

TWS series

PLASTIC ENCLOSURE with SILICONE PROTECTOR

Universal plastic enclosure with protective silicone protectors which functions both as an anti-slip grip and impact protection. Available in 9 sizes and selectable in 8 different color combinations. Suitable for measuring instruments, wireless communication devices, portable controller, data logger, and so on.

APPLICATION EXAMPLE

Digital Power Amplifier



GPS Data Logger



6 Channel Data Logger



Wireless Gateway



Tester for Photovoltaic System



Solar Cell Bypass Diode Checker



PV Insulation Resistance Checker for Solar Cell



Vibration Monitor

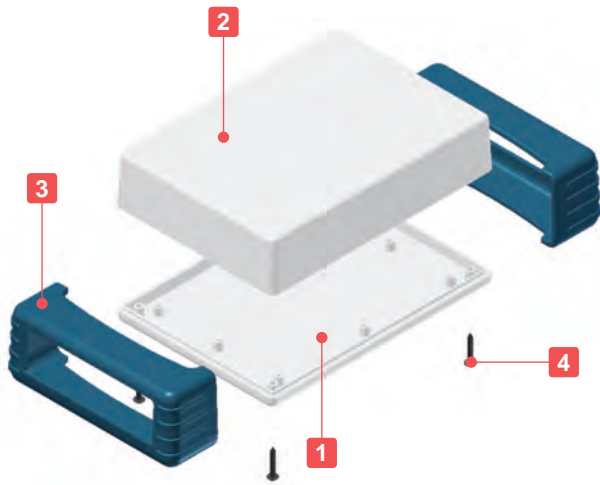




Green and Pink shown above are custom colors.

Technical Data

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



- Universal plastic enclosure with protective silicone protectors which functions both as an anti-slip grip and impact protection.
- Available in 9 sizes and selectable in 8 different color combinations.
- Enclosure is in B (Black - ABS UL94HB) and W (Off-white - ABS UL94V-0) model.
- Plastic case and protective silicone with screw fastening.
*Note: utilize screws packaged with the silicone protectors for assembly.
- Use caution when assembling. Overtightening may damage the enclosure and silicone protectors.
- Custom color silicone protector is available from just 1 set. For 500 sets or more, manufacture costs will be similar to a standard color. Please inquire for more details.

Components

No.	Part name	Pcs	Material : Color / Finish
1	Cover	1	ABS UL94HB : Black • ABS UL94V-0 : Off-white
2	Bottom base	1	ABS UL94HB : Black • ABS UL94V-0 : Off-white
3	Silicone protector	2	Silicone : Yellow • Navy • Light gray • Black
4	Self-tapping screw	4	Steel M3-20 / Black trivalent chromate

Accessories (Optional parts)



Embedded battery box BC series
See page 125 ~ 128



Adhesive standoff AST series
See page 121



Tapping standoff TPS series
See page 122



PCB mounting screw EM series
See page 123

Color Type



ABS UL94HB (Black enclosure)

Product no. / Dimensions

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

Product no.	W	H	D	Weight (g)
TWS 7-3-13B□	71 (65)	32 (25.6)	136 (130)	117
TWS 7-5-13B□	71 (65)	56 (50.1)	136 (130)	147.5
TWS 9-4-17B□	91.5 (85.5)	41.5 (35.5)	176 (170)	193
TWS 9-6-17B□	91.5 (85.5)	66.5 (60.5)	176 (170)	243
TWS11-5-22B□	116 (110)	51.5 (45.3)	226 (220)	325.5
TWS11-8-22B□	116 (110)	81.5 (75.3)	226 (220)	399
TWS13-5-13B□	131 (125)	51 (45)	131 (125)	269.5
TWS13-5-18B□	131 (125)	51 (45)	181 (175)	322
TWS13-7-18B□	131 (125)	71 (65)	181 (175)	371

■ () value = enclosure dimension.

ABS UL94V-0 (Off-white enclosure)

Product no. / Dimensions

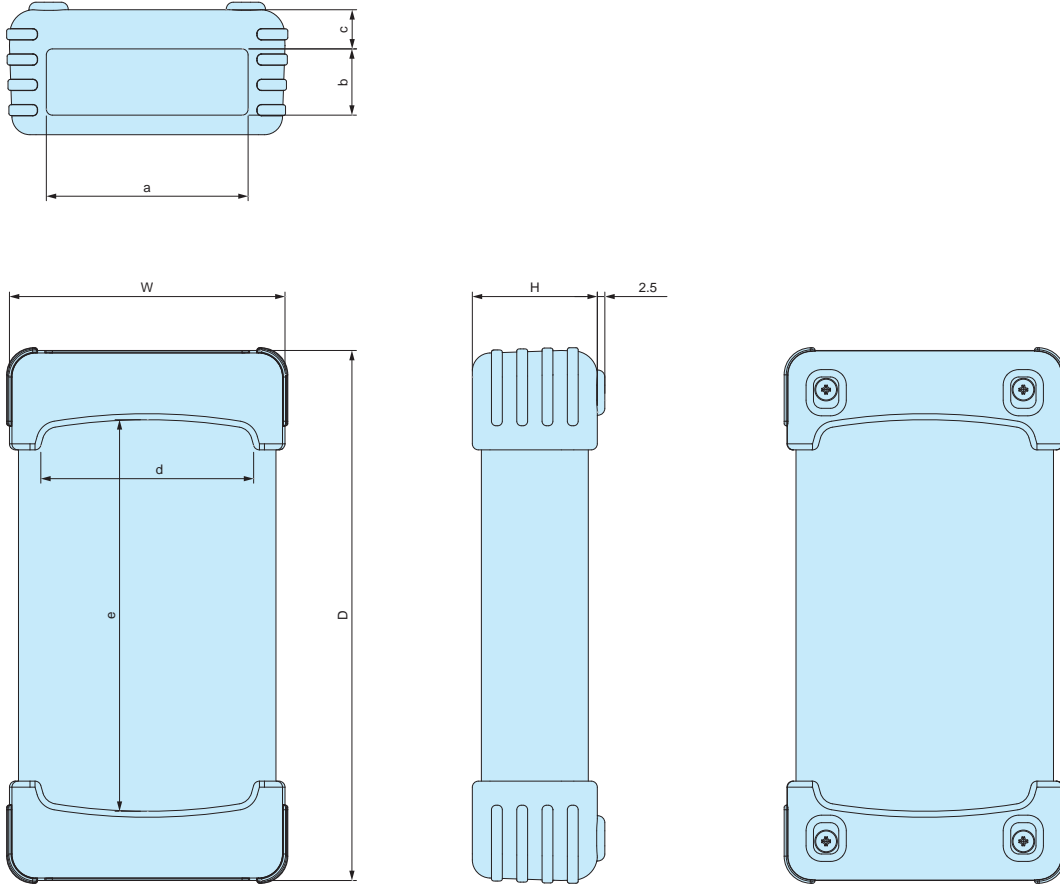
■ Please suffix color code at the end of the product number.

Product no.	W	H	D	Weight (g)
TWS 7-3-13W□	71 (65)	32 (25.6)	136 (130)	126
TWS 7-5-13W□	71 (65)	56 (50.1)	136 (130)	163
TWS 9-4-17W□	91.5 (85.5)	41.5 (35.5)	176 (170)	211
TWS 9-6-17W□	91.5 (85.5)	66.5 (60.5)	176 (170)	266
TWS11-5-22W□	116 (110)	51.5 (45.3)	226 (220)	356.5
TWS11-8-22W□	116 (110)	81.5 (75.3)	226 (220)	438
TWS13-5-13W□	131 (125)	51 (45)	131 (125)	294
TWS13-5-18W□	131 (125)	51 (45)	181 (175)	353
TWS13-7-18W□	131 (125)	71 (65)	181 (175)	407.5

■ () value = enclosure dimension.

TWS dimensions

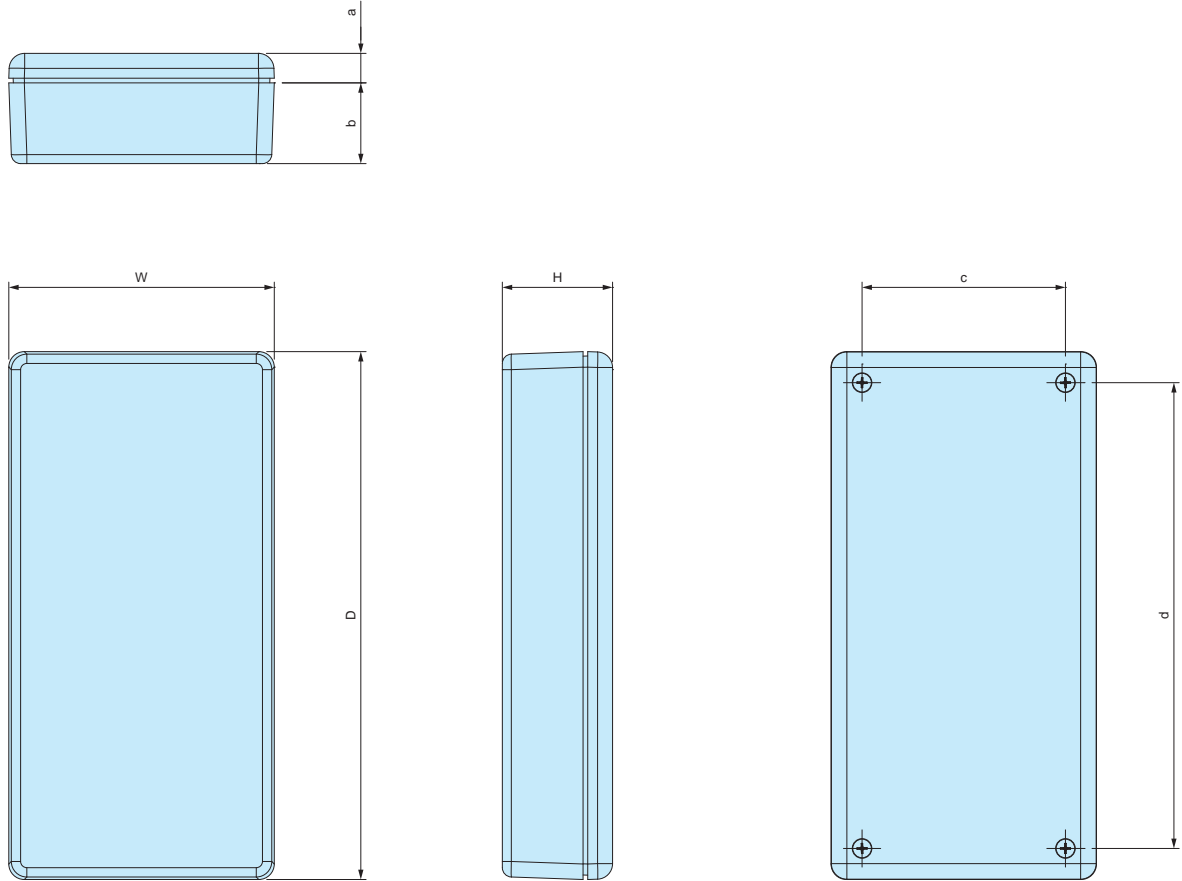
■ DXF/DWG/PDF/STP drawings available on our website.



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

Product no.	W	H	D	a	b	c	d	e
TWS 7-3-13□□	71	32	136	52	13.5	11.8	54	98
TWS 7-5-13□□	71	56	136	52	37.5	11.9	54	98
TWS 9-4-17□□	91.5	41.5	176	67	22	13	71	130
TWS 9-6-17□□	91.5	66.5	176	67	46.5	13.3	71	130
TWS11-5-22□□	116	51.5	226	80	29	14.3	89	166
TWS11-8-22□□	116	81.5	226	80	58	14.5	89	166
TWS13-5-13□□	131	51	131	101	29.5	13.5	104	76
TWS13-5-18□□	131	51	181	101	29.5	13.5	104	126
TWS13-7-18□□	131	71	181	101	48.5	14	104	126

Enclosure dimensions



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

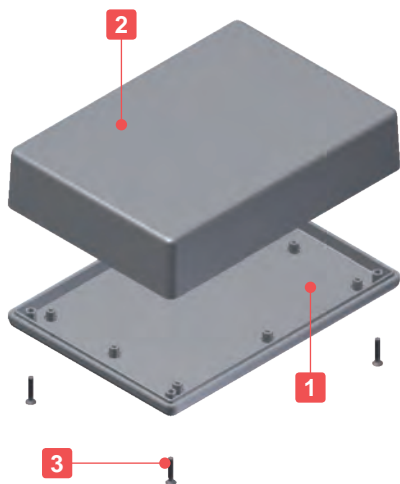
Product no.	W	H	D	a	b	c	d
TWS 7-3-13□□	65	25.6	130	8.1	17.5	47	112
TWS 7-5-13□□	65	50.1	130	8.1	42	47	112
TWS 9-4-17□□	85.5	35.5	170	9.5	26	65.5	150
TWS 9-6-17□□	85.5	60.5	170	9.5	51	65.5	150
TWS11-5-22□□	110	45.3	220	10.3	35	88	198
TWS11-8-22□□	110	75.3	220	10.3	65	88	198
TWS13-5-13□□	125	45	125	8.5	36.5	107	107
TWS13-5-18□□	125	45	175	8.5	36.5	105	155
TWS13-7-18□□	125	65	175	8.5	56.5	105	155



Technical Data

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

- Universal plastic enclosure with screw fastening.
- 26 sizes are available in 2 colors; Black (ABS UL94HB) and Off-white (ABS UL94V-0).
- Suitable for measuring instruments, testing devices, wireless communication devices, medical devices, and so on.



Components

No.	Part name	Pcs	Material : Color / Finish
1	Cover	1	TW : ABSUL94HB / Black
			TWN : ABS UL94V-0 / Off-white
2	Bottom base	1	TW : ABSUL94HB / Black
			TWN : ABS UL94V-0 / Off-white
3	Self-tapping screw	2 or 4	TW : Steel / Black trivalent chromate
			TWN : Steel / Nickel plated

Accessories (Optional parts)



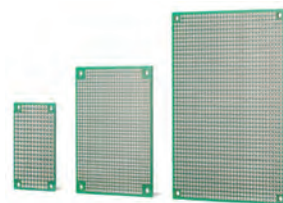
Silicone band SIB series
See page 110



Suspension bracket WM series
See page 116



Embedded battery box BC series
See page 125 ~ 128



Universal PCB PCB series
See website



Adhesive standoff AST series
See page 121



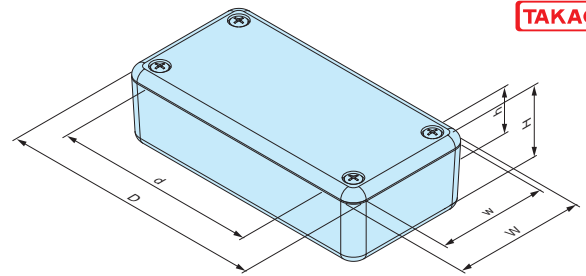
PCB mounting screw EM series
See page 123



Tapping standoff TPS series
See page 122

Color Type

Series	Code	Color	Screw
TW	B	Black	Black trivalent chromate
TWN	W	Off-white	Nickel plated



TW series (ABS UL94HB)

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

Product no. / Dimensions

Product no.	External dimensions			Internal dimensions			Screw (Self-tapping flat head)	Weight (g)
	W	H	D	w	h	d		
TW 4-2- 5B	35	20	50	28.2	12	32.6	M2.6-12 x 2 pcs	13.5
TW 4-2- 6B	35	20	60	28.2	12	42.6	M2.6-12 x 2 pcs	15.5
TW 4-2- 8B	40.3	20	80.3	33.5	12	62.5	M2.6-12 x 2 pcs	22
TW 5-2- 5B	50	15	50	42.8	7	31.9	M2.6-12 x 4 pcs	18
TW 5-2- 7B	50	15	70	43.2	7	52.9	M2.6-12 x 4 pcs	22
TW 5-3- 5B	50	25	50	42.8	17	31.9	M2.6-12 x 4 pcs	22
TW 5-3- 7B	50	27.5	70	43.2	19.5	52.9	M2.6-12 x 4 pcs	29
TW 5-3- 9B	45	25	90	37.7	16	69.4	M3-12 x 4 pcs	30.5
TW 5-3-10B	50	30	100	42.4	20.8	80.8	M2.6-12 x 4 pcs	41.5
TW 5-4- 7B	50	40	70	42.5	32	52.9	M2.6-12 x 4 pcs	35
TW 7-2-11B	70	20	105	61.2	10.5	83	M2.6-14 x 4 pcs	56.5
TW 7-3-13B	65	25.6	130	55.3	14.3	105	M3-16 x 4 pcs	76
TW 7-4-11B	70	35	105	61.2	25.5	83	M2.6-14 x 4 pcs	70
TW 7-5-11B	70	50	105	61.1	40.5	83	M2.6-14 x 4 pcs	83
TW 7-5-13B	65	50.1	130	55.3	38.8	105	M3-16 x 4 pcs	100
TW 8-2- 8B	80	20	80	71.6	10.5	59	M2.6-12 x 4 pcs	49
TW 8-4- 8B	80	40	80	71.6	30.5	59	M2.6-12 x 4 pcs	65
TW 9-4-17B	85.5	35.5	170	75.7	24	143	M3-16 x 4 pcs	133
TW 9-6-17B	85.5	60.5	170	75.7	49	143	M3-16 x 4 pcs	168
TW11-5-22B	110	45.3	220	100.1	33.8	191	M3-16 x 4 pcs	223
TW11-8-22B	110	75.3	220	99.3	63.8	191	M3-16 x 4 pcs	277
TW13-3-13B	125	25	125	114.5	13.7	100	M3-16 x 4 pcs	135
TW13-3-18B	125	25	175	114.5	13.7	148	M3-16 x 4 pcs	184.5
TW13-5-13B	125	45	125	114.5	33.7	100	M3-16 x 4 pcs	165.5
TW13-5-18B	125	45	175	114.5	33.7	148	M3-16 x 4 pcs	218
TW13-7-18B	125	65	175	114.2	53.7	148	M3-16 x 4 pcs	254

TWN series (ABS UL94V-0)

Product no. / Dimensions

Product no.	External dimensions			Internal dimensions			Screw (Self-tapping flat head)	Weight (g)
	W	H	D	w	h	d		
TWN 4-2- 5W	35	20	50	28.2	12	32.6	M2.6-12 x 2 pcs	16.5
TWN 4-2- 6W	35	20	60	28.2	12	42.6	M2.6-12 x 2 pcs	18
TWN 4-2- 8W	40.3	20	80.3	33.5	12	62.5	M2.6-12 x 2 pcs	26
NEW TWN 5-2- 5W	50	15	50	42.8	7	31.9	M2.6-12 x 4 pcs	20
TWN 5-2- 7W	50	15	70	43.2	7	52.9	M2.6-12 x 4 pcs	24.5
NEW TWN 5-3- 5W	50	25	50	42.8	17	31.9	M2.6-12 x 4 pcs	26
TWN 5-3- 7W	50	27.5	70	43.2	19.5	52.9	M2.6-12 x 4 pcs	33
TWN 5-3- 9W	45	25	90	37.7	16	69.4	M3-16 x 4 pcs	35
NEW TWN 5-3-10W	50	30	100	42.4	20.8	80.8	M2.6-12 x 4 pcs	46.5
TWN 5-4- 7W	50	40	70	42.5	32	52.9	M2.6-12 x 4 pcs	39.5
TWN 7-2-11W	70	20	105	61.2	10.5	83	M2.6-14 x 4 pcs	64.5
TWN 7-3-13W	65	25.6	130	55.3	14.3	105	M3-16 x 4 pcs	85
TWN 7-4-11W	70	35	105	61.2	25.5	83	M2.6-14 x 4 pcs	80
TWN 7-5-11W	70	50	105	61.1	40.5	83	M2.6-14 x 4 pcs	94.5
TWN 7-5-13W	65	50.1	130	55.3	38.8	105	M3-16 x 4 pcs	115.5
TWN 8-2- 8W	80	20	80	71.6	10.5	59	M2.6-12 x 4 pcs	55.5
TWN 8-4- 8W	80	40	80	71.6	30.5	59	M2.6-12 x 4 pcs	75
TWN 9-4-17W	85.5	35.5	170	75.7	24	143	M3-16 x 4 pcs	151
TWN 9-6-17W	85.5	60.5	170	75.7	49	143	M3-16 x 4 pcs	191
TWN11-5-22W	110	45.3	220	100.1	33.8	191	M3-16 x 4 pcs	254
TWN11-8-22W	110	75.3	220	99.3	63.8	191	M3-16 x 4 pcs	316
TWN13-3-13W	125	25	125	114.5	13.7	100	M3-16 x 4 pcs	156.5
TWN13-3-18W	125	25	175	114.5	13.7	148	M3-16 x 4 pcs	206.5
TWN13-5-13W	125	45	125	114.5	33.7	100	M3-16 x 4 pcs	190
TWN13-5-18W	125	45	175	114.5	33.7	148	M3-16 x 4 pcs	249
TWN13-7-18W	125	65	175	114.2	53.7	148	M3-16 x 4 pcs	290.5

TWSC series

SILICONE PROTECTOR for TW•TWN

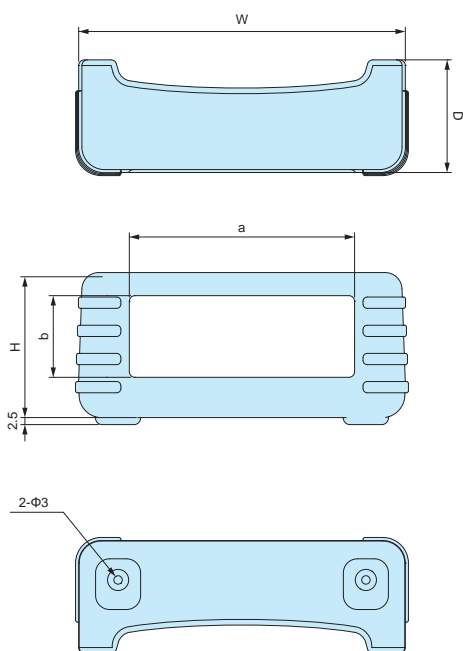
Color Type



- Silicone Protector for TW and TWN series. Selectable in 4 colors.
- Available as a set of 2 pcs.
- Custom color is available from just 1 set. For 500 sets or more, manufacture costs will be similar to a standard color. Please inquire for more details. For custom color order, please specify **PANTONE®** color code.
- Use caution when assembling. Overtightening may damage the enclosure and silicone protectors.

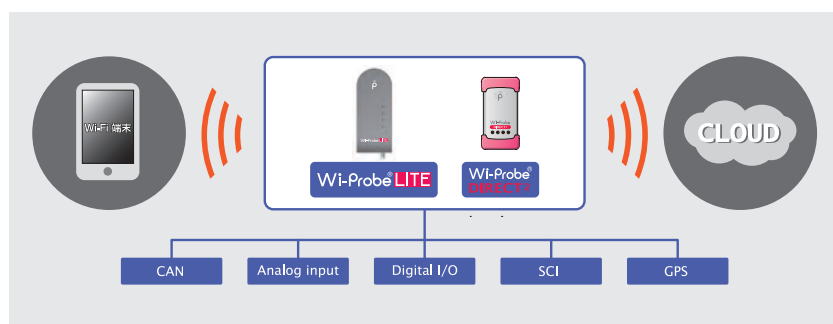
TWSC dimensions

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



APPLICATION EXAMPLE

Wi-Probe DIRECT2 Monitoring Device



*Pink shown above is custom color.

Components

Part name	Pcs	Material	Color / Finish
Silicone protector	1 set (2 pcs)	Silicone	Yellow • Navy • Light gray • Black
Self-tapping screw	4	Steel M3-20	Black trivalent chromate

Product no. / Dimensions

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

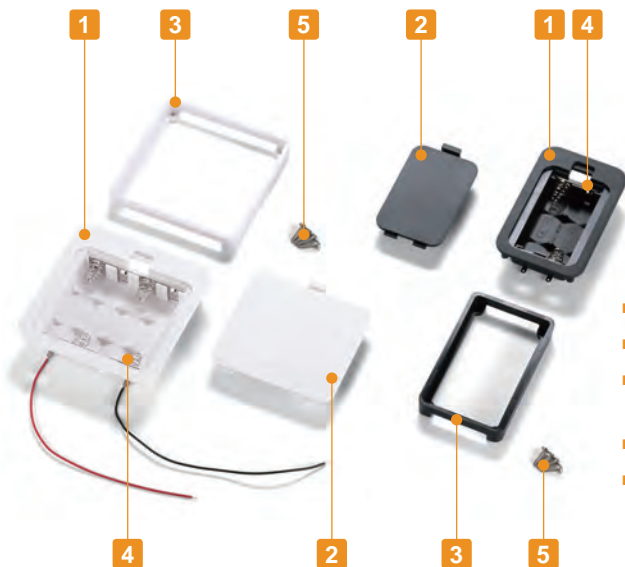
Product no.	W	H	D	a	b	Suitable models	Weight (g)
TWSC 7-3□	71	32	27	52	13.5	TW • TWN 7-3-13	41
TWSC 7-5□	71	56	27	52	37.5	TW • TWN 7-5-13	47.5
TWSC 9-4□	91.5	41.5	33	67	22	TW • TWN 9-4-17	60
TWSC 9-6□	91.5	66.5	33	67	46.5	TW • TWN 9-6-17	75
TWSC11-5□	116	51.5	40	80	29	TW • TWN11-5-22	102.5
TWSC11-8□	116	81.5	40	80	58	TW • TWN11-8-22	122
TWSC13-5□	131	51	38	101	29.5	TW • TWN13-5-13 TW • TWN13-5-18	104
TWSC13-7□	131	71	38	101	48.5	TW • TWN13-7-18	117



Technical Data

Operating temperature: -10°C ~ +60°C

Mount Example



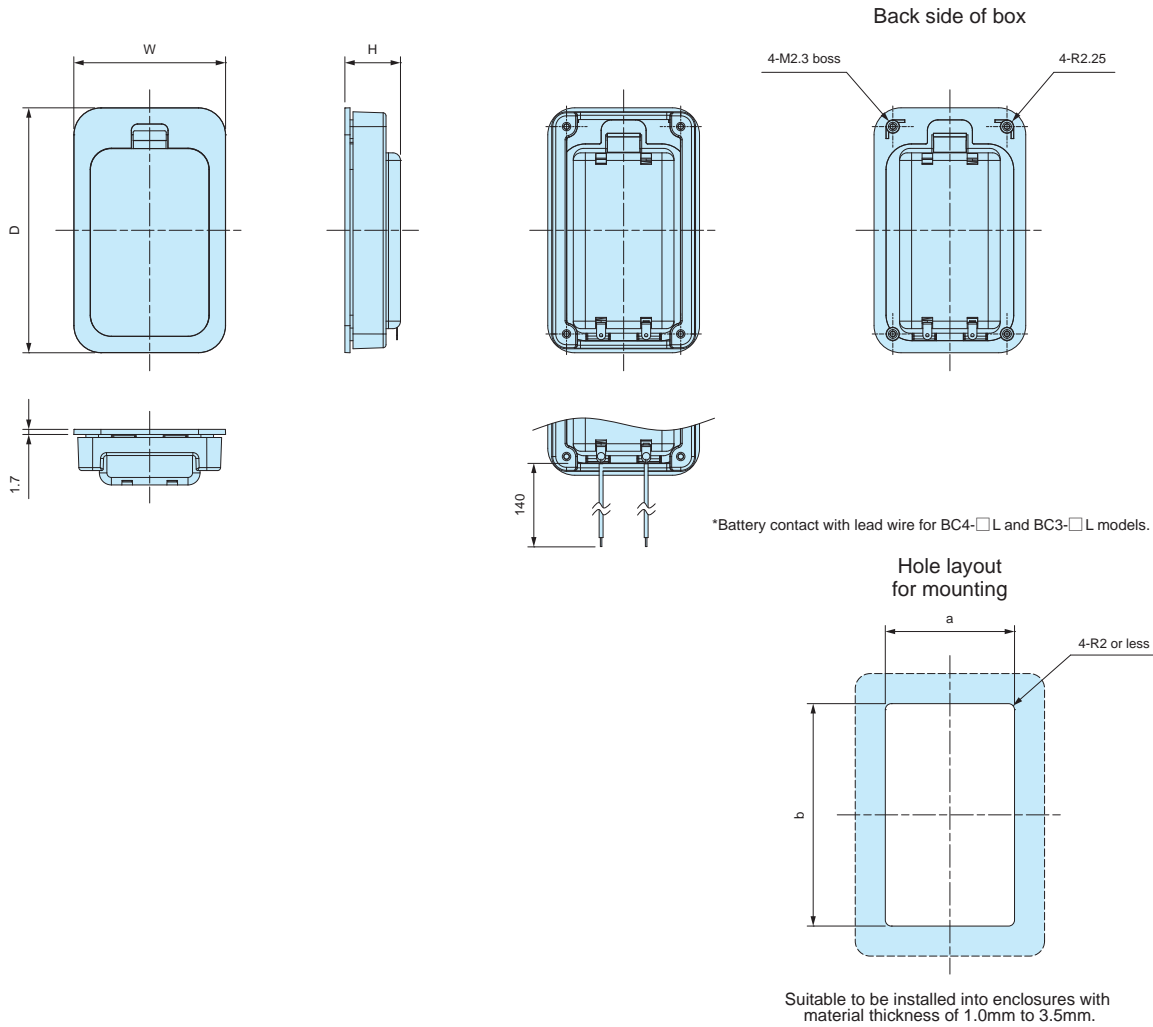
- Suitable to be installed into enclosures with material thickness of 1.0mm to 3.5mm.
- Cover can be opened/closed without any tool for easy battery replacement.
- 5 different battery layouts are available as AA x 2, AA x 3, AA x 4, AAA x 2 and AAA x4. Each layout comes in 2 models: with lead-wire, and 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.



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

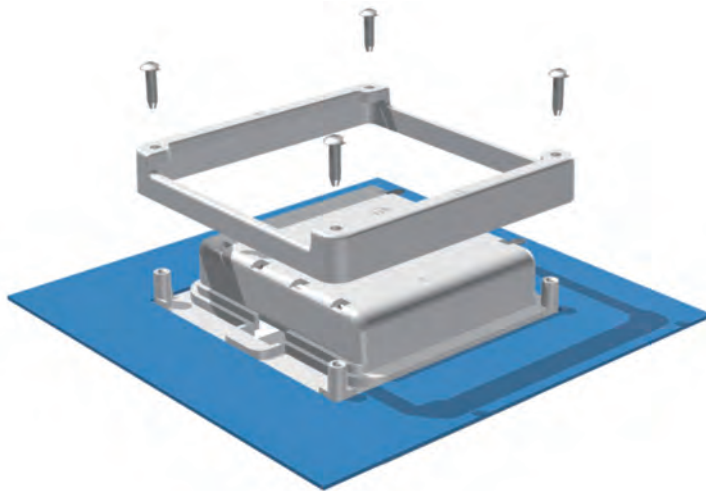
Product no. / Dimensions

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

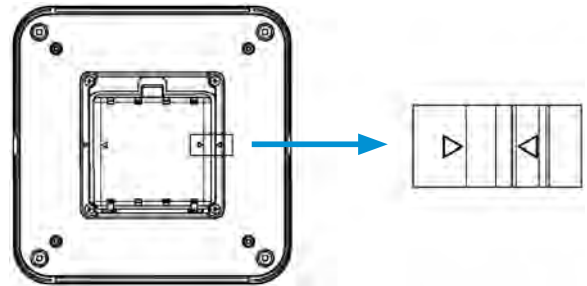
*Alkaline or manganese batteries

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.



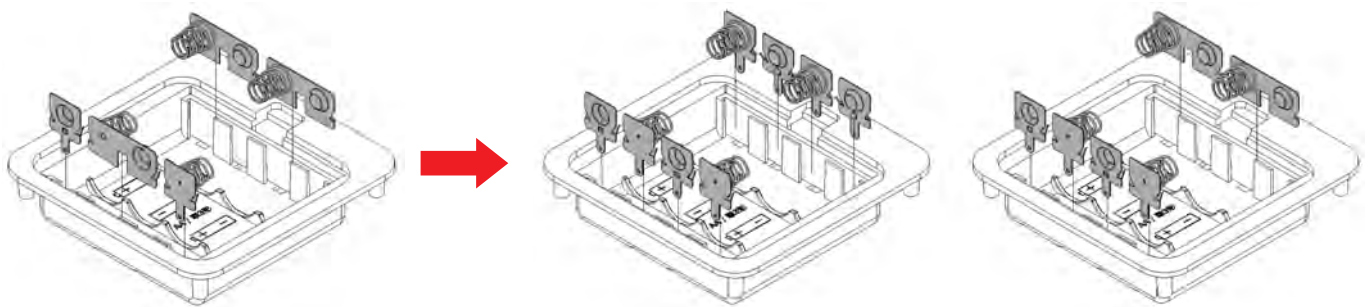
■ For BC3-4□ models, ▷ markings are shown on the frame. Install by matching the markings.



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

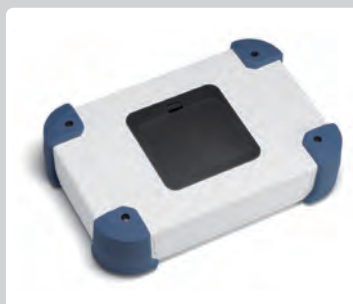


Series Circuit (Standard)

Parallel Circuit (4 batteries)

Parallel Circuit (2 batteries x 2)

Customization Available



For more information, contact us here:

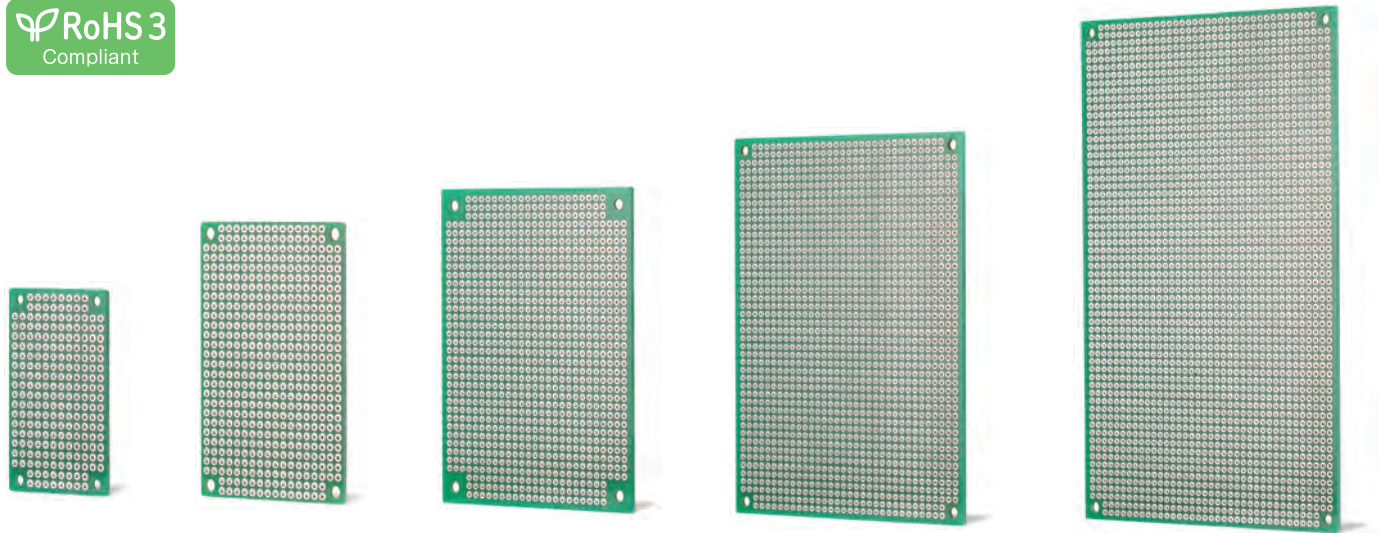
Online form: https://www.takachi-enclosure.com/custom/form_custom
 E-mail : sales@takachi-el.co.jp



Mount Example

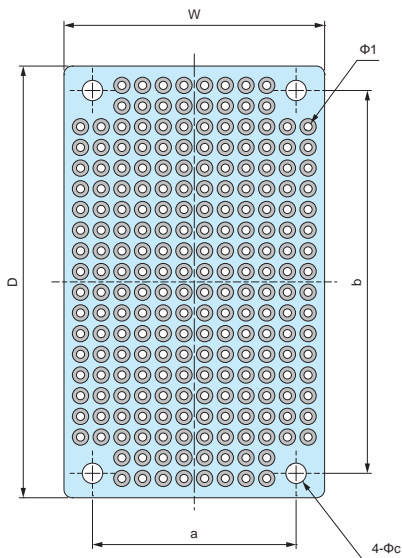


■ BC series battery boxes can also be mounted on aluminium enclosures.



■ Detailed DXF/DWG/PDF drawings available online.

- Plated Through Holes (PTH) type PCB with a 2.54mm hole-to-hole pitch. Inexpensive and economical PCB made using robust, heat-resistant and non-conductive glass epoxy.
- Easily mounted onto bosses or standoffs via the mounting holes at each corner.
- Environmentally friendly lead-free solder. RoHS3 compliant.
- 5 different sizes available, with PCB100-160 being of Eurocard (3U) format size.



Accessories (Optional parts)



Adhesive standoff AST series
See page AST-1



Adhesive standoff ASR series
See page ASR-1

Material / Finish : Glass epoxy (FR-4) / Through-hole - Lead-free solder resist

Product no. / Dimensions

Product no.	W	D	a	b	c	t	Mounting screw	Pack of
PCB 32- 53	32	53	25	47	2.5	1.2	M2 or M2.5	1
PCB 47- 72	47	72	41	66	3.2	1.2	M3	1
PCB 72- 95	72	95	62	85	3.2	1.2	M3	1
PCB 90-120	90	120	82	112	3.2	1.6	M3	1
PCB100-160	100	160	92	152	3.2	1.6	M3	1

AST series

INSERT NUT ADHESIVE STANDOFF

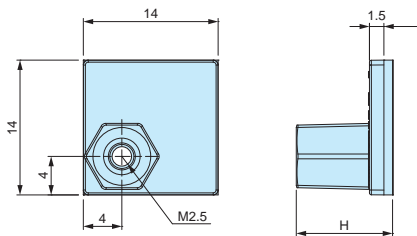


- Double-sided adhesive tape allows the standoff to be mounted quickly and easily; allows PCB mounting in non-boss enclosures.
- Convenient for installing PCBs into enclosures without the need for customization.
- Please ensure that surface is cleaned and grease-free before adhering.
- Once removed, it cannot be adhered on again.

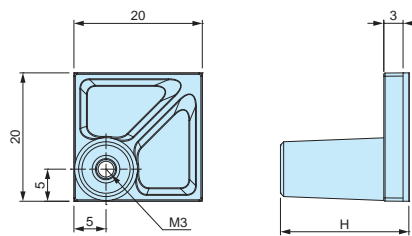
AST dimensions

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

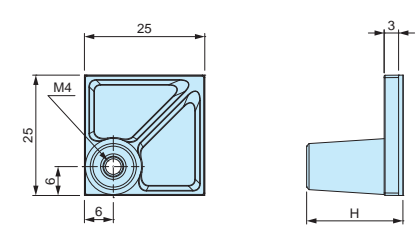
AST2.5-□



AST3-□



AST4-□



Product no. / Dimensions

Bulk package

Product no	H dimension	Included screw	Recommended PCB Thickness (mm)	Recommended torque (N · m)	Weight (g)	Pack of	Product no	Pack of
AST2.5-5B	5	M2.5-5 pan head	1.0 ~ 2.0	0.3	0.6 (1 piece)	4	AST2.5-5B-P	100
AST2.5-10B	10	M2.5-5 pan head	1.0 ~ 2.0	0.3	0.8 (1 piece)	4	AST2.5-10B-P	100
AST3-6B	6	M3-6 pan head	1.0 ~ 3.0	0.4	1.5 (1 piece)	4	AST3-6B-P	100
AST3-10B	10	M3-6 pan head	1.0 ~ 3.0	0.4	1.6 (1 piece)	4	AST3-10B-P	100
AST3-15B	15	M3-6 pan head	1.0 ~ 3.0	0.4	1.8 (1 piece)	4	AST3-15B-P	100
AST3-20B	20	M3-6 pan head	1.0 ~ 3.0	0.4	2.1 (1 piece)	4	AST3-20B-P	100
AST4-10.5B	10.5	M4-8 pan head	1.0 ~ 3.5	0.8	2.6 (1 piece)	4	AST4-10.5B-P	50
AST4-20B	20	M4-8 pan head	1.0 ~ 3.5	0.8	3.2 (1 piece)	4	AST4-20B-P	50

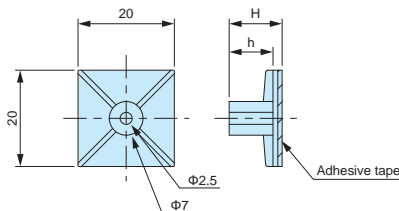
- Base material / color : Nylon 66 (UL94V-2) / Black
- Nut + screw material / finish : Steel / Trivalent chromate

- Bulk packaging is available. See "Bulk package" column above.
- Screws are not included for bulk packages.

ASR series

ADHESIVE PCB STANDOFF

ASR dimensions



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

Technical Data
Recommended torque : 0.4N · m

- M3 tapping screw use adhesive standoff. Recommended to be used with EM-3 or EM-3-6 self-tapping screws (See page 123).
- Please ensure that surface is cleaned and grease-free before adhering.
- Once removed, it cannot be adhered on again.

Product no. / Dimensions

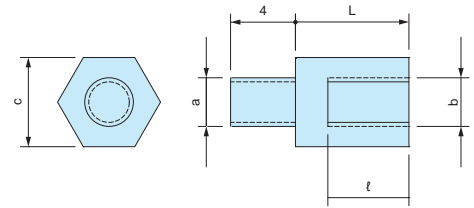
Product no	H	h	Weight (g)	Pack of
ASR- 5	5.1	3.1	0.9 (1 piece)	10
ASR- 6	6.4	4.4	1.0 (1 piece)	10
ASR- 7	7.2	5.1	0.9 (1 piece)	10
ASR- 8	8.1	6.3	0.9 (1 piece)	10
ASR- 9	9	7	1.0 (1 piece)	10
ASR-11	11	9	1.0 (1 piece)	10
ASR-13	12.7	10.7	1.2 (1 piece)	10
ASR-14.5	14.7	12.8	1.1 (1 piece)	10
ASR-16	15.9	13.9	1.3 (1 piece)	10
ASR-19	19.1	17.1	1.4 (1 piece)	10

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	
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.



How to tighten

MT series

PCB MOUNTING SCREWS for TPS



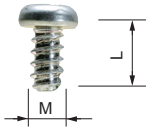
■ PCB mounting Screws for TPS tapping standoffs

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

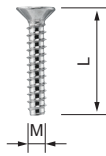
Product no.	M	L	Material	Finish	Suitable models	Pack of
EM-1.6	1.6	4	Steel	Trivalent chromate	CSS • CS WC • PS (M1.6 boss models)	50
EM-2	2	5	Steel	Trivalent chromate	SIC • SIM • WC • PS • TW • TWN • TWF PF • WC • WP (M2 boss models)	50
EM-2.3	2.3	6	Steel	Trivalent chromate	WH • LC • LCT • LCS • LCE • 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

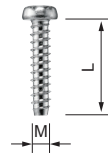
TORX SCREW



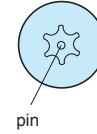
Flat head



Pan head



With pin



pin

★ Without pin



- 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) TWF (M2.6 size)	20
MR2.6-10B★	2.6	10	T8	Flat	Steel	Black trivalent chromate	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) TWF (M3 size)	20
MR3-14B★	3	14	T10	Flat	Steel	Black trivalent chromate	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