TAKACHI

LINE-UP EXPANDED!

NETWORK PLASTIC BOX PF SERIES

LINE-UP EXPANDED WITH NEW SIZES AND TYPES!

SHOCKPROOF MODEL

PFG SERIES

For industrial tablet and measuring device

NEW

STANDARD MODEL

PF SERIES

Versatile case for a variety of purposes
5 additional sizes totaling 41 variations

NEW SIZE

FLANGED MODEL

PFF SERIES

30 different sizes for IOT sensors and communication equipment.

EMBEDDED BATTERY BOX

BC SERIES

Embedded battery box for PF and other plastic enclosures. 5 different variations available: AA x 2, AA x 3, AA x 4, AAA x 2, AAA x 4

NEW

CASE BOX RACK & CUSTOM
TAKACHI ELECTRONICS ENCLOSURE CO., LTD.

PFE series EMC SHIELDED PLASTIC BOX

EMC Shielding Effects

- PFE series is an EMC shielded version of the PF series network plastic box coated internally with DOTITE conductive paint (acrylic paint mixed with nickel filler).
- Flat designed plastic case with detachable panels.
- Made of flame-resistant ABS UL94V-0.
- Equipped with built-in bosses for PCB mounting.
- Suitable for Wi-Fi access point, measuring equipment, controller or various other applications for desktop, wall mounting use and so on.

Technical Data
Protection class: IP40 Operating temperature: -10°C ~ +60°C

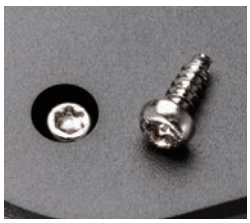
Components

No.	Part name	Pcs	Material	Color / Finish	Conductive paint
1	Top cover	1	ABS UL94V-0	Off-white	DOTITE
2	Bottom base	1	ABS UL94V-0	Off-white	DOTITE
3	Panel	2	ABS UL94V-0	Off-white	DOTITE
4	Self-tapping screw	4	Steel	Nickel plated	—
5	Rubber feet	4	Elastomer	Dark gray	—

Accessories (Optional parts)

Tapping standoff TPS series
See page 122

PCB mounting screw EM series
See page 123



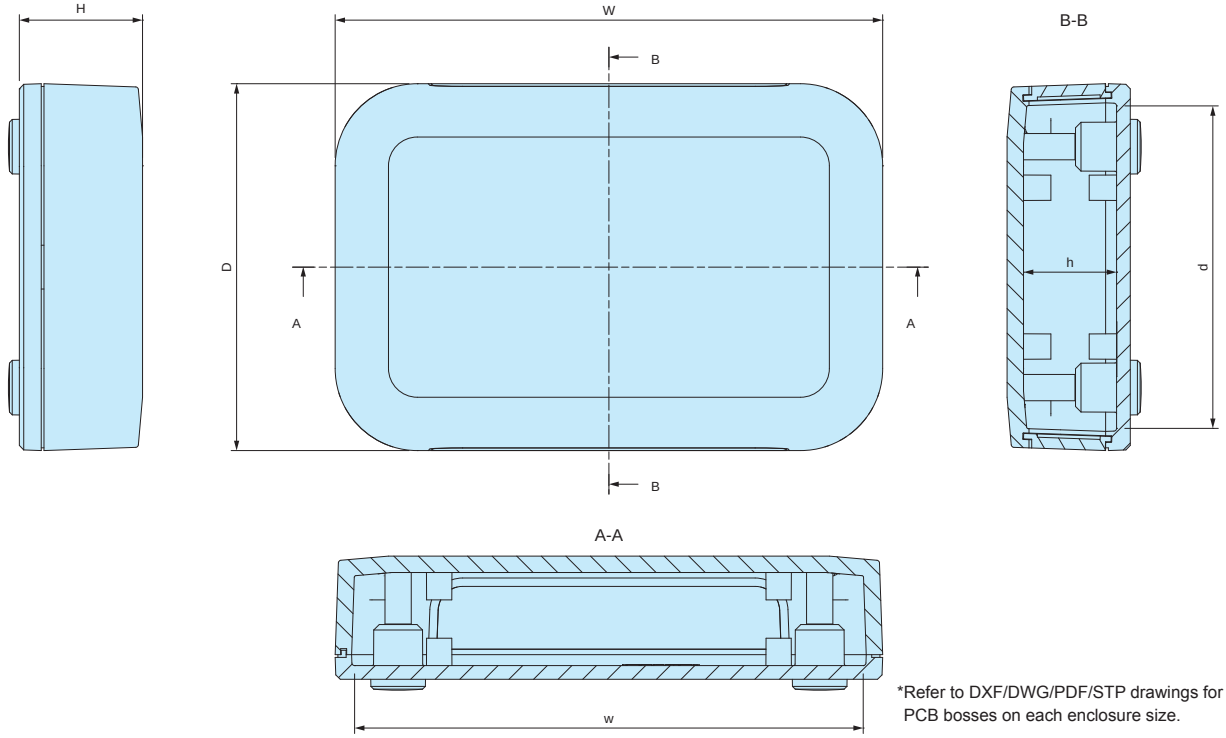
TORX screw MR series
See page 123

Suspension bracket WM series
See page 116

Embedded battery box BC series
See page 125 ~ 128

PFE dimensions

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



*Refer to DXF/DWG/PDF/STP drawings for number of PCB bosses on each enclosure size.

Product no. / Dimensions

*H dimension does not include the height of rubber feet. (Rubber feet height = +2mm)

Product no.	External dimensions			Internal dimensions			Screw	Weight (g)
	W	H	D	w	h	d		
PFE13-4- 9W	125	40	85	116	75	34.5	M2.5-8 x 4 pcs	114
PFE15-3-10W	150	30	100	142	90	24	M2.5-8 x 4 pcs	152
PFE15-5-15W	150	45	150	141	139	39	M2.5-8 x 4 pcs	244.5
PFE20-4-13W	200	40	135	191.5	124.5	34	M3-8 x 4 pcs	274.5

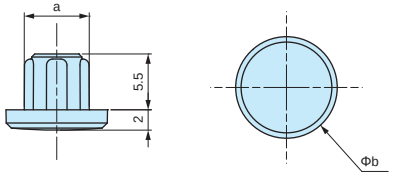
Accessories (Optional parts)

PFRF series RUBBER FEET for PF • PFE

- Rubber feet for PF • PFE series.
- Inserted into the screw holes on the underside of box.
- Elastomer material is resistant against color migration.
- PF • PFE boxes comes with PFRF rubber feet. Utilize PFRF as spare or replacement.

PFRF dimensions

■ STP drawings available on our website.



Product no. / Dimensions

Product no.	Dimensions		Suitable models	Material	Color	Pack of
	a	b				
PFRF-M2.5D	6.4	10	PF10-2-7,10-2-10,10-2-15,10-4-7,10-4-10,10-4-15 PF10-6-15,13-3-9,13-3-13,13-3-19,13-4-9,13-4-13 PF13-4-19,13-6-19,15-3-10,15-3-15,15-5-10,15-5-15 PF18-4-12,18-4-18,18-5-12,18-5-18 PFE13-4-9,15-3-10,15-5-15	Elastomer	Dark gray	4
PFRF-M3D	7.2	11	PF20-4-13,20-4-20,20-6-13,20-6-20,24-4-17 PF24-4-24,24-6-17,24-6-24,28-5-20,28-7-20 PF28-9-20,32-5-23,32-7-23,32-10-23 PFE20-4-13	Elastomer	Dark gray	4

SHOCKPROOF PLASTIC ENCLOSURE

Ensure your industrial tablet, measuring equipment and controller is protected with the silicone corner guards.

PFG series

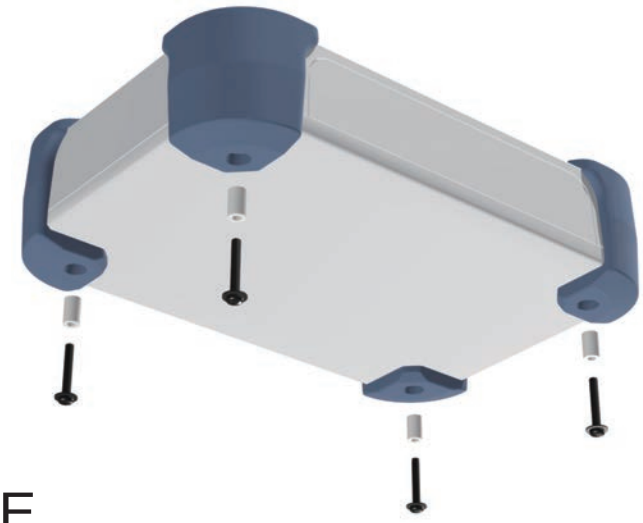
6 DIFFERENT COLOR COMBINATIONS AVAILABLE

3 corner guard colors and 2 plastic box colors available for a total of 6 color combinations to choose from.
Different color combinations can be freely chosen depending on your environment.

HOW TO ASSEMBLE CORNER GUARD

1. Insert corner guards into designated holes on the top corners.

2. Insert spacers into the holes on the bottom of corner guards. Fasten bottom base and corner guards together with screws.



APPLICATION EXAMPLE

Industrial Tablet

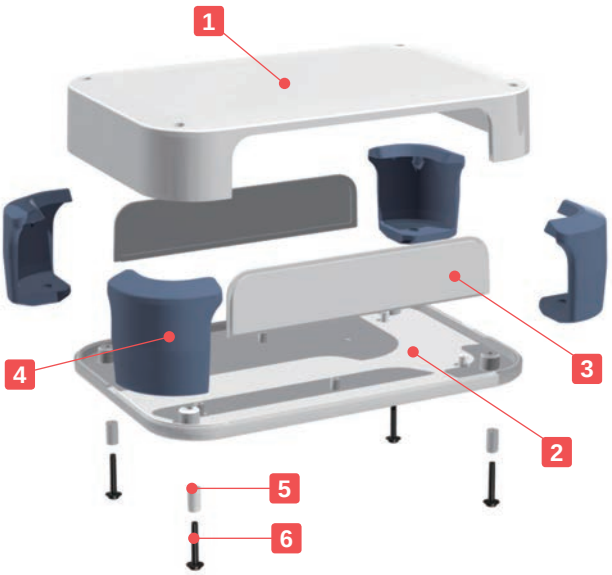
Medical Equipment

Network Device

PFG series SHOCKPROOF PLASTIC ENCLOSURE

NEW

Technical Data
Protection class: IP40 Operating temperature: -10°C ~ +60°C



- Network plastic box attached with shockproof silicone corner guards.
- Suitable for industrial tablet, measuring equipment, controller or various other applications.
- A total of 6 color combinations available with 3 corner guard colors - Dark gray, Emerald, Indigo - and 2 plastic box colors - Dark gray and Off-white.

Components

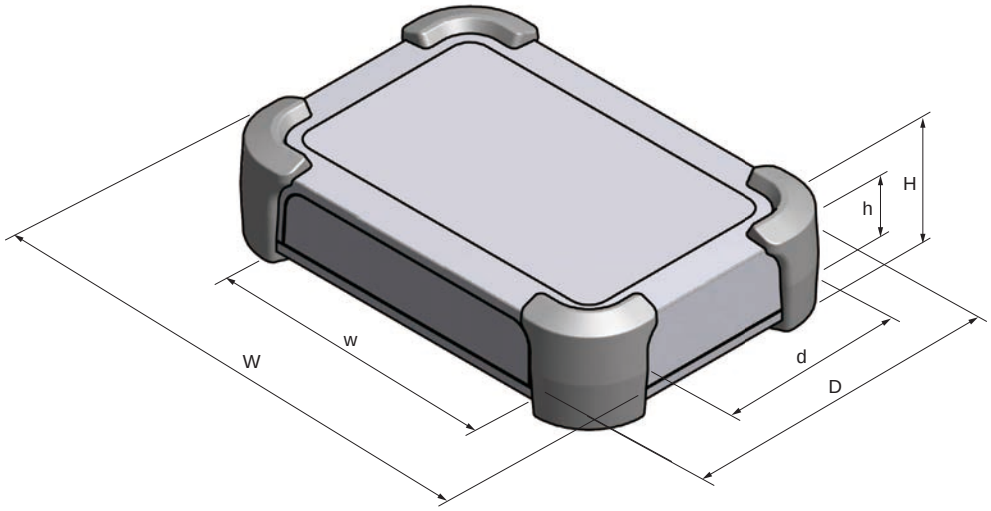
No.	Part name	Pcs	Material	Color / Finish
1	Top cover	1	ABS UL94V-0	Off-white • Dark gray
2	Bottom base	1	ABS UL94V-0	Off-white • Dark gray
3	Panel	2	ABS UL94V-0	Off-white • Dark gray
4	Corner guard	4	Silicone	Dark gray • Emerald • Indigo
5	Spacer	4	PA	White
6	Self-tapping screw	4	Steel	Nickel plated

Color Type

Code	DD Dark gray / Dark gray	DE Dark gray / Emerald	DI Dark gray / Indigo
Color			
Code	**WD Off-white / Dark gray**	**WE Off-white / Emerald**	**WI Off-white / Indigo**
Color			

PFG dimensions

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



Product no. / Dimensions

■ Please suffix color code at the end of the product number.

Product no.	External dimensions			Internal dimensions			Weight (g)
	W	H	D	w	h	d	
PFG20-4-13 □□	208 (200)	51 (40)	143 (135)	151.6	27.3	124.4	346
PFG20-4-20 □□	208 (200)	51 (40)	208 (200)	151.6	27.3	189.4	450
PFG24-6-17 □□	248 (240)	71.5 (60)	173 (165)	187.6	47	153.2	520
PFG24-6-24 □□	248 (240)	71.5 (60)	248 (240)	187.6	47	228.2	696.5

■ ( ) value = enclosure dimension.

Accessories (Optional parts)

Embedded battery box BC series
See page 125 ~ 128

Tapping standoff TPS series
See page 122

PCB mounting screw EM series
See page 123

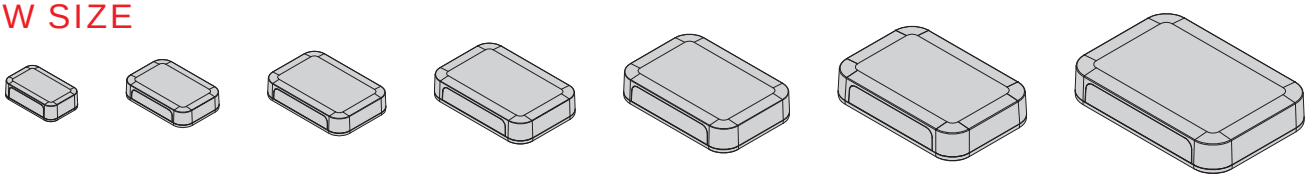
Tilt leg TLW series
See page 222

PF series FLAT NETWORK CASE

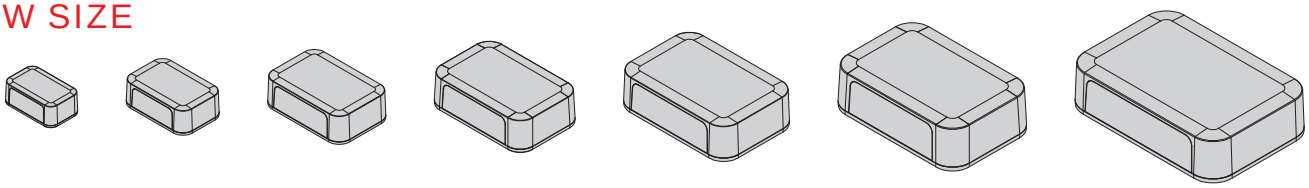
Huge selection, 41 different sizes are now available.
Suitable for IOT device, data transmitter/receiver, and access point.

From 80 x 50 x 22.5 to 320 x 225 x 100 mm.

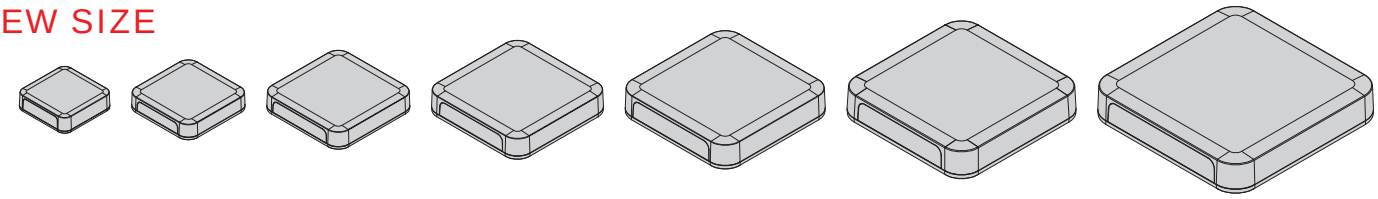
NEW SIZE



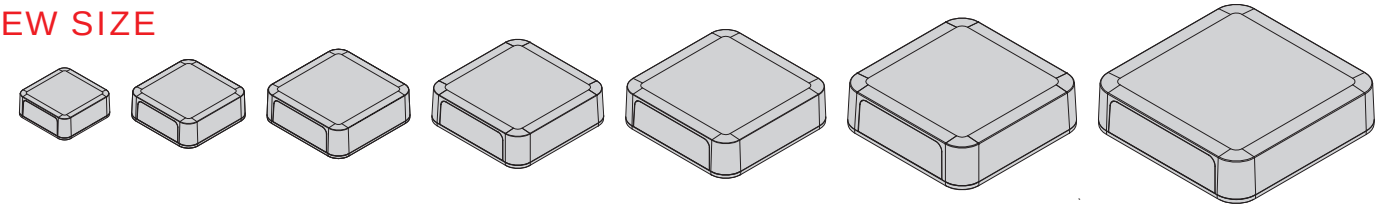
NEW SIZE



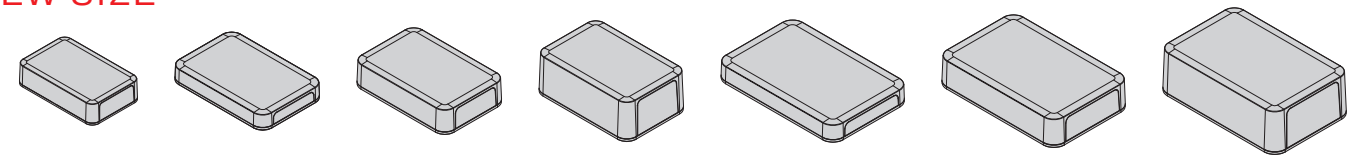
NEW SIZE

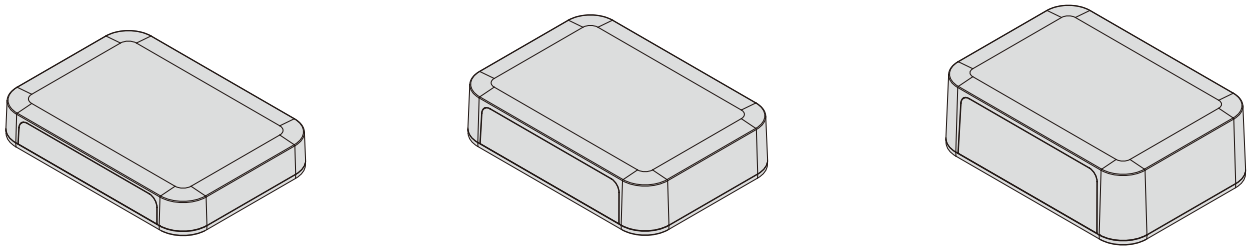


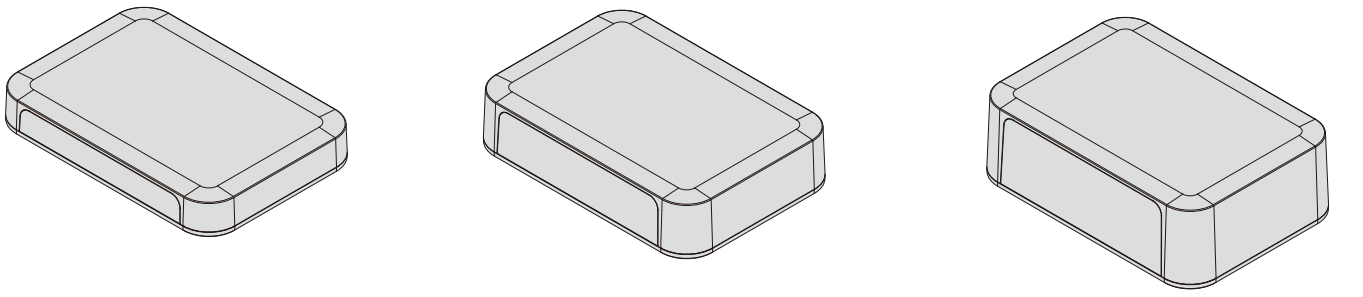
NEW SIZE



NEW SIZE



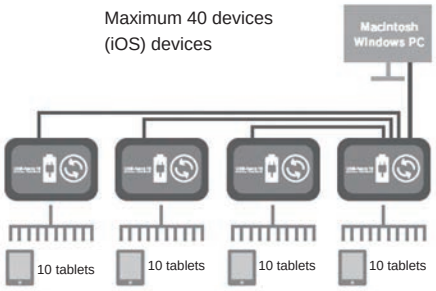




APPLICATION EXAMPLE

WiFi Access Point

USB Power Charging Hub + Data Hub



Possible to power charging while transferring data.

Front Door Electric Opener System Controller

USB Hemodynamic Research Device

Multi Channel Data Logger

Storage Battery Monitoring System

Wireless CO_2 Monitoring System

Wireless Safety Confirmation System

Wireless Home Electronics Controller

G4 Flight Tracker

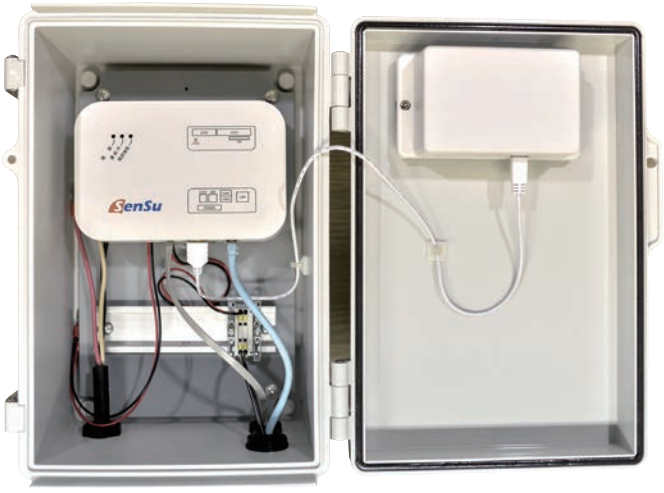
Advanced Trigger Station

iCONSE-T IoT and Sensor Network Training System

Wireless Network Data Logger

Analog Serial Converter

"SenSu" Communication Unit with Sensor

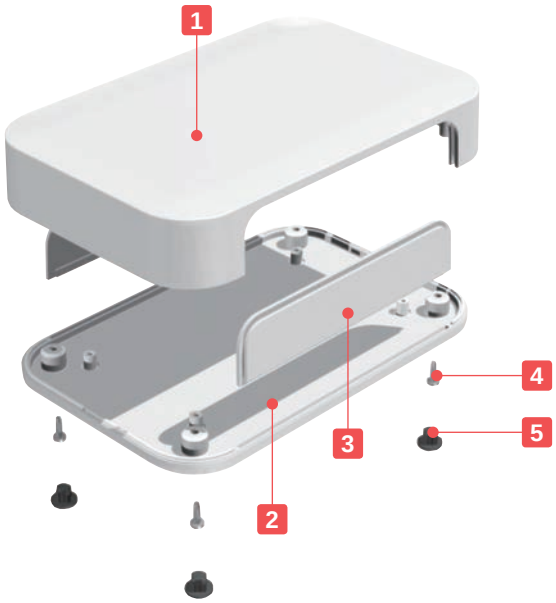


Modbus Converter

PF series NETWORK PLASTIC BOX

NEW SIZE

Technical Data
Protection class: IP40 Operating temperature: -10°C ~ +60°C



- 5 new sizes added for a total of 41 different sizes available for selection.
- Flat designed plastic case with detachable panels.
- Made of flame-resistant ABS UL94V-0 and available in Off-white and Dark gray colors.
- Equipped with built-in bosses for PCB mounting.
- Suitable for Wi-Fi access point, measuring equipment, controller or various other applications.

Components

No.	Part name	Pcs	Material	Color / Finish
1	Top cover	1	ABS UL94V-0	Off-white • Dark gray
2	Bottom base	1	ABS UL94V-0	Off-white • Dark gray
3	Panel	2	ABS UL94V-0	Off-white • Dark gray
4	Self-tapping screw	4	Steel	Nickel plated
5	Rubber feet※	4	Elastomer UL94HB	Dark gray

※Rubber feet are not included in PF8-□-5, PF8-□-8, PF8-3-13 models.

Accessories (Optional parts)

Embedded battery box BC series
See page 125 ~ 128

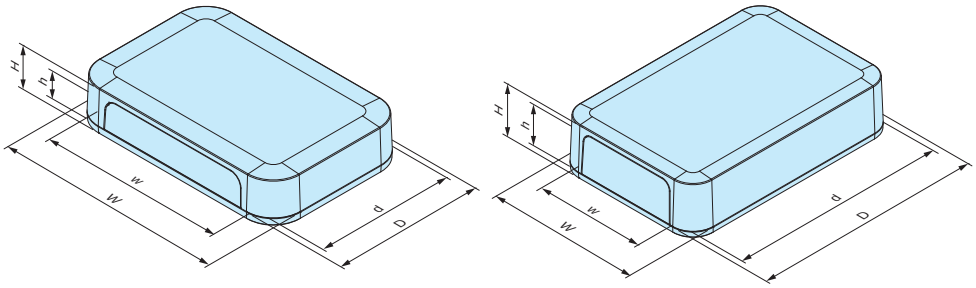
Tapping standoff TPS series
See page 122

PCB mounting screw EM series
See page 123

Suspension bracket WM series
See page 116

PF dimensions

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



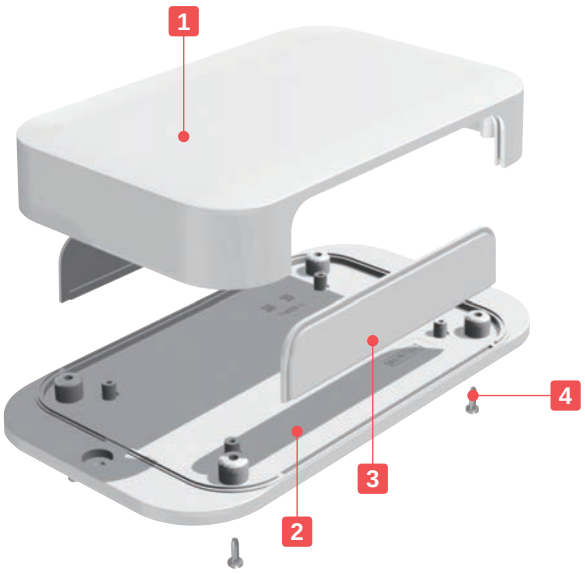
Product no. / Dimensions

Product no.		External dimensions			Internal dimensions			Weight (g)
● Off-white	● Dark gray	W	H	D	w	h	d	
NEW PF 8- 2- 5W	NEW PF 8- 2- 5D	80	22.5	50	55.5	13.5	42.8	36.2
NEW PF 8- 2- 8W	NEW PF 8- 2- 8D	80	22.5	80	55.5	13.5	72.8	53.3
NEW PF 8- 3- 5W	NEW PF 8- 3- 5D	80	30	50	55.5	21	42.3	41.6
NEW PF 8- 3- 8W	NEW PF 8- 3- 8D	80	30	80	55.5	21	72.3	60.1
NEW PF 8- 3-13W	NEW PF 8- 3-13D	80	30	125	55.5	21	117.3	87.3
PF10- 2- 7W	PF10- 2- 7D	100	22.5	67	67.4	11.1	58.4	60
PF10- 2-10W	PF10- 2-10D	100	22.5	100	67.4	11.1	91.4	82.9
PF10- 2-15W	PF10- 2-15D	100	22.5	150	67.4	11.1	141.4	120.2
PF10- 4- 7W	PF10- 4- 7D	100	35	67	67.4	23.6	57.5	65
PF10- 4-10W	PF10- 4-10D	100	35	100	67.4	23.6	90.5	97.1
PF10- 4-15W	PF10- 4-15D	100	35	150	67.4	23.6	140.5	132.6
PF10- 6-15W	PF10- 6-15D	100	55	150	67.4	43.6	139.1	169.1
PF13- 3- 9W	PF13- 3- 9D	125	25	85	92.4	13.5	76.2	90.8
PF13- 3-13W	PF13- 3-13D	125	25	125	92.4	13.5	116.2	127.5
PF13- 3-19W	PF13- 3-19D	125	25	190	92.4	13.5	181.2	186.8
PF13- 4- 9W	PF13- 4- 9D	125	40	85	92.4	28.5	75.2	108.4
PF13- 4-13W	PF13- 4-13D	125	40	125	92.4	28.5	115.2	151.4
PF13- 4-19W	PF13- 4-19D	125	40	190	92.4	28.5	180.2	214.9
PF13- 6-19W	PF13- 6-19D	125	60	190	92.4	48.5	178.8	250.4
PF15- 3-10W	PF15- 3-10D	150	30	100	112.4	17.8	90	145.5
PF15- 3-15W	PF15- 3-15D	150	30	150	112.4	17.8	140	207.5
PF15- 5-10W	PF15- 5-10D	150	45	100	112.4	32.8	88.9	166
PF15- 5-15W	PF15- 5-15D	150	45	150	112.4	32.8	138.9	233.5
PF18- 4-12W	PF18- 4-12D	175	35	120	132.4	22.4	110.3	188.7
PF18- 4-18W	PF18- 4-18D	175	35	175	132.4	22.4	165.3	266.8
PF18- 5-12W	PF18- 5-12D	175	50	120	132.4	37.4	109.3	213.6
PF18- 5-18W	PF18- 5-18D	175	50	175	132.4	37.4	164.3	302.1
PF20- 4-13W	PF20- 4-13D	200	40	135	151.6	27.3	124.4	264
PF20- 4-20W	PF20- 4-20D	200	40	200	151.6	27.3	189.4	368.5
PF20- 6-13W	PF20- 6-13D	200	60	135	151.6	47.3	123	302.5
PF20- 6-20W	PF20- 6-20D	200	60	200	151.6	47.3	188	417
PF24- 4-17W	PF24- 4-17D	240	42.5	165	187.6	29.5	154.5	370.4
PF24- 4-24W	PF24- 4-24D	240	42.5	240	187.6	29.5	229.5	521.4
PF24- 6-17W	PF24- 6-17D	240	60	165	187.6	47	153.2	408.8
PF24- 6-24W	PF24- 6-24D	240	60	240	187.6	47	228.2	568.7
PF28- 5-20W	PF28- 5-20D	280	45	200	223.6	31.4	189.3	564.1
PF28- 7-20W	PF28- 7-20D	280	65	200	223.6	51.4	187.9	618.4
PF28- 9-20W	PF28- 9-20D	280	90	200	223.6	76.4	186.2	709.2
PF32- 5-23W	PF32- 5-23D	320	45	225	259.6	31.3	214.3	697.1
PF32- 7-23W	PF32- 7-23D	320	70	225	259.6	56.3	212.6	782.1
PF32-10-23W	PF32-10-23D	320	100	225	259.6	86.3	210.5	899.8

* H dimension does not include the height of rubber feet.(Rubber feet height = +2mm)

PFF series FLANGED NETWORK PLASTIC BOX

Technical Data
Protection class: IP40 Operating temperature: -10°C ~ +60°C



- PF plastic case with wall mounting flange bottom design.
- Made of flame-resistant ABS UL94V-0 and available in Off-white color.
- Flat designed plastic case with detachable panels.
- Total of 30 different sizes available for selection.
- Suitable for wireless LAN, Wi-Fi access point, HUB, controller or other applications.

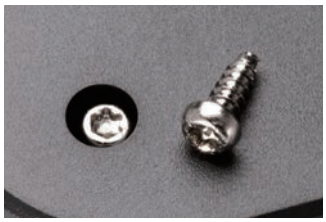
Components

No.	Part name	Pcs	Material	Color / Finish
1	Top cover	1	ABS UL94V-0	Off-white
2	Flanged base	1	ABS UL94V-0	Off-white
3	Panel	2	ABS UL94V-0	Off-white
4	Self-tapping screw	4	Steel	Nickel plated

Accessories (Optional parts)

Tapping standoff TPS series
See page 122

PCB mounting screw EM series
See page 123

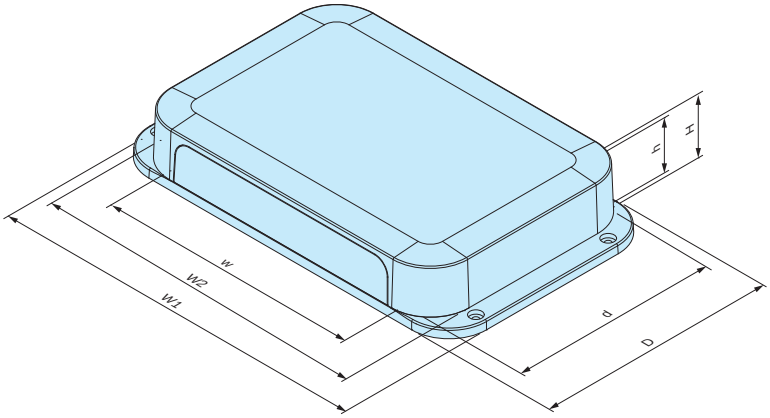


TORX screw MR series
See page 123

Adhesive standoff AST series
See page 121

PFF dimensions

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

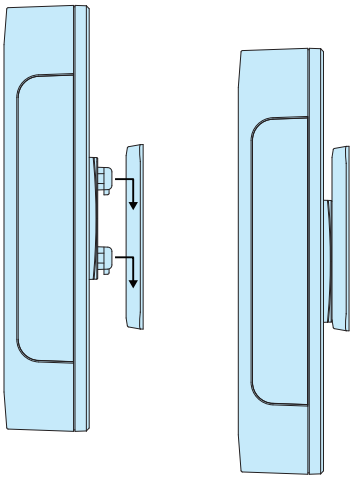


Product no. / Dimensions

Product no.	External dimensions				Internal dimensions			Weight (g)
	W1	W2	H	D	w	h	d	
PFF10- 2- 7W	124.3	100	22.5	67.3	67.4	11.1	58.4	60.8
PFF10- 2-10W	124.3	100	22.5	100.3	67.4	11.1	91.4	84.6
PFF10- 4- 7W	124.3	100	35	67.3	67.4	23.6	57.5	72
PFF10- 4-10W	124.3	100	35	100.3	67.4	23.6	90.5	99.1
PFF13- 3- 9W	149.3	125	25	85.3	92.4	13.5	76.2	90.8
PFF13- 3-13W	155.3	125	25	125.3	92.4	13.5	116.2	128.6
PFF13- 4- 9W	149.3	125	40	85.3	92.4	28.5	75.2	108.4
PFF13- 4-13W	155.3	125	40	125.3	92.4	28.5	115.2	152.3
PFF15- 3-10W	180.4	150	30	100.4	112.4	17.8	90	145.2
PFF15- 3-15W	180.4	150	30	150.4	112.4	17.8	140	211.3
PFF15- 5-10W	180.4	150	45	100.4	112.4	32.8	88.9	168.6
PFF15- 5-15W	180.4	150	45	150.4	112.4	32.8	138.9	235
PFF18- 4-12W	205.4	175	35	120.4	132.4	22.4	110.3	192.1
PFF18- 4-18W	205.4	175	35	175.4	132.4	22.4	165.3	209.8
PFF18- 5-12W	205.4	175	50	120.4	132.4	37.4	109.3	215.8
PFF18- 5-18W	205.4	175	50	175.4	132.4	37.4	164.3	299.7
PFF20- 4-13W	230.5	200	40	135.5	151.6	27.3	124.4	267.7
PFF20- 4-20W	230.5	200	40	200.5	151.6	27.3	189.4	376
PFF20- 6-13W	230.5	200	60	135.5	151.6	47.3	123	309.7
PFF20- 6-20W	230.5	200	60	200.5	151.6	47.3	188	422.9
PFF24- 4-17W	270.5	240	42.5	165.5	187.6	29.5	154.5	366.9
PFF24- 4-24W	270.5	240	42.5	240.5	187.6	29.5	229.5	513.5
PFF24- 6-17W	270.5	240	60	165.5	187.6	47	153.2	403.8
PFF24- 6-24W	270.5	240	60	240.5	187.6	47	228.2	560.8
PFF28- 5-20W	310.5	280	45	200.5	223.2	31.4	189.3	547.5
PFF28- 7-20W	310.5	280	65	200.5	223.2	51.4	187.9	606.6
PFF28- 9-20W	310.5	280	90	200.5	223.2	76.4	186.2	694.1
PFF32- 5-23W	350.5	320	45	225.5	259.2	31.3	214.3	679.9
PFF32- 7-23W	350.5	320	70	225.5	259.2	56.3	212.6	767.4
PFF32-10-23W	350.5	320	100	225.5	259.2	86.3	210.5	887.4

WM series SUSPENSION BRACKET

How to install



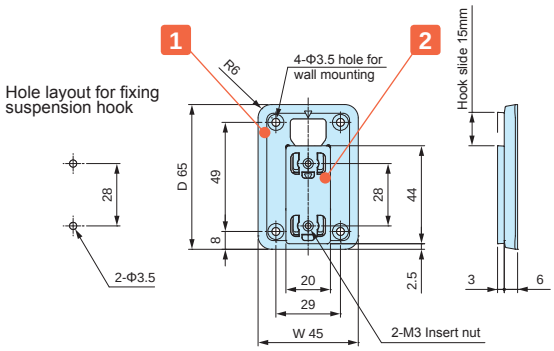
- Plastic wall mounting bracket. Easy attachment and removal.
- Large and small bracket types are available.
- Applicable to be used on plastic or metallic enclosures with a panel thickness of 0.8 ~ 3.5mm.
- To attach the suspension hook onto the enclosure, hole milling is required.
- Please be aware of the insertion direction of the suspension hook against the mounting base when attaching.

Technical Data
Max load : 2 kg - WM-1 5 kg - WM-2

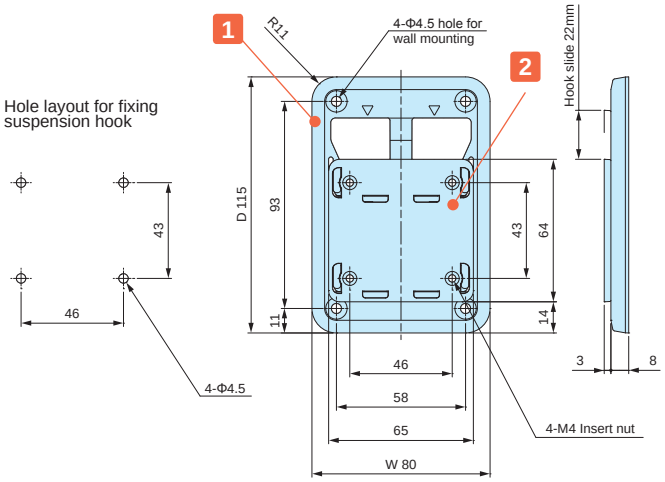
*The max load values listed are static load values only. Use caution when handling.

WM dimensions

WM-1



WM-2



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

Components

No.	Part name	Pcs	Material	Color / Finish
1	Mounting base	1	PC + ABS UL94HB	Off-white • Dark gray
2	Suspension hook	1	PC + ABS UL94HB	Off-white • Dark gray
–	Screw	2 (WM-1) 4 (WM-2)	Steel	Nickel plated

Included Screw WM-1☐ : Bind M3-8
WM-2☐ : Bind M4-8

Product no. / Dimensions

Product no.		W	D	Mountable thickness	Weight (g)
● Off-white	● Dark gray				
WM-1W	WM-1D	45	65	t0.8 ~ t3.5	11.5
WM-2W	WM-2D	80	115	t0.8 ~ t3.5	48

NMG series NEODYMIUM MAGNET

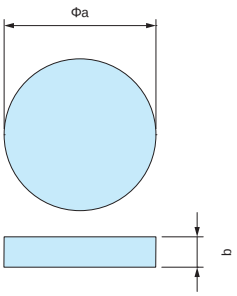
Round magnet

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

■ Material / Finish: Neodymium / Nickel plated

■ Please attach using a strong adhesive.

NMG dimensions

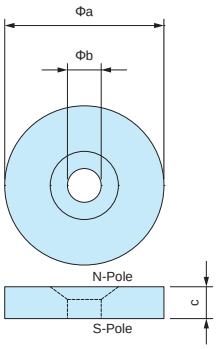


Components

Product no.	a	b	Weight (g)	Flux Density	Absorption
NMG3-15N	15	3	4	214.4 mT	2.44 kgf
NMG3-20N	20	3	7.1	170.7 mT	3.26 kgf
NMG5-22N	22	5	11.4	247.2 mT	5.91 kgf
NMG5-25N	25	5	18.4	221.9 mT	6.89 kgf

Round magnet with countersunk hole

■ Please fasten with a screw.

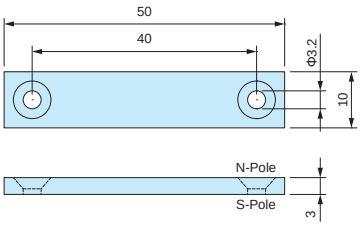


Components

Product no.	a	b	c	Countersunk size	Weight (g)	Flux Density	Absorption
NMG3-15M3	15	3.2	3	M3	3.8	214.3 mT	2.33 kgf
NMG3-20M3	20	3.2	3	M3	6.9	170.6 mT	3.17 kgf
NMG5-22M4	22	4.3	5	M4	13.7	247.2 mT	5.68 kgf
NMG5-25M5	25	5.3	5	M5	17.6	221.9 mT	6.58 kgf

Rectangular magnet with countersunk holes

■ Please fasten with a screw.



Components

Product no.	a	b	c	Countersunk size	Weight (g)	Flux Density	Absorption
NMG3-50M3	50	10	3	M3	11.3	210.0 mT	9.1 kgf

Example 1 The magnetic force remains strong even through plastic.

Make recessed pocket on the inside wall.

Glue on.

Attach onto a metallic surface.

Example 2

Make holes

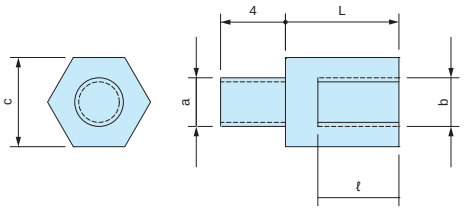
Fasten with a screw and nut.

Attach onto a metallic surface.

CAUTION: Handle with care to avoid personal injury or damage to the magnet.

TPS series TAPPING STANDOFF

TPS dimensions



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

■ Tapping screw head allows for easy installation onto existing enclosure boss mount.

■ 4 different sizes available : M2.3, M2.6, M3 and M4 size.

Product no. / Dimensions

■ Material / Finish : Brass / Unfinished

Product no.	Screw size (a)	Screw size (b)	c	L	ℓ	Pack of	Suitable models
TPS-M2.3-4	M2.3	M2.3	5	4	3	4	WH series • PFE series LC • LCE • LCS • LCT series PF • PFF series (M2.3 boss models) TW • TWN • TWF series (M2.3 boss models) WP series (M2.3 boss models)
TPS-M2.3-5	M2.3	M2.3	5	5	3	4	
TPS-M2.3-6	M2.3	M2.3	5	6	4	4	
TPS-M2.3-7	M2.3	M2.3	5	7	5	4	
TPS-M2.3-8	M2.3	M2.3	5	8	6	4	
TPS-M2.3-10	M2.3	M2.3	5	10	6	4	
TPS-M2.3-12	M2.3	M2.3	5	12	6	4	
TPS-M2.6-4	M2.6	M2.6	5	4	3	4	PF • PFF series (M2.6 boss models) WP series (M2.6 boss models)
TPS-M2.6-5	M2.6	M2.6	5	5	3	4	
TPS-M2.6-7	M2.6	M2.6	5	7	5	4	
TPS-M2.6-10	M2.6	M2.6	5	10	6	4	
TPS-M2.6-12	M2.6	M2.6	5	12	6	4	
TPS-M3-4	M3	M3	5.5	4	3	4	TWS • TW • TWN • TWF series (M3 boss models)
TPS-M3-5	M3	M3	5.5	5	3	4	
TPS-M3-6	M3	M3	5.5	6	4	4	
TPS-M3-7	M3	M3	5.5	7	5	4	
TPS-M3-8	M3	M3	5.5	8	5	4	
TPS-M3-10	M3	M3	5.5	10	6	4	
TPS-M3-12	M3	M3	5.5	12	6	4	
NEW TPS-M4-6	M4	M4	7	6	4	4	BCAP • BCPC • BCPK • BCAR • BCPR series (M4 boss models)
NEW TPS-M4-10	M4	M4	7	10	6	4	
NEW TPS-M4-15	M4	M4	7	15	8	4	
NEW TPS-M4-20	M4	M4	7	20	10	4	

■ Please use a suitable sized socket driver to both secure and loosen the tapping standoff.

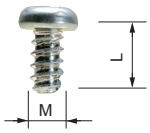
MT series PCB MOUNTING SCREWS for TPS

■ PCB mounting Screws for TPS tapping standoffs

Product no. / Dimensions

Product no.	M	L	Head style	Material	Finish	Pack of
MT2.3-4	2.3	4	Pan	Steel	Trivalent chromate	20
MT2.3-6	2.3	6		Steel	Trivalent chromate	20
MT2.6-4	2.6	4		Steel	Trivalent chromate	20
MT3-4	3	4		Steel	Trivalent chromate	20

EM series PCB MOUNTING SCREW



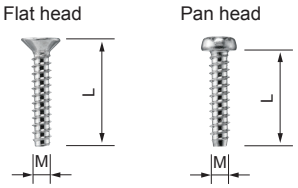
- Self-tapping screws for mounting PCB on bosses or standoffs.
- EM-3-6 self-tapping screws are suitable for mounting 1.6mm or thicker PCB.

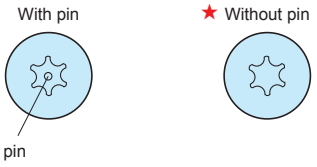
Product no. / Dimensions

Product no.	M	L	Material	Finish	Suitable models	Pack of
EM-1.6	1.6	4	Steel	Trivalent chromate	CSS • CS WC • PS (M1.6 boss models)	50
EM-2	2	5	Steel	Trivalent chromate	SIC • SIM • WC • PS • TW • TWN • TWF PF • WC • WP (M2 boss models)	50
EM-2.3	2.3	6	Steel	Trivalent chromate	WH • LC • LCT • LCS • LCE • PFE WSC (Top cover bosses) PF • PFF (M2.3 boss models) TW • TWN • TWF (M2.3 boss models) WP (M2.3 boss models)	50
EM-2.3-8	2.3	8	Steel	Trivalent chromate	WSC (Bottom base bosses)	50
EM-2.6	2.6	6	Steel	Trivalent chromate	PF • PFF • WP (M2.6 boss models)	50
EM-3	3	5	Steel	Trivalent chromate	TWS • TW • TWN • TWF (M3 boss models)	50
EM-3-6	3	6	Steel	Trivalent chromate		50

MR series TORX SCREW

- Self-tapping torx screws for securing of the enclosure.





★ : MR1.6-6S, MR-2S, MR2.6-10□, and MR3-14□ are without pin.

Product no. / Dimensions

★**Mark = Without pin**

Product no.	M	L	head no.	Head style	Material	Finish	Suitable models	Pack of
MR1.6-6S★	1.6	6	T3	Pan	Steel	Nickel plated	CSS • CS	20
MR2.5-8PS	2.5	8	T8	Pan	Steel	Nickel plated	PF • PFE • PFF (M2.5 size)	20
MR2.6-10S★	2.6	10	T8	Flat	Steel	Nickel plated	TW • TWN (M2.6 size)	20
MR2.6-10B★	2.6	10	T8	Flat	Steel	Black trivalent chromate	TWF (M2.6 size) MX • MXA • MXB • MXF (M2.6 size)	20
MR2.6-12PS	2.6	12	T8	Pan	Steel	Nickel plated	LCT • LCS • LC115-F2 / F3 LCT • LCS • LC145S-F6	20
MR2.6-14PS	2.6	14	T8	Pan	Steel	Nickel plated	LCT • LCS • LC115H-F2 / F3 / M2 / 9V LCT • LCS • LC135-F4 / M2 / M3 / 9V LCT • LCS • LC135H-F4 / M2 / M3 / 9V LCT • LCS • LC145-F6 / M2 / M4 LCT • LCS • LC145H-F6 / M2 / M4 LCT • LCS • LC165-M4 LCT • LCS • LC165H-M4	20
MR2.6-14S	2.6	14	T8	Flat	Steel	Nickel plated	LCT • LCS • LC115-N / F2 / F3 LCT • LCS • LC145S-F6 / 145S-N LCE115-N TW • TWN7-2-11 / 7-4-11 / 7-5-11 TWF7-2-11 / 7-4-11 / 7-5-11 / 8-2-8 / 8-4-8	20
MR2.6-18S	2.6	18	T8	Flat	Steel	Nickel plated	LCT • LCS • LC115H-N / F2 / F3 / M2 / 9V LCT • LCS • LC135-N / F4 / M2 / M3 / 9V LCT • LCS • LC135H-N / F4 / M2 / M3 / 9V LCT • LCS • LC145-N / F6 / M2 / M4 LCT • LCS • LC145H-N / F6 / M2 / M4 LCT • LCS • LC165-N / M4 LCT • LCS • LC165H-N / M4 LCE115H-N • LCE135-N • LCE145H-N • LCE165H-N	20
MR3-8PS	3	8	T10	Pan	Steel	Nickel plated	PF • PFE • PFF (M3 size)	20
MR3-14S★	3	14	T10	Flat	Steel	Nickel plated	TW • TWN (M3 size)	20
MR3-14B★	3	14	T10	Flat	Steel	Black trivalent chromate	TWF (M3 size) MX • MXA • MXB • MXF (M3 size)	20
MR-1S	3	5	T10	Flat	Steel	Nickel plated	UC	20
MR-1B	3	5	T10	Flat	Steel	Black trivalent chromate		20

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

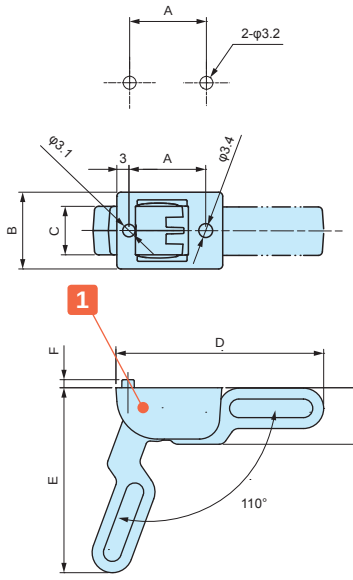
Components

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

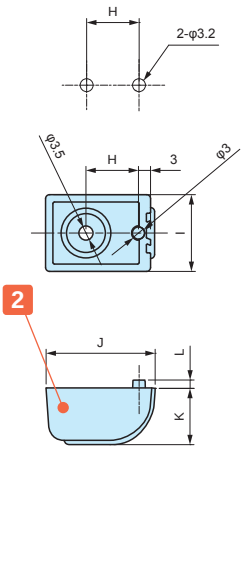
TLW dimensions

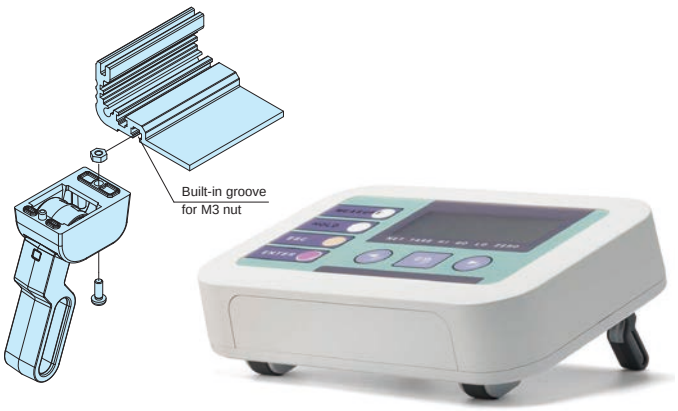
- DXF/DWG/PDF/STP drawings available on our website.
- TLW-70E□□ models are for installation (with M3 nut) into the built-in grooves on bottom-covers of EXP • EXPE 20-6, EXH • EXHE • EX 19-4 or larger models.
- Hole milling is required to install TLW-46□□ and TLW-70□□ models.
- Max installation panel thickness : t = 3.5mm

Mounting hole (Front)



Mounting hole (Rear)





Product no. / Dimensions

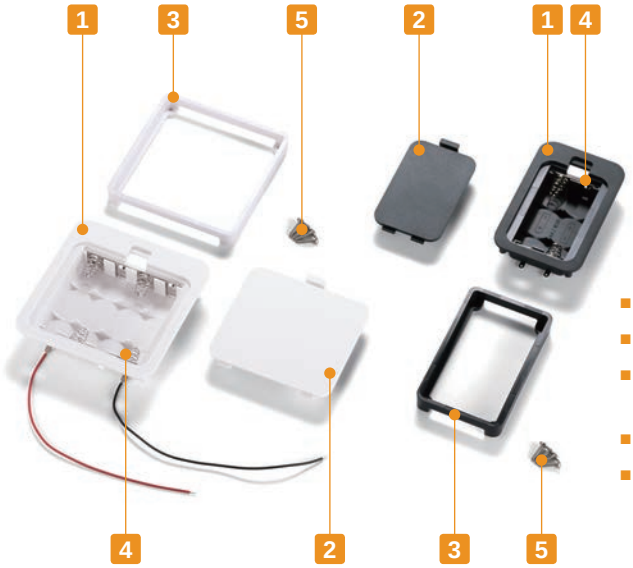
Product no.	A	B	C	D	E	F	G	H	I	J	K	L	Color (plastic)	Color (TPE)	Weight (g)
TLW-46BB	19	19	12	51.2	45.9	2	14	13	19	27	14	2	Black	Black	23
TLW46-NG	19	19	12	51.2	45.9	2	14	13	19	27	14	2	Navy	Gray	23
TLW-46LG	19	19	12	51.2	45.9	2	14	13	19	27	14	2	Light gray	Gray	23
TLW-70EBB	–	25	16	75.4	69	3	21.5	–	25	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

BC series EMBEDDED BATTERY BOX

NEW

Technical Data
Operating temperature: -10°C ~ +60°C

Mount Example



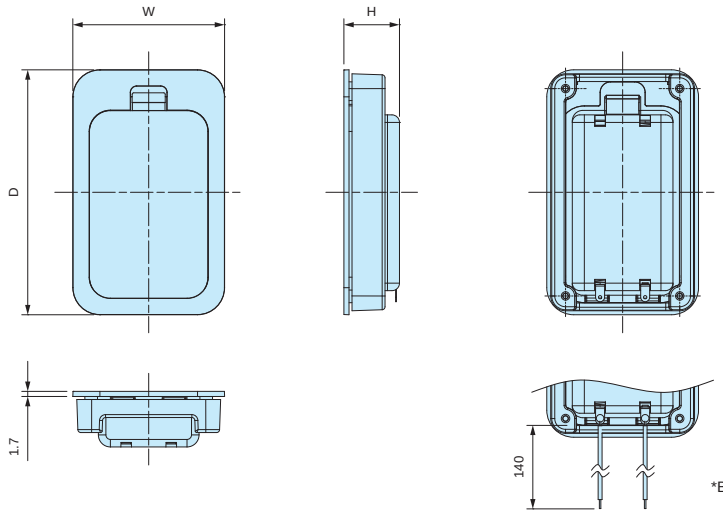
- Suitable to be installed into enclosures with material thickness of 1.0mm to 3.5mm.
- Cover can be opened/closed without any tool for easy battery replacement.
- 5 different battery layouts are available as AA x 2, AA x 3, AA x 4, AAA x 2 and AAA x4. Each layout comes in 2 models: with lead-wire, and without lead-wire.
- ⊕⊖markings prevents incorrect placement of battery.
- The dimensions of alkaline or manganese batteries may vary depending on country and brand. Use optional battery cushion sponge to preventing rattling.

Components

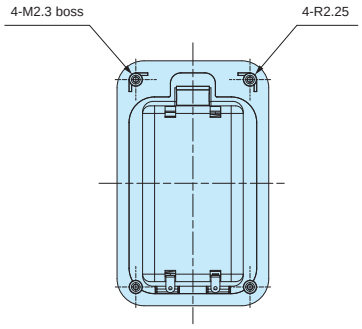
No.	Part name	Pcs	Material	Color / Finish
1	Box	1	ABS UL94V-0	Black • Off-white
2	Cover	1	ABS UL94V-0	Black • Off-white
3	Frame	1	ABS UL94V-0	Black • Off-white
4	Battery contact Lead wire (BC-L models)	1 set	Battery contact : Brass & steel wire Lead wire : PVC + Copper wire (UL1007 AWG26)	Nickel plated Black • Red
5	Self-tapping screw	4	Steel	Nickel plated

BC dimensions

- DXF/DWG/PDF/STP drawings available on our website.
- The shape and position of battery contacts vary by models.

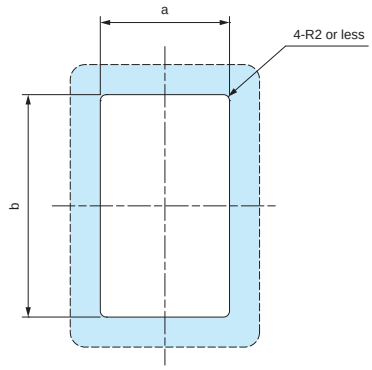


Back side of box



*Battery contact with lead wire for BC4-☐L and BC3-☐L models.

Hole layout for mounting



Suitable to be installed into enclosures with material thickness of 1.0mm to 3.5mm.

Type: Without Lead Wire

Product no. / Dimensions

Product no.		Dimensions					Battery layout	Weight (g)
● Black	● Off-white	W	H	D	a	b		
BC4-2-B	BC4-2-W	40	14.8	78.5	32.5	71	*AAA x 2	24.5
BC4-4-B	BC4-4-W	62	14.8	78.5	54.5	71	*AAA x 4	34.5
BC3-2-B	BC3-2-W	50.5	18.5	81.5	43	74	*AA x 2	31.5
BC3-3-B	BC3-3-W	65.5	18.5	81.5	58	74	*AA x 3	39
BC3-4-B	BC3-4-W	80.5	18.5	81.5	73	74	*AA x 4	46

*Alkaline or manganese batteries

Type: With Lead Wire

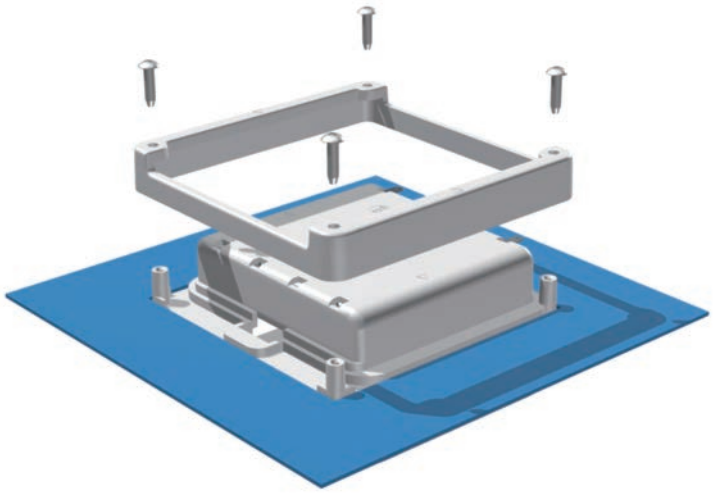
Product no. / Dimensions

Product no.		Dimensions					Battery layout	Weight (g)
● Black	● Off-white	W	H	D	a	b		
BC4-2L-B	BC4-2L-W	40	14.8	78.5	32.5	71	*AAA x 2	25.5
BC4-4L-B	BC4-4L-W	62	14.8	78.5	54.5	71	*AAA x 4	35.5
BC3-2L-B	BC3-2L-W	50.5	18.5	81.5	43	74	*AA x 2	32.5
BC3-3L-B	BC3-3L-W	65.5	18.5	81.5	58	74	*AA x 3	40
BC3-4L-B	BC3-4L-W	80.5	18.5	81.5	73	74	*AA x 4	47

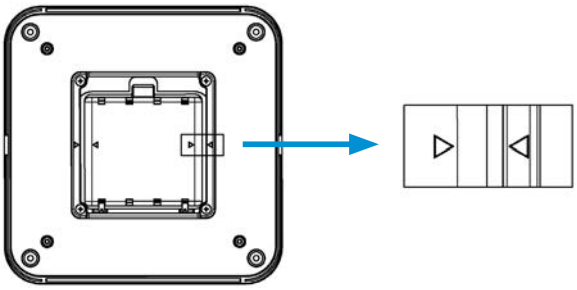
*Alkaline or manganese batteries

How to mount on the enclosures

■ Insert battery box into the milled hole first, and fit the frame on the back side. Once mounted, secure the frame with screws.



■ For BC3-4□ models, ▷ markings are shown on the frame. Install by matching the markings.



Parallel circuit conversion on BC series battery box

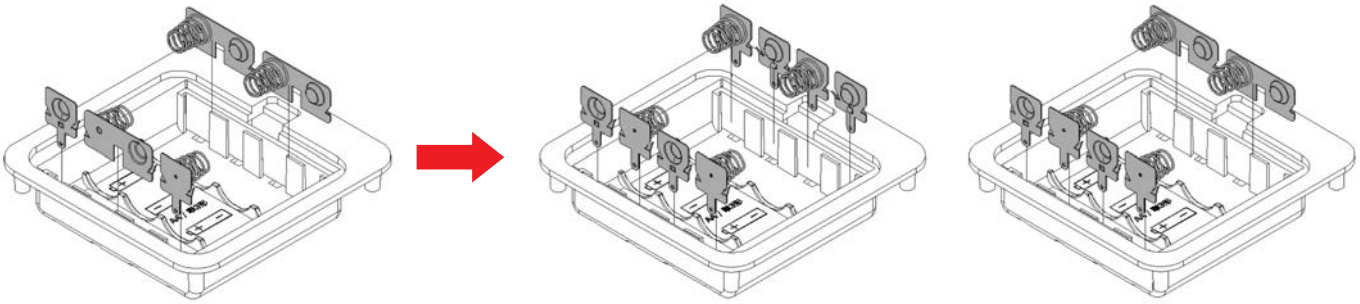
■ BC-3□ models can be converted from a series to a parallel circuit. See below illustration for further details.

■ IT series (IT-3 models) optional battery contacts can be used for parallel circuit conversion. (See website for more information)

■ Use caution when installing or replacing the terminals to avoid the damage to the material.

■ Parallel series conversion is available via our customization services.

Conversion Example



Series Circuit (Standard)

Parallel Circuit (4 batteries)

Parallel Circuit (2 batteries x 2)

Customization Available

For more information, contact us here:

Online form: https://www.takachi-enclosure.com/custom/form_custom
E-mail : sales@takachi-el.co.jp

Mount Example

■ BC series battery boxes can also be mounted on aluminium enclosures.

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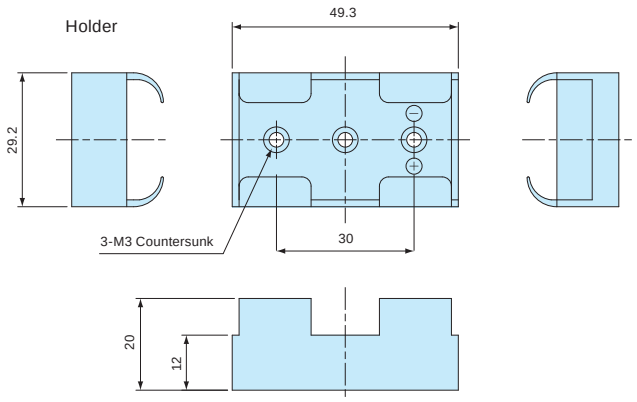
BH-9V-2 9V BATTERY HOLDER

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

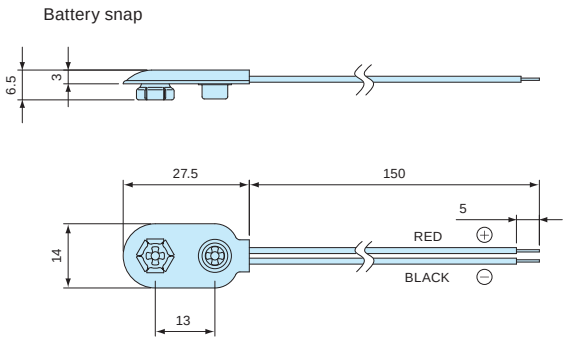


■ 9V battery holder

■ Battery snap comes with holder.

Technical Data
Operating temperature: -10°C ~ +60°C

Battery snap



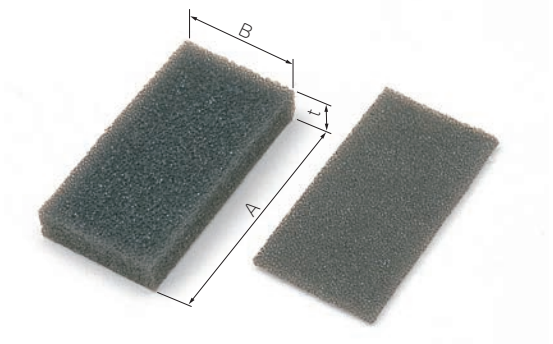
Components

Holder material	Holder color	Lead wire	Contact material	Battery snap cover	Contact surface finish
PP	Black	UL1007 AWG26 L=150	Brass	PVC	Nickel plated

Product no. / Feature

Product no.	Battery	Battery snap (included)	Weight (g)	Pack of
BH-9V-2	9V x 1	MP-1SN	6.8	1

SCM SERIES BATTERY CUSHION SPONGE



■ Material : Moltoprene (UL94HF-1)

■ Flame resistant moltoprene sponge with adhesive on the back side.

■ Use to prevent battery from rattling inside the holder.

Suitable battery holder

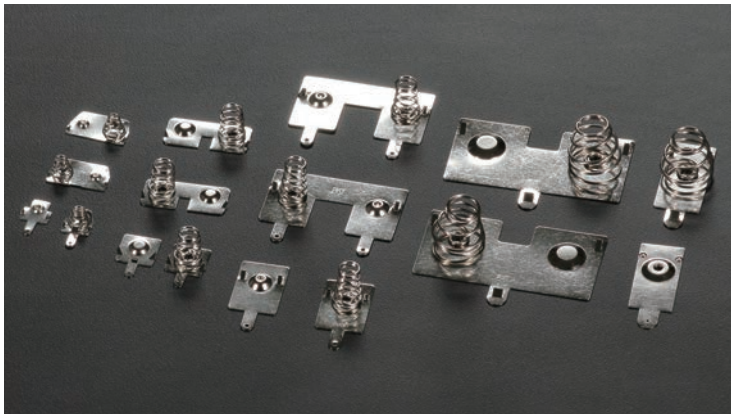
Product no.	Suitable battery holder
SCM-1	MD-2, MD-4, MD-006P, LD-2, LD-3, LD-4, LDN-2, LDN-3, LDN-4
SCM-2	LD-006P, LDN-006P
SCM-3	MD-006P

Product no. / Dimensions

Product no.	A	B	t	Pack of
SCM-1	50	25	2	10
SCM-2	50	25	4	10
SCM-3	50	25	7.5	10

TAKACHI

IT SERIES BATTERY CONTACT



Installation Example

Installation Example

Components

Plate material	Plate finish	Spring material	Spring finish
Brass	Nickel plated	Stainless steel SUS304	Unfinished
		Steel wire	Nickel plated

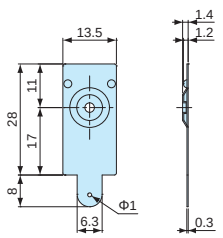
Product no. / Feature

Product no.	Spring diameter	Spring material	Matching battery / Details	Weight (g)	Pack of
IT-1SP	–	–	D : + (Positive)	1.2	10
IT-1SM	Φ1.0	Stainless steel SUS304	D : - (Negative)	2.5	10
IT-1WP	Φ1.0	Stainless steel SUS304	D : Left + (Positive) • Right - (Negative)	5.0	10
IT-1WM	Φ1.0	Stainless steel SUS304	D : Left - (Negative) • Right - (Positive)	5.0	10
IT-2SP	–	–	C : + (Positive)	0.9	10
IT-2SM	Φ0.7	Steel wire	C : - (Negative)	1.4	10
IT-2WP	Φ0.7	Steel wire	C : Left + (Positive) • Right - (Negative)	2.7	10
IT-2WM	Φ0.7	Steel wire	C : Left - (Negative) • Right - (Positive)	2.7	10
IT-3SP	–	–	AA : + (Positive)	0.4	10
IT-3SM	Φ0.6	Steel wire	AA : - (Negative)	0.7	10
IT-3WP	Φ0.6	Steel wire	AA : Left + (Positive) • Right - (Negative)	1.1	10
IT-3WM	Φ0.6	Steel wire	AA : Left - (Negative) • Right - (Positive)	1.1	10
IT-4SP	–	–	AAA : + (Positive)	0.2	10
IT-4SM	Φ0.5	Steel wire	AAA : - (Negative)	0.4	10
IT-4WP	Φ0.5	Steel wire	AAA : Left + (Positive) • Right - (Negative)	0.6	10
IT-4WM	Φ0.5	Steel wire	AAA : Left - (Negative) • Right - (Positive)	0.6	10

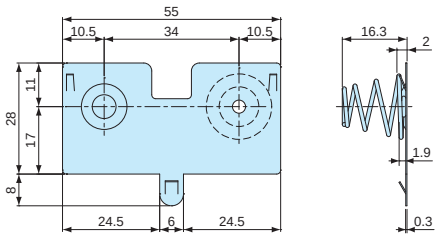
IT dimensions

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

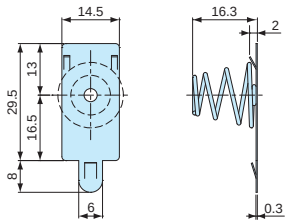
IT-1SP



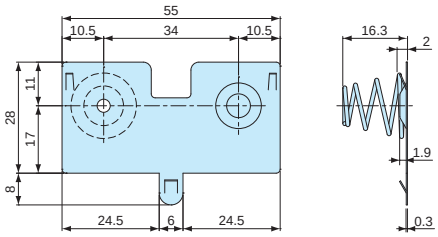
IT-1WP



IT-1SM

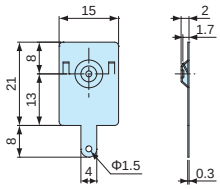


IT-1WM

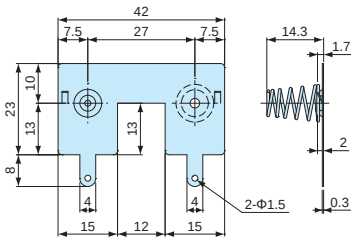


■ DXF/DWG/PDF drawings available on our website.

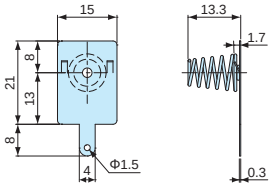
IT-2SP



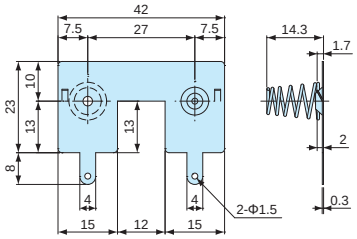
IT-2WP



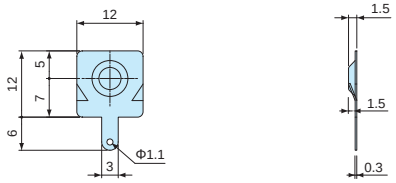
IT-2SM



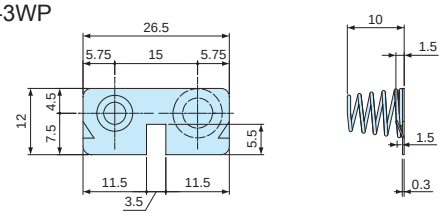
IT-2WM



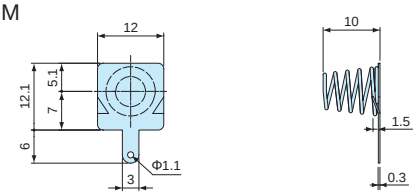
IT-3SP



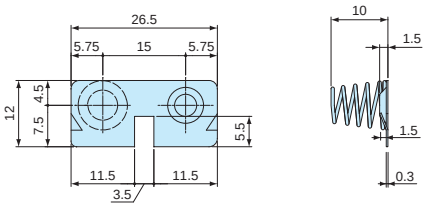
IT-3WP



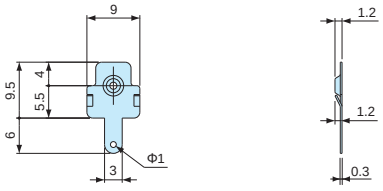
IT-3SM



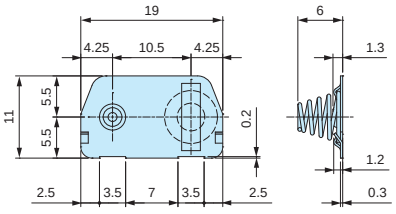
IT-3WM



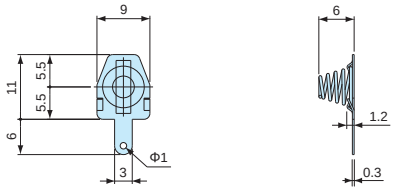
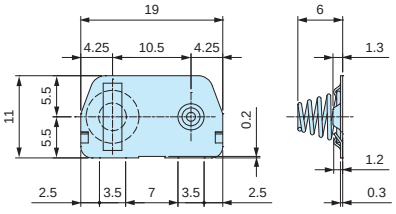
IT-4SP



IT-4WP



IT-4SM



IT-4WM