

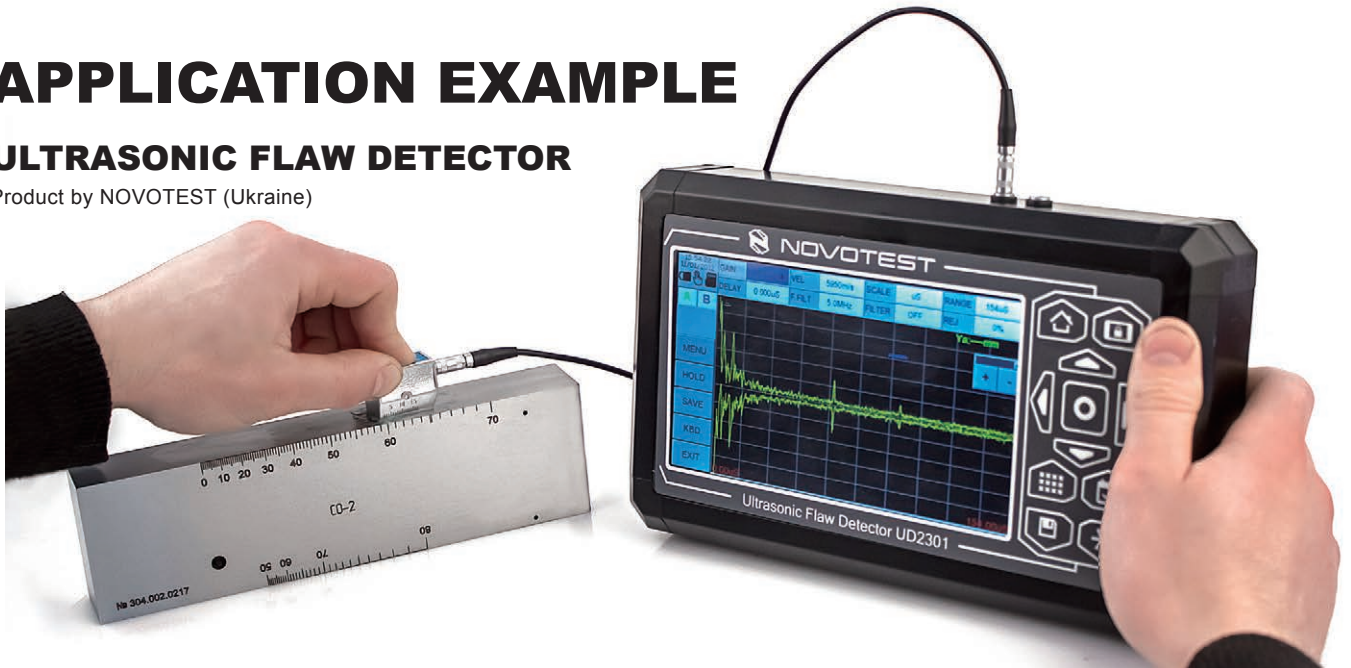
# FC SERIES ALUMINIUM CONTROL BOX

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

## APPLICATION EXAMPLE

### ULTRASONIC FLAW DETECTOR

Product by NOVOTEST (Ukraine)



### COIL WINDING MACHINE Product by TNK (Japan)



### 4-AXIS ROBOT CONTROLLER

Product by KDS (Japan)



### STREAMING VIDEO PROVIDER



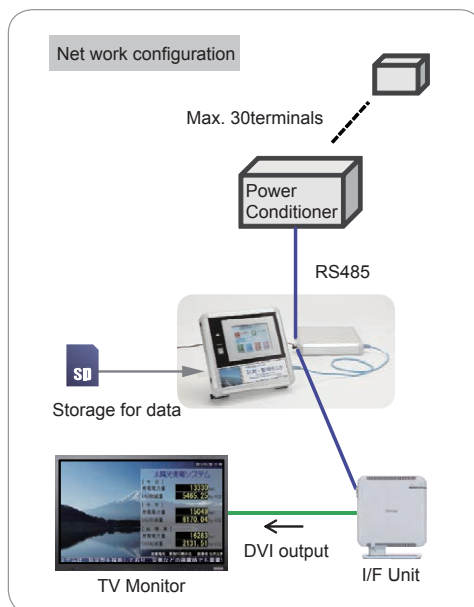
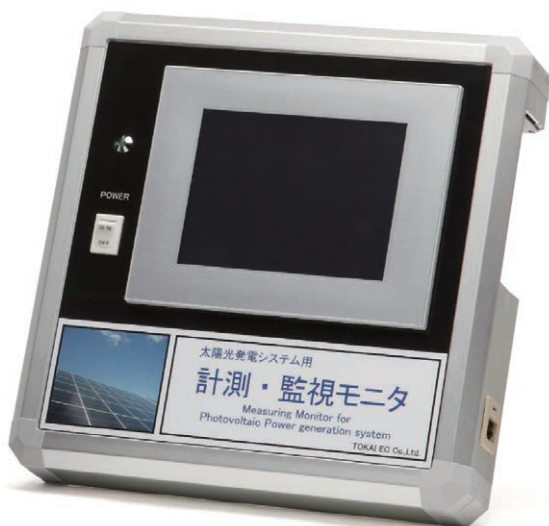
Product by StreamingVideoProvider (UK)

### HAND-CARRY CONTROL BOX



Product by Coms (Japan)

## SOLAR MONITORING SYSTEM



## 4 CHANNEL EDGE NODE

Product by SHINWA (Japan)



## ACTIVE RFID TAG READER • TRIGGER

Product by Matrix (Japan)

Hands-free type



Touch type



## COMPACT SOLAR POWER SUPPLY

Product by Elenagic (Japan)



# FCW SERIES

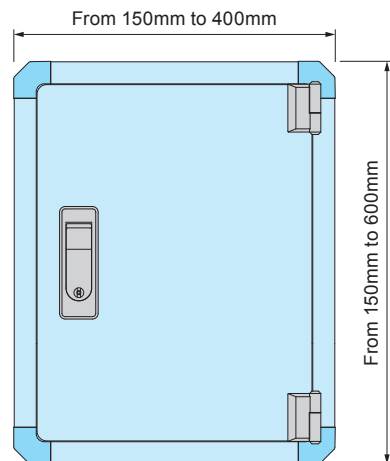
# OPEN-CLOSING CONTROL BOX



- 108 different sizes in 4 different color variations available.
- Easy access to the inside of the case with open/closing cover.
- Both with and without key lock types are available.
- Suitable for touch panel display, industrial control equipment and many others.

Technical Data
Protection class: IP40

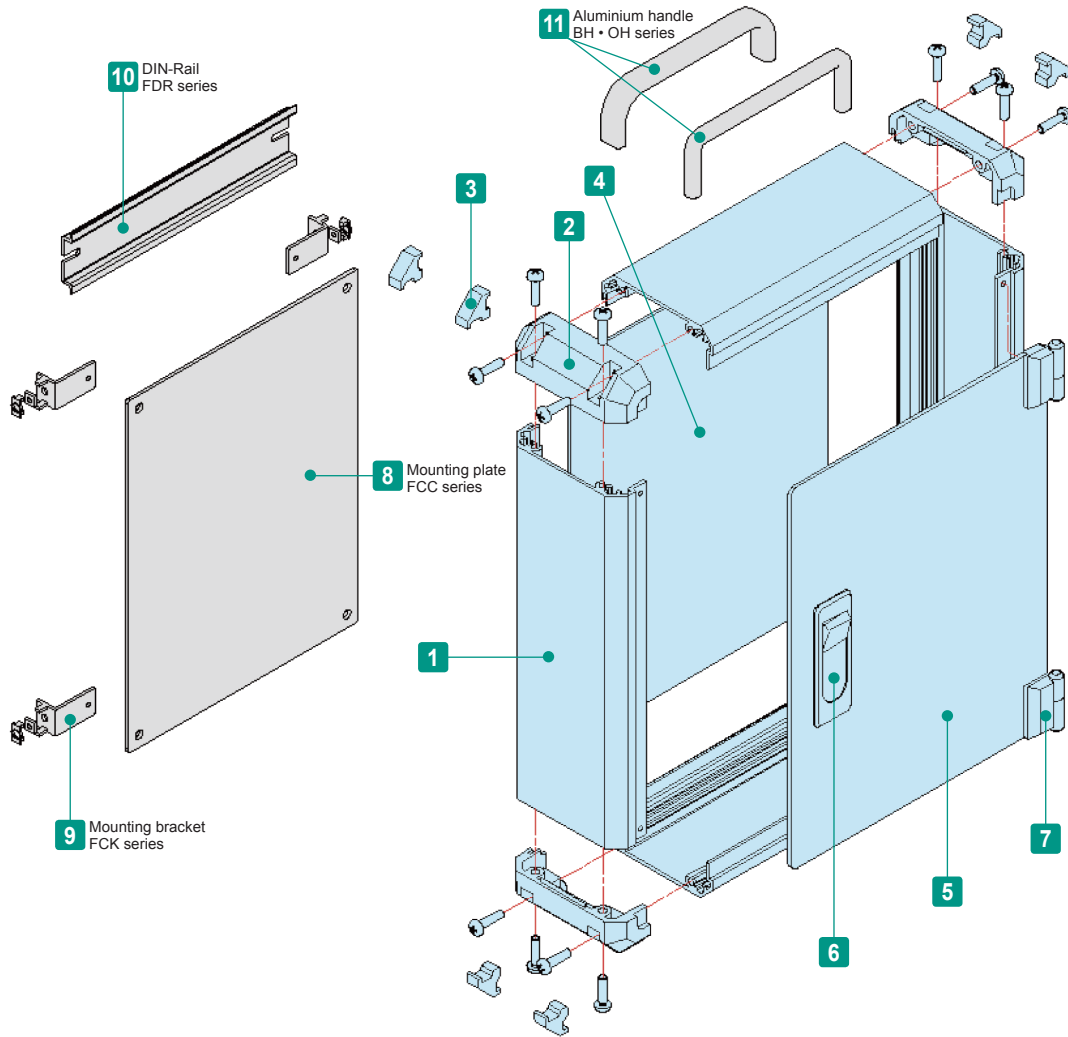
## Custom width / length available



- Flexible frame width / length in 1mm intervals.
- No minimum order quantity and short lead time for small quantity order.



Assembly drawings



Included screws  
 M4-15 pan head, trivalent chromate / black trivalent chromate x 16 pcs  
 M3-5 pan head, trivalent chromate / black trivalent chromate x 2 pcs or 3 pcs  
 M3-5 countersunk trivalent chromate / black trivalent chromate x 2 pcs or 3 pcs  
 M4-8 trivalent chromate with washer x 2 pcs or 4 pcs  
 M4-6 trivalent chromate with washer x 2 pcs or 4 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	Open-closing panel	1	Aluminium A1050P t=2.0	Silver / Hairline brushed & Anodized
			Aluminium A1050P t=2.0	Black / Anodized
6	Flat handle	1 set	Diecast zinc	Silver • Black / Painted
7	Hinge	1 set	Diecast zinc	Silver • Black / Painted
-	Panel protection pad	6	Polyolefin foam	Black

Accessories (Optional parts)



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



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



10 DIN-Rail FDR series  
 MR • FDR-1



11 Aluminium handle BH • OH series  
 See See page BH • Z-P-1 & OH • KH-1

**Flat Handle Type**



**Color Type**

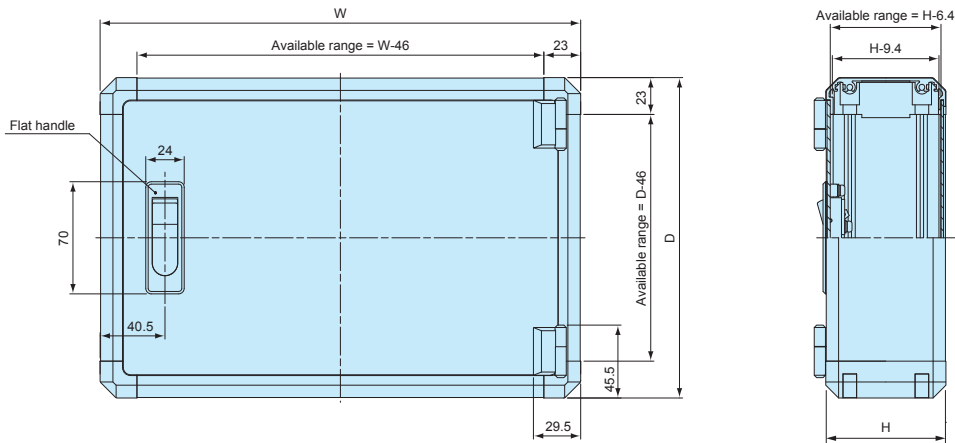
GS		BS		BX		BB	
Panel	Silver	Panel	Silver	Panel	Silver	Panel	Black
Frame	Silver	Frame	Silver	Frame	Black	Frame	Black
Corner	Light gray	Corner	Black	Corner	Black	Corner	Black
Flat handle	Silver	Flat handle	Silver	Flat handle	Black	Flat handle	Black

**FCW dimensions**

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

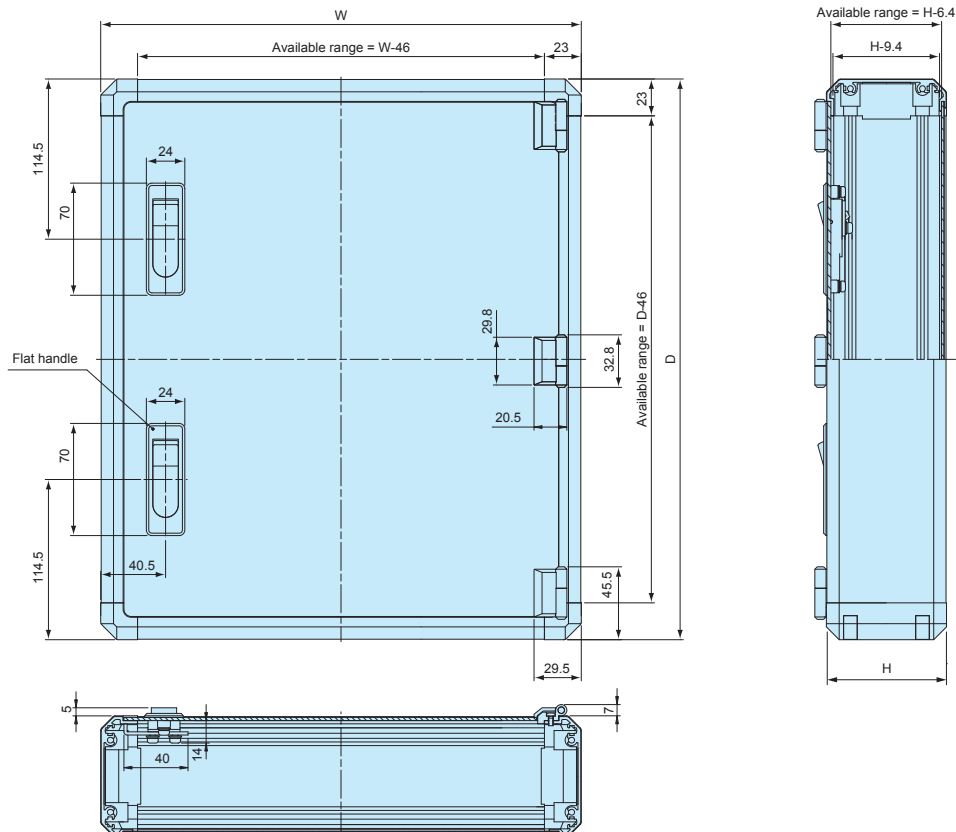
**Handle - 1 pc / Hinge - 2 pcs type**

Not applicable for FCW□-30-50, FCW□-40-50, and FCW□-40-60 models.



**Handle - 2 pcs / Hinge - 3 pcs type**

Applicable for FCW□-30-50, FCW□-40-50, and FCW□-40-60 models.



Specify your order with complete combination product number as per below

# FCW 5 - 20 - 15



Flat Handle Type  
( N or K )



Color Code  
( GS, BS, BX, or BB )

## Product no. / Dimensions

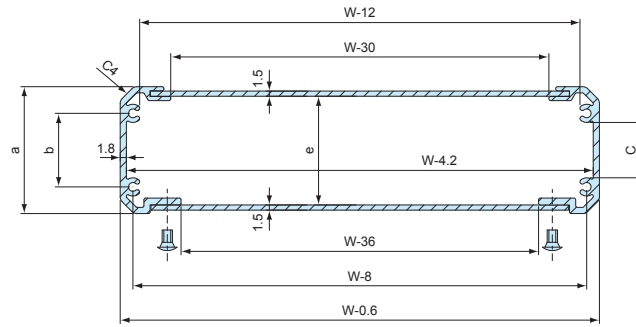
Product no.	H	W	D	Weight (kg)	Flat handle / Hinge pcs
FCW5-15-20□□	50.4	150	200	0.69	1 / 2
FCW5-15-25□□	50.4	150	250	0.80	1 / 2
FCW5-20-15□□	50.4	200	150	0.69	1 / 2
FCW5-20-20□□	50.4	200	200	0.83	1 / 2
FCW5-20-25□□	50.4	200	250	0.97	1 / 2
FCW5-20-30□□	50.4	200	300	1.11	1 / 2
FCW5-25-25□□	50.4	250	250	1.14	1 / 2
FCW5-25-30□□	50.4	250	300	1.30	1 / 2
FCW5-25-40□□	50.4	250	400	1.63	1 / 2
FCW5-30-20□□	50.4	300	200	1.11	1 / 2
FCW5-30-30□□	50.4	300	300	1.50	1 / 2
FCW5-30-40□□	50.4	300	400	1.87	1 / 2
FCW5-30-50□□	50.4	300	500	2.28	2 / 3
FCW5-35-25□□	50.4	350	250	1.47	1 / 2
FCW5-40-30□□	50.4	400	300	1.88	1 / 2
FCW5-40-40□□	50.4	400	400	2.37	1 / 2
FCW5-40-50□□	50.4	400	500	2.82	2 / 3
FCW5-40-60□□	50.4	400	600	3.28	2 / 3
FCW6-15-20□□	62.9	150	200	0.72	1 / 2
FCW6-15-25□□	62.9	150	250	0.84	1 / 2
FCW6-20-15□□	62.9	200	150	0.72	1 / 2
FCW6-20-20□□	62.9	200	200	0.86	1 / 2
FCW6-20-25□□	62.9	200	250	1.01	1 / 2
FCW6-20-30□□	62.9	200	300	1.16	1 / 2
FCW6-25-25□□	62.9	250	250	1.18	1 / 2
FCW6-25-30□□	62.9	250	300	1.35	1 / 2
FCW6-25-40□□	62.9	250	400	1.69	1 / 2
FCW6-30-20□□	62.9	300	200	1.16	1 / 2
FCW6-30-30□□	62.9	300	300	1.55	1 / 2
FCW6-30-40□□	62.9	300	400	1.93	1 / 2
FCW6-30-50□□	62.9	300	500	2.35	2 / 3
FCW6-35-25□□	62.9	350	250	1.46	1 / 2
FCW6-40-30□□	62.9	400	300	1.94	1 / 2
FCW6-40-40□□	62.9	400	400	2.44	1 / 2
FCW6-40-50□□	62.9	400	500	2.94	2 / 3
FCW6-40-60□□	62.9	400	600	3.36	2 / 3
FCW8-15-20□□	75.4	150	200	0.76	1 / 2
FCW8-15-25□□	75.4	150	250	0.88	1 / 2
FCW8-20-15□□	75.4	200	150	0.76	1 / 2
FCW8-20-20□□	75.4	200	200	0.91	1 / 2
FCW8-20-25□□	75.4	200	250	1.06	1 / 2
FCW8-20-30□□	75.4	200	300	1.21	1 / 2
FCW8-25-25□□	75.4	250	250	1.24	1 / 2
FCW8-25-30□□	75.4	250	300	1.41	1 / 2
FCW8-25-40□□	75.4	250	400	1.76	1 / 2
FCW8-30-20□□	75.4	300	200	1.21	1 / 2
FCW8-30-30□□	75.4	300	300	1.62	1 / 2
FCW8-30-40□□	75.4	300	400	2.02	1 / 2
FCW8-30-50□□	75.4	300	500	2.44	2 / 3
FCW8-35-25□□	75.4	350	250	1.59	1 / 2
FCW8-40-30□□	75.4	400	300	2.02	1 / 2
FCW8-40-40□□	75.4	400	400	2.53	1 / 2
FCW8-40-50□□	75.4	400	500	3.05	2 / 3
FCW8-40-60□□	75.4	400	600	3.47	2 / 3

Product no.	H	W	D	Weight (kg)	Flat handle / Hinge pcs
FCW10-15-20□□	100.4	150	200	0.83	1 / 2
FCW10-15-25□□	100.4	150	250	0.97	1 / 2
FCW10-20-15□□	100.4	200	150	0.83	1 / 2
FCW10-20-20□□	100.4	200	200	1.00	1 / 2
FCW10-20-25□□	100.4	200	250	1.17	1 / 2
FCW10-20-30□□	100.4	200	300	1.33	1 / 2
FCW10-25-25□□	100.4	250	250	1.36	1 / 2
FCW10-25-30□□	100.4	250	300	1.55	1 / 2
FCW10-25-40□□	100.4	250	400	1.93	1 / 2
FCW10-30-20□□	100.4	300	200	1.34	1 / 2
FCW10-30-30□□	100.4	300	300	1.77	1 / 2
FCW10-30-40□□	100.4	300	400	2.20	1 / 2
FCW10-30-50□□	100.4	300	500	2.64	2 / 3
FCW10-35-25□□	100.4	350	250	1.74	1 / 2
FCW10-40-30□□	100.4	400	300	2.21	1 / 2
FCW10-40-40□□	100.4	400	400	2.74	1 / 2
FCW10-40-50□□	100.4	400	500	3.27	2 / 3
FCW10-40-60□□	100.4	400	600	3.71	2 / 3
FCW13-15-20□□	125.4	150	200	0.89	1 / 2
FCW13-15-25□□	125.4	150	250	1.04	1 / 2
FCW13-20-15□□	125.4	200	150	0.89	1 / 2
FCW13-20-20□□	125.4	200	200	1.06	1 / 2
FCW13-20-25□□	125.4	200	250	1.32	1 / 2
FCW13-20-30□□	125.4	200	300	1.41	1 / 2
FCW13-25-25□□	125.4	250	250	1.44	1 / 2
FCW13-25-30□□	125.4	250	300	1.63	1 / 2
FCW13-25-40□□	125.4	250	400	2.02	1 / 2
FCW13-30-20□□	125.4	300	200	1.41	1 / 2
FCW13-30-30□□	125.4	300	300	1.94	1 / 2
FCW13-30-40□□	125.4	300	400	2.30	1 / 2
FCW13-30-50□□	125.4	300	500	2.74	2 / 3
FCW13-35-25□□	125.4	350	250	1.83	1 / 2
FCW13-40-30□□	125.4	400	300	2.30	1 / 2
FCW13-40-40□□	125.4	400	400	2.86	1 / 2
FCW13-40-50□□	125.4	400	500	3.39	2 / 3
FCW13-40-60□□	125.4	400	600	3.84	2 / 3
FCW15-15-20□□	150.4	150	200	0.96	1 / 2
FCW15-15-25□□	150.4	150	250	1.07	1 / 2
FCW15-20-15□□	150.4	200	150	0.91	1 / 2
FCW15-20-20□□	150.4	200	200	1.18	1 / 2
FCW15-20-25□□	150.4	200	250	1.37	1 / 2
FCW15-20-30□□	150.4	200	300	1.57	1 / 2
FCW15-25-25□□	150.4	250	250	1.59	1 / 2
FCW15-25-30□□	150.4	250	300	1.80	1 / 2
FCW15-25-40□□	150.4	250	400	2.23	1 / 2
FCW15-30-20□□	150.4	300	200	1.57	1 / 2
FCW15-30-30□□	150.4	300	300	2.05	1 / 2
FCW15-30-40□□	150.4	300	400	2.53	1 / 2
FCW15-30-50□□	150.4	300	500	2.99	2 / 3
FCW15-35-25□□	150.4	350	250	2.02	1 / 2
FCW15-40-30□□	150.4	400	300	2.53	1 / 2
FCW15-40-40□□	150.4	400	400	3.12	1 / 2
FCW15-40-50□□	150.4	400	500	3.68	2 / 3
FCW15-40-60□□	150.4	400	600	4.14	2 / 3

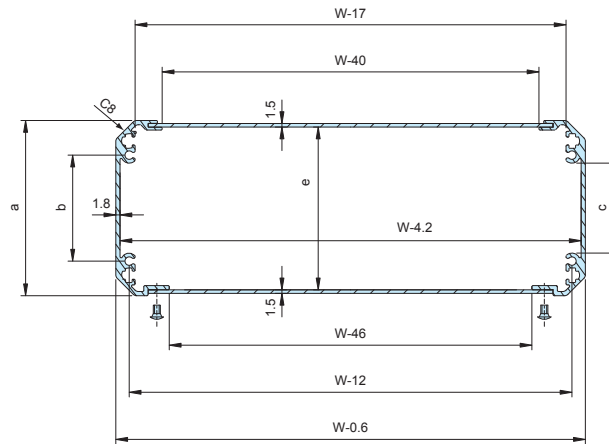
**FC • FCW cross-section view**

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

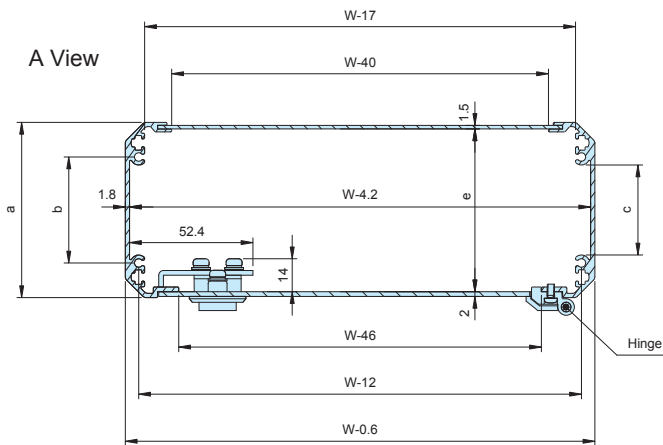
FC4 models



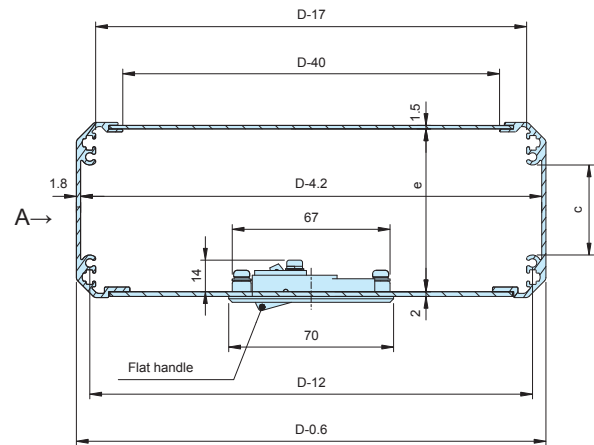
FC5 • FC6 • FC8 • FC10 • FC13 • FC15 models



FCW series



W Cross-section



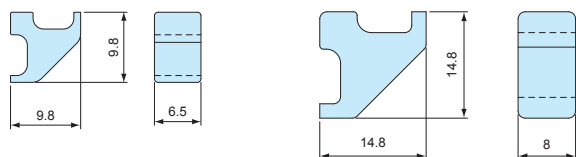
D cross-section

Box height	a	b	c	e
37.9	36.9	21.4	16.1	31.5
50.4	49.4	20	13.2	44
62.9	61.9	32.5	25.7	56.5
75.4	74.4	45	38.2	69
100.4	99.4	70	63.2	94
125.4	124.4	95	88.2	119
150.4	149.4	120	113.2	144

**FC-BK SERIES** BLIND PLUG

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

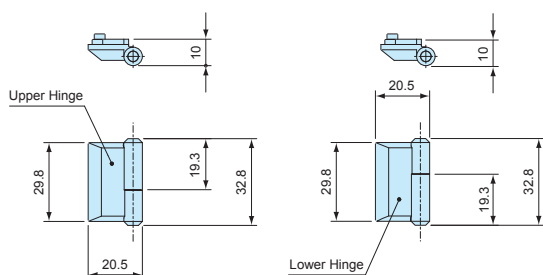
FC-BK-S□ (FC4 models) FC-BK-□ (Other FC models • FCW series)



Product no.	Material	Color	Pack of
FC-BK-SG	TPE	Light gray	1 set (4 pcs)
FC-BK-SB	TPE	Black	1 set (4 pcs)
FC-BK-G	TPE	Light gray	1 set (4 pcs)
FC-BK-B	TPE	Black	1 set (4 pcs)

**FW SERIES** HINGE for FCW

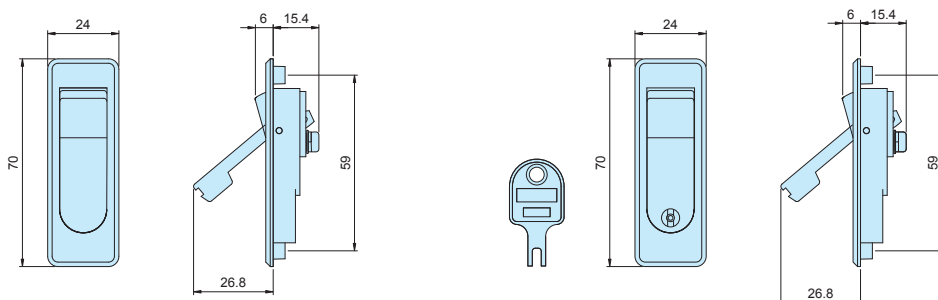
■ Spare / Replacement hinge for FCW series.



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

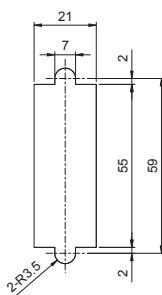
**PH-88 SERIES** FLAT HANDLE for FCW

■ Spare / Replacement flat handle for FCW series.



Normal type (without Key)

Key-lock type (with Key)



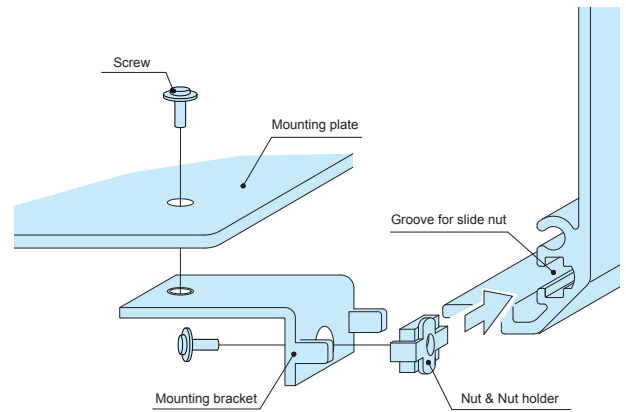
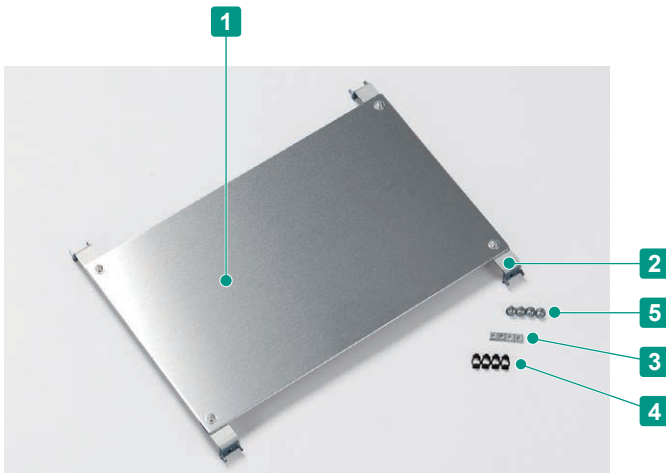
Mounting hole dimensions

Product no.	Key	Material	Color / Finish
PH-88A-2S	without	Diecast zinc	Silver / Painted
PH-88A-2B	without	Diecast zinc	Black / Painted
PH-88 -2S	with	Diecast zinc	Silver / Painted
PH-88 -2B	with	Diecast zinc	Black / Painted



FCC SERIES

MOUNTING PLATE for FC • FCW



How to assemble

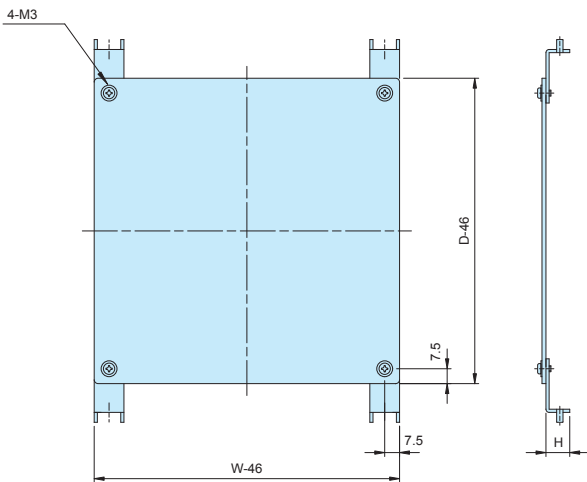
- ① Slide a M3 nut and nut holder into the groove on the frame.
- ② Screw the mounting bracket into the nut holder.
- ③ Screw the mounting plate onto the mounting bracket.

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

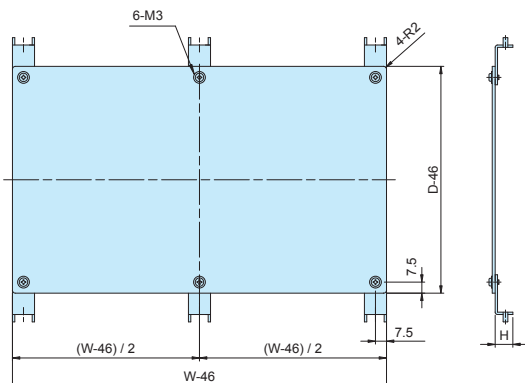
Components

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	Steel M3-6	Trivalent chromate

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



Product no. / Dimensions

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

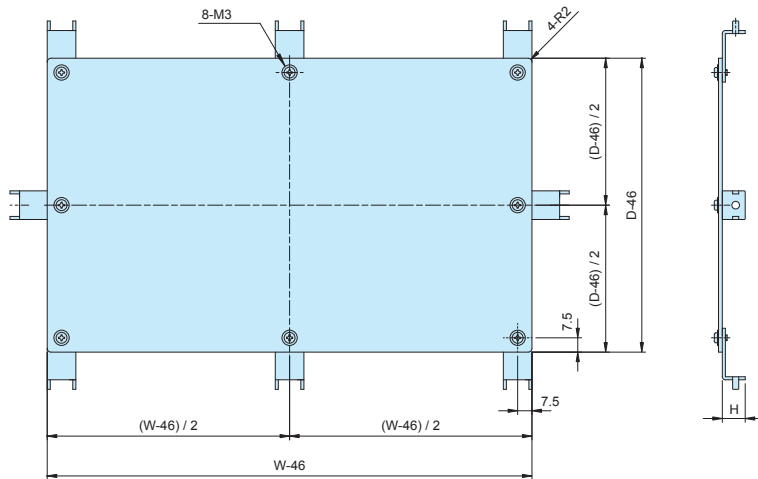
Product no. / Dimensions

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

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

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



Product no. / Dimensions

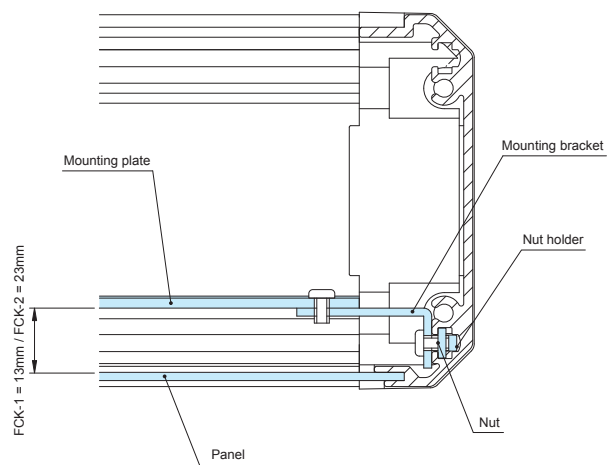
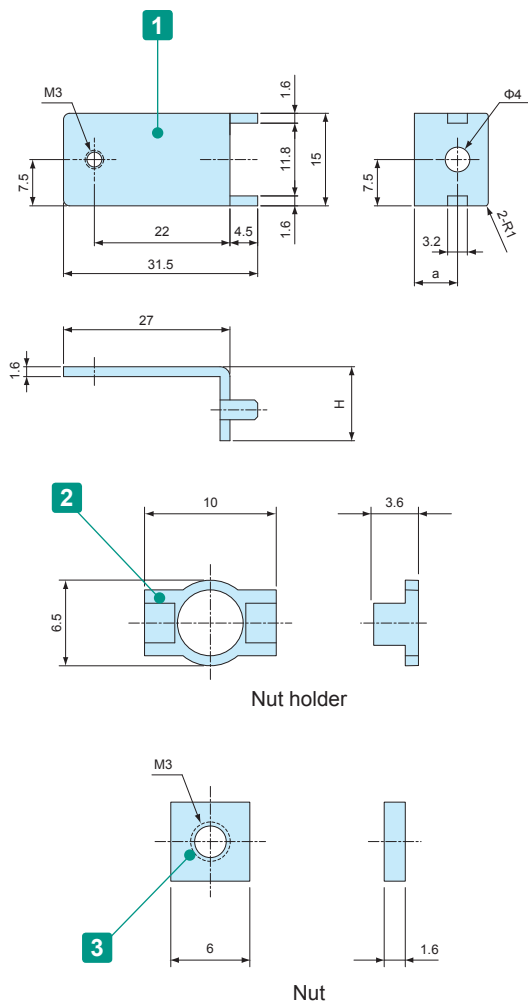
Product no.	H	Box W x D or D x W	Product no.	H	Box W x D or D x W
FCC40-40-1	12	400×400	FCC40-40-2	22	400×400
FCC50-40-1	12	500×400	FCC50-40-2	22	500×400
FCC60-40-1	12	600×400	FCC60-40-2	22	600×400

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

Accessories (Optional parts)

**FCK SERIES MOUNTING BRACKET**

■ 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 necessary 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. / Dimensions

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

**MR SERIES**

**SLOTTED RAISED COUNTERSUNK TORX SCREW**



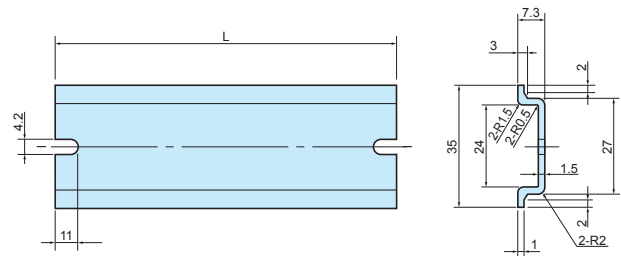
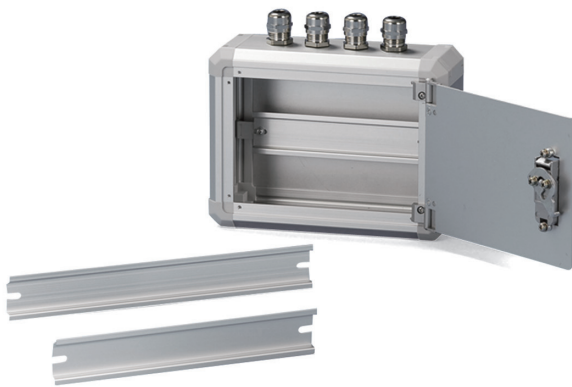
- For use with top / bottom cover.
- Recommended for aesthetic purposes, or for tampering resistance.
- Requires the use of a specialized screwdriver.

**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

**FDR SERIES**

**DIN-RAIL**



**Components**

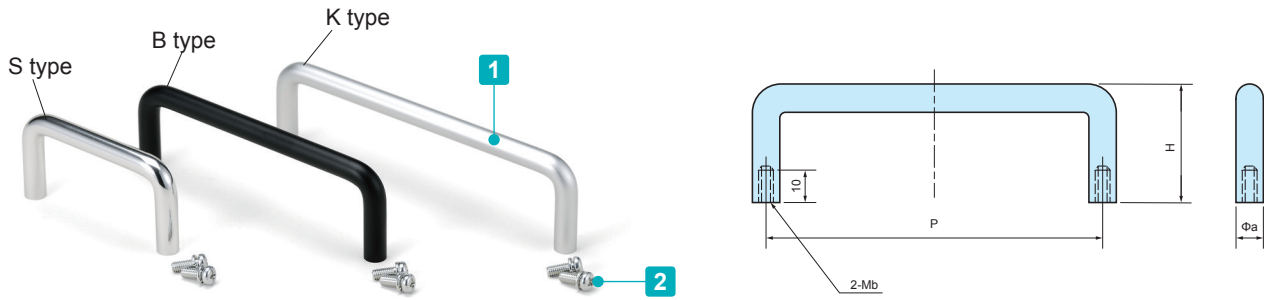
Material	Color / Finish
Aluminium A6063S-T5	Silver / Anodized

**Product no. / Dimensions**

Product no.	L	Box length
FDR- 50	50	100
FDR-100	100	150
FDR-150	150	200
FDR-205	205	250
FDR-249	249	300
FDR-300	300	350
FDR-350	350	400
FDR-450	450	500
FDR-550	550	600

- FCK mounting bracket is required for installation.
- Not suitable for FC4 (H = 37.9mm).

## BH SERIES ROUNDED ALUMINIUM HANDLE



### Components

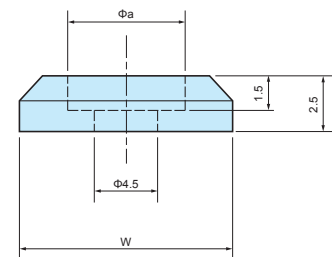
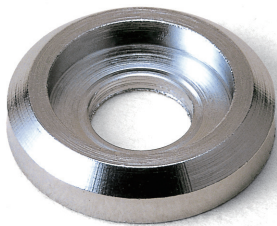
No.	Part name	Pcs	Material	Color / Finish
1	Handle	1	Extruded aluminium A5056S	Polished • Matte anodized
2	Screw	2	Steel	Trivalent chromate

### 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



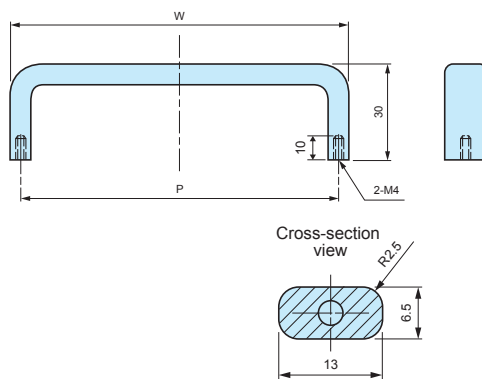
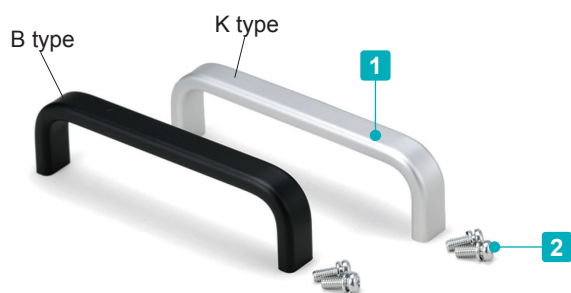
■ Brass washer for BH • KH series.

### 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

**OH SERIES ALUMINIUM HANDLE**



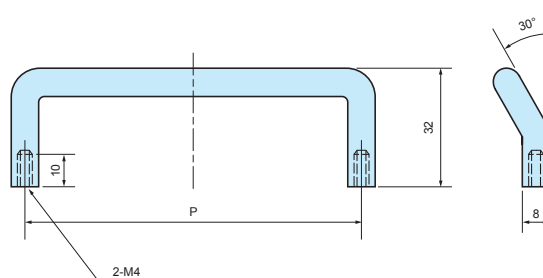
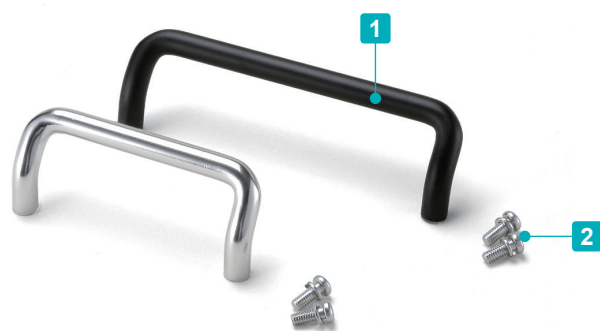
**Components**

No.	Part name	Pcs	Material	Color / Finish
1	Handle	1	Extruded aluminium A6063S-T5	Matte anodized
2	Screw (M4-10 Pan head with spring washer)	2	Steel	Trivalent chromate

**Product no. / Dimensions**

Product no.		P	W	Pack of
● Black matte anodized	● Silver matte anodized			
OH- 55B	OH- 55K	55	61.5	2
OH- 70B	OH- 70K	70	76.5	2
OH- 85B	OH- 85K	85	91.5	2
OH-100B	OH-100K	100	106.5	2
OH-120B	OH-120K	120	126.5	2
OH-140B	OH-140K	140	146.5	2
OH-170B	OH-170K	170	176.5	2

**KH SERIES ANGLED ALUMINIUM HANDLE**



**Components**

No.	Part name	Pcs	Material	Color / Finish
1	Handle	1	Extruded aluminium A5056S	Polished • Matte anodized
2	Screw (M4-10 Pan head with spring washer)	2	Steel	Trivalent chromate

**Product no. / Dimensions**

Product no.		P	Pack of
● Silver polished	● Black matte anodized		
KH- 70S	KH- 70B	70	2
KH-100S	KH-100B	100	2