

IP68 Waterproof Performance

Heavy Duty Diecast Aluminium Enclosure

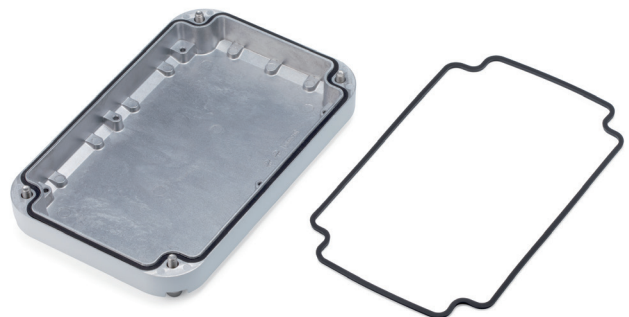
DW•DWH series



IP68 High performance at 24-hours/1m-depth immersion



*Do not use underwater/underground.



With a silicone waterproof gasket, it allows the enclosure to maintain a stable high waterproofing capability.

Selectable from 2 types : general-purpose DW series and the heat-sink DWH series.

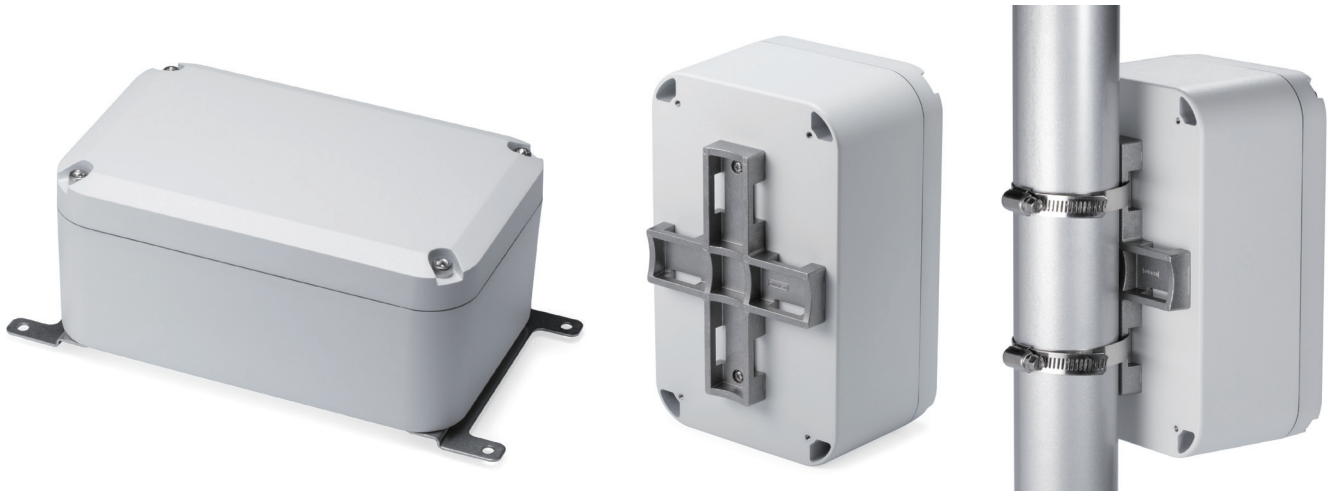


DW series: Easily matches various devices.



DWH series: Heat sink shape for high heat dissipation performance.

Easy installation on walls & poles



Application example - Suitable for a wide range of uses even under severe conditions.

Access Point



Plant Control Equipment



Shockproof Industrial PC



Junction Box

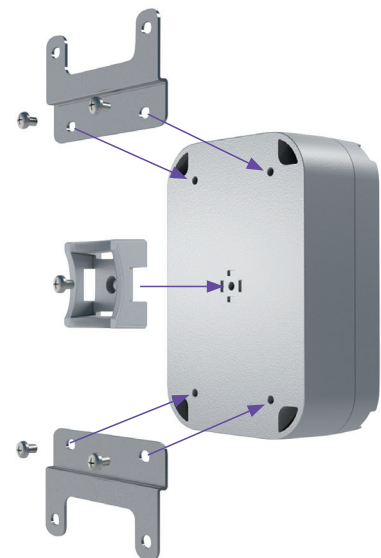
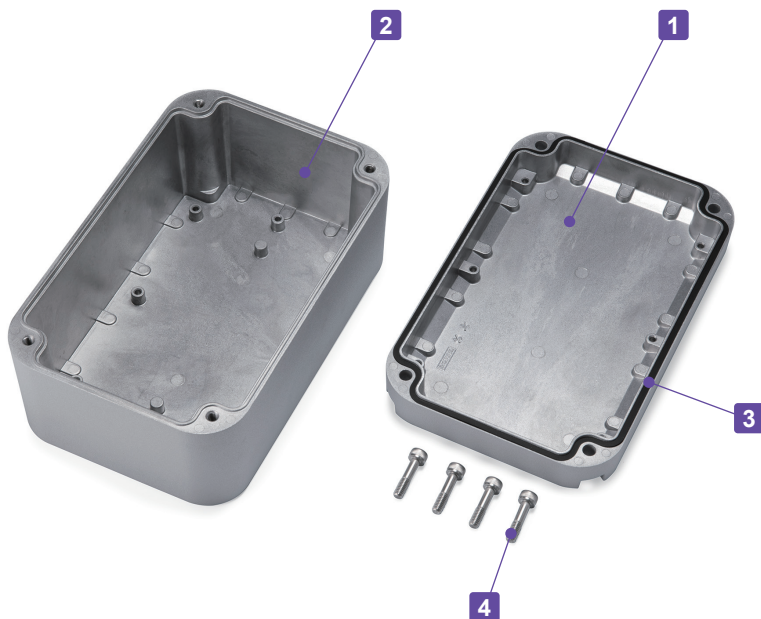




- IP68 high performance aluminium diecast box protected from immersion as long as 24 hours at 1m depth.
- EMC shielding is achieved by having the unfinished inner sides of the Top cover and Base, as well as the conductive silicone gasket.
- Suitable for Access Points, Optical Transmission Equipment, Shockproof Industrial PCs and more.

Technical Data

Protection class : IP68 (24-hours/1m-depth)
 Operating temperature : -40°C ~ +105°C
 Recommended torque : 4.0 ~ 5.0N • m



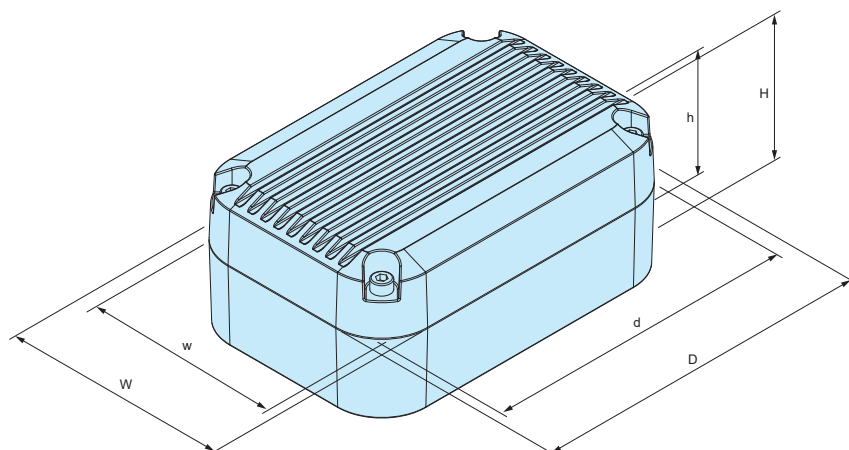
There are M4 threaded holes on the backside of the body for wall / pole mounting bracket.

Components

No.	Part name	Pcs	Material	Color / Finish
1	Heat-sink top cover	1	Diecast aluminium ADC12	Metallic silver / Powder coated (Unfinished inside)
2	Base	1	Diecast aluminium ADC12	Metallic silver / Powder coated (Unfinished inside)
3	Gasket	1	Conductive silicone	Black
4	Screw (Hexagon socket head)	4	Stainless steel	Unfinished

DWH dimensions

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



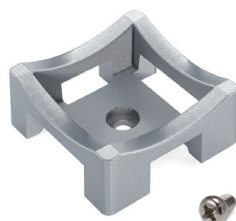
Product no. / Details

Product no.	W	D	H	w	d	h	Weight (g)
DWH10-15 -6S	100	150	63.5	86	136	46	875
DWH10-15- 9S	100	150	93.5	81	131	76	1,115
DWH14-22- 7S	140	220	74	125	205	56	1,470
DWH14-22-10S	140	220	104	123	203	86	1,865

Accessories (Optional parts)



Wall mounting bracket
DWF series
See page 153



Aluminium pole mounting bracket
DWMB-1N • WGMB-2N
See page 154



Pole mounting belt • ties
SNB • PKB series
See page 207 ~ 208



Mounting plate for DW • DWH
DWMP series
See page 153



DIN Rail
FDR series
See page 100



Mounting screw
SMS 4-8
See page 153



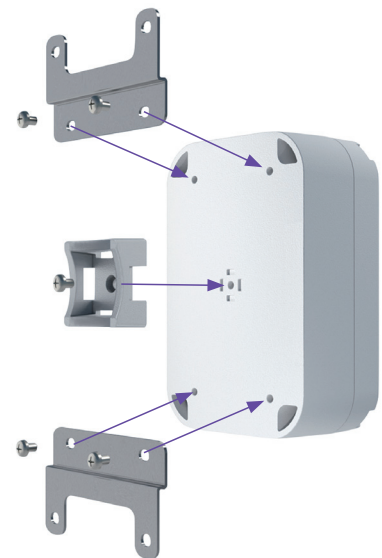
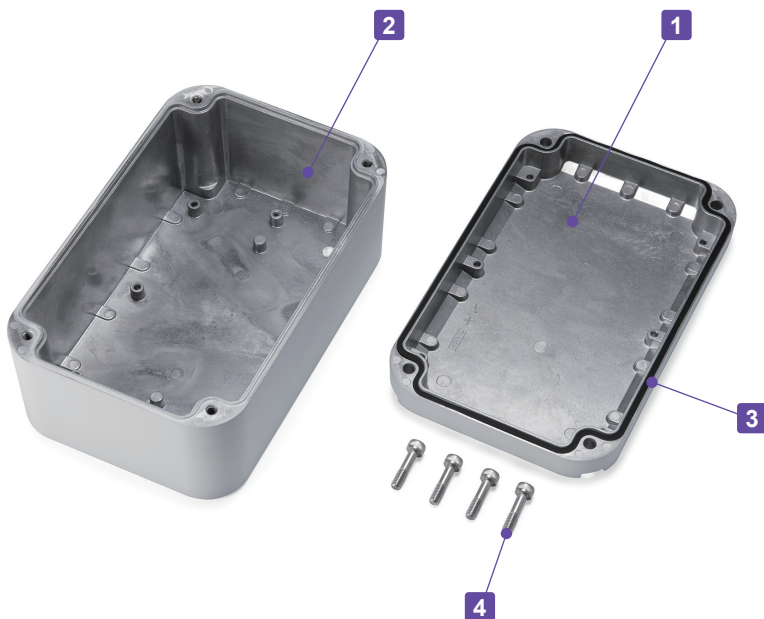
Cable glands
See page 181 ~ 193



- IP68 high performance aluminium diecast box protected from immersion as long as 24 hours at 1m depth.
- EMC shielding is achieved by having the unfinished inner sides of the Top cover and Base, as well as the conductive silicone gasket.
- Suitable for use in a severe environment such as outdoor network device, plant control equipment, meteorological instruments and more.

Technical Data

Protection class : IP68 (24-hours/1m-depth)
 Operating temperature : -40°C ~ +105°C
 Recommended torque : 4.0 ~ 5.0N • m



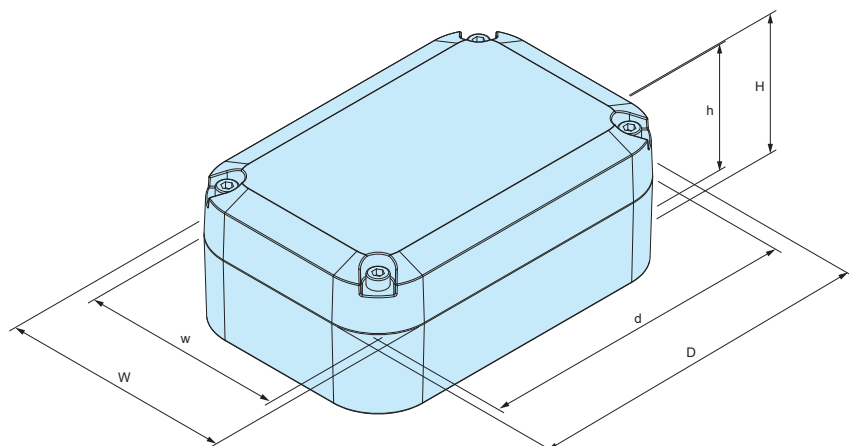
There are M4 threaded holes on the backside of the body for wall / pole mounting bracket.

Components

No.	Part name	Pcs	Material	Color / Finish
1	Top cover	1	Diecast aluminium ADC12	White / Powder coated (Unfinished inside)
2	Base	1	Diecast aluminium ADC12	White / Powder coated (Unfinished inside)
3	Gasket	1	Conductive silicone	Black
4	Screw (Hexagon socket head)	4	Stainless steel	Unfinished

DW dimensions

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



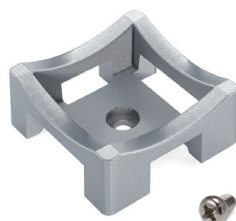
Product no. / Details

Product no.	W	D	H	w	d	h	Weight (g)
DW10-15- 6W	100	150	60	86	136	46	670
DW10-15- 9W	100	150	90	81	131	76	910
DW14-22- 7W	140	220	70	125	205	56	1,245
DW14-22-10W	140	220	100	123	203	86	1,640

Accessories (Optional parts)



Wall mounting bracket
DWF series
See page 153



Aluminium pole mounting bracket
DWMB-1N • WGMB-2N
See page 154



Pole mounting belt • ties
SNB • PKB series
See page 207 ~ 208



Mounting plate for DW • DWH
DWMP series
See page 153



DIN Rail
FDR series
See page 100



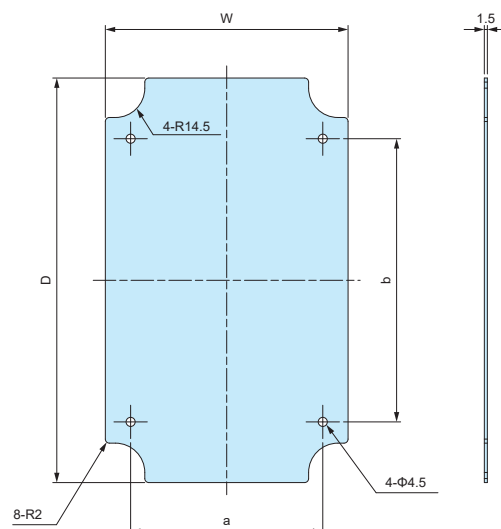
Mounting screw
SMS 4-8
See page 153



Cable glands
See page 181 ~ 193

DWMP series**MOUNTING PLATE for DW • DWH**

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



■ Material / Finish : Aluminium A1050P t1.5 / Unfinished

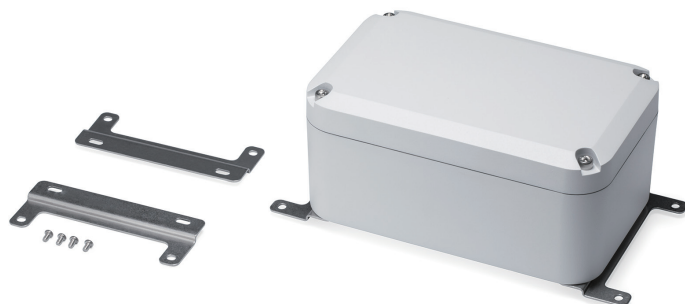
■ Covered with a protective film on one side.

■ Hole milling, clinching spacer customizations are available.
See our website for more details.

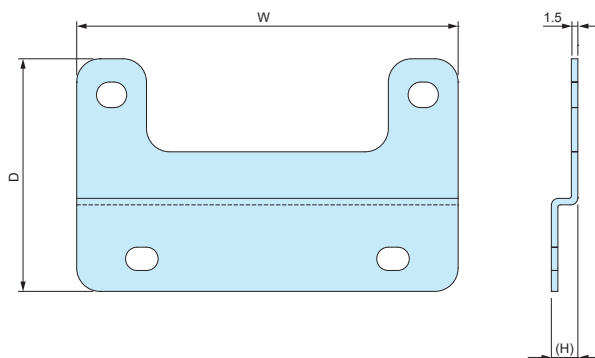
Product no. / Details

Including 4x screws (Pan head self tapping M4-8 Steel Trivalent chromate)

Product no.	W	D	a	b	Suitable model	Weight (g)
DWMP10-15	78	128	65	80	DW • DWH10-15-□	39
DWMP14-22	120	200	95	140	DW • DWH14-22-□	96

DWF series**WALL MOUNTING BRACKET for DW • DWH**

■ Material / Finish : Stainless Steel / Barrel finish

**Product no. / Details**

Including 4x screws (Pan head M4-6 Stainless Steel Unfinished)

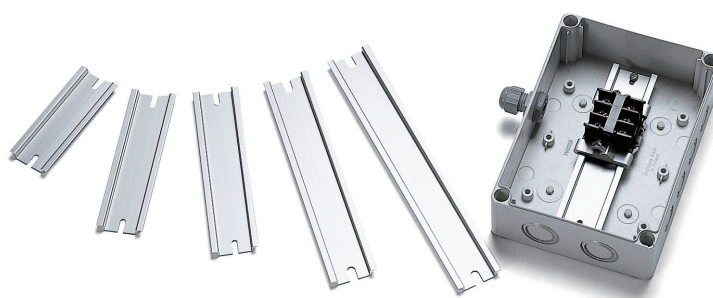
Product no.	W	D	(H)	Suitable model	Weight (g)	Pack of
DWF-10	82	50	(5.8)	DW • DWH10-15-□	77 (2pcs)	2
DWF-15	132	50	(5.8)	DW • DWH14-22-□	107 (2pcs)	2

SMS4-8**MOUNTING SCREW**

■ Self-tapping screws for mounting PCB and DIN Rail (FDR series - see page 100) on bosses or standoffs.

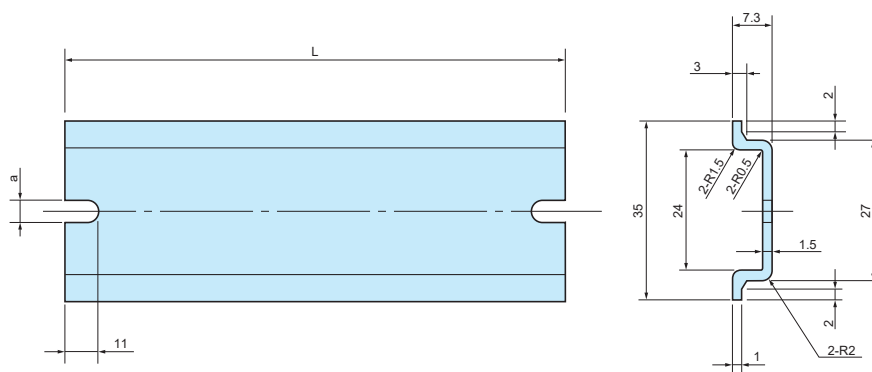
**Product no. / Details**

Product no.	Details	Material	Finish	Weight(g)	Pack of
SMS4-8	M4-8 Pan head tapping	Steel	Trivalent chromate	1 (1pc)	4

FDR series**DIN RAIL**

Application example

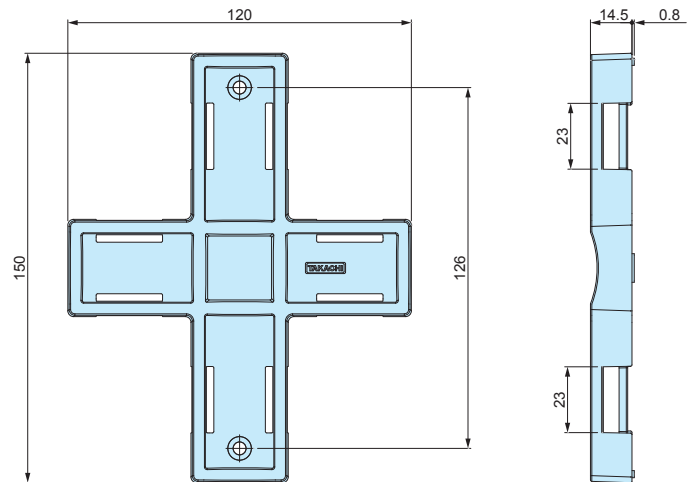
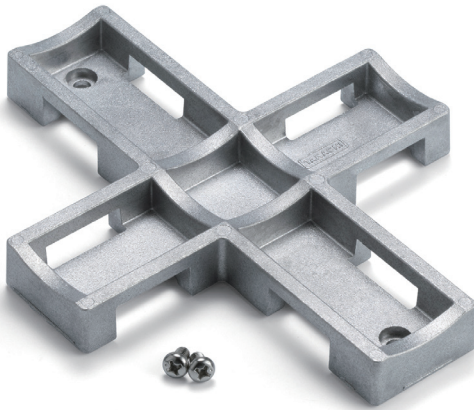
- DIN Rail for installation of terminals, relays, or switches inside enclosures.
- Suitable for DIN Rail types of various manufacturers.

**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.

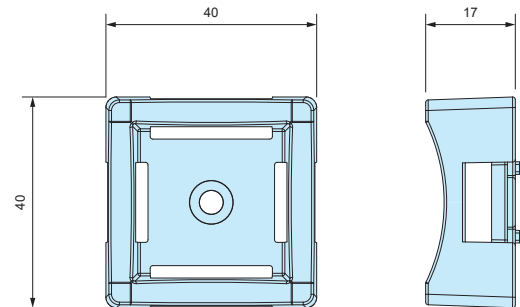
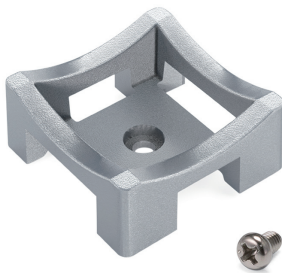
WGMB-2N**DIECAST ALUMINIUM POLE MOUNTING BRACKET for DW • DWH**

- Pole mount bracket made from robust diecast aluminium.
- DXF/DWG/PDF/STP drawings available on our website.
- Hole milling is not required when installing the mount bracket, thus allowing the enclosure to maintain its protection class.
- Can be used for DW • DWH14-22-□ models.
- Pole mounting belt can be installed in either W or D direction.
- Pole mount is possible with the use of SNB or PKB series mounting belt. See page 207 ~ 208 for more details.

Product no. / Details

■ Stainless steel mounting screws included.

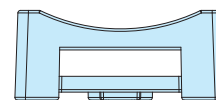
Product no.	Suitable models	Material / Finish	Weight (g)	Pack of
WGMB-2N	DW • DWH14-22-□	Diecast aluminium ADC12 / Shot blast	126	1

DWMB-1N**WALL MOUNTING BRACKET for DW • DWH**

■ Material / Finish : Diecast aluminium ADC12 / Shot blast

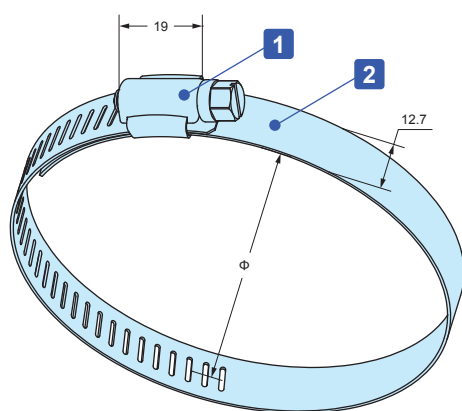
- Pole mount bracket made from robust diecast aluminium.
- Hole milling is not required when installing the mount bracket, thus allowing the enclosure to maintain its protection class.
- Can be used for DW • DWH10-15-□ models.
- Pole mounting belt can be installed in either W or D direction.
- Pole mount is possible with the use of SNB or PKB series mounting belt. See page 207 ~ 208 for more details.

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

**Product no. / Details**

Including 1x screw (Pan head M4-6 Stainless Steel Unfinished)

Product no.	Suitable models	Weight (g)	Pack of
DWMB-1N	DW • DWH10-15-□	24	1

SNB series**STAINLESS STEEL POLE MOUNTING STRAP****SNB dimensions**

- Corrosion resistant stainless steel (SUS304) belt clamp.
- It can be installed securely by tightening the screw.
- 8 mm nut driver (box driver) is recommended for tightening.
Flat-bladed screwdrivers can also be used.

Components

No.	Part name	Pcs	Material	Finish
1	Bracket	1	Stainless steel SUS304	Polished
2	Strap	1	Stainless steel SUS304	Polished

Product no. / Details

Product no.	Applicable diameter (Φ)	Strap width	Strap thickness	Recommended torque N · m	Weight (g)	Pack of
SNB 52- 76	52 ~ 76	12.7	0.6	0.7 ~ 1.0	27.5	1
SNB 72- 95	72 ~ 95	12.7	0.6	0.7 ~ 1.0	30	1
SNB 91-114	91 ~ 114	12.7	0.6	0.7 ~ 1.0	34.5	1
SNB105-127	105 ~ 127	12.7	0.6	0.7 ~ 1.0	37.5	1
SNB117-140	117 ~ 140	12.7	0.6	0.7 ~ 1.0	39.5	1
SNB130-153	130 ~ 153	12.7	0.6	0.7 ~ 1.0	41.5	1
SNB142-165	142 ~ 165	12.7	0.6	0.7 ~ 1.0	43.5	1
SNB155-178	155 ~ 178	12.7	0.6	0.7 ~ 1.0	46.5	1
SNB168-191	168 ~ 191	12.7	0.6	0.7 ~ 1.0	49	1
SNB181-204	181 ~ 204	12.7	0.6	0.7 ~ 1.0	51	1
SNB194-217	194 ~ 217	12.7	0.6	0.7 ~ 1.0	52.5	1
SNB207-230	207 ~ 230	12.7	0.6	0.7 ~ 1.0	57	1
SNB220-243	220 ~ 243	12.7	0.6	0.7 ~ 1.0	59.5	1
SNB233-256	233 ~ 256	12.7	0.6	0.7 ~ 1.0	62.5	1
SNB246-269	246 ~ 269	12.7	0.6	0.7 ~ 1.0	64	1
SNB259-282	259 ~ 282	12.7	0.6	0.7 ~ 1.0	67.5	1
SNB272-295	272 ~ 295	12.7	0.6	0.7 ~ 1.0	70	1
SNB285-308	285 ~ 308	12.7	0.6	0.7 ~ 1.0	71	1

■ Recommended torque listed is for reference only; actual may differ. Assemble after testing torque.

SNB Strap required

Suitable series	Suitable models						Required
SSK series	SSK-S1	SSK-160	SSK-170	SSK-200	SSK-210	SSK-250	2
	SSK-280	SSK-300	SSK-350	SSK-400	SSK-530		
WGMB series	WGMB-1W						1

PKB series**POLE MOUNTING BELT**

PKB-10PM, 10P



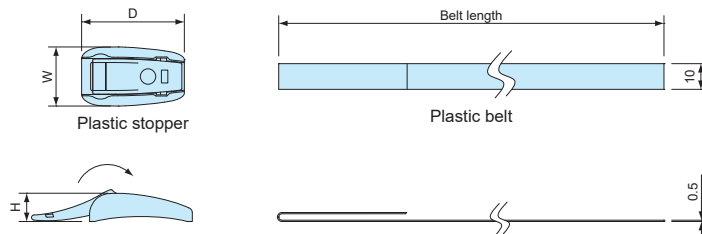
PKB-10S, 20S

- Pole mounting belt for attachment of enclosures with suitable pole mount brackets or construction onto poles.
- Designed for one time use only (not reusable).
- Strong stainless steel clamping type and easy installation plastic type are available.

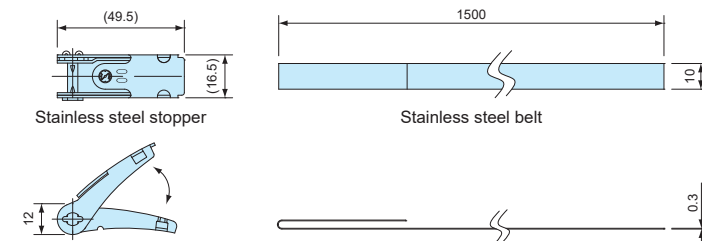
PKB dimensions

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

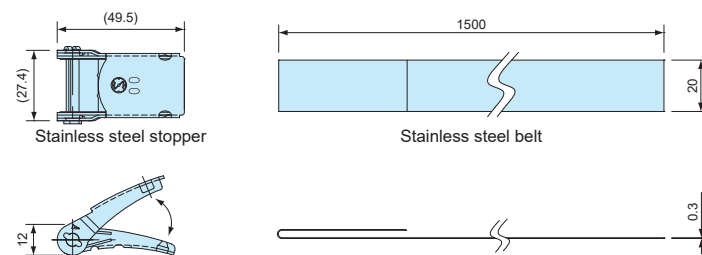
PKB-10PM, 10P



PKB-10S



PKB-20S

**Components**

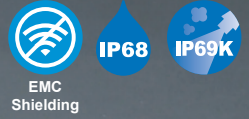
Part name	Material	Color / Finish
Stopper	Stainless steel SUS304 • POM	Barrel finish • Black
Belt	Stainless steel SUS430 • PET	Bright annealed finish • Gray

Product no. / Details

Product no.	W	D	H	Belt length	Belt material	Tensile strength (horizontal)	Weight (g)	Pack of
PKB-10PM	23	24	11	500 mm	PET	0.8kN	14	2
PKB-10P	23	40	11	1,500 mm	PET	1.3kN	31.8	2
PKB-10S	—	—	—	1,500 mm	Stainless steel SUS304	1.4kN	101.6	2
PKB-20S	—	—	—	1,500 mm	Stainless steel SUS430	2.9kN	182.2	2

AGE series

EMC SHIELDED CABLE GLAND



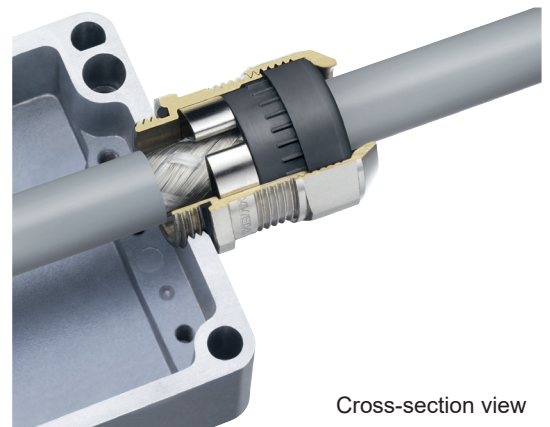
- Optimal contact spring provides excellent shield contact and the smallest possible transfer impedance.
- Clawed lock nut makes a good EMC shield contact possible on conductive enclosures.
- Shape of the contact spring not only allows for a large clamping range to the shield but also enables easy and faster installation and re-installation.
- 2-piece detachable sealing inserts can be adapted to the wider existing cable diameter on site.
(AGE12 available only with 1-piece sealing insert)

Technical Data

Protection class : IP68 2bar / 30min, IP69K
Operating temperature : -60°C ~ +100°C
Compliant with IEC62444 Var. A

Cable Range

No.	Sealing insert type	
	Assembled	Detached
AGE16-10.5	Φ 6 ~ Φ 7.5	Φ 7.5 ~ Φ10.5
AGE20-15	Φ 8 ~ Φ10.5	Φ10.5 ~ Φ15
AGE25-20	Φ12.5 ~ Φ15	Φ15 ~ Φ20
AGE32-25	Φ17 ~ Φ20	Φ20 ~ Φ25

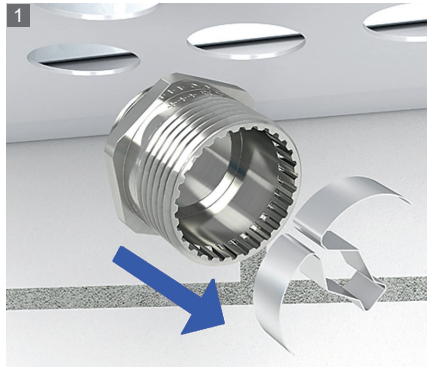


Cross-section view

Components

No.	Part name	Material	Color / Finish
1	Cap	Brass	Nickel plated
2	Sealing insert	TPE	Black
3	Connector	Brass	Nickel plated
4	Contact spring	Stainless steel	Unfinished
-	O-Ring	NBR	Black
5	Lock-nut	Brass	Nickel plated

INSTALLATION Instruction



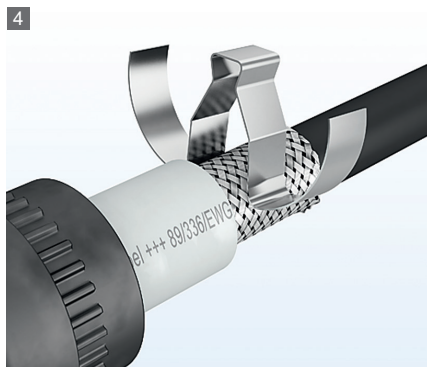
Remove the contact spring from the connector.



Install the connector onto the enclosure.



Strip the cable.



Clip the contact spring on the shielded cable.



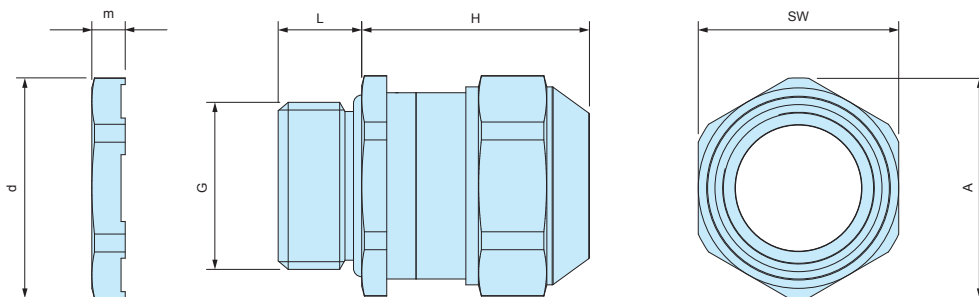
Pass the cable through the sealing insert and cap.



Tighten the cap to complete.

AGE dimensions

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



Product no. / Details

Product no.	G		Cable range		L	H Max	SW	A	d	m	Pack of
	Thread size	Mounting hole	Min	Max							
AGE12-5	M12×1.5	Φ12.2	3.5	5.0	10	22	15	16.5	16.5	3.5	1
AGE12-6.5	M12×1.5	Φ12.2	5.0	6.5	10	22	15	16.5	16.5	3.5	1
AGE16-10.5	M16×1.5	Φ16.2	6.0	10.5	10	25	18	20	21	3.5	1
AGE20-15	M20×1.5	Φ20.2	8.0	15.0	10	27	24	26.5	26.5	4	1
AGE25-20	M25×1.5	Φ25.2	12.5	20.0	11	33	30	33	33	4	1
AGE32-25	M32×1.5	Φ32.3	17.0	25.0	13	34	36	39.5	39.5	5	1

AGH SERIES

HEAT RESISTANT METAL CABLE GLAND



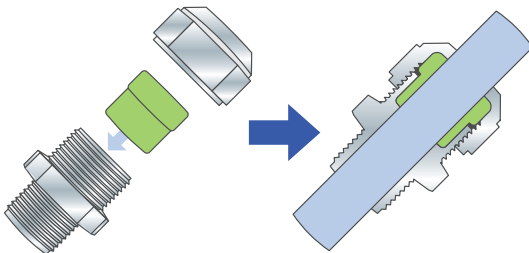
- Heat resistant sealing insert made of FPM material. Resistant up to 200°C
- IP68 1bar / 30min high performance waterproof cable gland.

Technical Data

Protection class : Protection class IP68 1bar / 30min
 10m depth immersion in 30 minutes
 Operating temperature : -40°C ~ +200°C
 Compliant with EN50262 Var. A

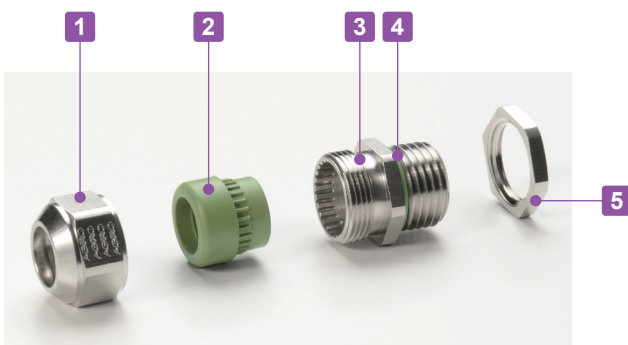
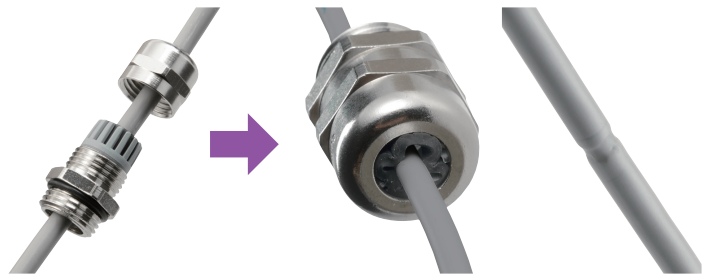
AGH series

Thicker sealing insert evenly clasp onto the cable by having a larger area.
 Remains durable even after repeated tightening / loosening.

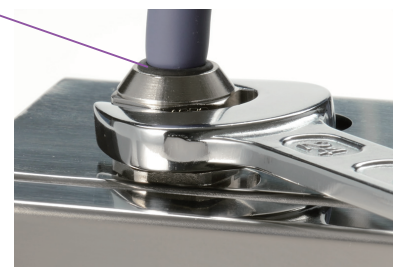


Conventional cable gland

If over-tightened, it can cause the rubber bush or cable to deform,
 which may allow water to seep in.



- Tightening torque varies depending on the cable diameter.
 Tighten until the sealing insert protrudes slightly from the cap.

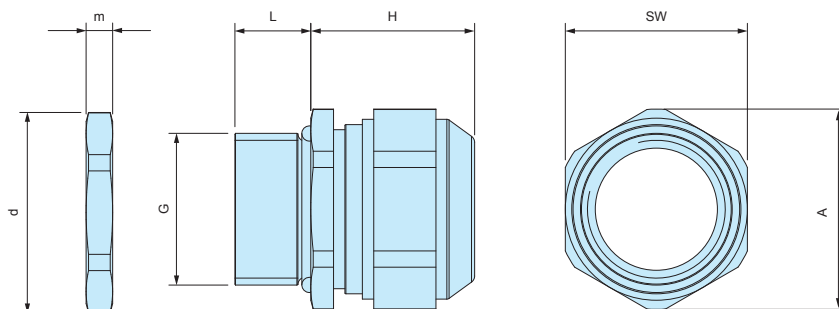


Components

No.	Part name	Material	Color / Finish
1	Cap	Brass	Nickel plated
2	Sealing insert	FPM	Green
3	Connector	Brass	Nickel plated
4	O-Ring	FPM	Green
5	Lock-nut	Brass	Nickel plated

AGH dimensions

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



Product no. / Dimensions

Product no.	G		Cable range		L	H Max	SW	A	d	m	Pack of
	Thread size	Mounting hole	Min	Max							
AGH10-6	M10×1.5	Φ10.2	4.0	6.0	10	15	13	14.3	14.2	3	1
AGH12-8	M12×1.5	Φ12.2	6.5	8.0	10	17	15	16.5	16.5	3	1
AGH16-10.5	M16×1.5	Φ16.2	8.0	10.5	10	20	18	20	21	3	1
AGH20-15	M20×1.5	Φ20.2	11.0	15.0	10	23	24	26.5	26.3	3.5	1
AGH25-20	M25×1.5	Φ25.2	16.0	20.0	11	27	30	33	33	4	1
AGH32-25.5	M32×1.5	Φ32.3	21.0	25.5	13	28.5	36	39.7	39.7	4	1



- High water protection IP68 (1bar / 30min) metal cable gland.
- Wide selection, for M6 ~ M50.
Suitable for $\Phi 2$ mm ~ $\Phi 42$ mm cable.

Technical Data

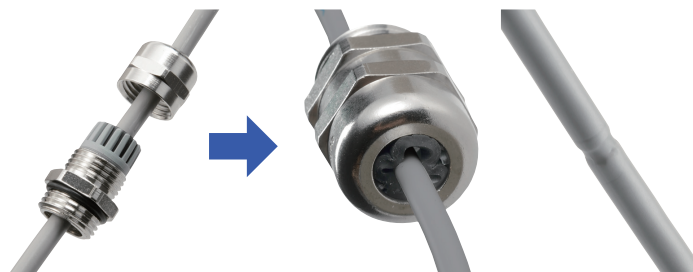
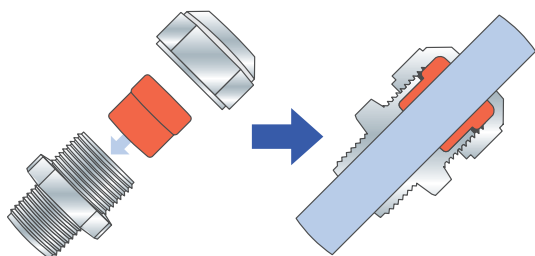
Protection class : IP68 1bar / 30min
 Operating temperature : -40°C ~ +100°C
 Compliant with EN50262 Ver. A

AGM series

Thicker sealing insert evenly hold a cable by having a larger holding area.
 Remains durable even after repeated tightening / loosening.

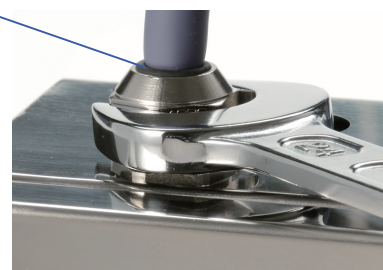
Lamellar insert type

If over-tightened, it can cause the rubber bush or cable to deform,
 which can allow water to seep in.



- Appropriate tightening torque varies by each cable diameter.

Tighten the cap until top of the sealing insert forms a small bead between the cap and the cable.

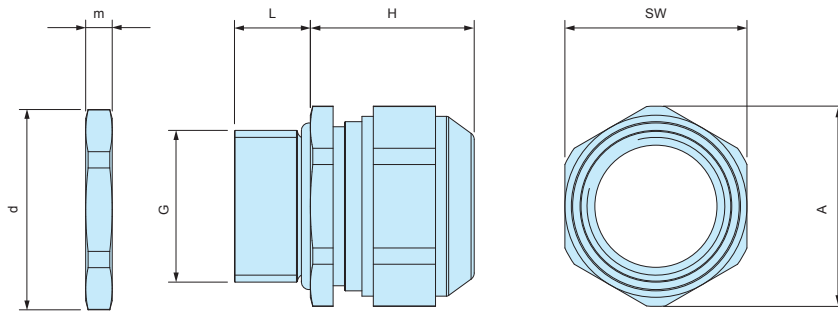


Components

No.	Part name	Material	Color / Finish
1	Cap	Brass	Nickel plated
2	Sealing insert	TPE	Black
3	Connector	Brass	Nickel plated
-	O-ring	NBR	Black
4	Lock nut	Brass	Nickel plated

AGM dimensions

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



Product no. / Details

Product no.	G		Cable range		L	H Max	SW	A	d	m	Pack of
	Thread size	Mounting hole	Min	Max							
AGM6-2.5	M6×1.0	Φ6.2	2	2.5	8	12	8	9	10	2.8	1
AGM6-3	M6×1.0	Φ6.2	2.5	3.0	8	12	8	9	10	2.8	1
AGM6-3.5	M6×1.0	Φ6.2	3.0	3.5	8	12	8	9	10	2.8	1
AGM8-5	M8×1.25	Φ8.2	3.5	4.7	10	14	11	12	12	3	1
AGM10-6	M10×1.5	Φ10.2	4.0	6.0	10	15	13	14.3	14	2.8	1
AGM12-8	M12×1.5	Φ12.2	6.5	8.0	10	17	15	16.5	16.5	2.8	1
AGM16-10.5	M16×1.5	Φ16.2	8.0	10.5	10	21	18	20	21	3	1
AGM20-15	M20×1.5	Φ20.2	11.0	15.0	10	23	24	26.5	26.5	3.5	1
AGM25-20	M25×1.5	Φ25.2	16.0	20.0	11	28	30	33	33	4	1
AGM32-25.5	M32×1.5	Φ32.3	21.0	25.5	13	29.5	36	39.5	39.5	4	1
AGM40-28.5	M40×1.5	Φ40.3	24.0	28.5	13	32	46	50.7	51	5	1
AGM40-33	M40×1.5	Φ40.3	28.5	33.0	13	32	46	50.7	51	5	1
AGM50-37	M50×1.5	Φ50.4	33.0	37.0	14	34	55	59.7	60	5.5	1
AGM50-42	M50×1.5	Φ50.4	37.0	42.0	14	34	55	59.7	60	5.5	1



- Economical metal cable gland.
- Equivalent to IP67 protection class.
- Wide selection available from M12 ~ M32.

Technical Data

Protection class : Equivalent to IP67*
Operating temperature : -20°C ~ +80°C

*In-house test

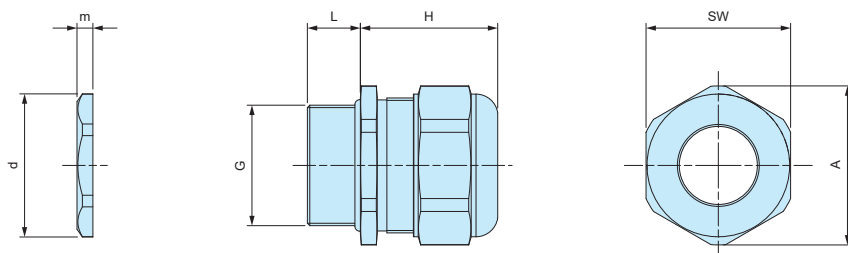


Components

No.	Part name	Material	Color / Finish
1	Cap	Brass	Nickel plated
2	Sealing Insert	TPE	Black
3	Connector	Brass	Nickel plated
—	O-ring	NBR	Black
4	Lock Nut	Brass	Nickel plated

RMC dimensions

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

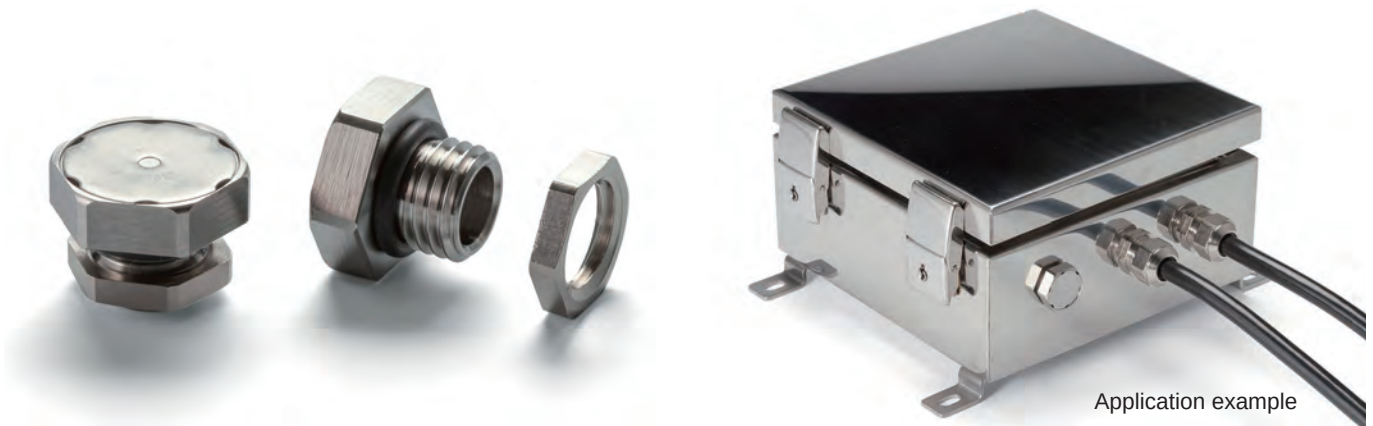


Product no. / Details

Product no.	G		Cable range		L	H Max	SW	A	d	m	Pack of
	Thread size	Mounting hole	Min	Max							
RMC12-6.5	M12×1.5	Φ12.2	5	6.5	10	18	15	16.5	15.4	2.5	1
RMC12-7.5	M12×1.5	Φ12.2	6.5	7.5	10	18	15	16.5	15.4	2.5	1
RMC16-8	M16×1.5	Φ16.2	6.5	8	10	23	18	19.7	19.7	2.8	1
RMC16-10.5	M16×1.5	Φ16.2	8	10.5	10	23	18	19.7	19.7	2.8	1
RMC20-11	M20×1.5	Φ20.2	9.5	11	10	23.5	24	26.4	24.2	3.2	1
RMC20-14.5	M20×1.5	Φ20.2	11	14.5	10	23.5	24	26.4	24.2	3.2	1
RMC25-16	M25×1.5	Φ25.2	14	16	11	28.5	30	33	29.7	3.3	1
RMC25-19	M25×1.5	Φ25.2	16	19	11	28.5	30	33	29.7	3.3	1
RMC32-21	M32×1.5	Φ32.3	18	21	13	30.5	36	39.6	37.4	3.5	1
RMC32-25.5	M32×1.5	Φ32.3	21	25.5	13	30.5	36	39.6	37.4	3.5	1

PMF-12M

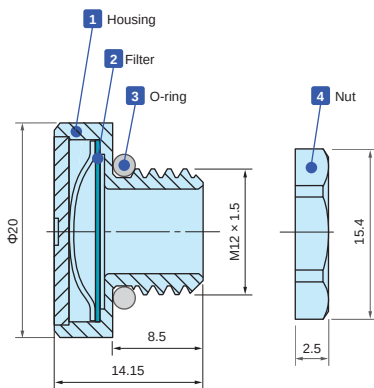
STAINLESS STEEL PROTECTIVE VENT



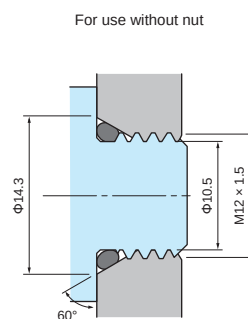
Application example

- Stainless steel protective vent for superior durability and chemical resistance.
- IP68 protection class (water depth 2 meters / 60 mins) and -40°C ~ +125°C operating temperature range allows it to be used in various environments.
- Suitable for enclosures with capacities of 20 litres or under.
- For outdoor use, installation on the side of the enclosure unit is recommended.

PMF-12M dimensions

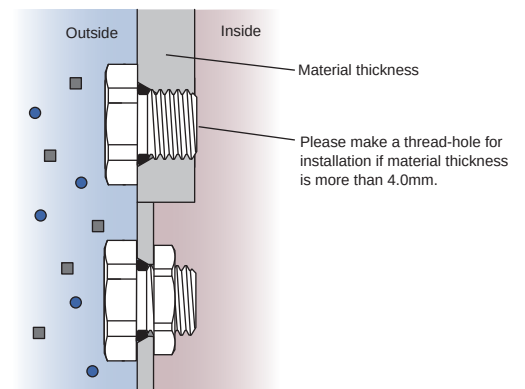


Hole milling drawings



- While $\Phi 12.2$ mm through-hole is sufficient for installation, 60° angle tapered hole is recommended to prevent deformation of the O-ring.

Installation drawings



- If used with a lock nut, material thickness should not exceed 4.0mm.

Technical Data

Airflow	1600ml / min (dp = 7 kPa)
Recommended Torque	0.6 ~ 1.2 N • m
Certifications	IEC60529 (Protection class test) : IP66 • IP67 • IP68 • IP69K IEC60068-2-1, 2, 14 (Heat resistance test) : -40°C ~ +125°C IEC60068-2-78 (Humidity test) : 85°C • 85% humidity • 1000 hours IEC60068-2-64 (Vibration test)

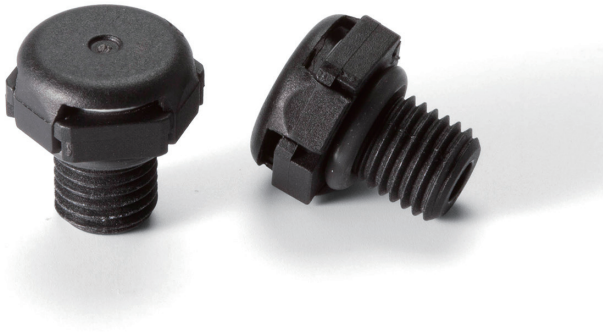
Product no. / Details

Product no.	Material				G		Nut SW
● Metallic	1 Housing	2 Filter	3 O-ring	4 Nut	Thread size	Mount hole	
PMF-12M	Stainless steel	PTFE	Silicone	Brass • Nickel plated	M12 x 1.5	$\Phi 12.2$	14

PMF-6B

SMALL PROTECTIVE VENT

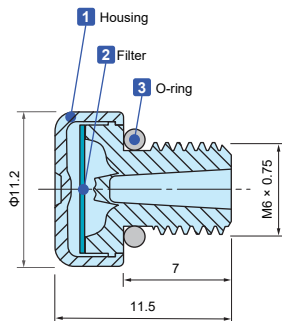
IP68



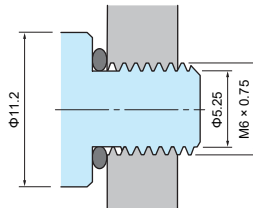
Application example

- Small and screw-in protective vent suitable for compact, and hand-held type devices.
- IP68 protection class (water depth 2 meters / 60 mins) and $-40^{\circ}\text{C} \sim +150^{\circ}\text{C}$ operating temperature range allows it to be used in various environments.
- Suitable for enclosures with capacities of 2.0 litres or under.
- For outdoor use, installation on the side of the enclosure unit is recommended.

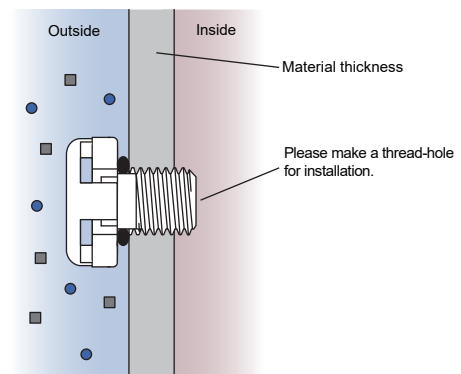
PMF-6B dimensions



Hole milling drawings



Installation drawings



Technical Data

Airflow	300ml / min ($\text{dp} = 7 \text{ kPa}$)
Recommended Torque	$0.2 \sim 0.4 \text{ N} \cdot \text{m}$
Certifications	IEC60529 (Protection class test) : IP66 • IP67 • IP68 IEC60068-2-1, 2, 14 (Heat resistance test) : $-40^{\circ}\text{C} \sim +150^{\circ}\text{C}$ IEC60068-2-78 (Humidity test) : $85^{\circ}\text{C} \cdot 85\% \text{ humidity} \cdot 1000 \text{ hours}$ IEC60068-2-64 (Vibration test) UL94V-0 (Flame-resistant) • UL746C f1

Product no. / Details

Product no.	Material			G	
● Black	1 Housing	2 Filter	3 O-ring	Thread size	Mount hole
PMF-6B	PA6 (Body) • PA66 (Cap)	PTFE	Silicone	M6 x 0.75	—