



- Waterproof case available in 73 different sizes and 6 different color combinations.
- Equipped with flanged frame for easy wall mounting. Suitable to be used as wall mounted controller and transmitter.
- Custom length is available.

Technical Data

Protection class : IP65 • IP54
 Protection class varies by size.
 ■ Not suitable for environments with direct rainfall.
 Operating temperature: -10°C ~ +60°C

Included screws

EXWF7-□, 9-□ models : M2.5-8 x 8 pcs
 EXWF11-□, 15-□ models : M3-10 x 8 pcs
 EXWF20-□ models : M4-12 x 8 pcs
 EXWF24-□, 30-□ models : M5-12 x 8 pcs
 ※Hexagonal wrench included.

Components

No.	Part name	Pcs	Material	Color / Finish
1	Flanged end panel	2	PC+ABS Flame-resistant	Black • Gray / Unpainted Navy / Painted
2	Top cover	1	Extruded aluminium A6063S-T5	Silver • Black / Anodized with clear coating
3	Bottom cover	1	Extruded aluminium A6063S-T5	Silver • Black / Anodized with clear coating
4	Panel gasket	2	Silicone • EPDM sponge	Black
5	Cover gasket	2	Silicone sponge	White gray
6	Screw (Hexagonal)	8	Stainless steel	Unfinished
-	O-ring*	8	NBR	Black

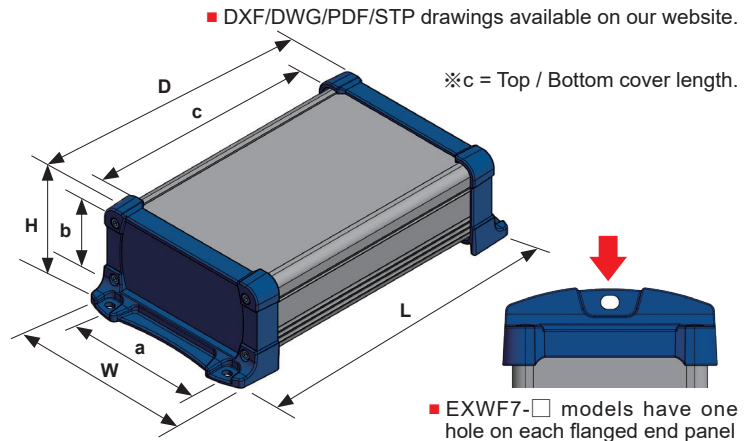
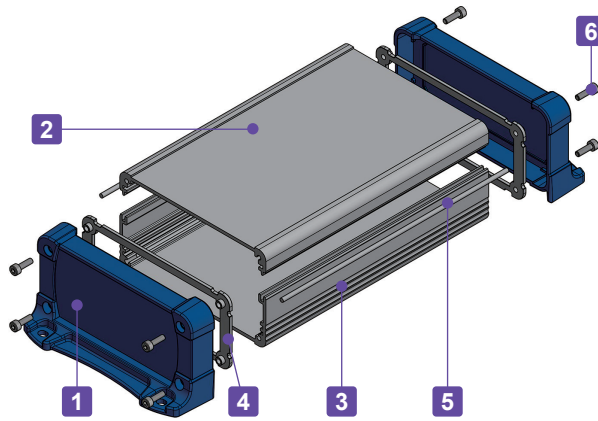
*O-ring is only available for EXWF20-□, 24-□, and 30-□ models.

■ Panel gasket material : Silicone : EXWF7-□ ~ 15-□ models • EPDM sponge : EXWF20-□ ~ 30-□ models.

Color Type

Code	[S][B] Silver / Black	[S][G] Silver / Gray	[S][N] Silver / Navy
Color			
Code	[B][B] Black / Black	[B][G] Black / Gray	[B][N] Black / Navy
Color			

EXWF dimensions

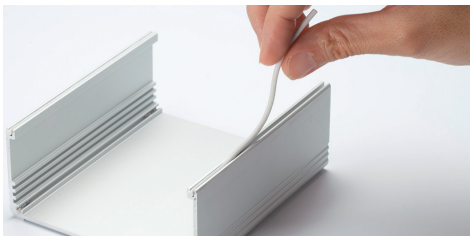


Product no. / Details

- Listed D dimension may vary due to expansion and contraction of gasket from screw tightening.
■ Please suffix color code at the end of the product number.

Product no.	IP Code	External dimensions				Internal dimensions			
		W	H	D	L	a	b	c	
EXWF 7- 3- 6□□	IP65	66	34	57	82	47	20	46	
EXWF 7- 3- 9□□	IP65	66	34	84	109	47	20	73	
EXWF 7- 3-11□□	IP65	66	34	107	132	47	20	96	
EXWF 7- 4- 6□□	IP65	66	44	57	82	47	30	46	
EXWF 7- 4- 9□□	IP65	66	44	84	109	47	30	73	
EXWF 7- 4-11□□	IP65	66	44	107	132	47	30	96	
EXWF 7- 6- 6□□	IP65	66	59	57	82	47	45	46	
EXWF 7- 6- 9□□	IP65	66	59	84	109	47	45	73	
EXWF 7- 6-11□□	IP65	66	59	107	132	47	45	96	
EXWF 9- 4- 7□□	IP65	86	39	68	94.8	67	25	56	
EXWF 9- 4-10□□	IP65	86	39	98	124.8	67	25	86	
EXWF 9- 4-13□□	IP65	86	39	128	154.8	67	25	116	
EXWF 9- 5- 7□□	IP65	86	49	68	94.8	67	35	56	
EXWF 9- 5-10□□	IP65	86	49	98	124.8	67	35	86	
EXWF 9- 5-13□□	IP65	86	49	128	154.8	67	35	116	
EXWF 9- 6- 7□□	IP65	86	64	68	94.8	67	50	56	
EXWF 9- 6-10□□	IP65	86	64	98	124.8	67	50	86	
EXWF 9- 6-13□□	IP65	86	64	128	154.8	67	50	116	
EXWF11- 4- 9□□	IP65	113	41.5	87	119.8	89	24	74	
EXWF11- 4-13□□	IP65	113	41.5	127	159.8	89	24	114	
EXWF11- 4-17□□	IP65	113	41.5	173	205.8	89	24	160	
EXWF11- 6- 9□□	IP65	113	56.5	87	119.8	89	39	74	
EXWF11- 6-13□□	IP65	113	56.5	127	159.8	89	39	114	
EXWF11- 6-17□□	IP65	113	56.5	173	205.8	89	39	160	
EXWF11- 7- 9□□	IP65	113	71.5	87	119.8	89	54	74	
EXWF11- 7-13□□	IP65	113	71.5	127	159.8	89	54	114	
EXWF11- 7-17□□	IP65	113	71.5	173	205.8	89	54	160	
EXWF15- 5-11□□	IP65	148	47	106	146.2	107	29	93	
EXWF15- 5-15□□	IP65	148	47	146	186.2	107	29	133	
EXWF15- 5-20□□	IP65	148	47	196	236.2	107	29	183	
EXWF15- 6-11□□	IP65	148	62	106	146.2	107	44	93	
EXWF15- 6-15□□	IP65	148	62	146	186.2	107	44	133	
EXWF15- 6-20□□	IP65	148	62	196	236.2	107	44	183	
EXWF15- 8-11□□	IP65	148	82	106	146.2	107	64	93	
EXWF15- 8-15□□	IP65	148	82	146	186.2	107	64	133	
EXWF15- 8-20□□	IP65	148	82	196	236.2	107	64	183	
EXWF15-10-11□□	IP65	148	102	106	146.2	107	84	93	
EXWF15-10-15□□	IP65	148	102	146	186.2	107	84	133	
EXWF15-10-20□□	IP65	148	102	196	236.2	107	84	183	
EXWF20- 6-14□□	IP54	195	57	138	186.6	132	35	120	
EXWF20- 6-19□□	IP54	195	57	190	238.6	132	35	172	
EXWF20- 6-25□□	IP54	195	57	243	291.6	132	35	225	
EXWF20- 6-30□□	IP54	195	57	298	346.6	132	35	280	
EXWF20- 8-14□□	IP54	195	75	138	186.6	132	53	120	
EXWF20- 8-19□□	IP54	195	75	190	238.6	132	53	172	
EXWF20- 8-25□□	IP54	195	75	243	291.6	132	53	225	
EXWF20- 8-30□□	IP54	195	75	298	346.6	132	53	280	
EXWF20-10-14□□	IP54	195	95	138	186.6	132	73	120	
EXWF20-10-19□□	IP54	195	95	190	238.6	132	73	172	
EXWF20-10-25□□	IP54	195	95	243	291.6	132	73	225	
EXWF20-10-30□□	IP54	195	95	298	346.6	132	73	280	
EXWF20-12-14□□	IP54	195	120	138	186.6	132	98	120	
EXWF20-12-19□□	IP54	195	120	190	238.6	132	98	172	
EXWF20-12-25□□	IP54	195	120	243	291.6	132	98	225	
EXWF20-12-30□□	IP54	195	120	298	346.6	132	98	280	
EXWF24- 7-17□□	IP54	240	65	165	213.6	177	43	147	
EXWF24- 7-23□□	IP54	240	65	225	273.6	177	43	207	
EXWF24- 7-29□□	IP54	240	65	285	333.6	177	43	267	
EXWF24- 7-35□□	IP54	240	65	345	393.6	177	43	327	
EXWF24- 9-17□□	IP54	240	90	165	213.6	177	68	147	
EXWF24- 9-23□□	IP54	240	90	225	273.6	177	68	207	
EXWF24- 9-29□□	IP54	240	90	285	333.6	177	68	267	
EXWF24- 9-35□□	IP54	240	90	345	393.6	177	68	327	
EXWF24-12-17□□	IP54	240	115	165	213.6	177	93	147	
EXWF24-12-23□□	IP54	240	115	225	273.6	177	93	207	
EXWF24-12-29□□	IP54	240	115	285	333.6	177	93	267	
EXWF24-12-35□□	IP54	240	115	345	393.6	177	93	327	
EXWF30- 9-25□□	IP54	298	93	247	295.6	231	68	228	
EXWF30- 9-32□□	IP54	298	93	317	365.6	231	68	298	
EXWF30- 9-40□□	IP54	298	93	397	445.6	231	68	378	
EXWF30-14-25□□	IP54	298	143	247	295.6	231	118	228	
EXWF30-14-32□□	IP54	298	143	317	365.6	231	118	298	
EXWF30-14-40□□	IP54	298	143	397	445.6	231	118	378	

How to install cover gaskets



- Insert cover gasket into the joint-grooves on the bottom cover.



- Ensure that a small portion of the cover gasket protrudes out in order to maintain a connection with the end panel.



- IP65 is made possible by the sealing of between top & bottom covers and end panels with gaskets.
- Available in 39 different sizes and 6 different color combinations by 2 body frame and 3 end panel colors.
- Custom length is available.

Technical Data

Protection class : IP65

■ Not suitable for environments with direct rainfall.

Operating temperature: -10°C ~ +60°C

Included screws

EXW7-□, 9-□ models : M2.5-8 x 8 pcs

EXW12-□, 15-□ models: M3-10 x 8 pcs

※Hexagonal wrench included.

Components

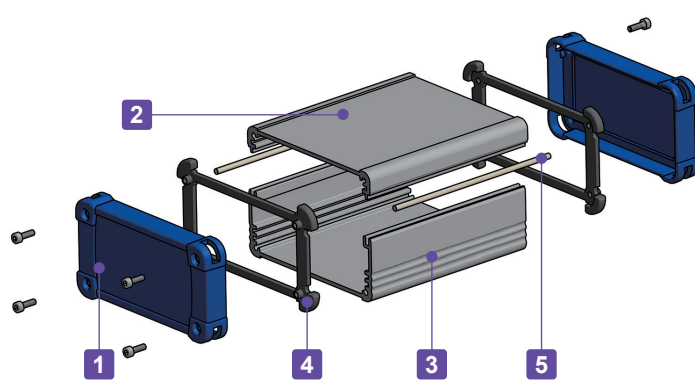
No.	Part name	Pcs	Material	Color / Finish
1	Panel	2	PC+ABS Flame-resistant	Black • Gray / Unpainted Navy / Painted
2	Top cover	1	Extruded aluminium A6063S-T5	Silver • Black / Anodized with clear coating
3	Bottom cover	1	Extruded aluminium A6063S-T5	Silver • Black / Anodized with clear coating
4	Panel gasket	2	Silicone	Dark gray • Black • Charcoal gray*
5	Cover gasket	2	Silicone sponge	White gray
6	Screw (Hexagonal)	8	Stainless steel	Unfinished

*Dark gray and black color panel gasket will be changed to charcoal gray upon depletion of inventory.

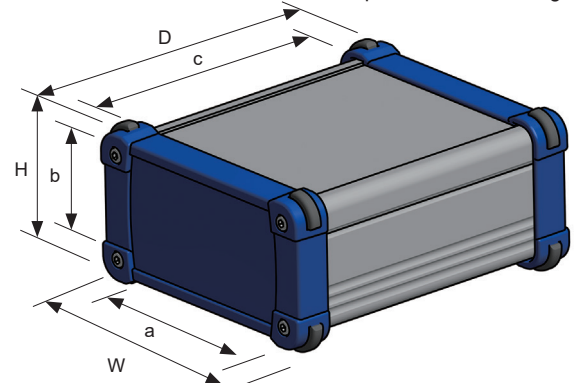
Color Type

Code	[S][B] Silver / Black	[S][G] Silver / Gray	[S][N] Silver / Navy
Color			
Code	[B][B] Black / Black	[B][G] Black / Gray	[B][N] Black / Navy
Color			

EXW dimensions



■ DXF/DWG/PDF/STP drawings available on our website.
※c = Top / Bottom cover length.



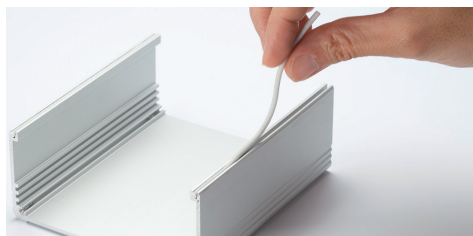
Product no. / Details

■ Listed D dimension may vary due to expansion and contraction of gasket from screw tightening.
■ Please suffix color code at the end of the product number.

Product no.	External dimensions			Internal dimensions		
	W	H	D	a	b	c
EXW 7- 3- 6□□	69	34	57	47	20	46
EXW 7- 3- 9□□	69	34	84	47	20	73
EXW 7- 3-11□□	69	34	107	47	20	96
EXW 7- 4- 6□□	69	44	57	47	30	46
EXW 7- 4- 9□□	69	44	84	47	30	73
EXW 7- 4-11□□	69	44	107	47	30	96
EXW 7- 6- 6□□	69	59	57	47	45	46
EXW 7- 6- 9□□	69	59	84	47	45	73
EXW 7- 6-11□□	69	59	107	47	45	96
EXW 9- 4- 7□□	89	39	68	67	25	56
EXW 9- 4-10□□	89	39	98	67	25	86
EXW 9- 4-13□□	89	39	128	67	25	116
EXW 9- 5- 7□□	89	49	68	67	35	56
EXW 9- 5-10□□	89	49	98	67	35	86
EXW 9- 5-13□□	89	49	128	67	35	116
EXW 9- 6- 7□□	89	64	68	67	50	56
EXW 9- 6-10□□	89	64	98	67	50	86
EXW 9- 6-13□□	89	64	128	67	50	116
EXW12- 4- 9□□	116	41	87	89	24	74
EXW12- 4-13□□	116	41	127	89	24	114
EXW12- 4-18□□	116	41	173	89	24	160
EXW12- 6- 9□□	116	56	87	89	39	74
EXW12- 6-13□□	116	56	127	89	39	114
EXW12- 6-18□□	116	56	173	89	39	160
EXW12- 7- 9□□	116	71	87	89	54	74
EXW12- 7-13□□	116	71	127	89	54	114
EXW12- 7-18□□	116	71	173	89	54	160
EXW15- 5-11□□	151	46	106	107	29	93
EXW15- 5-15□□	151	46	146	107	29	133
EXW15- 5-20□□	151	46	196	107	29	183
EXW15- 6-11□□	151	61	106	107	44	93
EXW15- 6-15□□	151	61	146	107	44	133
EXW15- 6-20□□	151	61	196	107	44	183
EXW15- 8-11□□	151	81	106	107	64	93
EXW15- 8-15□□	151	81	146	107	64	133
EXW15- 8-20□□	151	81	196	107	64	183
EXW15-10-11□□	151	101	106	107	84	93
EXW15-10-15□□	151	101	146	107	84	133
EXW15-10-20□□	151	101	196	107	84	183

■ Custom length is available

How to install cover gaskets



■ Insert cover gaskets into the joint-grooves on both sides of the bottom cover.



■ Ensure that a small portion of the cover gaskets protrude out in order to maintain connections with the end panels.

TLW series

TILT LEG



APPLICATION EXAMPLE

- Double shot injection molded feet with soft and well-designed rounded shape.
- Non-slip design with Elastomer (TPE) pad.
- Available in 3 different color patterns (2 color patterns for TLW-70 models).
- TLW-70E models are exclusively for use with width 185mm or larger bottom covers of EXP • EXPE • EXW • EX • EXH • EXHE aluminium enclosures.

Technical Data

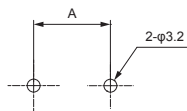
Max load : 7kg

Components

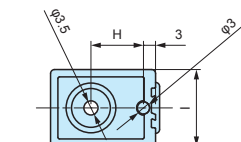
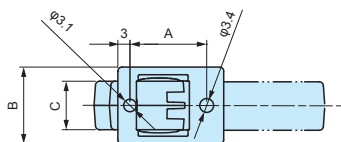
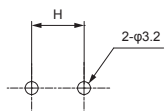
No.	Part name	Pcs	Material	Color / Finish
1	Front foot	2	PC + ABS UL94V-0 • TPE	Black & Black • Navy & Gray • Light gray & Gray
2	Rear foot	2	PC + ABS UL94V-0 • TPE	Black & Black • Navy & Gray • Light gray & Gray
-	Screw	4	Steel M3-8 pan head	Black trivalent chromate
-	Nut	4	Steel M3	Black trivalent chromate

TLW dimensions

Mounting hole (Front)



Mounting hole (Rear)



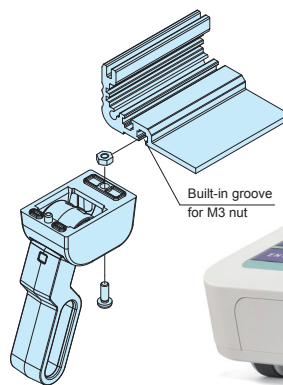
1

2

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

- TLW-70E□□ models are for installation (with M3 nut) into the built-in grooves on bottom-covers of EXP • EXPE 20-6, EXH • EXHE • EX 19-4 or larger models.

- Hole milling is required to install TLW-46□□ and TLW-70□□ models.
- Max installation panel thickness : t = 3.5mm

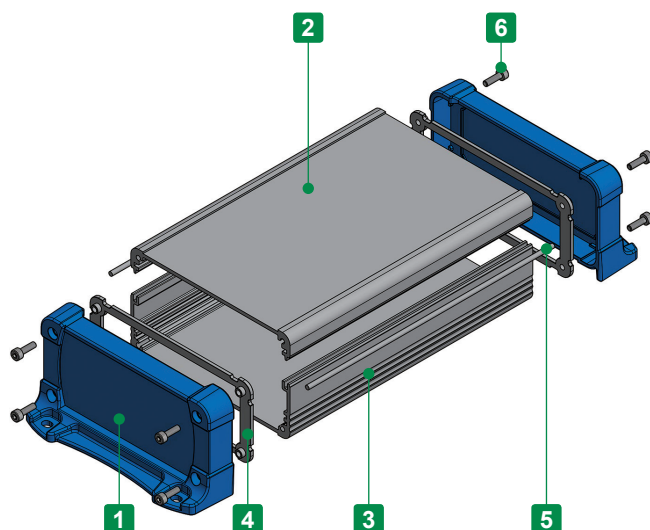


Product no. / Details

Product no.	A	B	C	D	E	F	G	H	I	J	K	L	Color (plastic)	Color (TPE)	Weight (g)
TLW-46BB	19	19	12	51.2	45.9	2	14	13	19	27	14	2	Black	Black	23
TLW-46NG	19	19	12	51.2	45.9	2	14	13	19	27	14	2	Navy	Gray	23
TLW-46LG	19	19	12	51.2	45.9	2	14	13	19	27	14	2	Light gray	Gray	23
TLW-70EBB	-	25	16	75.4	69	3	21.5	-	25	39	21.5	3	Black	Black	59
TLW-70ENG	-	25	16	75.4	69	3	21.5	-	25	39	21.5	3	Navy	Gray	59
TLW-70ELG	-	25	16	75.4	69	3	21.5	-	25	39	21.5	3	Light gray	Gray	59
TLW-70BB	30	25	16	75.4	69	2	21.5	20	25	39	21.5	2	Black	Black	59
TLW-70LG	30	25	16	75.4	69	2	21.5	20	25	39	21.5	2	Light gray	Gray	59



IP65 IP54



Technical Data

Protection class : IP65 / IP54 *Protection class varies by size.

■ Not suitable for environments with direct rainfall.

*IP protection is not applicable if D = 400mm or more.

Operating temperature: -10°C ~ +60°C

- IP65 / IP54 is made possible by the sealing of between Top/ Bottom covers and flanged panels with gaskets.
- Selectable in 22 different Width/Height types, with adjustable length (depth) in 1mm intervals from 40 to 500mm.
- 6 different color combinations possible by combining a black or silver Top/Bottom covers with 3 different flanged panel colors.

Included screws

EXWFS66-□, 86-□ models : M2.5-8 x 8 pcs

EXWFS113-□, 148-□ models : M3-10 x 8 pcs

EXWFS195-□ models : M4-12 x 8 pcs

EXWFS240-□, 298-□ models : M5-12 x 8 pcs

※Hexagonal wrench included.

Components

No.	Part name	Pcs	Material	Color / Finish
1	Flanged panel	2	PC+ABS Flame-resistant	Black • Gray / Unpainted Navy / Painted
2	Top cover	1	Extruded aluminium A6063S-T5	Silver • Black / Anodized with clear coating
3	Bottom cover	1	Extruded aluminium A6063S-T5	Silver • Black / Anodized with clear coating
4	Panel gasket	2	Silicone • EPDM sponge	Black
5	Cover gasket	2	Silicone sponge	White gray
6	Screw (Hexagonal)	8	Stainless steel	Unfinished
—	O-ring	8	NBR	Black

■ See page EX-Cover-1 ~ EX-Cover-4 for Top / Bottom cover dimensions.

■ Panel gasket material : Silicone : EXWFS66-□ ~ 148-□ models • EPDM sponge : EXWFS195-□ ~ 298-□ models.

■ O-ring is only available for EXWFS195-□, 240-□, and 298-□ models.

Lead Time

Custom Size Only
Custom Size + Hole Milling4 business days (1 ~ 3 pcs)
9 business days (1 ~ 3 pcs)

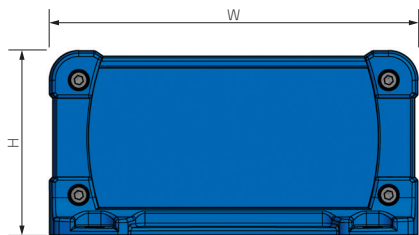
Order Inquiry

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

1 Dimensions

To select W-H dimensions from the table below, and D length in 1mm intervals.

Width-Height dimensions

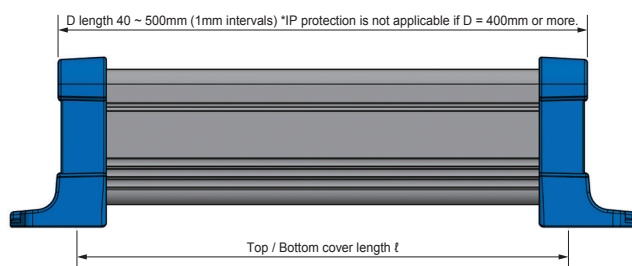


W-H No.	IP Code	W	H
66- 34	IP65	66	34
66- 44	IP65	66	44
66- 59	IP65	66	59
86- 39	IP65	86	39
86- 49	IP65	86	49
86- 64	IP65	86	64
113- 42	IP65	113	41.5
113- 57	IP65	113	56.5
113- 72	IP65	113	71.5
148- 47	IP65	148	47
148- 62	IP65	148	62

W-H No.	IP Code	W	H
148- 82	IP65	148	82
148-102	IP65	148	102
195- 57	IP54	195	57
195- 75	IP54	195	75
195- 95	IP54	195	95
195-120	IP54	195	120
240- 65	IP54	240	65
240- 90	IP54	240	90
240-115	IP54	240	115
NEW 298- 93	IP54	298	93
NEW 298-143	IP54	298	143

■ Protection class varies by size.

D length



W-H No.	ℓ
66-□	D-11
86-□	D-12
113-□	D-13
148-□	D-13
195-□	D-18
240-□	D-18
298-□	D-19

■ D length can be requested in 0.1mm intervals, but with higher tolerances (± 0.3 mm).
 *D length may vary due to expansion and contraction of gasket from screw tightening

■ See page EX-Cover-1 ~ EX-Cover-4 for Top/Bottom cover dimensions.

2 Color

To select color code from the table below.

Panel color : Black • Gray / Unpainted - Navy / Painted

Code	S B Silver / Black	S G Silver / Gray	S N Silver / Navy
Color			
Code	B B Black / Black	B G Black / Gray	B N Black / Navy
Color			

Product Number

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

Product no. EXWFS

-

-

1 W-H

1 D length

2 Color code

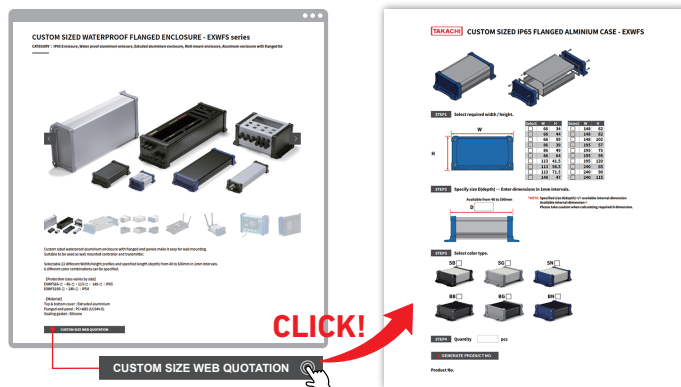
Numbering example: W-H:113-57 x D:345 and SN color code ➔ **EXWFS113-57-345SN**

CUSTOM SIZE WEB QUOTATION

Send your inquiry via our online form now!

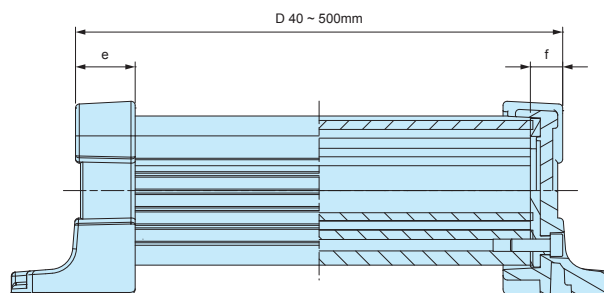
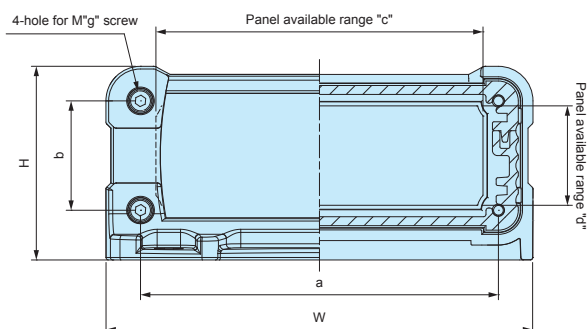
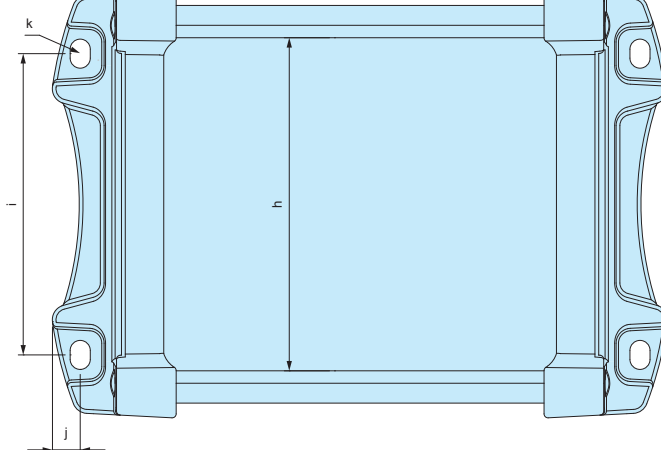
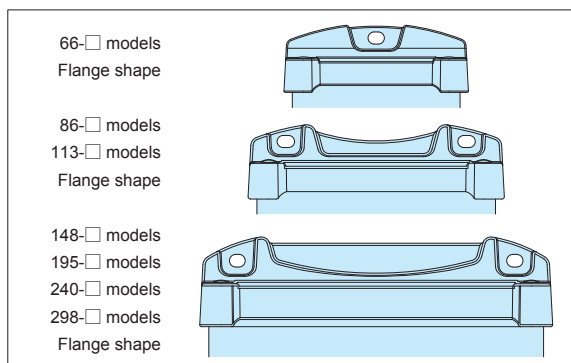
Visit the EXWFS product page on our website, click on the "CUSTOM SIZE WEB QUOTATION" button, and fill in the required details.

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!

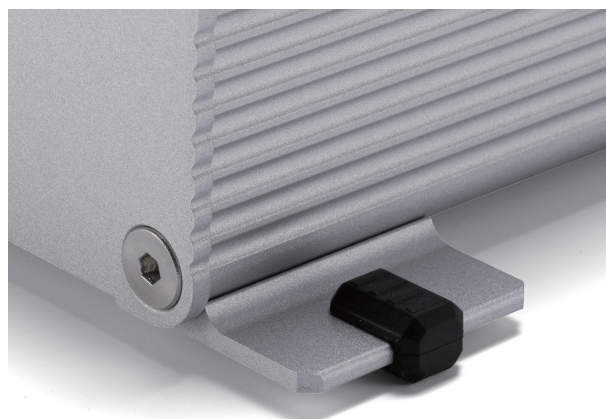
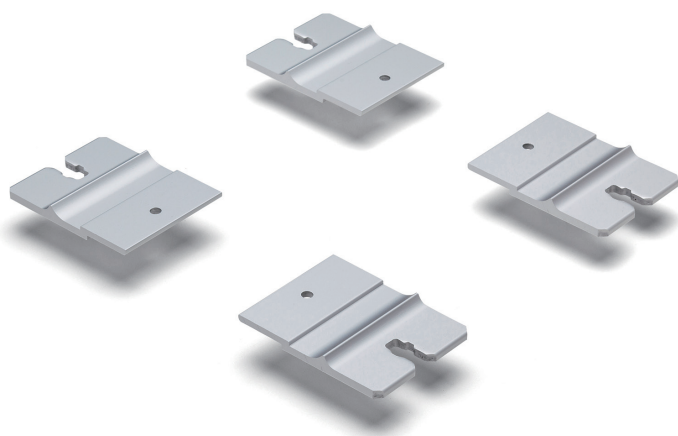


EXWFS dimensions

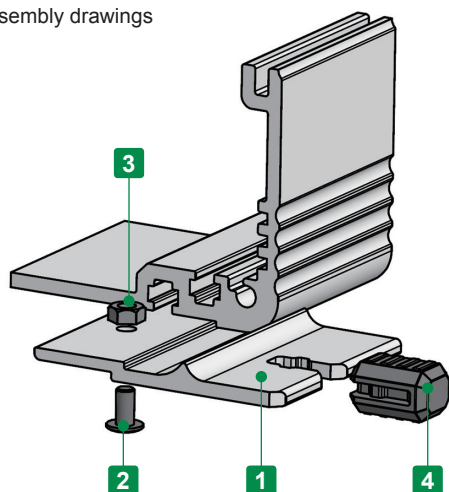
■ DXF/DWG/PDF drawings available on our website.



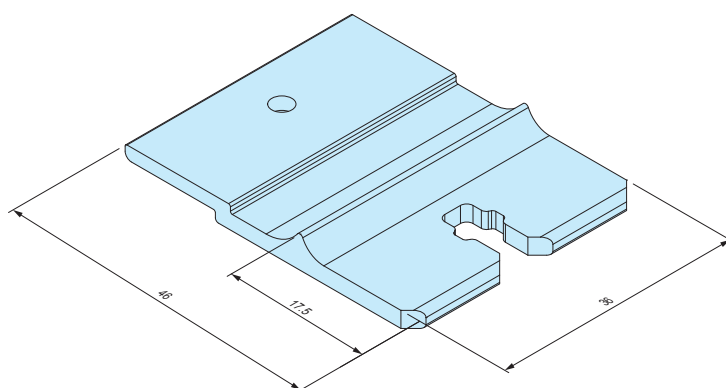
Product no.	W	H	a	b	c	d	e	f	g	h	i	j	k
EXWFS 66- 34-□	66	34	52	17	46	16	12	5.5	2.5	47	—	4.5	4.5×6
EXWFS 66- 44-□	66	44	52	27	46	24	12	5.5	2.5	47	—	4.5	4.5×6
EXWFS 66- 59-□	66	59	52	42	46	41	12	5.5	2.5	47	—	4.5	4.5×6
EXWFS 86- 39-□	86	39	72	22	65.8	20	12	6	2.5	67	60.6	5.6	4.2×6
EXWFS 86- 49-□	86	49	72	32	65.8	30	12	6	2.5	67	60.6	5.6	4.2×6
EXWFS 86- 64-□	86	64	72	47	65.8	45	12	6	2.5	67	60.6	5.6	4.2×6
EXWFS113- 42-□	113	41.5	95	20	89.6	18	16	6.5	3	89	85.2	7.4	4.6×6
EXWFS113- 57-□	113	56.5	95	35	89.6	33	16	6.5	3	89	85.2	7.4	4.6×6
EXWFS113- 72-□	113	71.5	95	50	89.6	48	16	6.5	3	89	85.2	7.4	4.6×6
EXWFS148- 47-□	148	47	130	25	103.4	18.2	18	6.5	3	124	116.2	9.9	5.5×7
EXWFS148- 62-□	148	62	130	40	103.4	33.2	18	6.5	3	124	116.2	9.9	5.5×7
EXWFS148- 82-□	148	82	130	60	103.4	53.2	18	6.5	3	124	116.2	9.9	5.5×7
EXWFS148-102-□	148	102	130	80	103.4	73.2	18	6.5	3	124	116.2	9.9	5.5×7
EXWFS195- 57-□	195	57	173	30	124.5	27.5	20	9	4	162	160	12	6.5×8.5
EXWFS195- 75-□	195	75	173	48	124.5	45.5	20	9	4	162	160	12	6.5×8.5
EXWFS195- 95-□	195	95	173	68	124.5	65.5	20	9	4	162	160	12	6.5×8.5
EXWFS195-120-□	195	120	173	93	124.5	90.5	20	9	4	162	160	12	6.5×8.5
EXWFS240- 65-□	240	65	218	38	166	33.5	23	9	5	207	205	12	6.5×8.5
EXWFS240- 90-□	240	90	218	63	166	58.5	23	9	5	207	205	12	6.5×8.5
EXWFS240-115-□	240	115	218	88	166	83.5	23	9	5	207	205	12	6.5×8.5
EXWFS298- 93-□	298	93	272	62	218	56.5	27	9.5	5	262	263	12	6.5×8.5
EXWFS298-143-□	298	143	272	112	218	106	27	9.5	5	262	263	12	6.5×8.5

EF-36 series**WALL MOUNTING BRACKET for EXS • EXHS**

Assembly drawings



Utilize rubber feet inserts when placing on tables or flat surfaces.

EF-36 dimensions

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

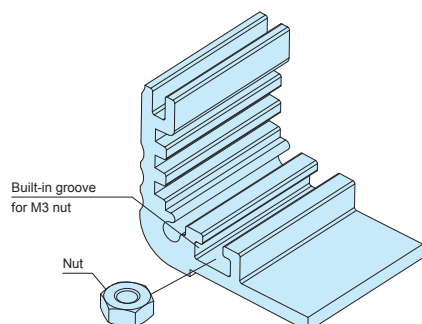
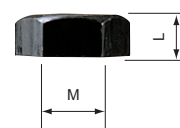
Components

No.	Part name	Pcs	Material	Color / Finish
1	Bracket	4	Extruded aluminium A6063S-T5	Metallic silver / Painted : Black / Anodized
2	Screw (Slim head M3-6)	4	Steel	Black trivalent chromate
3	Nut (For M3 screw)	4	Steel	Black trivalent chromate
4	Insert rubber feet	4	Silicone	Black

Product no.

Product no.	
● Metallic silver / Painted	● Black / Anodized
EF-36S	EF-36B

■ Applicable to be used on EXS series with 185mm or larger bottom covers, and EXHS series with 187mm or larger bottom covers.

MT-3N**SLIDING NUT for EXPS • EXPFS • EXWS • EXWFS • EXS • EXHS****MT-3N dimensions****Product no. / Dimensions**

Product no.	M	L	Material	Finish	Pack of
MT-3N	3	2.4	Steel	Black trivalent chromate	50

■ Sliding nut can be used on all EXPS • EXPFS • EXWS • EXWFS • EXS models with width 140mm or larger bottom covers and with width 230mm and 285mm top covers, as well as on all EXHS models with width 140mm or larger bottom covers and on all heat-sink top cover sizes.