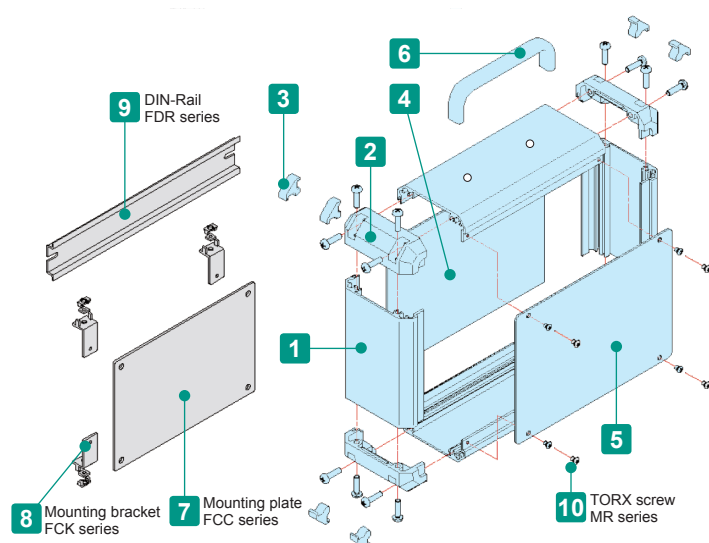


FCH SERIES**CONTROL BOX with CARRYING HANDLE****Technical Data**

Protection class: IP40



- 23 different sizes in 2 different color variations available.
- Equipped with an aluminium carrying handle for mobile use.
- Comes with a 25kg maximum load carrying handle attachment.
- Simple designed aluminium utility box composed of extruded aluminium frames, aluminium panels and ABS corner joints.

Included screws

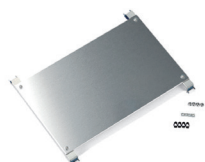
M4-15 Pan head trivalent chromate x 16 pcs

M3-5 Slotted raised countersunk / Silver = Nickel plated, Black = Trivalent chromate x 8 pcs

M4-10 Pan head trivalent chromate with spring washer x 2 pcs

Components

No.	Part name	Pcs	Material	Color / Finish
1	Frame	4	Extruded aluminium A6063S-T5	Silver • Black / Anodized
2	Corner block	4	ABS UL94HB	Light gray • Black
3	Blind plug	8	TPE	Light gray • Black
4	Slide panel	1	Aluminium A1050P t=1.5	Silver / Hairline brushed & Anodized
			Aluminium A1100P t=1.5	Black / Painted
5	Screwed panel	1	Aluminium A1050P t=1.5	Silver / Hairline brushed & Anodized
			Aluminium A1100P t=1.5	Black / Painted
6	Carrying handle	1	Aluminium A6063S-T5	Silver • Black / Anodized

Accessories (Optional parts)

7 Mounting plate FCC series
See page FCC • FCK-1 ~
FCC • FCK-2



8 Mounting bracket FCK series
See page FCC • FCK-2



9 DIN-Rail FDR series
See page MR • FDR-1

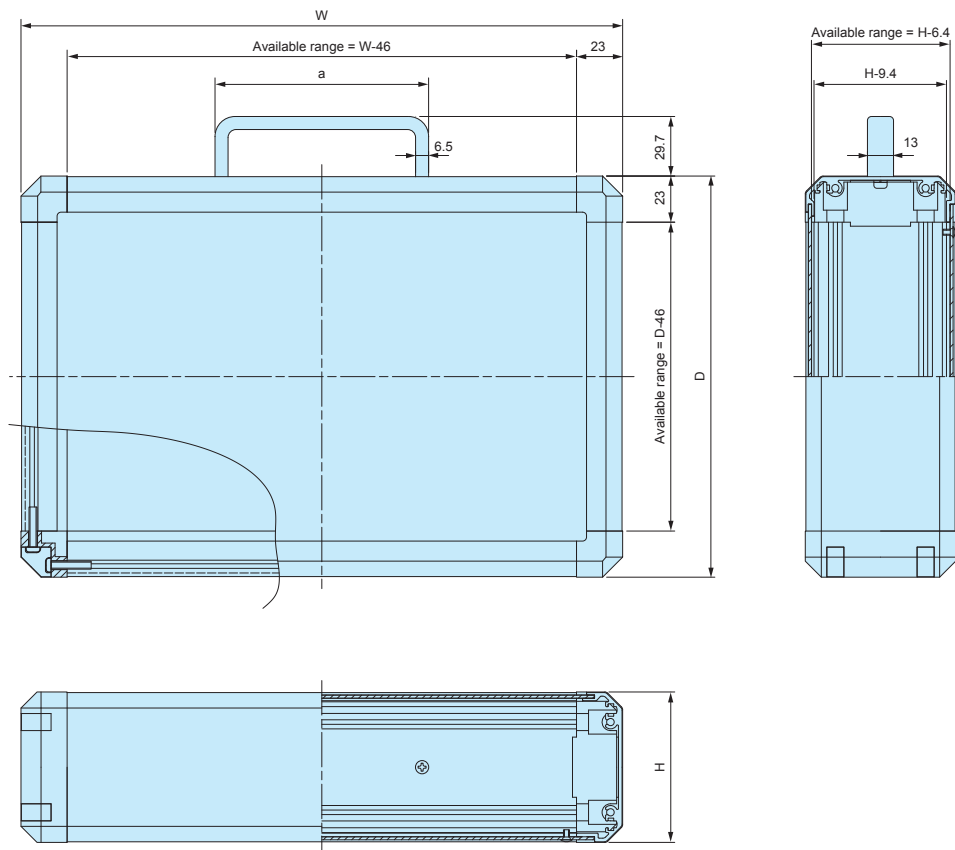


10 TORX screw MR3-5Z
See page MR • FDR-1



FCH dimensions

■ Drawings below are reference examples only.
DXF/DWG/PDF drawings available on our website.



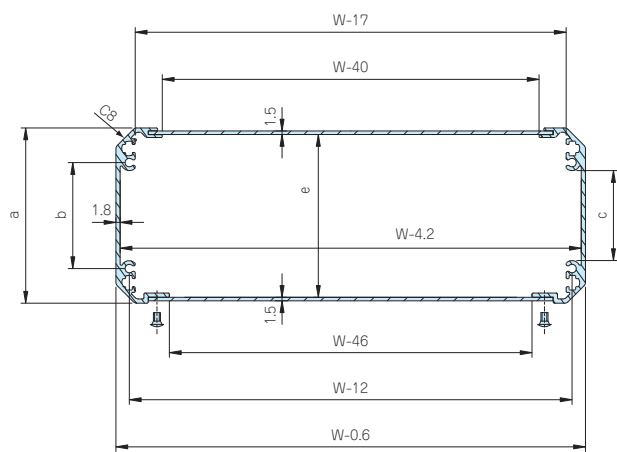
Product no. / Dimensions

Product no.		H	W	D	a	Weight (kg)
● Light gray • Silver	● Black • Black					
FCH 8-20-15GS	FCH 8-20-15BB	75.4	200	150	106.5	0.65
FCH 8-20-20GS	FCH 8-20-20BB	75.4	200	200	106.5	0.79
FCH 8-25-15GS	FCH 8-25-15BB	75.4	250	150	106.5	0.77
FCH 8-25-20GS	FCH 8-25-20BB	75.4	250	200	106.5	0.93
FCH 8-25-25GS	FCH 8-25-25BB	75.4	250	250	106.5	1.10
FCH 8-30-20GS	FCH 8-30-20BB	75.4	300	200	126.5	1.07
FCH 8-30-25GS	FCH 8-30-25BB	75.4	300	250	126.5	1.26
FCH 8-30-30GS	FCH 8-30-30BB	75.4	300	300	126.5	1.45
FCH 8-35-20GS	FCH 8-35-20BB	75.4	350	200	126.5	1.22
FCH 8-35-25GS	FCH 8-35-25BB	75.4	350	250	126.5	1.42
FCH 8-35-30GS	FCH 8-35-30BB	75.4	350	300	126.5	1.54
FCH 8-40-25GS	FCH 8-40-25BB	75.4	400	250	126.5	1.49
FCH 8-40-30GS	FCH 8-40-30BB	75.4	400	300	126.5	1.81
FCH 8-40-40GS	FCH 8-40-40BB	75.4	400	400	126.5	2.27
FCH10-30-20GS	FCH10-30-20BB	100.4	300	200	126.5	1.19
FCH10-30-25GS	FCH10-30-25BB	100.4	300	250	126.5	1.39
FCH10-30-30GS	FCH10-30-30BB	100.4	300	300	126.5	1.60
FCH10-35-20GS	FCH10-35-20BB	100.4	350	200	126.5	1.35
FCH10-35-25GS	FCH10-35-25BB	100.4	350	250	126.5	1.57
FCH10-35-30GS	FCH10-35-30BB	100.4	350	300	126.5	1.80
FCH10-40-25GS	FCH10-40-25BB	100.4	400	250	126.5	1.75
FCH10-40-30GS	FCH10-40-30BB	100.4	400	300	126.5	1.99
FCH10-40-40GS	FCH10-40-40BB	100.4	400	400	126.5	2.48

FCH cross-section view

■ Drawings below are reference examples only.
DXF/DWG/PDF drawings available on our website.

FCH series



Box height	a	b	c	e
75.4	74.4	45	38.2	69
100.4	99.4	70	63.2	94

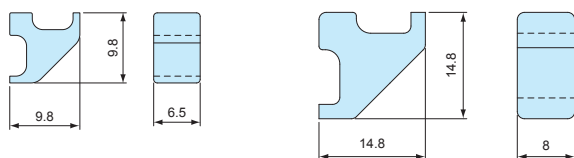
FC-BK series**BLIND PLUG**

■ Spare / Replacement blind plug for FC • FCW series.

FC-BK drawings

■ DXF/DWG/PDF drawings available on our website.

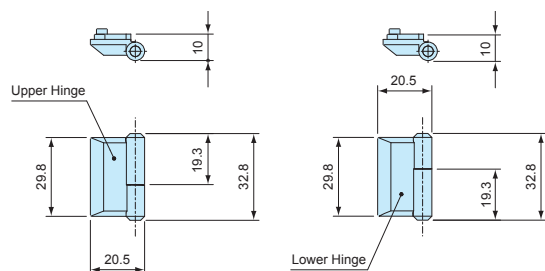
FC-BK-S□ (FC4 models) FC-BK-□ (Other FC models • FCW series)



Product no.	Material	Color	Pack of
FC-BK-SG	Elastomer	Light gray	4
FC-BK-SB	Elastomer	Black	4
FC-BK-G	Elastomer	Light gray	4
FC-BK-B	Elastomer	Black	4

FW series**HINGE for FCW**

■ Spare / Replacement hinge for FCW series.

FW drawings

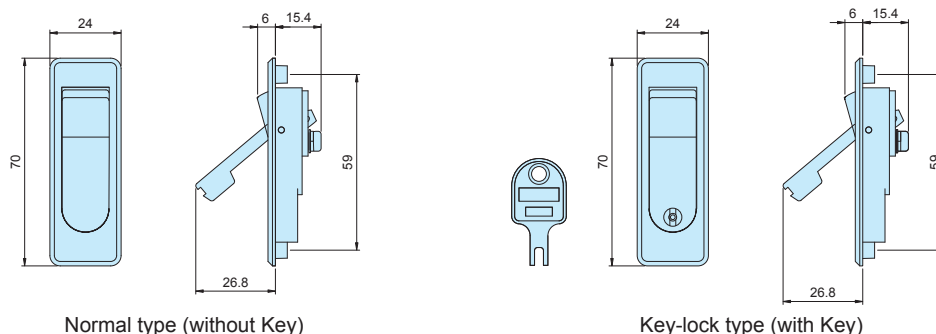
Product no.	Material	Color / Finish	Pack of
FW-2S	Diecast zinc	Silver / Painted	1 set (Upper/Lower)

PH-88 series**FLAT HANDLE for FCW**

■ Spare / Replacement flat handle for FCW series.

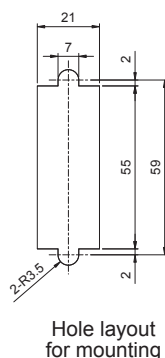
PH-88 drawings

■ DXF/DWG/PDF drawings available on our website.



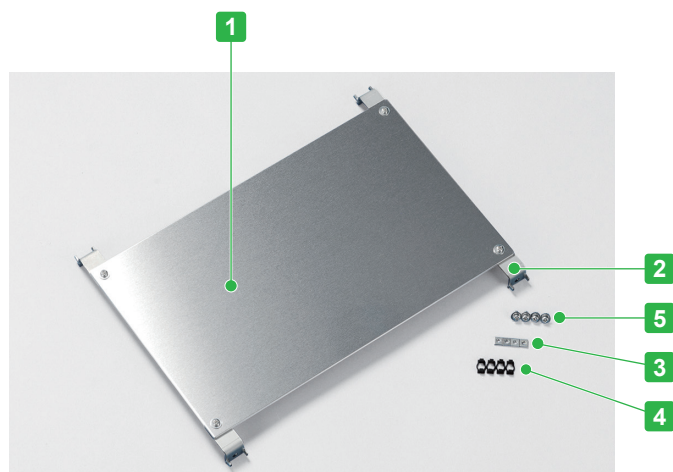
Normal type (without Key)

Key-lock type (with Key)



Hole layout
for mounting

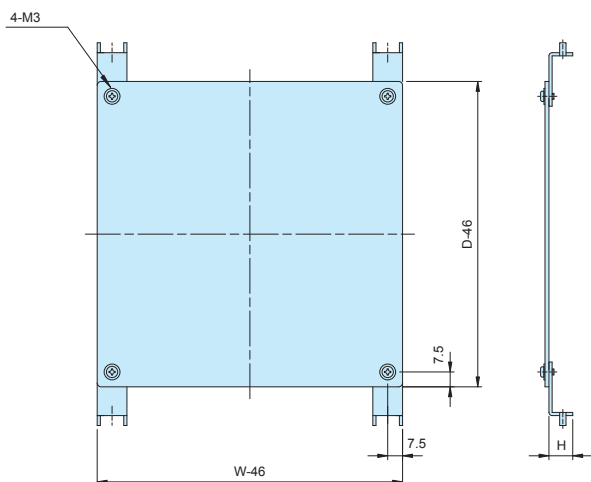
Product no.	Key	Material	Color / Finish
PH-88A-2S	Without	Diecast zinc	Silver / Painted
PH-88 -2S	With	Diecast zinc	Silver / Painted

FCC series**MOUNTING PLATE for FC • FCW**

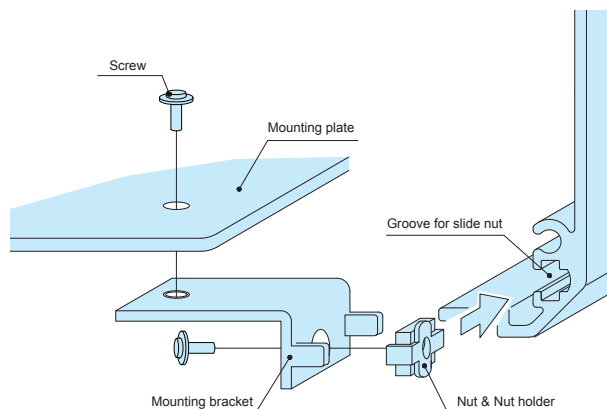
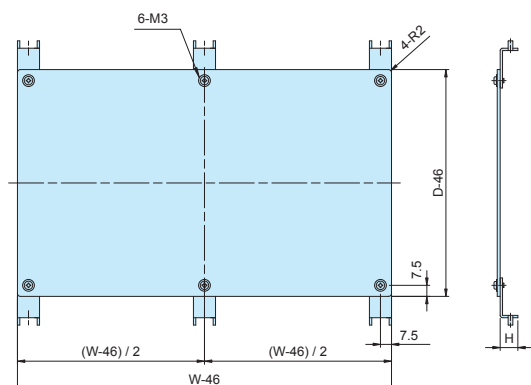
- The mounting bracket comes in 2 different height versions, 12mm and 22mm.
- Use 22mm height version when set on the open/close panel side of FCW series.
- Not suitable for FC4 (H = 37.9mm)
- Mounting brackets (FCK) are included with FCC series.

FCC drawings

For box size (W x D or D x W) 100 x 100mm to 350 x 300mm



For box size (W x D or D x W) 400/500/600 x 200/250/300 mm

**How to assemble**

- ① Slide a M3 nut and nut holder into the groove on the frame.
- ② Screw the mounting bracket into the nut holder.
- ③ Screw the mounting plate onto the mounting bracket.

Components

No.	Part name	Material	Color / Finish
1	Mounting plate	Aluminium A1050P t=2.0	Unfinished
2	Mounting bracket	Steel SECC t=1.6	Zinc coated
3	M3 nut	Steel SPCC t=1.6	Trivalent chromate
4	Nut holder	POM	Black
5	Screw M3-6 pan head	Steel	Trivalent chromate

Product no. / Details

Product no.	H	Box W x D or D x W	Product no.	H	Box W x D or D x W
FCC10-10-1	12	100 × 100	FCC10-10-2	22	100 × 100
FCC15-10-1	12	150 × 100	FCC15-10-2	22	150 × 100
FCC15-15-1	12	150 × 150	FCC15-15-2	22	150 × 150
FCC20-10-1	12	200 × 100	FCC20-10-2	22	200 × 100
FCC20-15-1	12	200 × 150	FCC20-15-2	22	200 × 150
FCC20-20-1	12	200 × 200	FCC20-20-2	22	200 × 200
FCC25-15-1	12	250 × 150	FCC25-15-2	22	250 × 150
FCC25-20-1	12	250 × 200	FCC25-20-2	22	250 × 200
FCC25-25-1	12	250 × 250	FCC25-25-2	22	250 × 250
FCC30-15-1	12	300 × 150	FCC30-15-2	22	300 × 150
FCC30-20-1	12	300 × 200	FCC30-20-2	22	300 × 200
FCC30-25-1	12	300 × 250	FCC30-25-2	22	300 × 250
FCC30-30-1	12	300 × 300	FCC30-30-2	22	300 × 300
FCC35-20-1	12	350 × 200	FCC35-20-2	22	350 × 200
FCC35-25-1	12	350 × 250	FCC35-25-2	22	350 × 250
FCC35-30-1	12	350 × 300	FCC35-30-2	22	350 × 300

Included screws: M3-6 pan head trivalent chromate with flat washer x 8 pcs

Product no. / Details

Product no.	H	Box W x D or D x W	Product no.	H	Box W x D or D x W
FCC40-20-1	12	400 × 200	FCC40-20-2	22	400 × 200
FCC40-25-1	12	400 × 250	FCC40-25-2	22	400 × 250
FCC40-30-1	12	400 × 300	FCC40-30-2	22	400 × 300
FCC50-25-1	12	500 × 250	FCC50-25-2	22	500 × 250
FCC50-30-1	12	500 × 300	FCC50-30-2	22	500 × 300
FCC60-30-1	12	600 × 300	FCC60-30-2	22	600 × 300

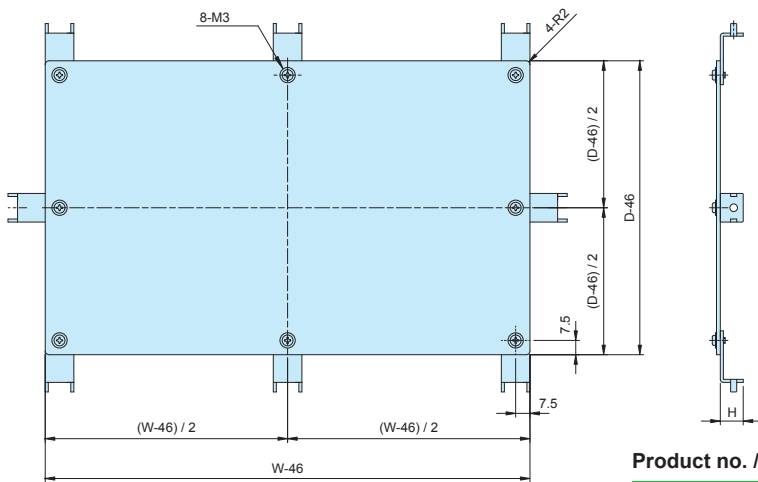
Included screws: M3-6 pan head trivalent chromate with flat washer x 12 pcs

■ DXF/DWG/PDF/STP drawings available on our website.

FCC drawings

■ DXF/DWG/PDF/STP drawings available on our website.

For box size (W x D or D x W) 400/500/600 x 400mm



Product no. / Details

Product no.	H	Box W x D or D x W	Product no.	H	Box W x D or D x W
FCC40-40-1	12	400 × 400	FCC40-40-2	22	400 × 400
FCC50-40-1	12	500 × 400	FCC50-40-2	22	500 × 400
FCC60-40-1	12	600 × 400	FCC60-40-2	22	600 × 400

Included screws: M3-6 pan head trivalent chromate with flat washer x 16 pcs

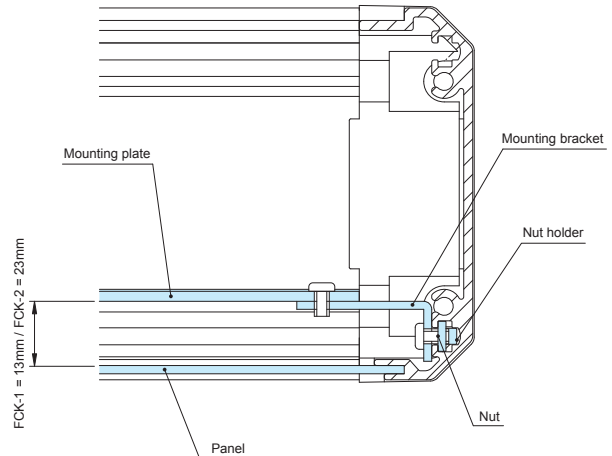
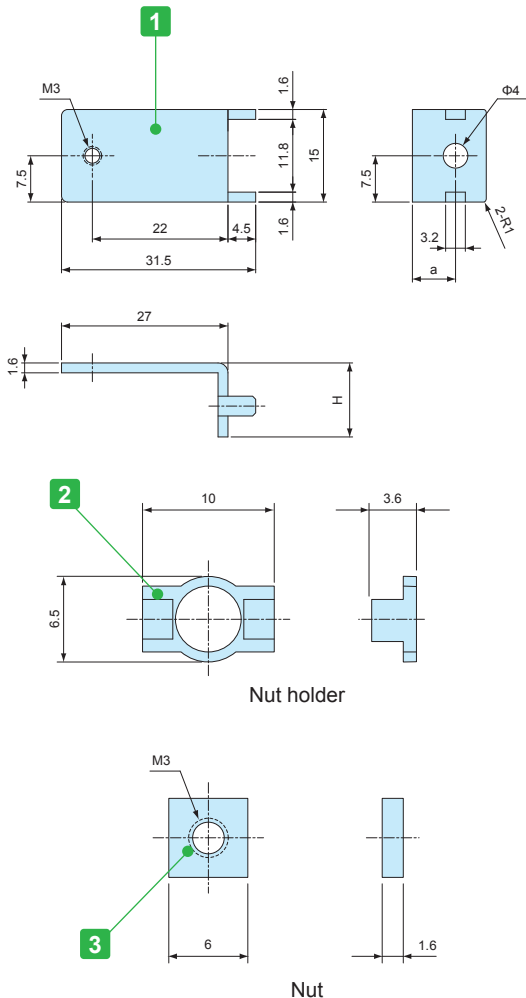
Accessories (Optional parts)

FCK series

MOUNTING BRACKET

FCK drawings

■ DXF/DWG/PDF drawings available on our website.



- 2 mounting brackets for PCB or DIN-Rail.
- FCK mounting bracket comes with FCC mounting plate.
Additional FCK is not required when purchasing FCC series.
- Not suitable for FC4 (H = 37.9mm).

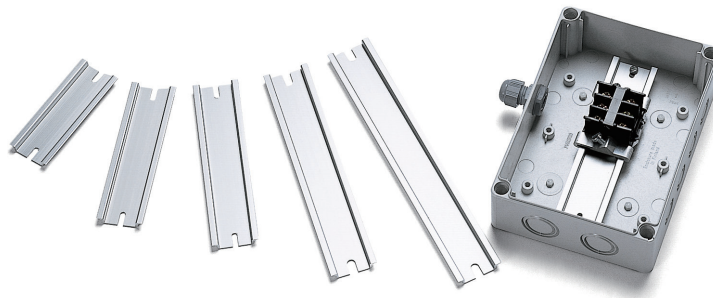
Components

No.	Part name	Material	Color / Finish
1	Mounting bracket	Steel SECC t=1.6	Zinc coated
2	Nut holder	POM	Black
3	M3 nut	Steel SPCC t=1.6	Trivalent chromate

Product no. / Details

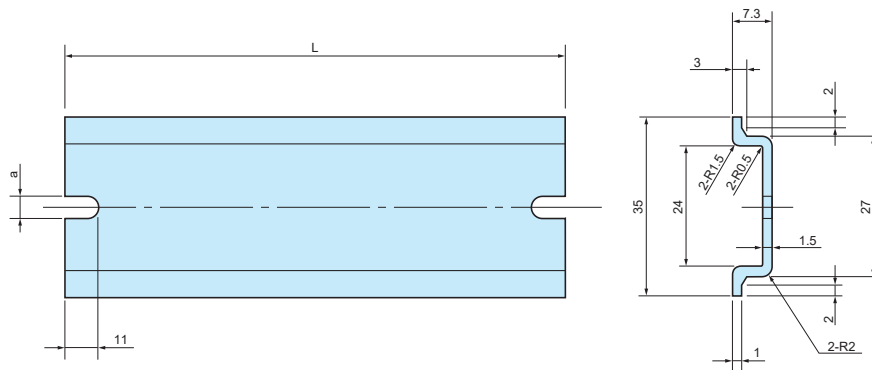
Product no.	H	a	Pack of
FCK-1	12	7	10
FCK-2	22	17	10

Included screws: M3-6 pan head trivalent chromate with flat washer x 20 pcs

FDR series**DIN RAIL**

Application example

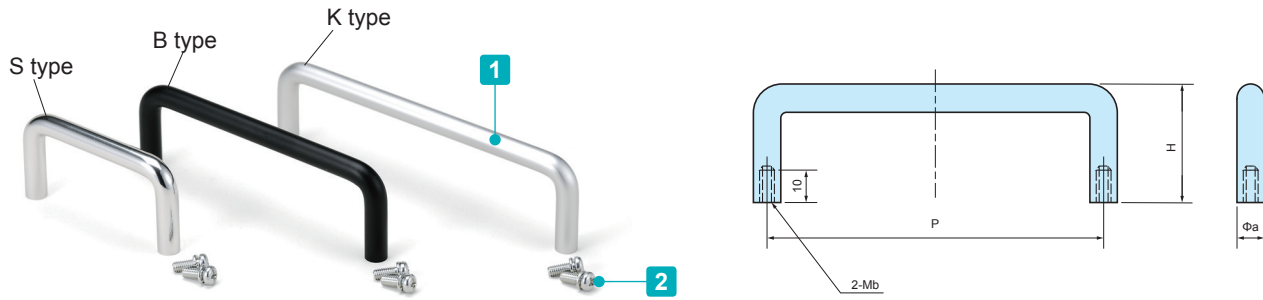
- DIN Rail for installation of terminals, relays, or switches inside enclosures.
- Suitable for DIN Rail types of various manufacturers.

**Product no. / Details**

Product no.	L	a	Matching boss pitch	Weight
FDR- 50	50	4.2	32 ~ 42	8.6
FDR- 57	57	4.2	39 ~ 49	9.5
FDR- 66	66	4.2	48 ~ 58	10
FDR- 77	77	4.2	59 ~ 69	12
FDR- 80	80	4.2	62 ~ 72	13
FDR- 87	87	4.2	69 ~ 79	14
FDR- 92	92	4.2	74 ~ 84	15
FDR-100	100	4.2	82 ~ 92	17.8
FDR-106	106	4.2	88 ~ 98	19
FDR-110	110	4.2	92 ~ 102	20
FDR-120	120	4.2	102 ~ 112	21
FDR-128	128	4.2	110 ~ 120	23
FDR-137	137	4.2	119 ~ 129	24
FDR-142	142	4.2	124 ~ 134	25
FDR-146	146	4.2	128 ~ 138	26
FDR-150	150	4.2	132 ~ 142	25.8
FDR-168	168	4.2	150 ~ 160	30
FDR-170	170	4.2	152 ~ 162	30
FDR-186	186	4.2	168 ~ 178	32
FDR-202	202	4.2	184 ~ 194	37
FDR-205	205	4.2	187 ~ 197	36
FDR-223	223	4.2	205 ~ 215	39.3
FDR-226	226	4.2	208 ~ 218	39
FDR-235	235	4.2	217 ~ 227	42
FDR-242	242	4.2	224 ~ 234	43
FDR-249	249	4.2	231 ~ 241	43
FDR-283	283	4.2	265 ~ 275	49
FDR-300	300	4.2	282 ~ 292	52
NEW FDR-314	314	4.2	296 ~ 306	51.5
FDR-350	350	4.2	332 ~ 342	60
FDR-400	400	4.2	382 ~ 392	69
FDR-450	450	4.2	432 ~ 442	78
FDR-550	550	4.2	532 ~ 542	94

Product no.	L	a	Matching boss pitch	Weight
NEW FDR-B106	106	6.5	90 ~ 96	17.5
FDR-B124	124	6.5	108 ~ 114	21.4
FDR-B142	142	6.5	126 ~ 132	24
FDR-B160	160	6.5	144 ~ 150	28
FDR-B165	165	6.5	149 ~ 155	28
FDR-B176	176	6.5	160 ~ 166	30
FDR-B183	183	6.5	167 ~ 173	30
FDR-B196	196	6.5	180 ~ 186	33
FDR-B223	223	6.5	207 ~ 213	37
FDR-B256	256	6.5	240 ~ 246	43
FDR-B260	260	6.5	244 ~ 250	45
NEW FDR-B276	276	6.5	260 ~ 266	47.5
FDR-B303	303	6.5	287 ~ 293	52
NEW FDR-B327	327	6.5	311 ~ 317	56.2
FDR-B338	338	6.5	322 ~ 328	57
FDR-B360	360	6.5	344 ~ 350	63
FDR-B376	376	6.5	360 ~ 366	64
FDR-B383	383	6.5	367 ~ 373	65
FDR-B463	463	6.5	447 ~ 453	87
FDR-1000	1,000	—	—	169.5

- Material / Finish: A6063S-T5 / Silver anodized
- FDR-1000 does not have mounting holes.

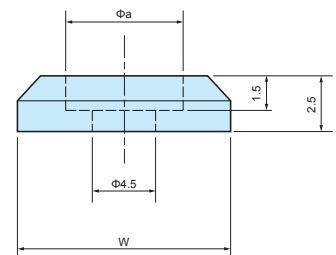
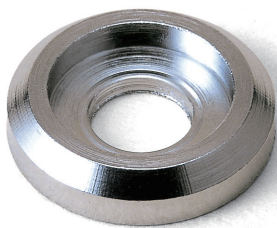
BH SERIES**ROUNDED ALUMINIUM HANDLE****Components**

No.	Part name	Pcs	Material	Color / Finish
1	Handle	1	Extruded aluminium A5056S	Polished • Matte anodized
2	Screw	2	Steel	Trivalent chromate

Product no. / Dimensions

■ K type only available on BH-100, 120, 150, and 180 models.

Product no.			P	H	a	b	Pack of
● Silver polished	● Black matte anodized	● Silver matte anodized					
BH- 26S	BH- 26B	–	26	25	6	3	2
BH- 30S	BH- 30B	–	30	35	8	4	2
BH- 50S	BH- 50B	–	50	35	8	4	2
BH- 60S	BH- 60B	–	60	35	8	4	2
BH- 70S	BH- 70B	–	70	35	8	4	2
BH- 80S	BH- 80B	–	80	35	8	4	2
BH-100S	BH-100B	BH-100K	100	35	8	4	2
BH-110S	BH-110B	–	110	35	8	4	2
BH-120S	BH-120B	BH-120K	120	35	8	4	2
BH-150S	BH-150B	BH-150K	150	35	8	4	2
BH-180S	BH-180B	BH-180K	180	35	8	4	2

Z-P SERIES**WASHER for HANDLE**

■ Brass washer for BH • KH series.

Product no. / Dimensions

■ Material / Brass

Product no.		W	a	Pack of
Chrome plated	Black painted			
Z-P6S	Z-P6B	10	6.2	10
Z-P8S	Z-P8B	12	8.2	10



- Custom sized aluminium control box with available width and depth from 75mm to 1,000mm in 1mm intervals.
- Selectable in 7 different height: 38, 50, 63, 75, 100, 125 and 150mm.
- 4 different color combinations are available for selection.



- Standard size FC series are also available.
See FC series product pages for more information.



- Optional wall mount support arm MAR series is available.
See page 181 ~ 182 for further details.

Included screws :

M4-15 pan head & Trivalent chromate x 16 pcs

(M3-15 for H = 38 models)

M3-5 original trapezoid head (plus) & Nickel plated / Black trivalent chromate x 8 pcs or 12 pcs

Components

No.	Part name	Pcs	Material	Color / Finish
1	Frame	4	Extruded aluminium A6063S-T5	Silver • Black / Anodized with clear coating
2	Corner block	4	ABS UL94HB	Light gray • Black
3	Blind plug	8	Elastomer	Light gray • Black
4	Slide panel	1	Aluminium A1100P	Silver / Anodized • Black / Painted
—	Screwed panel	1	Aluminium A1100P	Silver / Anodized • Black / Painted

- Panels are covered with a protective film on one side

Lead Time

Custom Size Only
Custom Size + Hole Milling

4 business days (1 ~ 10 pcs)
9 business days (1 ~ 10 pcs)

Order Inquiry

For more information, contact us here at sales@takachi-el.co.jp

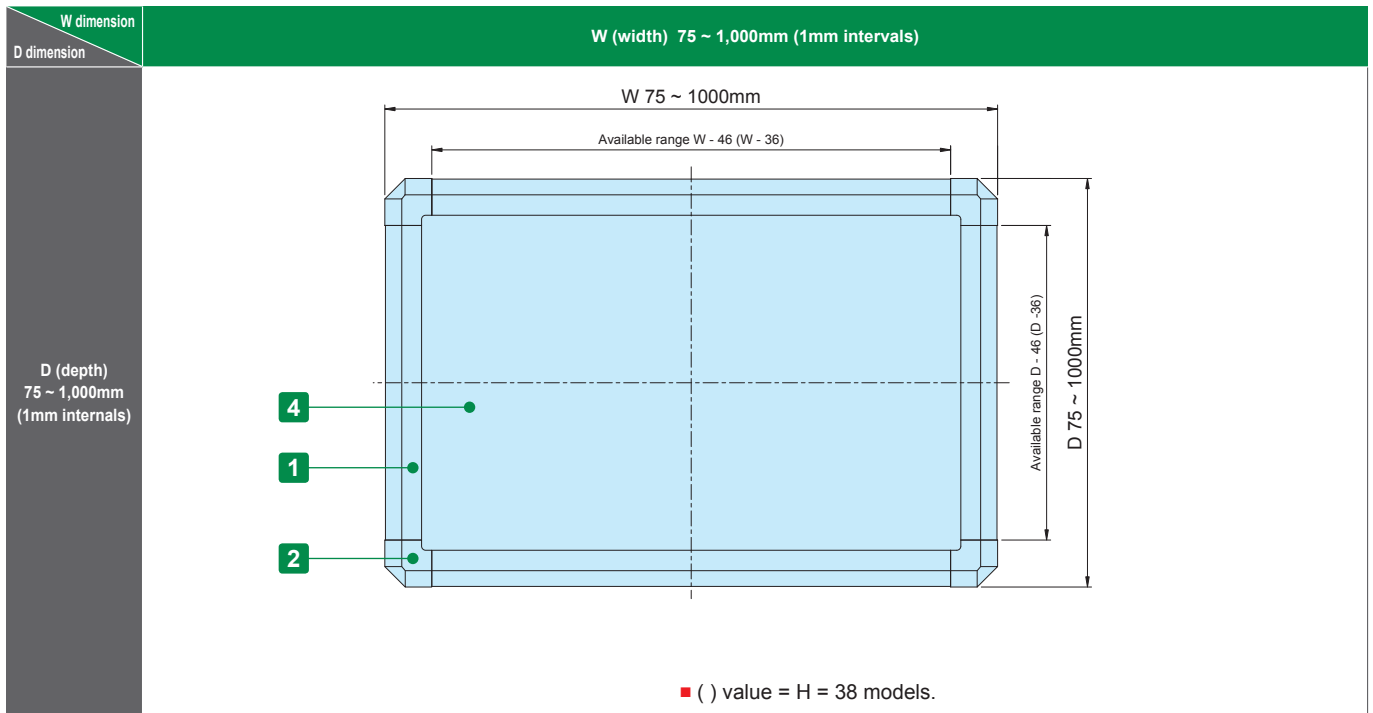
CUSTOM SIZE WEB QUOTATION

Send your inquiry via our online form now!

Visit the FCS product page on our website, click on the "CUSTOM SIZE WEB QUOTATION" button, and fill in the required details. The product number will be generated, and once your information have been filled in, simply click on SUBMIT and await for our sales team's contact!

1 Dimensions

■ W (Width) • D (Depth) : To select W and D dimensions from the table below in 1mm intervals.



■ H (Height) : To select frame type from the table below.

H = 38	H = 50	H = 63	H = 75
37.9	50.4	62.9	75.4
H = 100	H = 125	H = 150	
100.4	125.4	150.4	

2 Color

To select color code from the table below.

Code	GS	BS	BX	BB
Color				

Product Number

To determine a product number, fill W, H, D and select Color code in the following blank boxes.

Product no. FCS - -

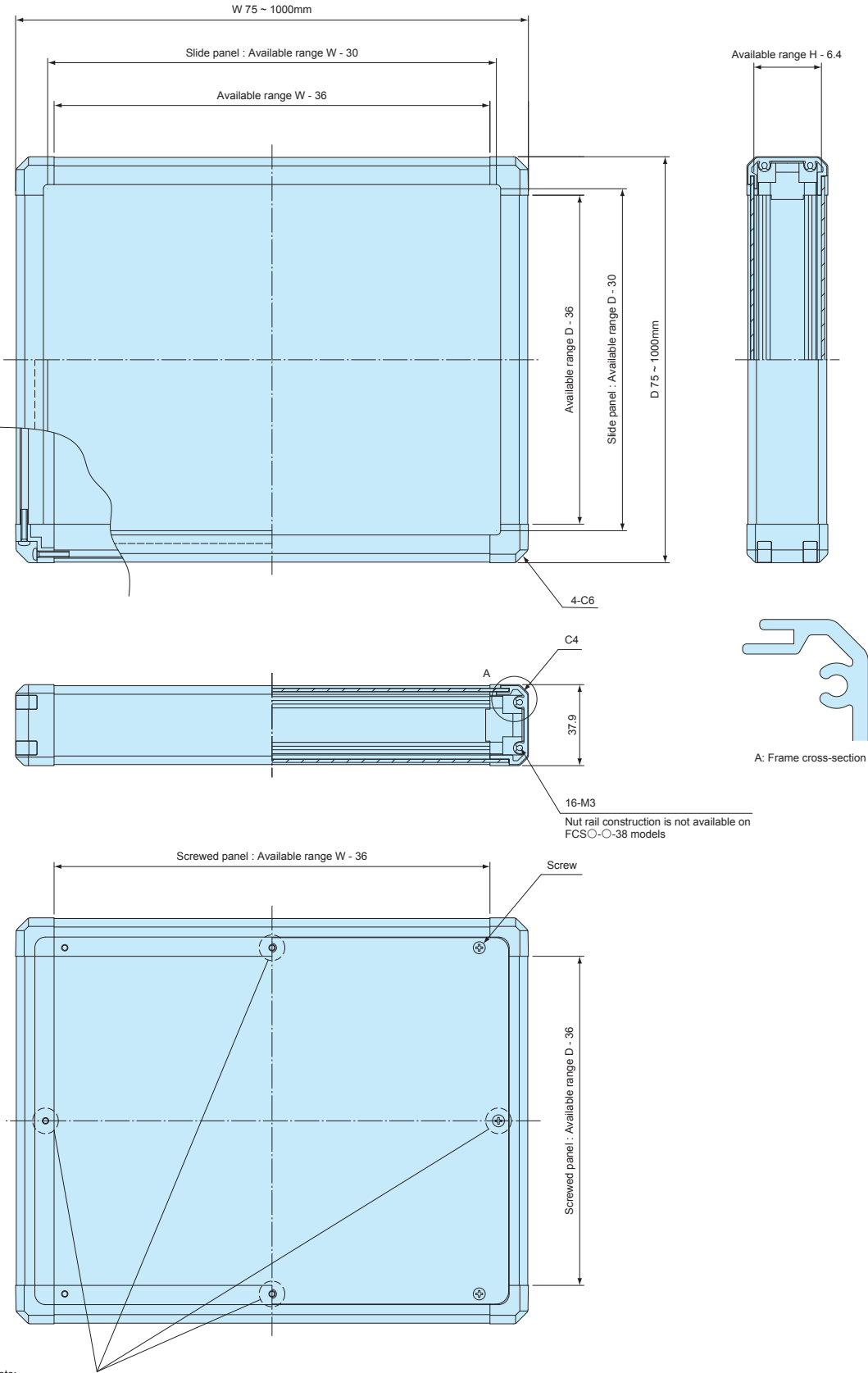
1 W 1 D 1 H 2 Color code

Numbering example: W:770 x D:550 x H:75 and GS color code → **FCS770-550-75GS**

FCS dimensions

■ DXF/DWG/PDF drawings available on our website.

FCS○-○-38



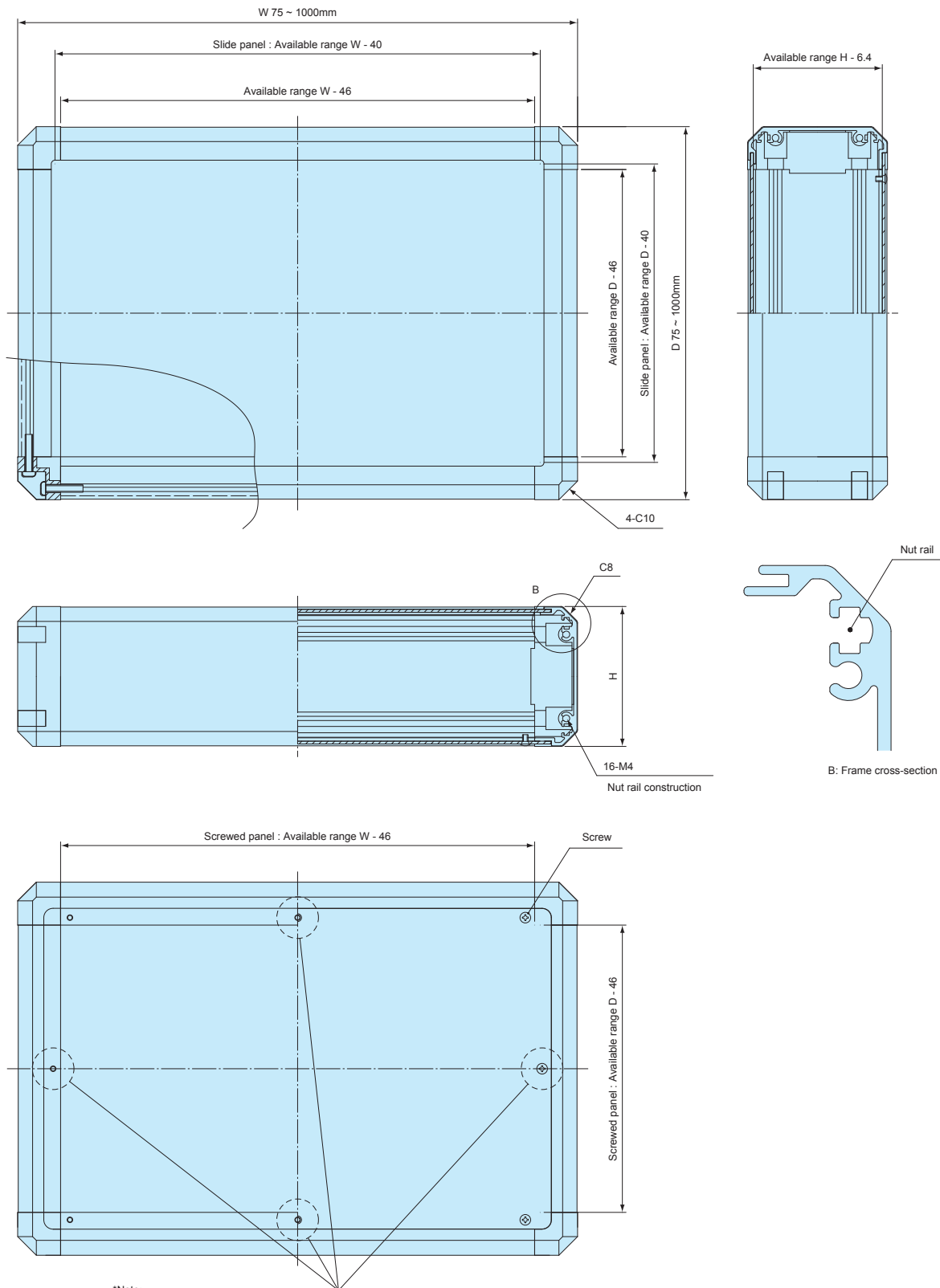
*Note:
1 set of screw holes (on each corresponding side) will be required for assembly if W or D dimension is 390mm or larger.
2 sets of screw holes (on each corresponding side) will be required for assembly if W or D dimension is 591mm or larger.

Screw Number Chart for Screwed Panel

D dimension W dimension	D dimension		
	75 ~ 389mm	390 ~ 590mm	591 ~ 1000mm
75 ~ 389mm	4	6	8
390 ~ 590mm	6	8	10
591 ~ 1000mm	8	10	12

FCS○-○-50
○-○-63
○-○-75

FCS○-○-100
○-○-125
○-○-150



*Note:
1 set of screw holes (on each corresponding side) will be required for assembly if W or D dimension is 400mm or larger.
2 sets of screw holes (on each corresponding side) will be required for assembly if W or D dimension is 601mm or larger.

Screw Number Chart for Screwed Panel

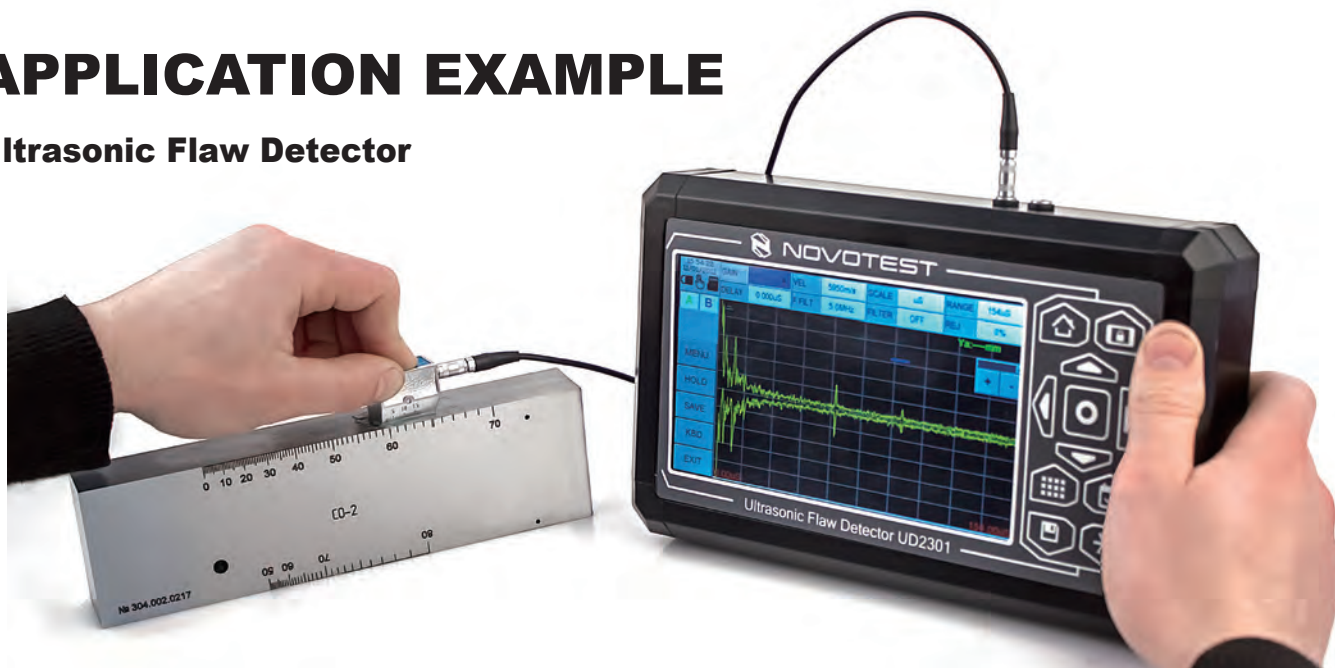
D dimension W dimension	D dimension		
	75 ~ 399mm	400 ~ 600mm	601 ~ 1000mm
75 ~ 399mm	4	6	8
400 ~ 600mm	6	8	10
601 ~ 1000mm	8	10	12

FC series ALUMINIUM CONTROL BOX

FC and FCW series are applicable for various purposes such as control and switch box, touch panel display, monitor box, and more.

APPLICATION EXAMPLE

Ultrasonic Flow Detector



Coil Winding Machine



Remote Control Logger



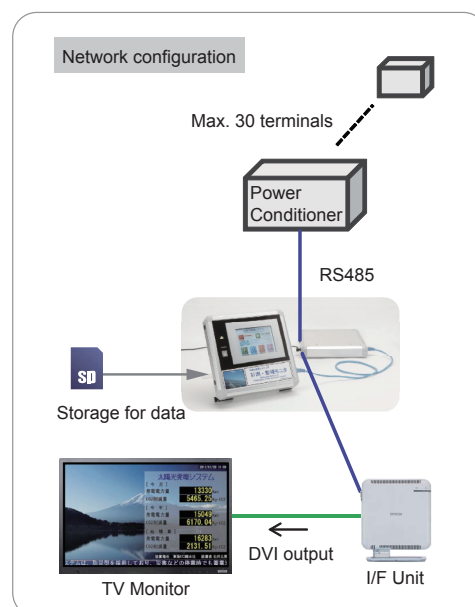
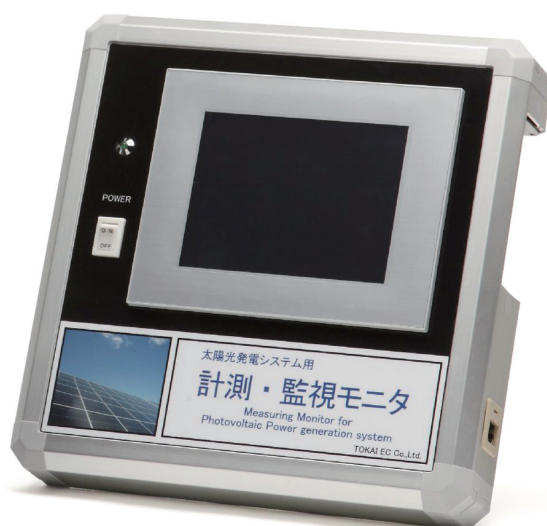
Streaming Video Provider



Linux Data Logger



Solar Monitoring System



4 Channel Edge Node



Active RFID Tag Reader • Trigger



Hands-free type



Touch type

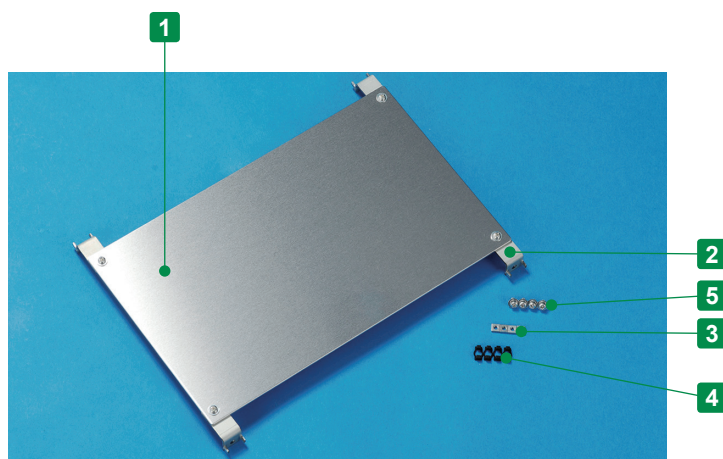


Compact Solar Power Supply

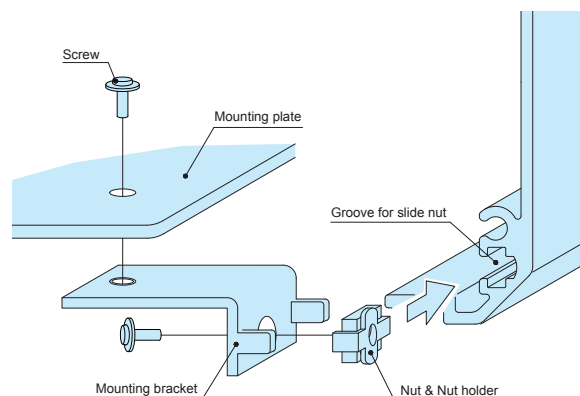


FCSC SERIES

CUSTOM SIZED ALUMINIUM MOUNTING PLATE for FCS • FCWS



- Custom sized mounting plate can be made for FCS • FCWS custom sized box.
- Mounting bracket is selectable in 2 types: [1] H = 12mm, or [2] H = 22mm.
- Not suitable for FCS□-□-38 or FCWS□-□-38 models. (H = 37.9mm)
- Use 22mm height type when used in the FCWS series, open/close panel side.



How to assemble

- ① Slide a M3 Nut and Nut holder into the groove on the FCS • FCWS frame.
- ② Screw the mounting bracket into the nut holder.
- ③ Screw the mounting plate onto the mounting bracket.

Components

No.	Part name	Material	Color / Finish
1	Mounting plate	Aluminium A1050P	Unfinished
2	Mounting bracket	Steel SECC	Zinc coated
3	M3 Nut	Steel SPCC	Trivalent chromate
4	Nut holder	POM	Black
5	Screw	Steel M3-6	Trivalent chromate

Select Bracket Height

Code	1	2
Height		

Confirm Product No. Specify box dimensions and bracket height.

Product no. FCSC - -

Box W dimension Box D dimension Bracket height (1 or 2)

Example : Box W dimension = 450 mm, Box D dimension = 200 mm and Mounting Bracket type [1] H = 12mm.

FCSC - -

Lead time

Custom Size Only
Custom Size + Hole Milling

4 business days (1 ~ 10 pcs)
8 business days (1 ~ 10 pcs)

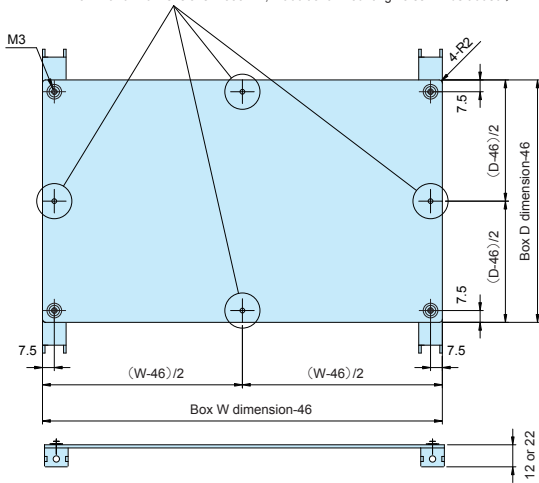
Order Inquiry

For more information, contact us here at sales@takachi-el.co.jp

FCSC dimensions

Available dimensions range : $W = 75 \sim 600\text{mm}$ x $D = 75 \sim 600\text{mm}$

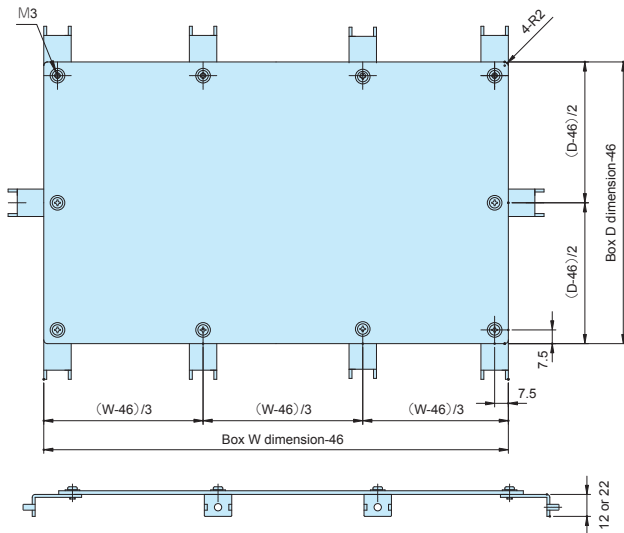
※Caution For W and D dimensions larger than 300mm, 2 additional mounting holes will be added.
For W and D dimensions = 600mm, 4 additional mounting holes will be added.)



Box W dimension	Box D dimension	Number of holes
75~399mm	75~399mm	4
75~399mm	400~600mm	6
400~600mm	75~399mm	6
400~600mm	400~600mm	8

Included screws: M3-6 pan head trivalent chromate with flat washer x 8 or x 16 pcs

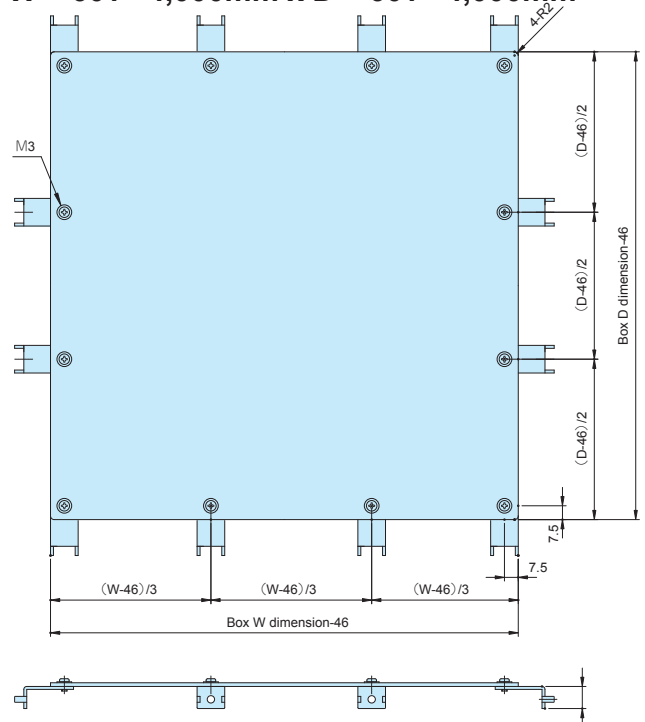
For W and D dimensions :
 $W = 400 \sim 600\text{mm}$ x $D = 601 \sim 1,000\text{mm}$



Included screws: M3-6 pan head trivalent chromate with flat washer x 20 pcs

Box W dimension	Box D dimension	Number of holes
601~1000mm	400~ 600mm	10
400~ 600mm	601~1000mm	10

For W and D dimensions :
 $W = 601 \sim 1,000\text{mm}$ x $D = 601 \sim 1,000\text{mm}$

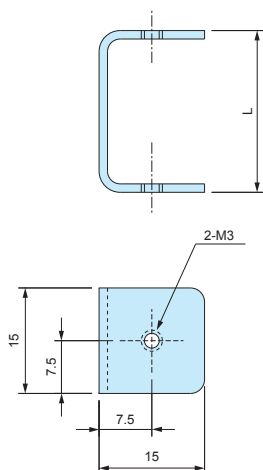


Included screws: M3-6 pan head trivalent chromate with flat washer x 24 pcs

Box W dimension	Box D dimension	Number of holes
601~1000mm	601~1000mm	12

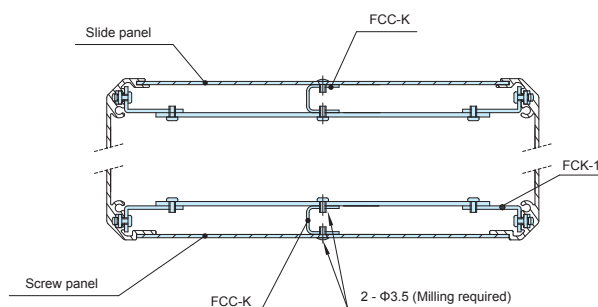
FCC-K SERIES

MOUNTING PLATE REINFORCING BRACKET



- Recommended to be used when a heavy load is attached onto the mounting plate.
- Requires 2 - $\Phi 3.5$ hole milling on the mounting plate for installation.
- Can be freely installed based on your requirements.
- Not suitable for FCS□-□-38 or FCWS□-□-38 models. (H = 37.9mm)
- Use FCC-K-1 for the mounting plate with FCK-1 brackets and use FCC-K-2 for the mounting plate with FCK-2 brackets.

INSTALLATION EXAMPLE



Product no. / Dimensions

Product no.	L	Matching bracket	Pack of
FCC-K-1	13	FCK-1	2
FCC-K-2	23	FCK-2	2

Included screws : M3-6 pan head trivalent chromate with flat washer x 2 pcs

M3-5 slotted raised countersunk nickel plated / black trivalent chromate x 2 pcs each

Accessories (Optional parts)

MR3-5Z SERIES

SLOTTED RAISED COUNTERSUNK TORX SCREW



- For use with panels.
- Recommended for aesthetic purposes, or for resistance against tampering.
- Requires the use of a specialized screwdriver.

Product no. / Dimensions

Product no.	M	L	TORX head no.	Material	Color / Finish	Pack of
MR3-5ZS	3	5	T10	Steel	Nickel plated	20
MR3-5ZB	3	5	T10	Steel	Black trivalent chromate	20