST Nut SS (M4)×2	Flat-Head Screw (M4×10) Stainless×2	Flat Washer M4 Stainless×2	ST Nut SS (M4)×2
	Safty Switch Kit S-SSB		Safty Switch Bracket S-SS×1	50	32.2	27	17.5	3	3		ST Nut S (M5)×2				
	Safty Switch Kit L40-SSB		Safty Switch Bracket L40-SS×1	40	22.2	36	21.5	5	5		ST Nut L (M5)×2				
	Safty Switch Kit L45-SSB		Safty Switch Bracket L45-SS×1	40	17.2	40	24								
	Safty Switch Kit S-SB		Safty Switch Bracket S-S×1	50	43	32	22.5	3	3		Flat Washer M5 Stainless×2	ST Nut S (M5)×2	Flat-Head Screw (M4×12) Stainless×2	Key Spacer x1	ST Nut S (M4)×2
	Safty Switch Kit L40-SB		Safty Switch Bracket L40-S×1	40	33		26.5	5	5			ST Nut L (M5)×2			
	Safty Switch Kit L45-SB		Safty Switch Bracket L45-S×1	40	28	40	30	3							



Parts
How to order

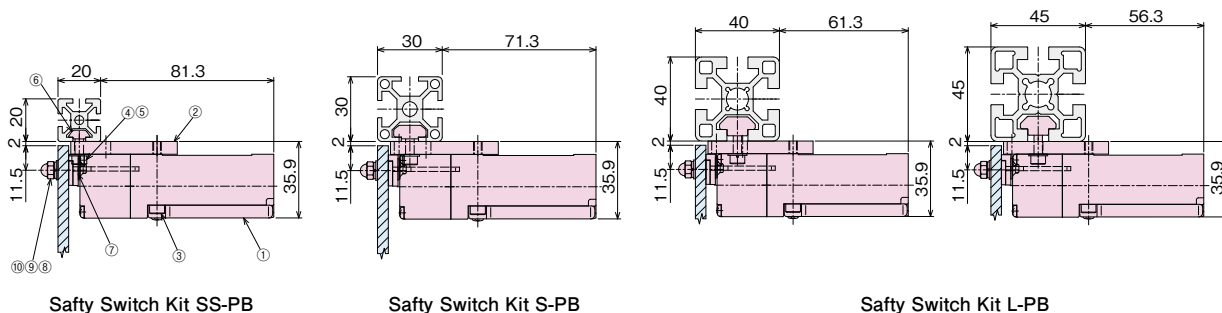
Item No.

Quantity (pcs)

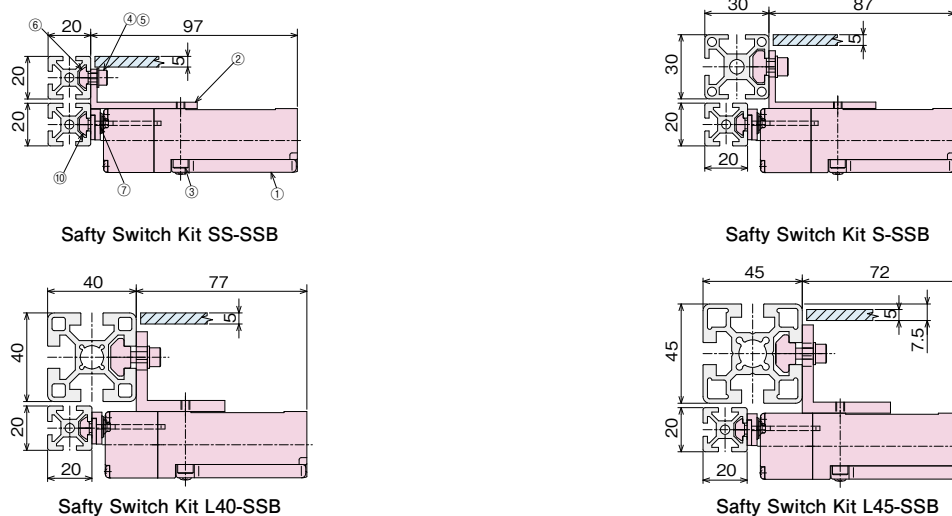
SFK-HFAB □□

Safety Switch Kit B Installation Drawing

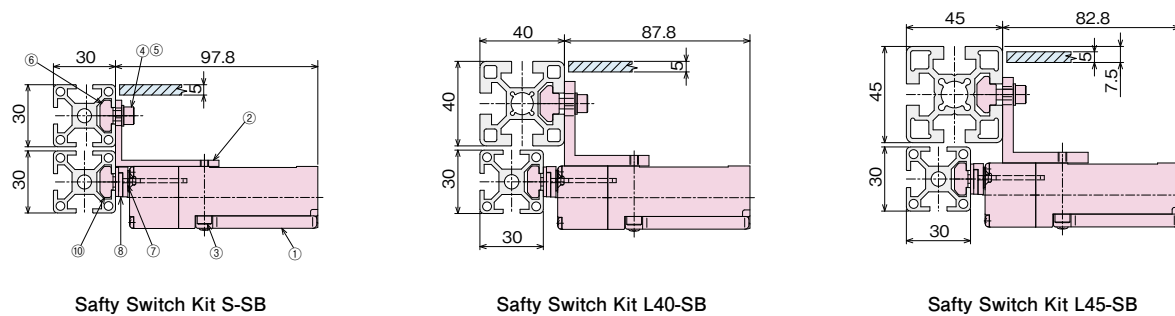
(Resin Panel Door t=5)



(□20 Series Frame Door)

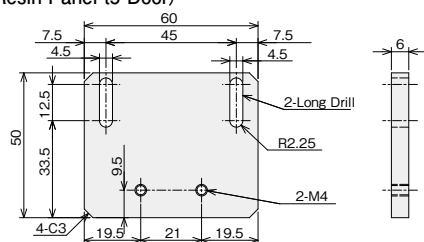


(□30 Series Frame Door)



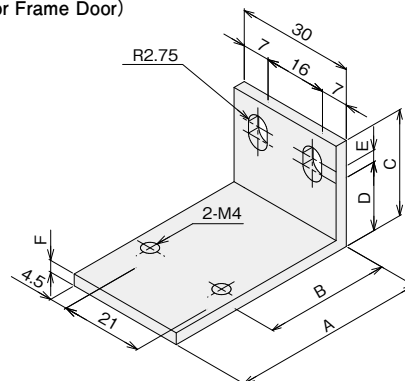
Part Drawing

②SDP Plate B
(Use for Resin Panel t5 Door)



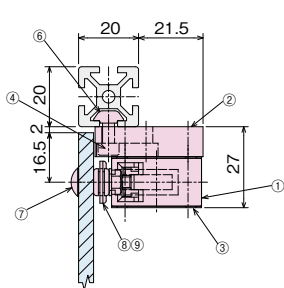
Name	SDP Plate B
Item No.	SFA-4HF3

②Safety Switch Bracket
(Use for Frame Door)

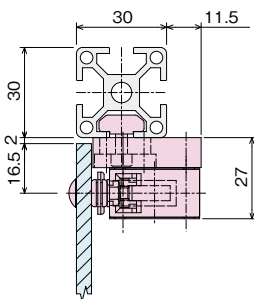


Safety Switch Kit C Installation Drawing

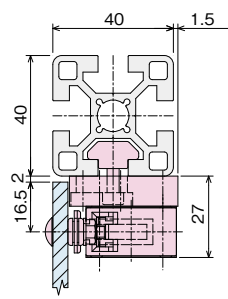
(Resin Panel Door t=5)



Safty Switch Kit SS-PC

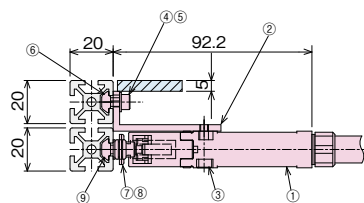


Safty Switch Kit S-PC

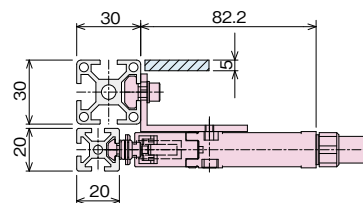


Safty Switch Kit L-PC

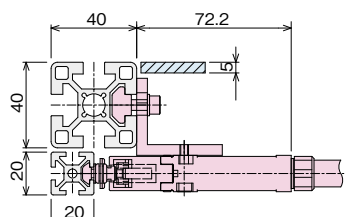
(□20 Series Frame Door)



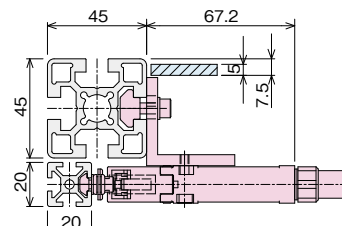
Safty Switch Kit SS-SSC



Safty Switch Kit S-SSC

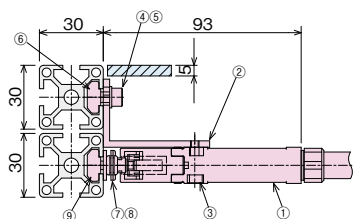


Safty Switch Kit L40-SSC

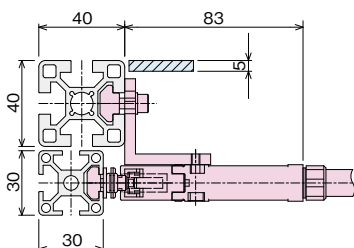


Safty Switch Kit L45-SSC

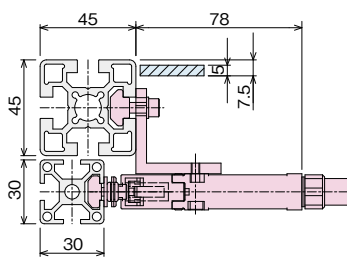
(□30 Series Frame Door)



Safty Switch Kit S-SC



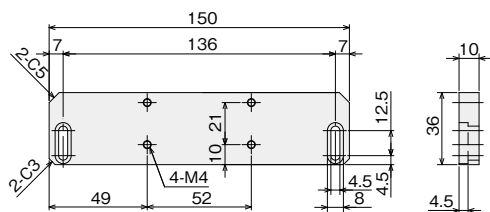
Safty Switch Kit L40-SC



Safty Switch Kit L45-SC

Part Drawing

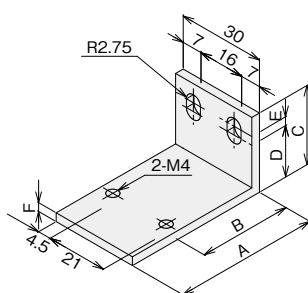
②SDP Plate
(Use for Resin Panel t5 Door)



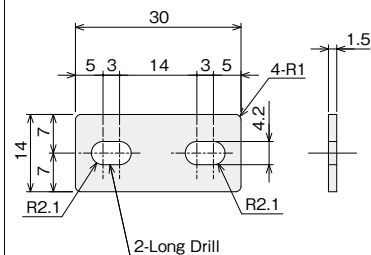
Name	SDP Plate
Item No.	SFA-470

Material	Aluminium Alloy Alumite Treatment
Weight	138g
Environment	RoHS Compliant Green Procurement

②Safty Switch Bracket
(Use for Frame Door)



⑧Key Spacer
(Use for SF-30·30 Frame Door)

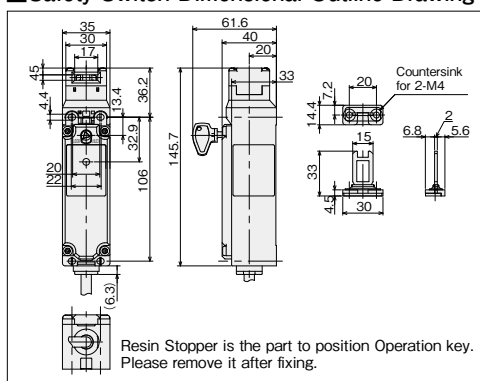


Solenoid Switch Kit

* Small Solenoid Switch with built-in 4 Contact Points.



Safety Switch Dimensional Outline Drawing



Kit selection

Combination of Rim and Door		Name	Item No.
Frame at Rim-side	Door Side		
□20 Series	□20 Series Frame Door	Solenoid Switch Kit SS-SS	SFK-HF4A
□30 Series		Solenoid Switch Kit S-SS	SFK-HF4B
□40•45 Series		Solenoid Switch Kit L-SS	SFK-HF4C
□30 Series	□30 Series Frame Door	Solenoid Switch Kit S-S	SFK-HF4D
□40•45 Series		Solenoid Switch Kit L-S	SFK-HF4E

We also sell Safty Switch as a single item.

Name	Item No.
HS5E Solenoid Safty Switch(with Operation Key)	SFK-HS5E

Spec

IEEC Model[HS5E-D4401-G]Solenoid Safty Switch
[HS9Z-A52]Operation Key
Environment **RoHS** Correspondence

Operation Characteristics

Direct Circuit Operation Power*	80N and up
Direct Circuit Operation Stroke*	12mm and up

* Power and stroke to separate, assuming the case which contact-point deposits with the power of 10N per 1 contact point when it's not locked.

Safety Standard

ISO14119
IEC60947-5-1
EN60947-5-1 (TÜV Approval)
EN1088
GS-ET-19 (BG Approval)
UL508 (UL Recognition Approval)
CSA C22.2 No.14 (c-UL Recognition Approval)

Types of Contact Point

□:Contact point ON(Close)
□:Contact point OFF (Open)

Condition of Safety Switch		Condition 1	Condition 2	Condition 3	Condition 4	When unlocked by manual lock release key
Picture of Door Condition						
Circuit Drawing						
Door		•Close (LOCKED)	•Close (UNLOCKED)	•Open	•Open	•Close
HS5E-D4 Main circuit: 11-12 Monitor circuit: 21-22 Lock circuit: 51-52	2NC	Main circuit Between 11 and 42				
	1NC	Monitor circuit (Door is close) Between 21 and 22				
	1NC	Monitor circuit (Lock) Between 51 and 52				
Solenoid Power Source Between A1 and A2 (Common for all systems)		•OFF (non-excitation)	•ON (excitation)	•ON (excitation)	•OFF (non-excitation)	•OFF (non-excitation)

- Main circuit: It sends out protective door's interlock signal, connecting to control circuit etc of machine's driving part.
- Monitor circuit: It sends out signal which monitors opening and closing protective door, or excitation/non-excitation of Solenoid.



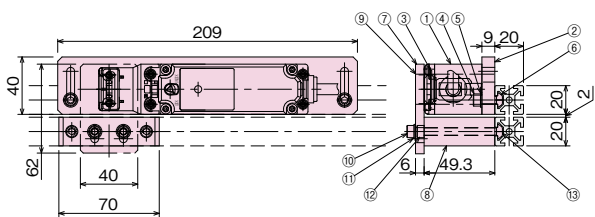
Parts
How to order
Item No. Quantity (pcs)
SFK-HF4A □□

Kit Contents

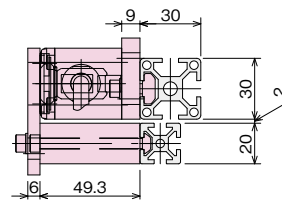
	Kit Component												
	Rim-Side Installment						Door-Side Installment						
	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬
Solenoid Switch Kit SS-SS	HS5E Solenoid Safty Switch (with Operation Key) ×1	Solenoid Switch Plate ×1	Hexagon Socket Bolt (M4×40) Stainless×4	Hexagon Socket Bolt (M5×15) Stainless×2	Flat Washer M5 Stainless×2	ST Nut SS (M5)×2	Key Plate ×1	Key Block ×1	Flat-Head Screw (M4×10) Stainless×2	Hexagon Socket Bolt (M5×20) Stainless×2	Flat Washer M5 Stainless×2	Hexagon Socket Bolt (M5×55) Stainless×2	ST Nut SS (M5)×2
Solenoid Switch Kit S-SS				Hexagon Socket Bolt (M5×18) Stainless×2		ST Nut S (M5)×2							
Solenoid Switch Kit L-SS				Hexagon Socket Bolt (M5×20) Stainless×2		ST Nut L (M5)×2							
Solenoid Switch Kit S-S				Hexagon Socket Bolt (M5×18) Stainless×2		ST Nut S (M5)×2							
Solenoid Switch Kit L-S				Hexagon Socket Bolt (M5×20) Stainless×2		ST Nut L (M5)×2							
													ST Nut S (M5)×2

Solenoid Switch Kit Installing Drawing

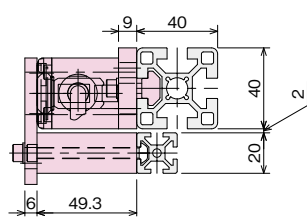
□20 Series Frame Door



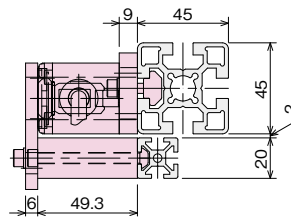
Solenoid Switch Kit SS-SS



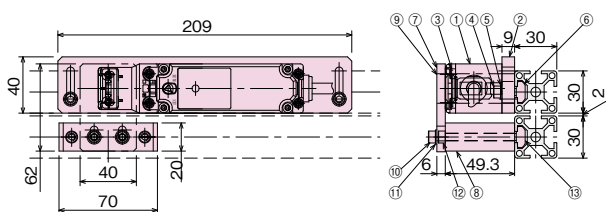
Solenoid Switch Kit S-SS



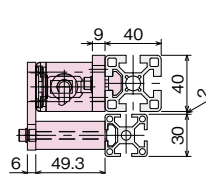
Solenoid Switch Kit L-SS



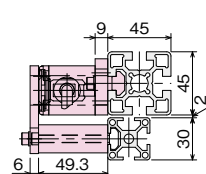
□30 Series Frame Door



Solenoid Switch Kit S-S

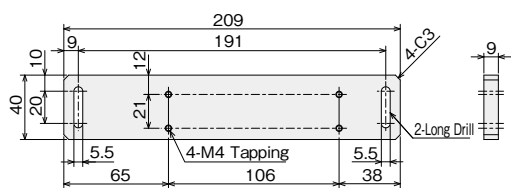


Solenoid Switch Kit L-S



Part Drawing

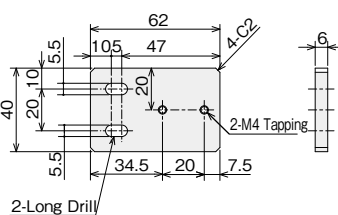
② Solenoid Switch Plate



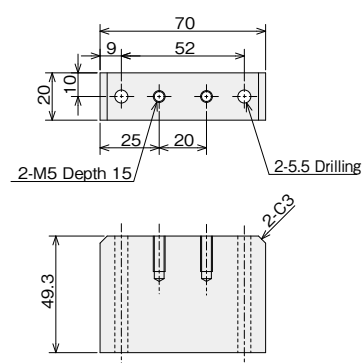
Name	Solenoid Switch Plate
Item No.	SFA-4HF4

Material	Aluminium Alloy Alumite Treatment
Weight	195g
Environment	RoHS Compliant Green Procurement

⑦ Key Plate

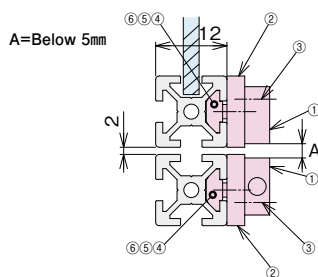


⑧ Key Block



Noncontact Safty Switch Kit Installation Drawing

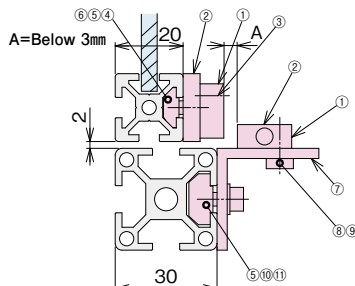
(□20 Series Frame Door)



HS7A2020 Kit

Item No.	Contents-Component	Qty.
①	HS7A	1
②	Plate HS7A	2
③	Hexagon Socket Bolt M3x8 (Stainless)	4
④	Hexagon Socket Bolt M4x10 (Stainless)	4
⑤	Flat Washer M4 (Stainless)	4
⑥	ST Nut SS (M4)	4

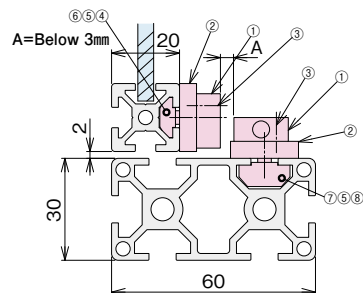
SFK-HS7A



HS7A2030 Kit

Item No.	Contents-Component	Qty.
①	HS7A	1
②	Plate HS7A	1
③	Hexagon Socket Bolt M3x8 (Stainless)	2
④	Hexagon Socket Bolt M4x10 (Stainless)	2
⑤	Flat Washer M4 (Stainless)	4
⑥	ST Nut SS (M4)	2
⑦	Angle HS7A	1
⑧	Hexagon Socket Bolt M3x12 (Stainless)	2
⑨	Nut HS7A	1
⑩	Hexagon Socket Bolt M4x12 (Stainless)	2
⑪	ST Nut S (M4)	2

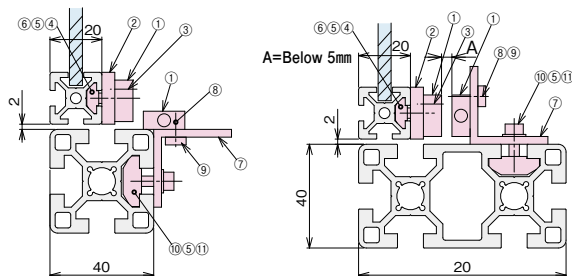
SFK-HS7B



HS7A2060 Kit

Item No.	Contents-Component	Qty.
①	HS7A	1
②	Plate HS7A	2
③	Hexagon Socket Bolt M3x8 (Stainless)	4
④	Hexagon Socket Bolt M4x10 (Stainless)	2
⑤	Flat Washer M4 (Stainless)	4
⑥	ST Nut SS (M4)	2
⑦	Hexagon Socket Bolt M4x12 (Stainless)	2
⑧	ST Nut S (M4)	2

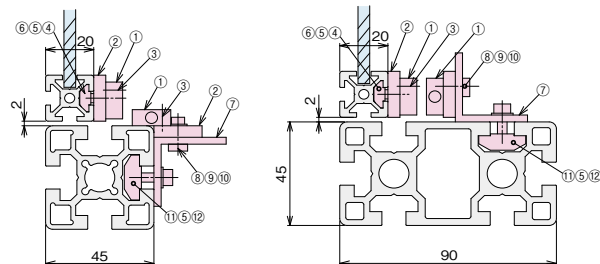
SFK-HS7C



HS7A2040 Kit
HS7A3040 Kit

Item No.	Contents-Component	Qty.
①	HS7A	1
②	Plate HS7A	1
③	Hexagon Socket Bolt M3x8 (Stainless)	2
④	Hexagon Socket Bolt M4x10 (Stainless)	2
⑤	Flat Washer M4 (Stainless)	4
⑥	ST Nut SS (M4)	2
⑦	Angle HS7A	1
⑧	Hexagon Socket Bolt M3x12 (Stainless)	2
⑨	Nut HS7A	1
⑩	Hexagon Socket Bolt M4x15 (Stainless)	2
⑪	ST Nut L (M4)	2

SFK-HS7D

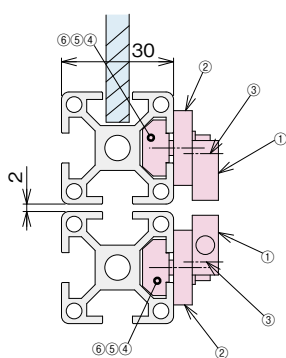


HS7A2045 Kit

Item No.	Contents-Component	Qty.
①	HS7A	1
②	Plate HS7A	2
③	Hexagon Socket Bolt M3x8 (Stainless)	4
④	Hexagon Socket Bolt M4x10 (Stainless)	2
⑤	Flat Washer M4 (Stainless)	4
⑥	ST Nut SS (M4)	2
⑦	Angle HS7A	1
⑧	Hexagon Socket Bolt M3x15 (Stainless)	2
⑨	Flat Washer M3 (Stainless)	2
⑩	Nut HS7A	1
⑪	Hexagon Socket Bolt M4x15 (Stainless)	2
⑫	ST Nut L (M4)	2

SFK-HS7E

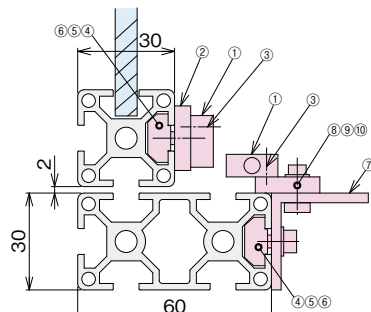
(□30 Series Frame Door ①)



HS7A3030 Kit

Item No.	Contents-Component	Qty.
①	HS7A	1
②	Plate HS7A	2
③	Hexagon Socket Bolt M3x8 (Stainless)	4
④	Hexagon Socket Bolt M4x12 (Stainless)	4
⑤	Flat Washer M4 (Stainless)	4
⑥	ST Nut S (M4)	4

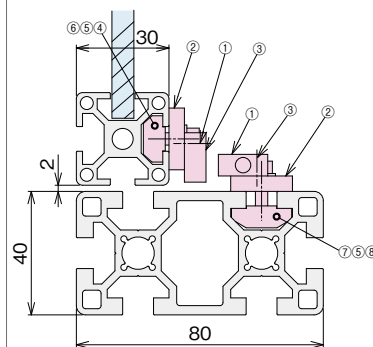
SFK-HS7F



HS7A3060 Kit

Item No.	Contents-Component	Qty.
①	HS7A	1
②	Plate HS7A	2
③	Hexagon Socket Bolt M3x8 (Stainless)	4
④	Hexagon Socket Bolt M4x12 (Stainless)	4
⑤	Flat Washer M4 (Stainless)	4
⑥	ST Nut S (M4)	4
⑦	Angle HS7A	1
⑧	Hexagon Socket Bolt M3x15 (Stainless)	2
⑨	Flat Washer M3 (Stainless)	2
⑩	Nut HS7A	1

SFK-HS7G



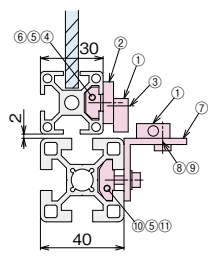
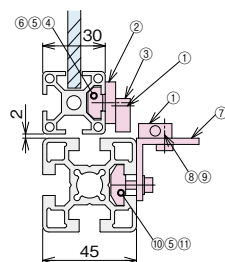
HS7A3080 Kit

Item No.	Contents-Component	Qty.
①	HS7A	1
②	Plate HS7A	2
③	Hexagon Socket Bolt M3x8 (Stainless)	4
④	Hexagon Socket Bolt M4x12 (Stainless)	2
⑤	Flat Washer M4 (Stainless)	4
⑥	ST Nut S (M4)	2
⑦	Hexagon Socket Bolt M4x18 (Stainless)	2
⑧	ST Nut L (M4)	2

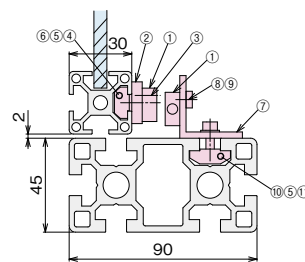
SFK-HS7J

Door·Panel Parts Noncontact Switch Kit

〈□30 Series Frame Door〉



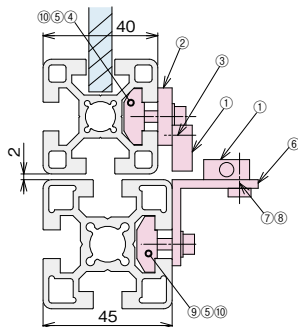
HS7A3040 Kit



Item No.	Contents·Component	Qty.
①	HS7A	1
②	Plate HS7A	1
③	Hexagon Socket Bolt M3×8 (Stainless)	2
④	Hexagon Socket Bolt M4×12 (Stainless)	2
⑤	Flat Washer M4 (Stainless)	4
⑥	ST Nut S (M4)	2
⑦	Angle HS7A	1
⑧	Hexagon Socket Bolt M3×12 (Stainless)	2
⑨	Nut HS7A	1
⑩	Hexagon Socket Bolt M4×15 (Stainless)	2
⑪	ST Nut L (M4)	2

SFK-HS7H

〈□40 Series Frame Door〉

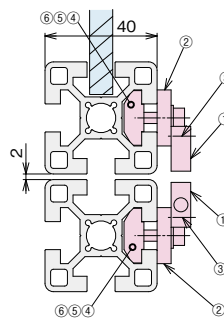


HS7A4045 Kit

Item No.	Contents·Component	Qty.
①	HS7A	1
②	Plate HS7A	1
③	Hexagon Socket Bolt M3×8 (Stainless)	2
④	Hexagon Socket Bolt M4×18 (Stainless)	2
⑤	Flat Washer M4 (Stainless)	4
⑥	Angle HS7A	1
⑦	Hexagon Socket Bolt M3×12 (Stainless)	2
⑧	Nut HS7A	1
⑨	Hexagon Socket Bolt M4×15 (Stainless)	2
⑩	ST Nut L (M4)	4

SFK-HS7L

〈□40·□45 Series Frame Door〉



HS7A4040 Kit

Item No.	Contents·Component	Qty.
①	HS7A	1
②	Plate HS7A	2
③	Hexagon Socket Bolt M3×8 (Stainless)	4
④	Hexagon Socket Bolt M4×18 (Stainless)	4
⑤	Flat Washer M4 (Stainless)	4
⑥	ST Nut L (M4)	4

SFK-HS7K





Door·Panel Parts Clean Fan Unit

Clean Fan Unit



Clean Fan Unit 3m



Clean Fan Unit 5m

Spec

Name	Clean Fan Unit 3m (HEPA:100V)		Clean Fan Unit 3m (ULPA:100V)		Clean Fan Unit 5m (HEPA:100V)	Clean Fan Unit 5m (HEPA:200V)	Clean Fan Unit 5m (ULPA:100V)	Clean Fan Unit 5m (ULPA:200V)
Item No.	SFA-H031		SFA-U031		SFA-H051	SFA-H052	SFA-U051	SFA-U052
Dust Collection Efficiency (By dust in the air)	More than 99.99% (Particle more than 0.3μm)		More than 99.99% (Particle more than 0.1~0.2μm)		More than 99.99% (Particle more than 0.3μm)		More than 99.99% (Particle more than 0.1~0.2μm)	
Main Filter	Low pressure loss HEPA Filter		Low pressure loss ULPA Filter		Low pressure loss HEPA Filter		Low pressure loss ULPA Filter	
Main Filter Item No.	SFA-HF03		SFA-UF03		SFA-HF05		SFA-UF05	
Air Volume (m ³ /min)	3.0(3.5)		2.5(3.0)		5.0(5.0)		4.0(4.0)	
Blowout Speed (m/sec)	0.38 (0.44)		0.31 (0.38)		0.39 (0.39)		0.31 (0.31)	
Noise (dBA)	53 (54)		54 (56)		55 (56)		53 (56)	
Consumed Electricity (W)	28 (36)		27 (36)		43 (46)	51 (53)	43 (46)	50 (52)
Power	AC100V1φ50/60Hz		AC100V1φ50/60Hz		AC100V1φ50/60Hz	AC200V1φ50/60Hz	AC100V1φ50/60Hz	AC200V1φ50/60Hz
Dimension (mm)	W400×D400×H165		W400×D400×H165		W500×D500×H185	W500×D500×H200	W500×D500×H185	W500×D500×H200
Weight (kg)	6.5		6.5		11.5		11.5	
Standard Equipment	Power code with ground plug 5m		Power code with ground plug 5m		Power code with ground plug 5m	Terminal Box Connection	Power code with ground plug 5m	Terminal Box Connection
	Saran net · with Pre-Filter		Saran net · with Pre-Filter		Saran net · with Pre-Filter		Saran net · with Pre-Filter	
	Attachment:Packing for installing to air outlet , Installing Screw		Attachment:Packing for installing to air outlet , Installing Screw		Attachment:Packing for installing to air outlet , Installing Screw		Attachment:Packing for installing to air outlet , Installing Screw	
Name	Clean Fan Unit 10m (HEPA:100V)	Clean Fan Unit 10m (HEPA:200V)	Clean Fan Unit 10m (ULPA:100V)	Clean Fan Unit 10m (ULPA:200V)	Clean Fan Unit 15m (HEPA:100V)	Clean Fan Unit 15m (HEPA:200V)	Clean Fan Unit 15m (ULPA:100V)	Clean Fan Unit 15m (ULPA:200V)
ItemNo.	SFA-H101	SFA-H102	SFA-U101	SFA-U102	SFA-H151	SFA-H152	SFA-U151	SFA-U152
Dust Collection Efficiency (By dust in the air)	More than 99.99% (Particle more than 0.3μm)		More than 99.99% (Particle more than 0.1~0.2μm)		More than 99.99% (Particle more than 0.3μm)		More than 99.99% (Particle more than 0.1~0.2μm)	
Main Filter	Low pressure loss HEPA Filter		Low pressure loss ULPA Filter		Low pressure loss HEPA Filter		Low pressure loss ULPA Filter	
Main Filter Item No.	SFA-HF10		SFA-UF10		SFA-HF15		SFA-UF15	
Air Volume (m ³ /min)	10.0(10.0)		7.0(7.0)		15.0(15.0)		13.0(13.0)	
Blowout Speed (m/sec)	0.51 (51.0)		0.35 (0.35)		0.37 (0.37)		0.32 (0.32)	
Noise (dBA)	56 (57)		56 (57)		56 (57)		56 (57)	
Consumed Electricity (W)	98 (114)	100 (118)	98 (113)	103 (117)	141 (157)	141 (158)	141 (158)	140 (156)
Power	AC100V1φ50/60Hz	AC200V1φ50/60Hz	AC100V1φ50/60Hz	AC200V1φ50/60Hz	AC100V1φ50/60Hz	AC200V1φ50/60Hz	AC100V1φ50/60Hz	AC200V1φ50/60Hz
Dimension (mm)	W610×D610×H185	W610×D610×H200	W610×D610×H185	W610×D610×H200	W610×D1220×H200	W610×D1220×H215	W610×D1220×H200	W610×D1220×H215
Weight (kg)	14.5		14.5		22.0		22.0	
Standard Equipment	Power code with ground plug 5m	Terminal Box Connection	Power code with ground plug 5m	Terminal Box Connection	Power code with ground plug 5m	Terminal Box Connection	Power code with ground plug 5m	Terminal Box Connection
	With Saran Net and Pre-Filter		With Saran Net and Pre-Filter		With Saran Net and Pre-Filter		With Saran Net and Pre-Filter	
	Accessory:Packing for installing to air outlet , Installing Screw		Accessory:Packing for installing to air outlet , Installing Screw		Accessory:Packing for installing to air outlet , Installing Screw		Accessory:Packing for installing to air outlet , Installing Screw	

● Number in () is for 60Hz spec. Noise is measured at 1m from air outlet in anechoic room. ● The size of 200V spec's H includes terminal box.

Characteristics



- **Metallic Silver Body**
Simple appearance with the similar color with stainless frame.



- **Easy Installation**
With the hole or nut (M4) on the blower and exclusive plate enabled easy installation.



- **LED Operation Indicator**
Operation condition can be confirmed easily.



- **200V Specification**
Single Phase 200V is lined up.
(Only 100V spec for Green Fan Unit 3m)



- **Overcurrent Protection**
Circuit-protector built-in switch on the body protects air blower from burnout by insulating overcurrent.



- **Long Life**
With the pre-filter to collect the dust, the main filter extends the life time and the blower is protected.



Type	Dimensional Outline Drawing ●Terminal Box is provided with 200V Spec.(Height+15)	Wiring Drawing
Clean Fan Unit 3m ²	Dimension of installing part 360 3	

SF20

SS Size

SF30

S Size

SF40-45

L Size

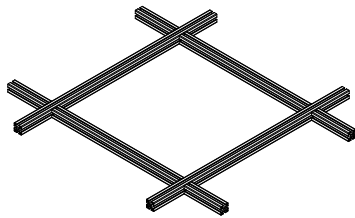
Complex Parts

Door・Panel
Clean Equipment

Technical Data

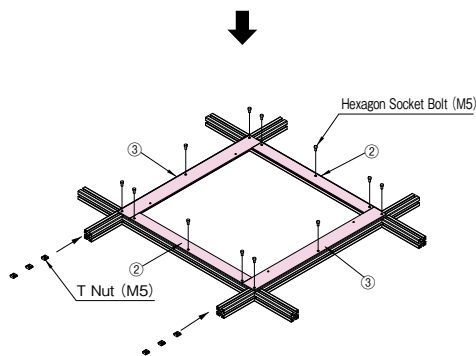
How to install to Aluminum Frame Fixed by four exclusive plates

Attaching Procedure



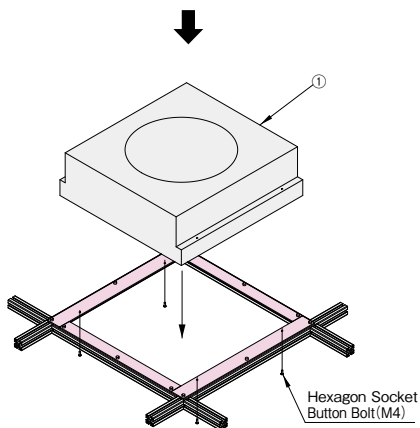
① Preparation of the attaching part

Please refer "Size indication of attaching part" and set up.

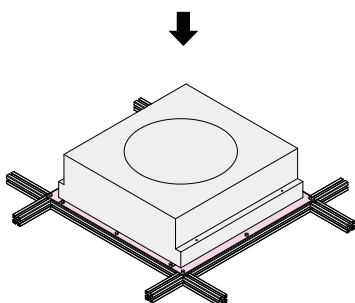


② Fixing the exclusive attaching plate

Please determine the parts referring the "Plate selection table".

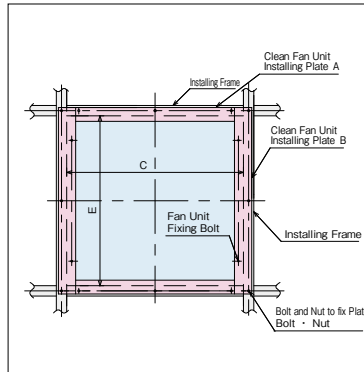


③ Fixing the Clean Fan Unit



④ Completion

■ Dimension Indication at Attaching Part



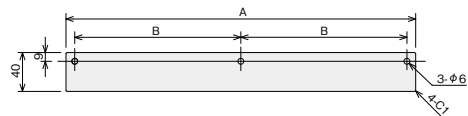
Clean Fan Type	Frame at Installing Part	Size of opening part (mm)	
		C	E
Clean Fan Unit 3m	SF30 Series	412	392
	SF40 Series	402	382
	SF45 Series	397	377
Clean Fan Unit 5m	SF30 Series	512	492
	SF40 Series	502	482
	SF45 Series	497	477
Clean Fan Unit 10m	SF30 Series	622	602
	SF40 Series	612	592
	SF45 Series	607	587
Clean Fan Unit 15m	SF30 Series	622	1,212
	SF40 Series	612	1,202
	SF45 Series	607	1,197

■ Table to select Plate

Clean Fan Type ①	Installing Parts	
	②	③
Clean Fan Unit 3m	Clean Fan Unit 3m Installing Plate A×2	Clean Fan Unit 3m Installing Plate B×2
Clean Fan Unit 5m	Clean Fan Unit 5m Installing Plate A×2	Clean Fan Unit 5m Installing Plate B×2
Clean Fan Unit 10m	Clean Fan Unit 10-15m Installing Plate A×2	Clean Fan Unit 10m Installing Plate B×2
Clean Fan Unit 15m		Clean Fan Unit 15m Installing Plate B×2

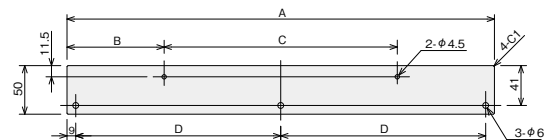
■ Dimensional Outline Drawing of Attaching Plate (mm)

Clean Fan Unit 3 · 5 · 10 · 15m Installing Plate A Size · Thickness : Refer Table Below



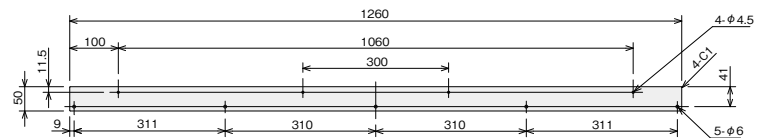
■ Material A6063

Clean Fan Unit 3 · 5 · 10m Installing Plate B Size · Thickness : Table Below



■ Material A6063

Clean Fan Unit 15m Installing Plate B Size · Thickness (mm) t=5



■ Material A6063

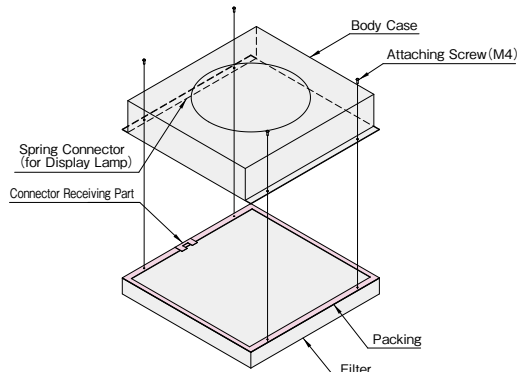
■ Size

Name	Item No.	Drawing Dimension (mm)				Thickness (mm)	Weight (g)
		A	B	C	D		
Clean Fan Unit 3m Installing Plate A	SFA-H03A	360	171	—	—	3	115.5
Clean Fan Unit 5m Installing Plate A	SFA-H05A	460	221			3	147.8
Clean Fan Unit 10 · 15m Installing Plate A	SFA-H10A	570	276	240	211	5	305.5
Clean Fan Unit 3m Installing Plate B	SFA-H03B	440	100			3	176.6
Clean Fan Unit 5m Installing Plate B	SFA-H05B	540	95	350	261	3	216.9
Clean Fan Unit 10m Installing Plate B	SFA-H10B	650	100	450	316	5	435.5
Clean Fan Unit 15m Installing Plate B	SFA-H15B	Refer Drawing				5	844.6



Main Filter for exchange

Filter exchange drawing



- * Please exchange filters after taking the screw out by driver.
- * Please position the connector for indication light.

If dust accumulated to the Main Filter, air would hardly pass it, and wind speed and air volume decreases. Generally, the condition that they become 1/2 corresponds the life time. Indication of exchanging Main Filters is about 1 year inside general room, and about 5 years inside the room with ISO class 7 (Class 10,000), in case of continuous operation.

Please see P166 for the types of main filter by machine types.

Table to select Main Filter for Exchange

Clean Fan Unit Body	Main Filter		
	Name	Item No.	Weight(kg)
Clean Fan Unit Body 3m ³ (HEPA:100V)	HEPA Filter for Exchange 3m ³	SFA-HF03	1.1
Clean Fan Unit Body 3m ³ (ULPA:100V)	ULPA Filter for Exchange 3m ³	SFA-UF03	
Clean Fan Unit Body 5m ³ (HEPA:100V)	HEPA Filter for Exchange 5m ³	SFA-HF05	1.5
Clean Fan Unit Body 5m ³ (HEPA:200V)			
Clean Fan Unit Body 5m ³ (ULPA:100V)	ULPA Filter for Exchange 5m ³	SFA-UF05	
Clean Fan Unit Body 5m ³ (ULPA:200V)			
Clean Fan Unit Body 10m ³ (HEPA:100V)	HEPA Filter for Exchange 10m ³	SFA-HF10	2.4
Clean Fan Unit Body 10m ³ (HEPA:200V)			
Clean Fan Unit Body 10m ³ (ULPA:100V)	ULPA Filter for Exchange 10m ³	SFA-UF10	
Clean Fan Unit Body 10m ³ (ULPA:200V)			
Clean Fan Unit Body 15m ³ (HEPA:100V)	HEPA Filter for Exchange 15m ³	SFA-HF15	6.0
Clean Fan Unit Body 15m ³ (HEPA:200V)			
Clean Fan Unit Body 15m ³ (ULPA:100V)	ULPA Filter for Exchange 15m ³	SFA-UF15	
Clean Fan Unit Body 15m ³ (ULPA:200V)			

Packing seal for exchange (With two-sided tape on one side only.)

If you want to increase the adhesion, please use two-sided tape on both sides.)

Main Filter	Name	Item No.	Weight(g)
Filter for Exchange 3m (HEPA:ULPA common)	Packing seal for exchange 3m	SFA-HP03	17.0
Filter for Exchange 5m (HEPA:ULPA common)	Packing seal for exchange 5m	SFA-HP05	22.5
Filter for Exchange 10m (HEPA:ULPA common)	Packing seal for exchange 10m	SFA-HP10	25.0
Filter for Exchange 15m (HEPA:ULPA common)	Packing seal for exchange 15m	SFA-HP15	41.0

Indication of Clean Space

What is the standard of cleanness?

Generally, cleanness inside booth is expressed like Class100 or Class1000, etc. The fewer the number, the better the cleanness level. Although we wish to get better cleanness level, we need to consider about cost and the balance with outside cleanness.

Standard of cleanness (clean room)

As the idiomatically used standards, there is FED standard (Federal standard FED-STD-209E) and it's defined by the amount of particle included in 1cf (cubic feet). It is the standard which expresses how much small dust which has the diameter of $0.5\mu\text{m}$ can exist in a space of 1cf. The cleanness level becomes higher if the number of particle is fewer.

Clean Room Class	Amount of Particle (More than $0.5\mu\text{m}$)
100,000	100,000
10,000	10,000
1,000	1,000
100	100

Approximate value of ventilation frequency

The following table shows the approximate value of ventilation frequency by classes. It is the standard that indicates how many times ventilation must be done per 1 hour. The cleanness level becomes higher if the ventilation frequency increases.

Clean Room class	General Numeric Value
100,000	20~30 times/h
10,000	30~70 times/h
1,000	100~200 times/h
100	200~600 times/h

Formula for ventilation frequency in clean booth can be indicated as follows.

$$\text{Number of ventilation per 1 hour (times/h)} = \frac{\text{Air volume (m}^3/\text{min)} \times 60\text{min}}{\text{Space capacity (m}^3\text{)}}$$

$$\text{Or } \frac{\text{Average speed of airflow (m/sec)} \times \text{Ventilating area (m}^2\text{)} \times 3600\text{cc}}{\text{Space capacity (m}^3\text{)}}$$

* Please take this just as indications because it differs according to conditions of Surrounding cleanliness and Ventilating wind speed.

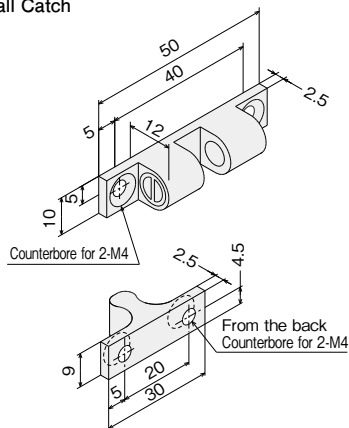
Example of Use



Ball Catch Exclusive Bracket



Ball Catch

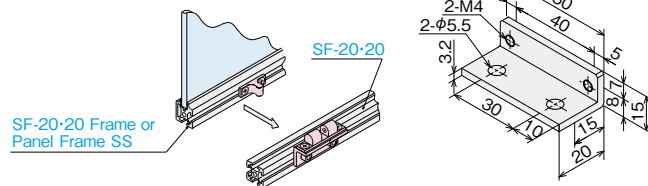


Material/Technical Data

Material Zinc Alloy (ZDC) (Ball Catch)
 Chrome Plating Treatment
 Weight 24g (Ball Catch)
 Pulling Load (Reference Value): 18.6N
 Inserting Load (Reference Value): 27.5N

Name (Single Item)	Ball Catch
Item No.	SFA-41A

BW Bracket SS Kit

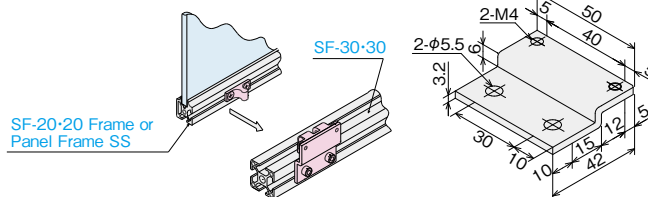


Material/SPHC Uni-Chrome Plating

Kit Contents

- Ball Catch×1
- BW Bracket SS×1
- Flat-Head Screw (M4×6)×2
- Flat-Head Screw (M4×8)×2
- T Nut SS M4×2
- T Nut SS M5×2
- Hexagon Socket Bolt (M5×8)×2

BW Bracket S Kit

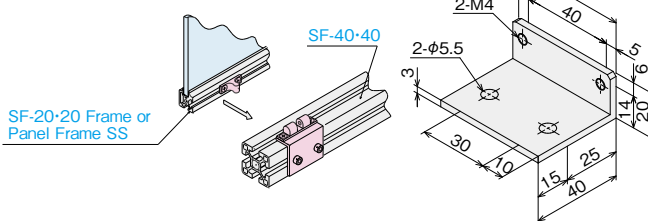


Material/SPHC Uni-Chrome Plating

Kit Contents

- Ball Catch×1
- BW Bracket S×1
- Flat-Head Screw (M4×6)×2
- Flat-Head Screw (M4×8)×2
- T Nut SS M4×2
- T Nut S M5×2
- Hexagon Socket Bolt (M5×10)×2

BW Bracket L40 Kit

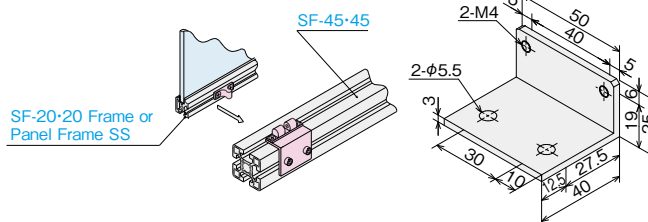


Material/A6063 Alumite Treatment

Kit Contents

- Ball Catch×1
- BW Bracket L40×1
- Flat-Head Screw (M4×6)×2
- Flat-Head Screw (M4×8)×2
- T Nut SS M4×2
- T Nut L M5×2
- Hexagon Socket Bolt (M5×12)×2

BW Bracket L45 Kit



Material/A6063 Alumite Treatment

Kit Contents

- Ball Catch×1
- BW Bracket L45×1
- Flat-Head Screw (M4×6)×2
- Flat-Head Screw (M4×8)×2
- T Nut SS M4×2
- T Nut L M5×2
- Hexagon Socket Bolt (M5×15)×2

Name (Bolt and Nut Kit)	BW Bracket SS Kit	BW Bracket S Kit	BW Bracket L40 Kit	BW Bracket L45 Kit
Item No.	SFK-4BA	SFK-4BB	SFK-4BC	SFK-4BD



Parts

How to order

Item No.

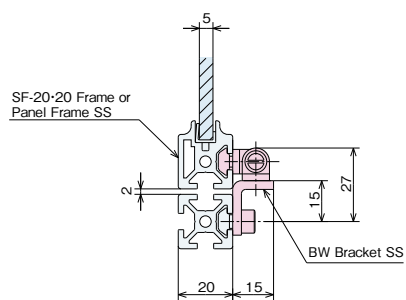
Quantity (pcs)

SFA-41A

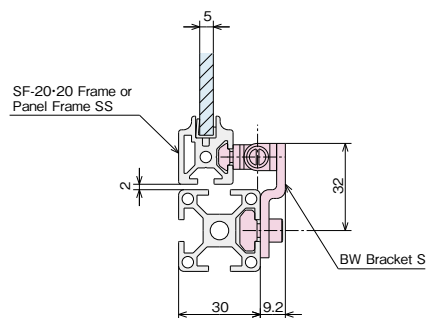


Use Example when using Ball Catch

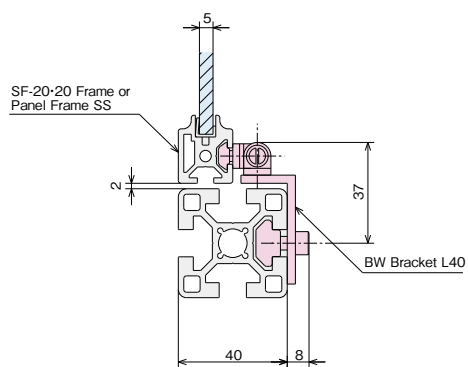
<Dimension Indication when using SF-20·20 Frame or Panel Frame SS Door>



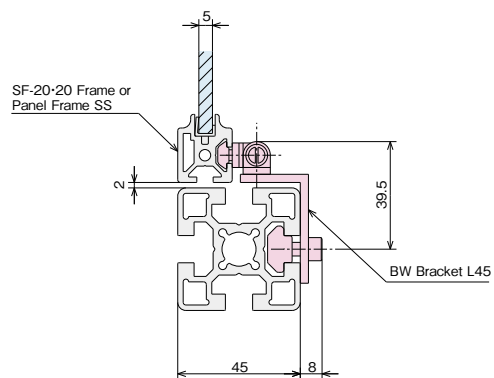
BW Bracket SS Kit



BW Bracket S Kit



BW Bracket L40 Kit



BW Bracket L45 Kit

SF20
SS Size

SF30
S Size

SF40·
45
L Size

Complex Parts

Door · Panel
Clean Equipment

Technical Data

Door·Panel Parts

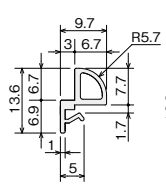
Panel Fix (Resin) / Panel Fix Rubber



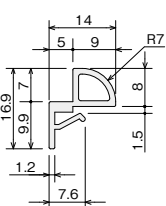
■Material/Technical Data

Material (Panel Fix) PP/Light Gray
(Rubber) CSM60 $\pm$ 5 $\ast$ (Synthetic Rubber)/Light Gray
Unit Mass Panel Fix 37.5g/m(SS) 51g/m(S) 60g/m(L)
Panel Fix Rubber (for t=3) (ℓ =5000mm) 525g(30) 805g(4045)
Panel Fix Rubber (ℓ =5000mm) 638g(2030) 742g(4045)
Environment RoHS Compliant Green Procurement

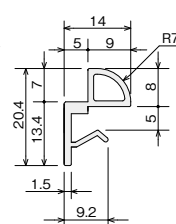
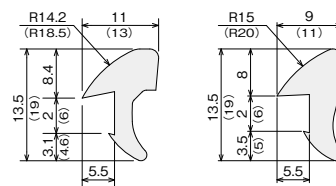
Panel Fix SS



Panel Fix S



Panel Fix L

Panel Fix Rubber 30(for t=3) Panel Fix Rubber 2030
Panel Fix Rubber 4045(for t=3) Panel Fix Rubber 4045

() : 4045 (for t=3)

() : 4045

■Plate Thickness Mapping

Name	30 (for t=3)	4045 (for t=3)	2030	4045
Thickness	3	3	3	3
5	x	x	x	x
Frame Series	SF-30	SF-40-45	SF-20	SF-30

●Standard Length Products (L=2000) are to be cut by customer.

Name	Panel Fix SS (ℓ =2000) (ℓ =50~2000)	Panel Fix S (ℓ =2000) (ℓ =50~2000)	Panel Fix L (ℓ =2000) (ℓ =50~2000)	Panel Fix Rubber(ℓ =5000mm) 30 (for t=3) 4045 (for t=3) 2030 4045
Item No.	SFA-P11 SFA-P14	SFA-P21 SFA-P24	SFA-P31 SFA-P34	SFA-142 SFA-144 SFA-141 SFA-143

Panel Clamp



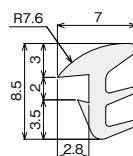
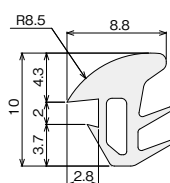
■Material/Technical Data

Material CSM60 $\pm$ 5 $\ast$ (Synthetic Rubber)/Light Gray
Weight 51.4g(30(for T3)) 111g(for 4045T3)
216g(20(for T3)30(for T5)) 528g(for 4045T5)
Environment RoHS Compliant Green Procurement

Panel Clamp

30 (for T3)

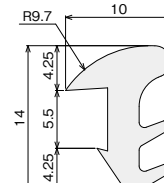
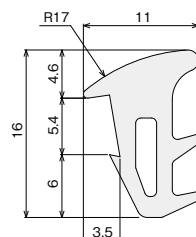
20 (for T3) 30 (for T5)



Panel Clamp

4045 (for T3)

4045 (for T5)



Name	Panel Clamp(ℓ =5000mm) 30 (for T3) 20 (for T3) 30 (for T5)	Panel Clamp(ℓ =5000mm) 4045 (for T3) 4045 (for T5)
Item No.	SFA-125 SFA-121	SFA-126 SFA-123

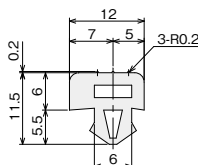
Seal Cover



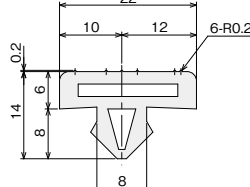
■Material/Technical Data

Material CSM60 $\pm$ 5 $\ast$ (Synthetic Rubber)
Light Gray
Weight 327g(SS) 516g(S) 801g(L)
Environment RoHS Compliant Green Procurement

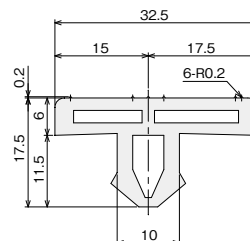
Seal Cover SS



Seal Cover S



Seal Cover L

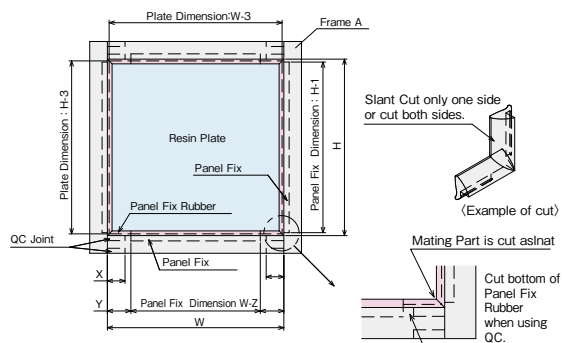


Name	Seal Cover SS(ℓ =2500mm)	Seal Cover S(ℓ =2500mm)	Seal Cover L(ℓ =2500mm)
Item No.	SFA-131	SFA-133	SFA-135

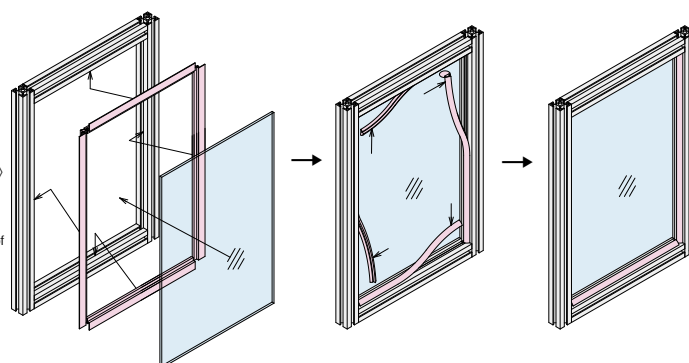


How to install Panel Fix and Panel Fix Rubber

(Indication of Installation Size and Parts Selection)



Frame A	Panel Fix (Resin)	Panel Fix Rubber	Resin Plate Thickness	QC Joint	X	Y	Z
SF20 Series	Panel Fix SS	Panel Fix Rubber 2030	3mm	QC Joint SS	19.5	25	50
SF30 Series	Panel Fix S	Panel Fix Rubber 2030	3mm or 5mm	QC Joint S	27	30	60
SF40-45 Series	Panel Fix L	Panel Fix Rubber 4045	3mm or 5mm	QC Joint L	35	40	80



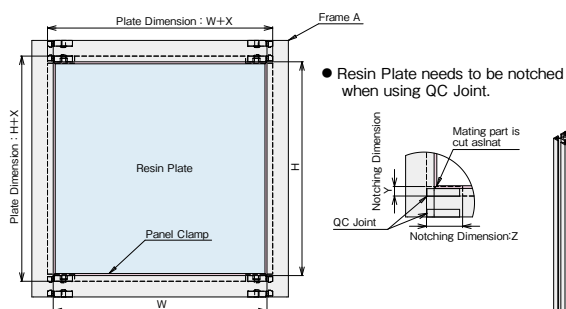
● Cut aslant only one side or both sides. <Example of cutting>

● Cut aslant mating part.

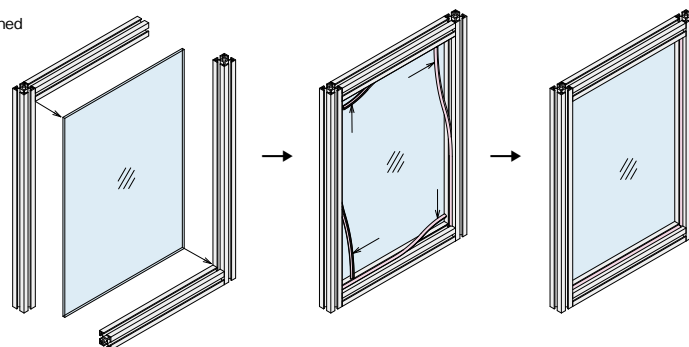
● Cut bottom of Panel Fix Rubber when using QC.

How to install Panel Clamp

(Indication of Installation Size and Parts Selection)



Frame A	Panel Clamp	Resin Plate Thickness	QC Joint	X	Y	Z
SF-20 Series	Panel Clamp 2030	3mm	QC Joint SS	10	6	25.5
SF-30 Series	Panel Clamp 2030	3mm or 5mm	QC Joint S	16	9	36
SF-40 Series	Panel Clamp 4045	3mm or 5mm	QC Joint L	23	12	47.5
SF-45 Series	Panel Clamp 4045	3mm or 5mm	QC Joint L	24	13	

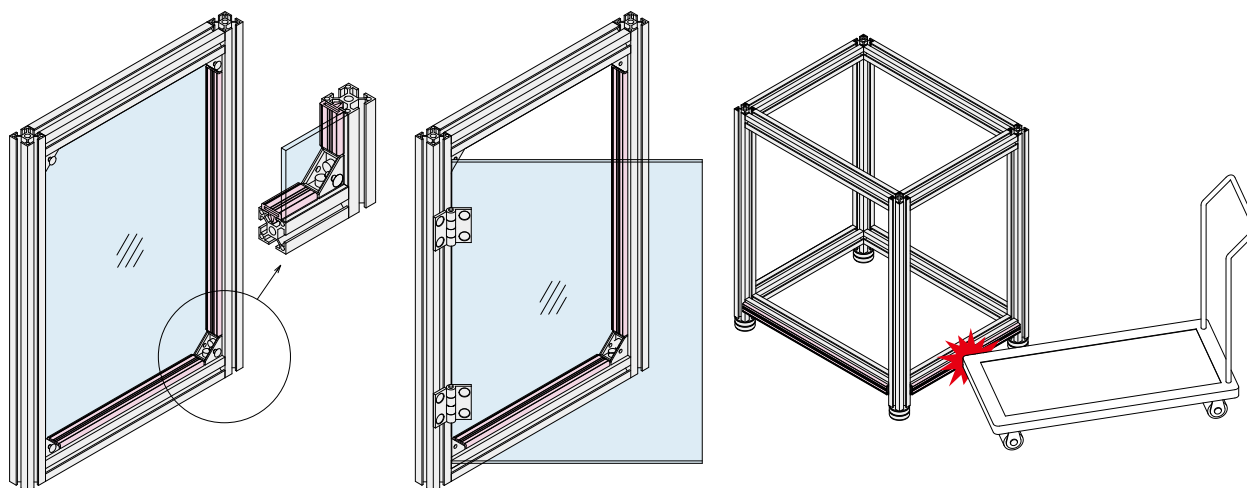


● Insert Resin Panel into the groove before assembling the frames.

● Push Panel Clamp into the gap between Resin Panel and Frame's groove.

● Cover can be fixed with the simple appearance and Resin Panel won't jolt.

How to use Seal Cover



● It can fill a gap between Resin Panel and frame.

● As a stopper when making a resin door.

● To protect Aluminum Frame.

SF20
SS SizeSF30
S SizeSF40-45
L Size

Complex Parts

Door Panel
Clean Equipment

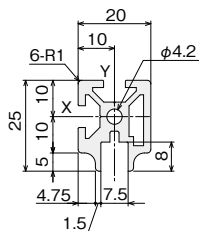
Technical Data

Door•Panel Parts Panel Frame[For Small and Medium Door]

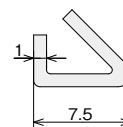
Panel Frame SS / Panel Hold T5 / TC Block SS



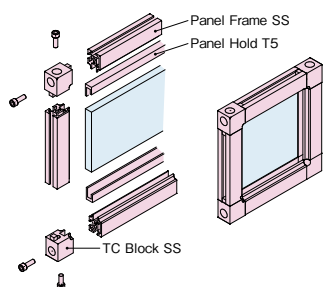
Panel Frame SS



Panel Hold T5



* Based on a groove shape SF20.



※M5 Tapping is needed to the cut surface of Panel Frame.
(Refer P209~ for details)

Material/Technical Data

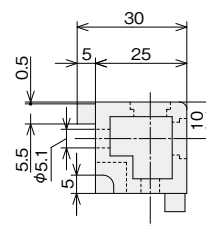
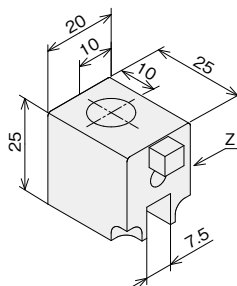
Material Aluminium Alloy(Panel Frame)
Alumite Treatment
Ethylene Vinyl Acetate(Panel Hold T5)
ZDC2(TC Block SS)
Weight 0.6/m(Panel Frame)-Frame $\ell=4030\text{mm}$
14g/m ($\ell=2000\text{mm}/\text{pcs}$) (Panel Hold T5)
45g(TC Block SS)※

Environment RoHS Compliant Green Procurement

※Hexagon Socket Bolt M5×15 with 2 pcs

Name	Panel Frame SS $\ell=4000$	Panel Frame SS $\ell=50\sim 4000$	Panel Hold T5
Item No.	SFF-T62	SFF-T64	SFA-108

TC Block SS

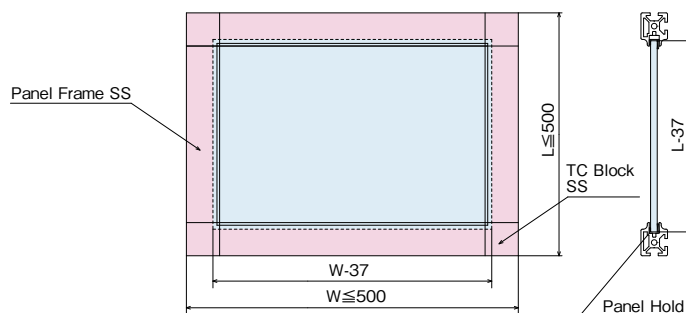


View Z

Name	TC Block SS
Item No.	SFK-Q01

Size indication for Panel Frame

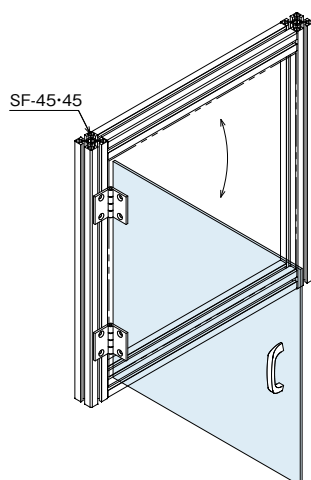
〈Size indication for Panel Frame, Resin Plate〉



There is a risk that the Panel Frame sags if cover size becomes more than 500 × 500. We recommend that you use SF20 or SF30 series to build the frame.

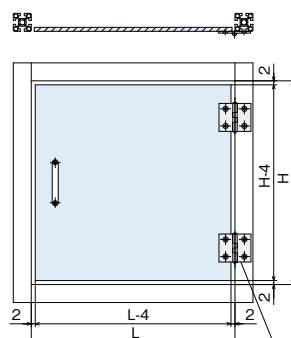


Installment Indication for Resin Panel Door (Small door)

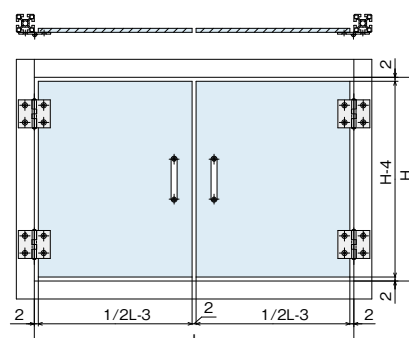


● This drawing is example of using Fixed Hinge (M6).

(In case of Single Swing Door)



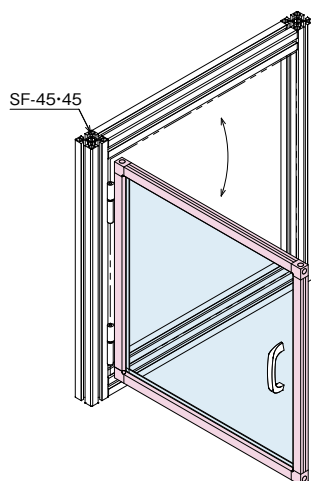
(In case of Hinged Double Door)



Fixed Hinge (P140)

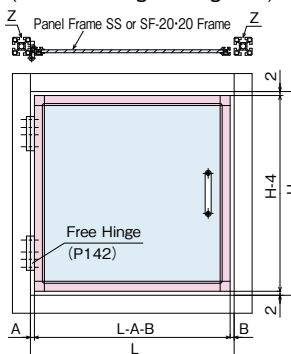
※Refer from P140 for Hinge and Magnet Catch.

Installment Indication for Panel Frame Door (Small and Medium Door)

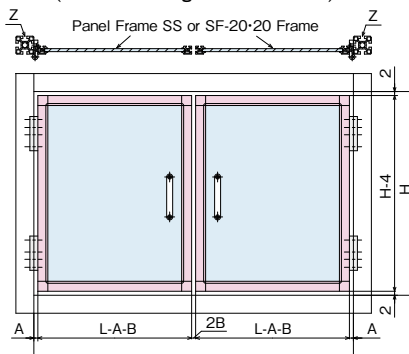


● This drawing is example of using Free Hinge 4520L.

(In case of Single Swing Door)



(In case of Hinged Double Door)

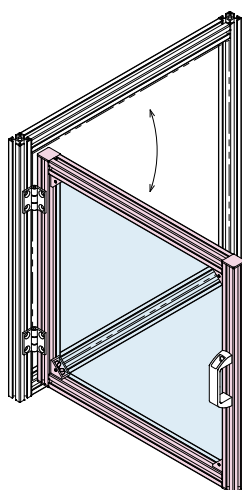


[Dimension Indication when creating Panel Frame Door]

	SF20 or SF30			SF40 or SF45		
Lmm	200	330	700	200	330	700
	s	s	and up	s	s	and up
Amm	329	699		329	699	
Bmm	3	2.5	2	3	2.5	2

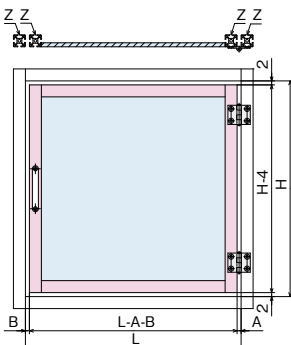
※Refer from P140 for Hinge and Magnet Catch.

Installment Indication for Frame Door (Medium and Large Door)

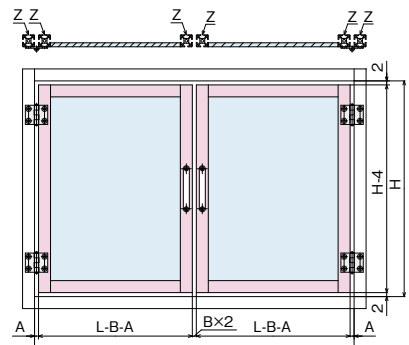


● This drawing is example of using Fixed Hinge S.

(In case of Single Swing Door)



(In case of Hinged Double Door)



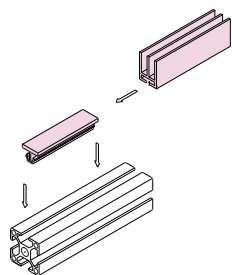
[Dimension Indication when creating Frame Door] When using Fixed Hinge

	SF20	SF30	SF40 or SF45
Lmm	250	440	215 400 700 1000
	s	s	s and up
Amm	439	399	699 999
Bmm	2	3	5 4 3 2

※Refer from P140 for Hinge and Magnet Catch.

Door·Panel Parts Rail [For Small Sliding Door]

Sliding Door Rail (Resin)



Material/Technical Data

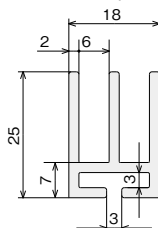
Slide Rail	Slot Connector
Material ABS	Polypropylene
Light Gray	Light Gray
Unit Mass 0.18kg/m (2 Rows)	0.06kg/m (SS)
0.28kg/m (3 Rows)	0.07kg/m (S)
	0.08kg/m (L)
Environment RoHS Compliant	Green Procurement

Usable Frame

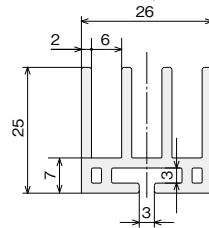


Sliding Rail..... Joint to each Slot Connector
 Slot Connector SS..... For SF20 series (Groove Width 6mm)
 Slot Connector S..... For SF30 series (Groove Width 8mm)
 Slot Connector L..... For SF40-50 series (Groove Width 10mm)

Slide Rail (2 Rows)



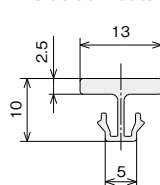
Slide Rail (3 Rows)



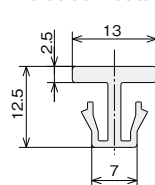
● Standard Length Products (ℓ=2000) are to be cut by customer.

Name	Slide Rail (2 Rows) (ℓ=2000)	Slide Rail (2 Rows) (ℓ=50~2000)	Slide Rail (3 Rows) (ℓ=2000)	Slide Rail (3 Rows) (ℓ=50~2000)
Item No.	SFA-R01	SFA-R04	SFA-R11	SFA-R14

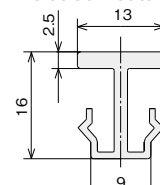
Slot Connector SS



Slot Connector S



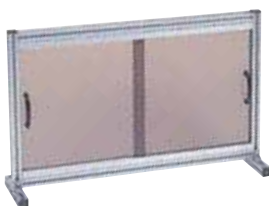
Slot Connector L



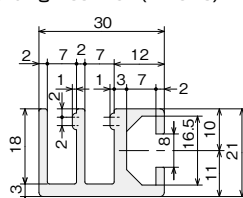
● Standard Length Products (ℓ=2000) are to be cut by customer.

Name	Slot Connector SS (ℓ=2000)	Slot Connector S (ℓ=2000)	Slot Connector L (ℓ=2000)
Item No.	SFA-R51	SFA-R54	SFA-R61

Sliding Door Rail (2 Rows) / 3 Rows (Aluminum)

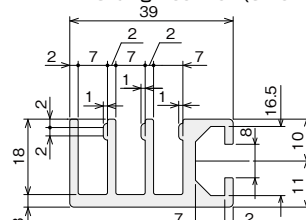


Sliding Door Rail (2 Rows)



※ For T Nut S

Sliding Door Rail (3 Rows)



※ For T Nut S

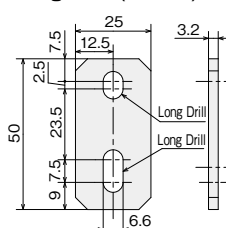
● Standard Length Products (ℓ=4000) are to be cut by customer.

Name	Sliding Door Rail (2 Rows) (ℓ=4000)	Sliding Door Rail (2 Rows) (ℓ=50~4000)	Sliding Door Rail (3 Rows) (ℓ=4000)	Sliding Door Rail (3 Rows) (ℓ=50~4000)
Item No.	★SFF-R02-T	★SFF-R04-T	★SFF-R12-T	★SFF-R14-T

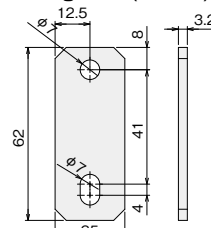
Material/Technical Data

Sliding Door Rail	Attaching Plate	Slide Spacer
Material Aluminium Alloy SPCC (2 Rows)	Polyethylene	
Alumite Treatment SPHC (3 Rows)	Black	
	Uni-chrome Plating	
Weight 0.72kg/m (2 Rows)	28g (2 Rows)	60g
0.90kg/m (3 Rows)	35g (3 Rows)	(ℓ=2000mm/pcs)
Environment ★RoHS Compliant	★Green Procurement	

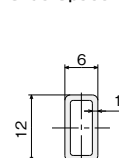
Attaching Plate (2 Rows)



Attaching Plate (3 Rows)



Slide Spacer



※ Attaching Plate can connect Frames together as well.

Name	Attaching Plate (For 2 Rows)	Attaching Plate (For 2 Rows)	Slide Spacer (ℓ=2000)
Item No.	★SFA-502	★SFA-512	★SFA-107



SF Frame

Standard Length (Cut by Customer)

Item No.
SFA-R01

Effective range of use ℓ=2000

Quantity (pcs)



In case of specifying the length (Cut by SUS)

Item No.
SFA-R04

Length (mm)
ℓ=800

※ Order by 0.1mm unit

Parts

How to order

Item No.
SFA-502

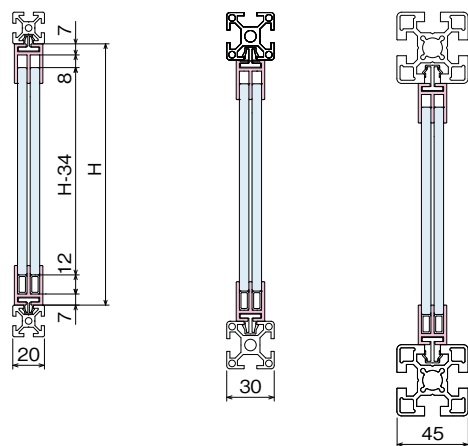
Quantity (pcs)



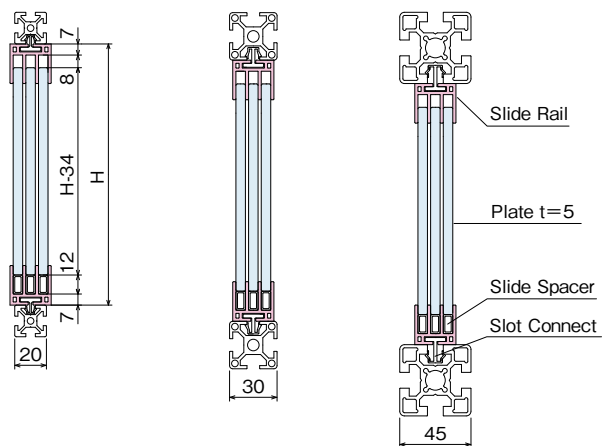
Dimensional Indication of Installing Slide Rail and Slide Door Rail

<Slide Rail>

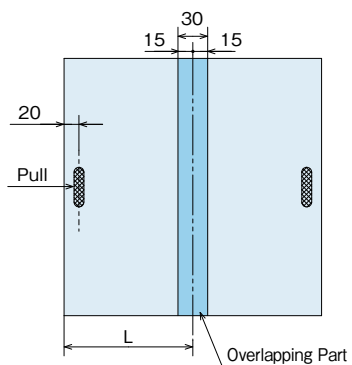
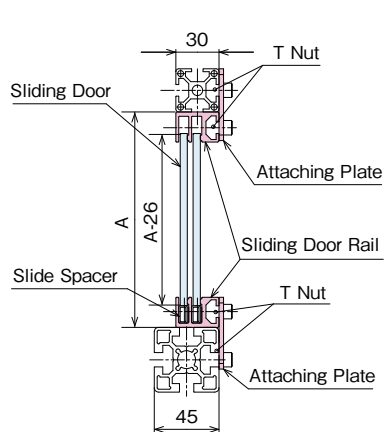
●2 Directions Type



●3 Directions Type



<Sliding Door Rail>



- Plate size
- * Plate Thickness... t =5
 - * Lateral: L+15
(In case overlapping 30mm)
 - * longitudinal:
Slide Rail: H-34
Sliding Door Rail: A-26

SF20

SS Size

SF30

S Size

SF40

L Size

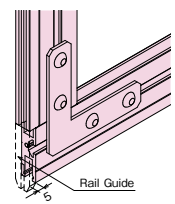
Complex Parts

Door・Panel
Clean Equipment

Technical Data

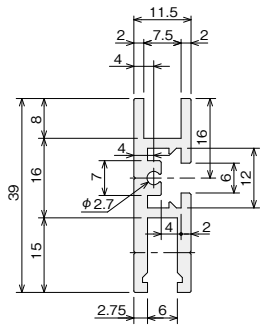
Door·Panel Parts Sliding Door Frame[For Medium Size Sliding Door]

Sliding Door Frame/Panel Joint Kit

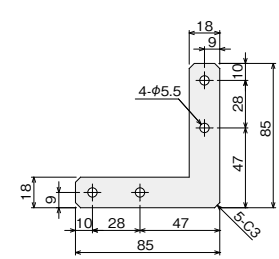


Material/Technical Data	
Material	Aluminium Alloy(Frame) SUS304(Panel Joint) Alumite Treatment
Environment	★RoHS Compliant ★Green Procurement
Geometrical Moment of Inertia	$I_x=2.47 \times 10^{-4} \text{mm}^4$ $I_y=0.357 \times 10^{-4} \text{mm}^4$
Section Modulus	$Z_x=1.247 \times 10^{-3} \text{mm}^3$ $Z_y=0.602 \times 10^{-3} \text{mm}^3$
Weight	0.58kg/m(Frame) 54g(Plate Bracket)

Frame for Sliding Door's Rim



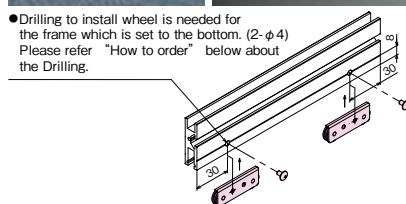
Panel Joint Kit



t=2

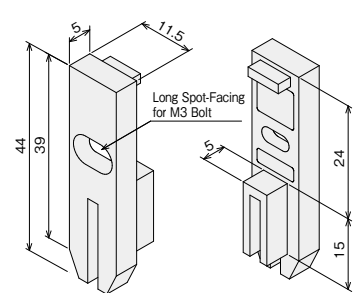
Name	Sliding Door Frame ℓ=4000	Sliding Door Frame ℓ=50~4000	Name	Panel Joint Kit
Item No.	★SFF-D02	★SFF-D04	Item No.	SFK-130
●Cut length is the material to be cut by customer. Effective range of use ℓ =4000			Kit Contents	●S Plate Bracket SS-Lx1 ●T Nut SS(M5)×4 ●Hexagon Socket Button Bolt(M5×6)×4

Rail Guide Kit/Sliding Door Wheel

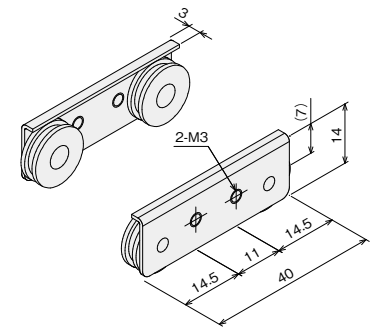


Material/Technical Data		
	Rail Guide	Wheel
Material	Polyacetal	Polyacetal
Weight	2.8g	6.4g
	Include Lock Screw(M3x12)x1 Truss Screw(M3x5)x1	
Environment	★RoHS Compliant	

Rail Guide Kit

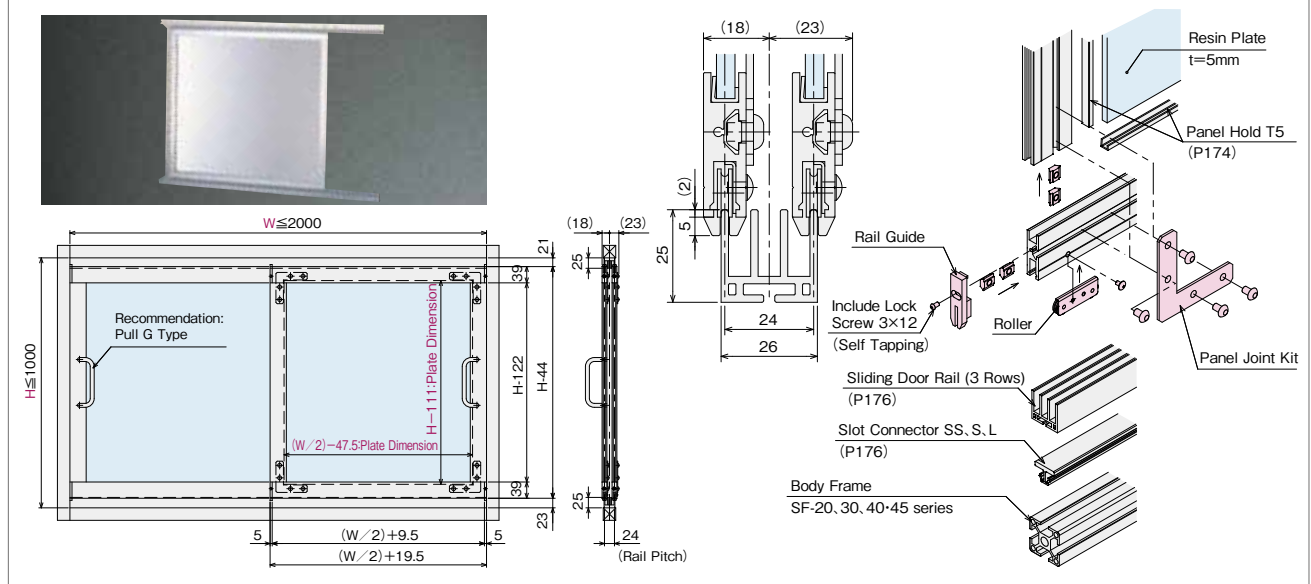


Sliding Door Wheel



Name	Rail Guide Kit	Name	Sliding Door Wheel
Item No.	SFK-5A3	Item No.	SFA-504

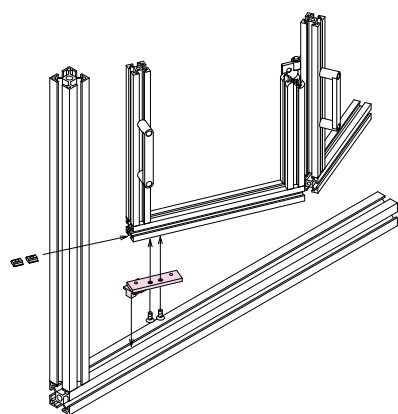
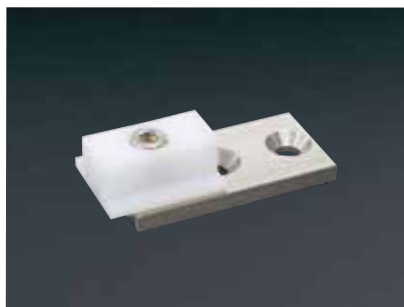
Unit Construction



SF Frame
Standard Length (Cut be Customer)
Item No. Length (mm) Drilling No. to install Corocon Quantity (pcs)
SFA-41A ℓ=800 CH □□

Parts
How to order
Item No. Quantity (pcs)
SFK-130 □□

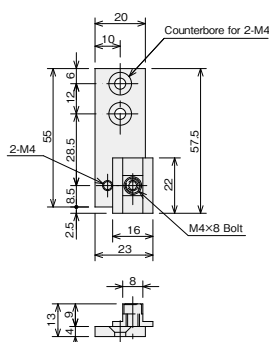
Folding Door Slider



Material/Technical Data

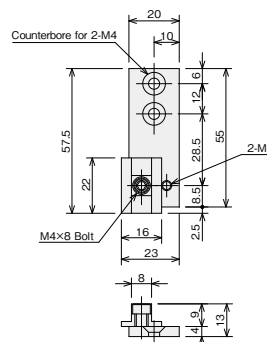
Material	Polyacetal(Slide) Stainless(Attaching Plate)
Weight	45g(S-SSA/B) 65g(S) 63g(L-S)
Environment	RoHS Compliant Green Procurement

Folding Door Slider S-SSA



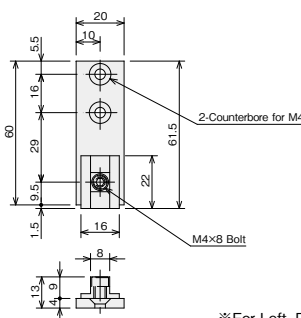
Down when Door opens to right
Up when Door opens to left

Folding Door Slider S-SSB



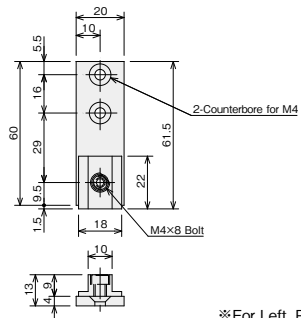
Down when Door opens to right
Up when Door opens to left

Folding Door Slider S



※For Left, Right, Up and Down

Folding Door Slider L-S



※For Left, Right, Up and Down

Kit Contents

- Folding Door Slider Block Sx1
- Folding Door Slider Plate SSx1
- ST Nut SS(M4)×2
- Hexagon Socket Bolt(M4×8) Stainlessx1
- Flat Screw(M4×8) Stainlessx2
- Spacerx1

Usable Frame

〈Structural Member〉
SF-30 Series
〈Door〉
SF-20-20

Kit Contents

- Folding Door Slider Block Sx1
- Folding Door Slider Plate Sx1
- ST Nut S(M4)×2
- Hexagon Socket Bolt(M4×8) Stainlessx1
- Flat Screw(M4×12) Stainlessx2
- Spacerx1

Usable Frame

〈Structural Member〉
SF-30 Series
〈Door〉
SF-30-30

Kit Contents

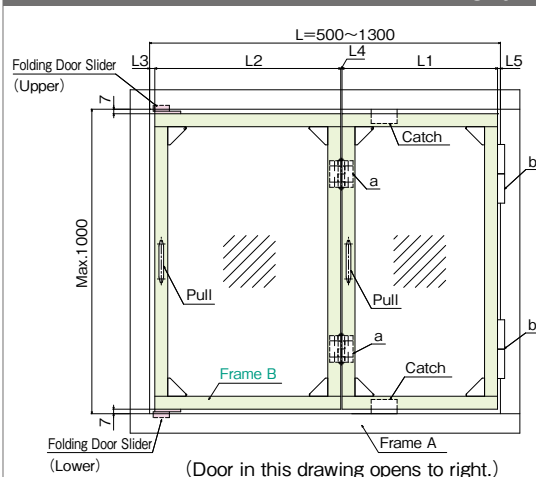
- Folding Door Slider Block Lx1
- Folding Door Slider Plate Sx1
- ST Nut S(M4)×2
- Hexagon Socket Bolt(M4×8) Stainlessx1
- Flat Screw(M4×12) Stainlessx2
- Spacerx1

Usable Frame

〈Structural Member〉
SF-40-45 Series
〈Door〉
SF-30-30

Name	Folding Door Slider S-SSA	Folding Door Slider S-SSB	Folding Door Slider S	Folding Door Slider L-S
Item No.	SFK-801A	SFK-802A	SFK-803A	SFK-804A

Size Indication for Folding Door Slider



Indication of Parts Choice

Frame A	Frame B	Folding Door Slider Up	Folding Door Slider Down	Hinge a	Hinge b
SF30 Series	SF20 Series	Folding Door Slider S-SSB Note) (SFK-802A)	Folding Door Slider S-SSA Note) (SFK-801A)	Fixed Hinge SS (SFA-211)	Free Hinge 3020R (SFA-253)
SF30 Series	SF30 Series	Folding Door Slider S (SFK-803A)	Folding Door Slider S (SFK-803A)	Fixed Hinge S (SFA-221)	Free Hinge S-R (SFA-223)
SF40 Series	SF30 Series	Folding Door Slider L-S (SFK-804A)	Folding Door Slider L-S (SFK-804A)	Fixed Hinge S (SFA-221)	Free Hinge L40-R (SFA-233)
SF45 Series	SF30 Series	Folding Door Slider L-S (SFK-804A)	Folding Door Slider L-S (SFK-804A)	Fixed Hinge S (SFA-221)	Free Hinge L45-R (SFA-243)

Note) When the folding door opens to left, Folding Door Slider S-SS is up-side-down.

Dimension Indication

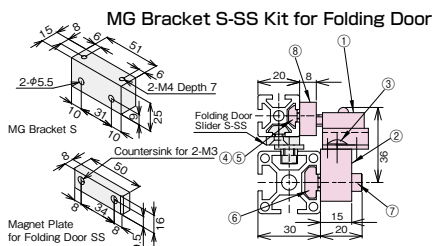
Frame A	Frame B	L1	L2	L3	L4	L5
SF30 Series	SF20 Series	(L-L3-L4-L5-35)/2	L1+35	L=Less than 500-700 ...9.5 L=Less than 700-1000 ...7.5 L=1000-1300 ...5.5	1	3.5
SF30 Series	SF30 Series	(L-L3-L4-L5-36)/2	L1+36	L=Less than 500-700 ...9.5 L=Less than 700-1000 ...7.5 L=1000-1300 ...5.5	2	3.5
SF40 Series	SF30 Series	(L-L3-L4-L5-41)/2	L1+41	L=Less than 500-700 ...9.5 L=Less than 700-1000 ...7.5 L=1000-1300 ...5.5	2	4.5
SF45 Series	SF30 Series	(L-L3-L4-L5-44)/2	L1+44	L=Less than 500-700 ...9.5 L=Less than 700-1000 ...7.5 L=1000-1300 ...5.5	2	4.5

Door•Panel Parts Magnet Catch [for Folding Door]

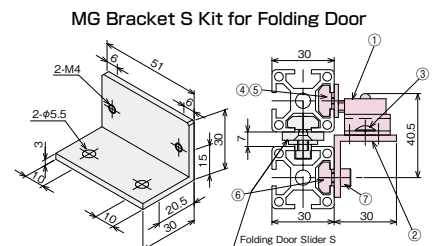
Magnet Catch Kit for Folding Door



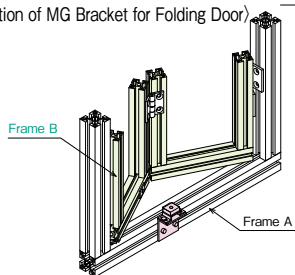
※Refer from P146 for details of Magnet Catch as Single Item.
 〈Choice Indiction of MG Bracket for Folding Door〉



Contents	①Magnet Catch Nx1	⑤T Nut SS(M3)x2
	②MG Bracket Sx1	⑥T Nut S(M5)x2
	③Truss Screw(M4x5)x2	⑦Hexagon Socket Bolt(M5x22)x2
	④Flat Screw(M3x12)x2	⑧Magnet Plate for Folding Door SSx1

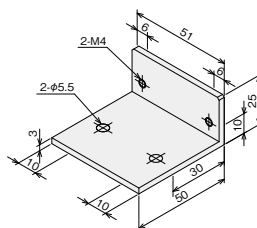


Kit Contents	①Magnet Catch NX1	⑤T Nut S(M3)×1
	②MG Bracket Sx1	⑥T Nut S(M5)×2
	③Truss Screw(M4x5)×2	⑦Hexagon Socket Bolt(M5×10)×2
	④Flat Screw(M3x8)×1	

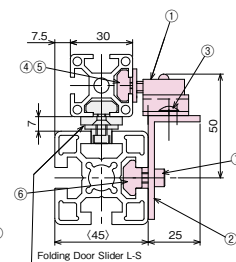
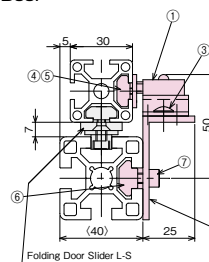


Frame A	Frame B	MG Bracket for Folding Door
SF-30 series	SF-20 series	MG Bracket S-SS Kit for Folding Door
SF-30 series	SF-30 series	MG Bracket S Kit for Folding Door
SF-40-45 series	SF-30 series	MG Bracket L-S Kit for Folding Door

MG Bracket L-S Kit for Folding Door



Kit Contents	①Magnet Catch N×1	④Flat Screw(M3×8)×1	⑦Hexagon Socket Bolt(M5×15)×2
	②MG Bracket L-S×1	⑤T Nut S(M3)×1	
	③Truss Screw(M4×5)×2	⑥T Nut L(M5)×2	



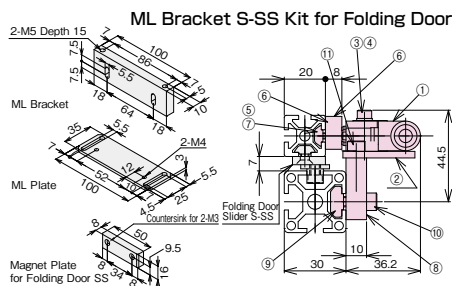
Name	MG Bracket S-SS Kit for Folding Door	MG Bracket S Kit for Folding Door	MG Bracket L-S Kit for Folding Door
Item No.	SFK-4AJ	SFK-4AF	SFK-4AG

※Please refer from P146 to use for other purpose than Folding Door

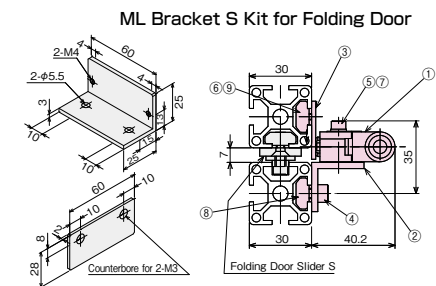
Magnet Catch with Limit Switch Kit for Folding Door



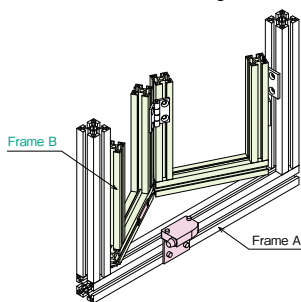
※Refer from P150 for details of Magnet Catch as Single Item.
 〈Choice Indiction of ML Bracket for Folding Door〉



Kit Contents	①Magnet Catch with Limit Switch Ax1	⑦Flat Screw(M3×12)×2
	②ML Plate×1	⑧ML Bracket×1
	③Hexagon Socket Bolt(M4×18)×2	⑨T Nut S(M5)×2
	④Flat Washer for M4×2	⑩Hexagon Socket Bolt(M5×15)×2
	⑤T Nut SS(M3)×2	⑪Hexagon Socket Bolt(M5×18)×2
	⑥Magnet Plate for Folding Door SS×1	

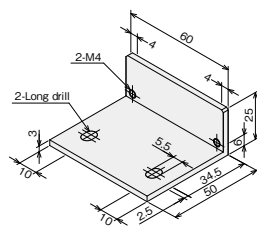


Kit Contents	①Magnet Catch with Limit Switch Ax1	⑥Flat Screw (M3x8)x2
	②ML Bracket S-Sx1	⑦Flat Washer for M4x2
	③ML Magnet Plate 2x1	⑧T Nut S (M5)x2
	④Hexagon Socket Bolt (M5x10)x2	⑨T Nut S (M3)x2
	⑤Hexagon Socket Bolt (M4x20)x2	

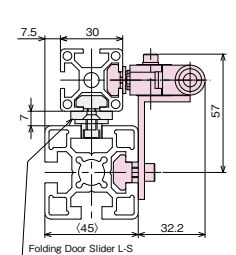
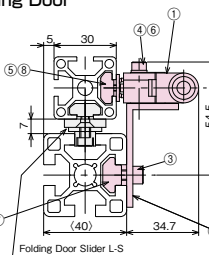


Frame A	Frame B	ML Bracket for Folding Door
SF-30 series	SF-20 series	ML Bracket S-SS Kit for Folding Door
SF-30 series	SF-30 series	ML Bracket S Kit for Folding Door
SF-40-45 series	SF-30 series	ML Bracket L-S Kit for Folding Door

ML Bracket L-S Kit for Folding Door



Kit Contents	①Magnet Catch with Limit Switch Ax1	④Hexagon Socket Bolt (M4x20)x2	⑦T Nut L (M5)x2
	②ML Bracket L-Sx1	⑤Flat Screw (M3x8)x2	⑧T Nut S (M3)x2
	③Hexagon Socket Bolt (M5x15)x2	⑥Flat Washer for M4x2	



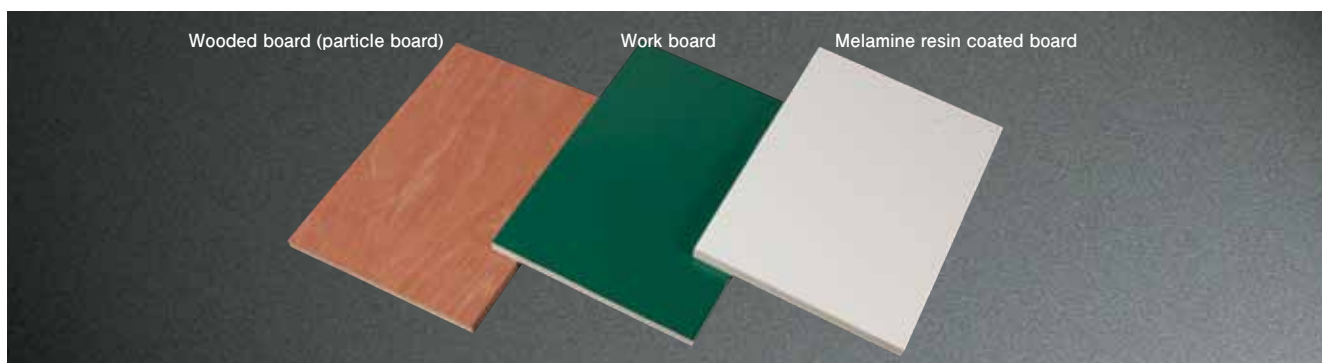
Name	ML Bracket S-SS Kit for Folding Door	ML Bracket S Kit for Folding Door	ML Bracket L-S Kit for Folding Door
Item No.	SFK-4CH	SFK-4CG	SFK-4CE

※Please refer from P146 to use for other purpose than Folding Door



Panel·Sheet

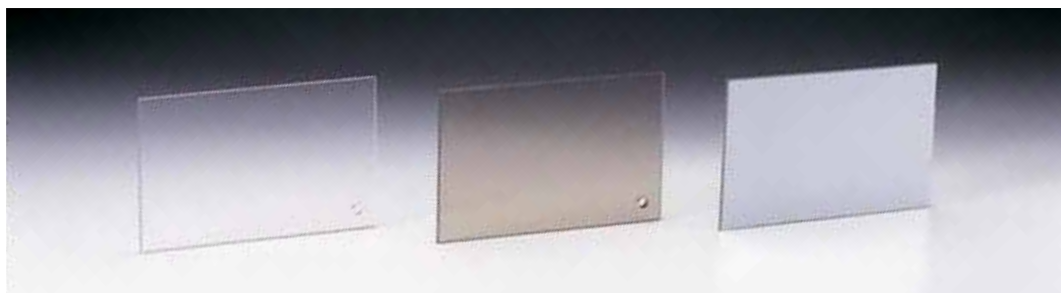
Wooden Board



Products/Options

Material	Board thickness (mm)	Surface mat	Color	Maximum size (mm)
Wooded Board (Particle Board)	9, 12, or 15	——	(White end face)	900×1800
Work Board	16.5 (including mat)	Rubber mat (1.5)	Green (white end face)	
	17 (including mat)	Antistatic mat (2.0)		
		Conductive mat (2.0) *with ground cable		
Melamine Resin Coated Board	17 (including mat)	Melamine resin (1)	White Gray	

Resin Panel



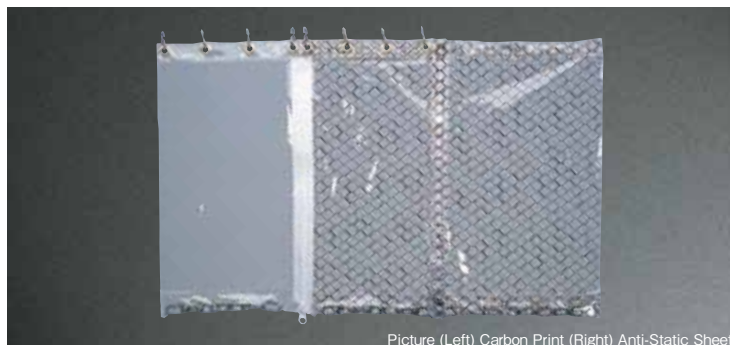
Products/Options

Name	Standard color	Panel thickness (mm)	Density	Atmospheric temperature	Maximum size
Polyvinyl Chloride (PVC)	Transparent	3 or 5	1.40	Up to 60 °C	1000×2000
Polyethylene Terephthalate (PET)	Transparent	3 or 5	1.27	Up to 70 °C	1000×2000
Acryl (PMMA)	Transparent	3 or 5	1.19	Up to 80 °C	1000×2000
Polycarbonate (PC)	Transparent	3 or 5	1.20	Up to 130 °C	1000×2000

* If you require antistatic processing for panels, notify when requesting for quotation.

Note : Regarding Panel·Sheet products on this catalogue only describe JPN SPEC.
Please contact in detail to Each Sales Branch.

Anti-Static Sheet・Partition Sheet



Picture (Left) Carbon Print (Right) Anti-Static Sheet



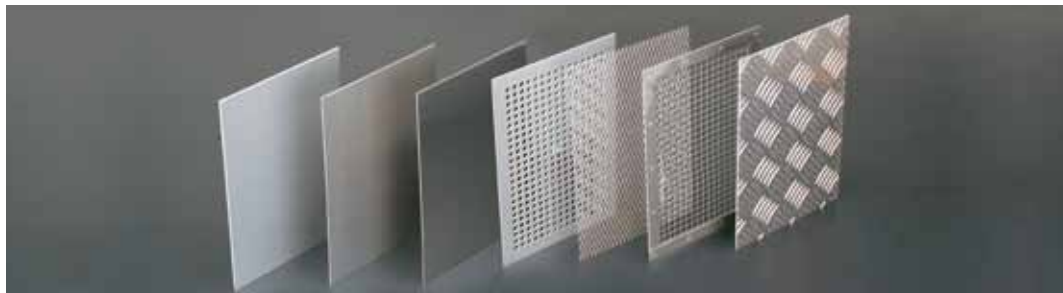
Handling Items and Rough Indication for Selection

Name	Thickness (mm)	Standard Color	Surface Specific Resistivity ^{*1}	Gravity (g/cm ³)	Flame Proofing Grade ^{*2}	Maximum Size (mm)
Anti-Static Sheet	0.3	Transparent	10 ¹⁰ Ω	1.35	Flameproof 2nd Grade	5400×3100
Anti-Static Sheet	0.5					
Anti-Static Sheet (Carbon Print)	0.3	Transparent (Carbon Print) ^{*3}	10 ⁶ Ω	1.35	Flameproof 2nd Grade	5400×3100
Anti-Static Sheet (Carbon Print)	0.5					
Partition Sheet	0.3	Transparent	10 ¹² Ω	1.35	—	5400×3100
Partition Sheet	0.5					

○SUS meets the thickness other than those above, too. Please contact us.

※ Carbon Print is treated on one side. When you use, printed surface becomes outside. Please earth the carbon print.

Steel Plate Panel



■Environment RoHS Compliant Green Procurement

Handling Items and Rough Indication for Selection

Material	With Frame	Material	Thickness (mm)	Mesh size	Gravity	Maximum Size (mm)	Surface Treatment
Aluminum Panel	—	A5052	2	—	2.68	1000×2000	Alumite Treatment
Stainless Panel NO2B	—	SUS304	1.5	—	7.93	1000×2000	—
Stainless Panel #400	—			—			One side polish
Aluminum Punching Panel	Standard	A5052	2	φ12×P18	2.68	1000×2000	Alumite Treatment
Stainless Expand Panel (S Type)	Option	SUS304	—	T=1.2 W=1.4 SW=12 LW=30.5	7.93	1000×2000	—
Stainless Expand Panel (M Type)				T=1.5 W=1.7 SW=22 LW=50.8			
Stainless Net (S Type)	Option	SUS304	—	Line Diameter φ1.6 P=12.7	7.93	1000×2000	—
Stainless Net (M Type)				Line Diameter φ2.6 P=30.0			
Aluminum Checkered Steel Plate	—	A5052	3	—	2.68	1000×2000	—

○SUS meets the thickness other than those above, too. Please contact us.