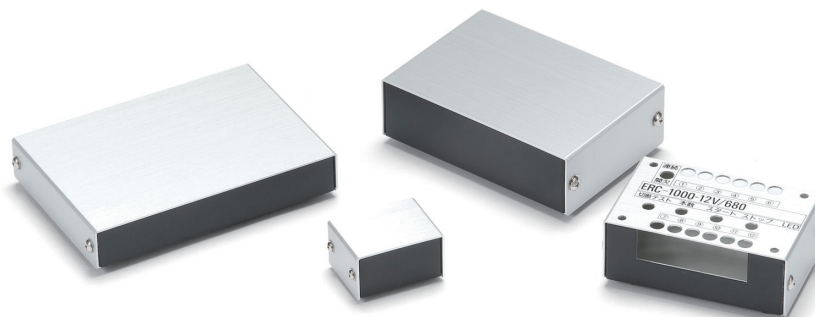
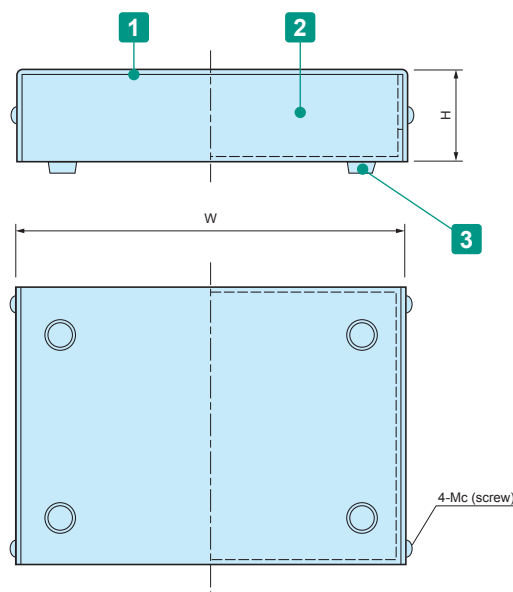
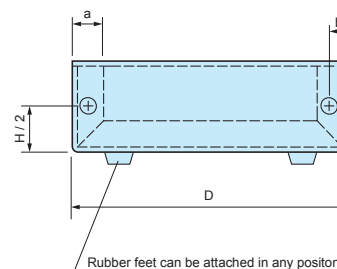




YM dimensions



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



Included screws and washers
Truss head • Nickel plated x 4 pcs
(YM7-2-5, 9-2-6, 12-2-8 = M2.6-5)
(Others = M3-5)
Flat washer • Nickel plated x 4 pcs
(YM7-2-5, 9-2-6, 12-2-8 = M2.6)
(Others = M3)

Components

No.	Part name	Pcs	Material	Color / Finish
1	Cover	2	Aluminium A1050P t = 1.0	Silver / Hairline brushed & Anodized
2	Base	2	Aluminium A1100P t = 1.0	Black / Painted • Silver
3	Rubber feet	4	Synthetic rubber	Black
-	Screw	1 set	Brass	Nickel plated

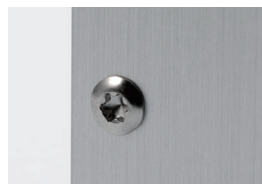
Note: The cover and base are covered with a protective film on one side. Remove before assembly.

Product no. / Dimensions

Product no.	W	H	D	a	b	c	Weight (g)
YM 5-3- 5	50	30	45	10	5	3	36
YM 7-2- 5	65	20	50	10	5	2.6	40
YM 8-3- 5	80	30	50	10	5	3	53
YM 9-2- 6	90	20	60	10	5	2.6	55
YM10-3- 7	100	30	70	10	5	3	80
YM12-2- 8	115	20	80	10	5	2.6	80
YM13-3- 9	130	30	90	10	5	3	115
YM15-4-10	150	40	100	10	5	3	155

Accessories (Optional parts)

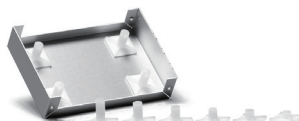
■ MR3-5Z and EV3-5S are not applicable for YM7-2-5, 9-2-6, and 12-2-8 models.



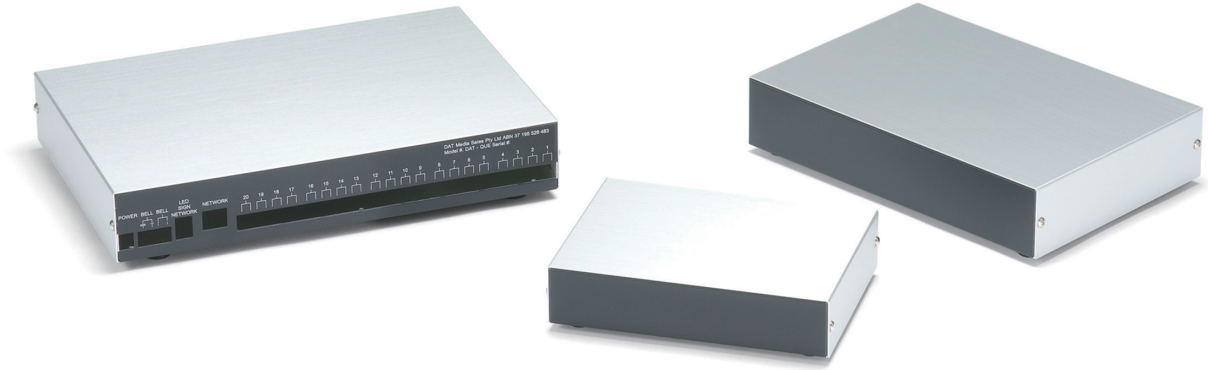
TORX screw MR3-5Z
See page MR • FDR-1



Conductive screw EV3-5S
See page EV-1

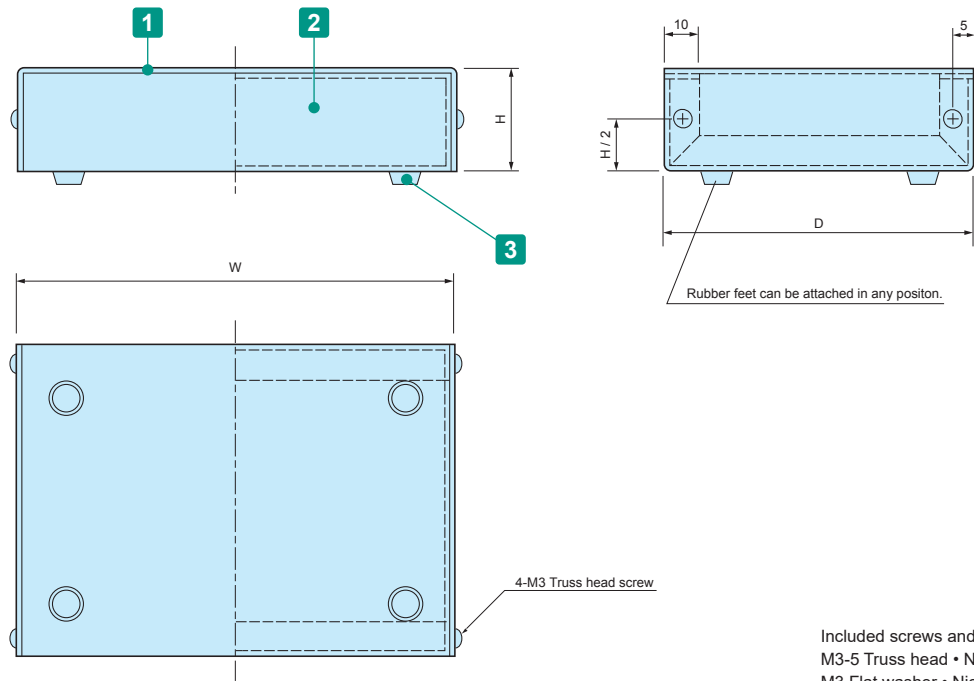


Adhesive standoff T-600, T-700, ASR
See page Standoff-1



YM dimensions

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



Included screws and washers
M3-5 Truss head • Nickel plated x 4 pcs
M3 Flat washer • Nickel plated x 4 pcs

Components

No.	Part name	Pcs	Material	Color / Finish
1	Cover	2	Aluminium A1050P t = 1.0	Silver / Hairline brushed & Anodized
2	Base	2	Aluminium A1100P t = 1.0	Black / Painted • Silver
3	Rubber feet	4	Synthetic rubber	Black
-	Screw	1 set	Brass	Nickel plated

■ Note: The cover and base are covered with a protective film on one side. Remove before assembly.

Product no. / Dimensions

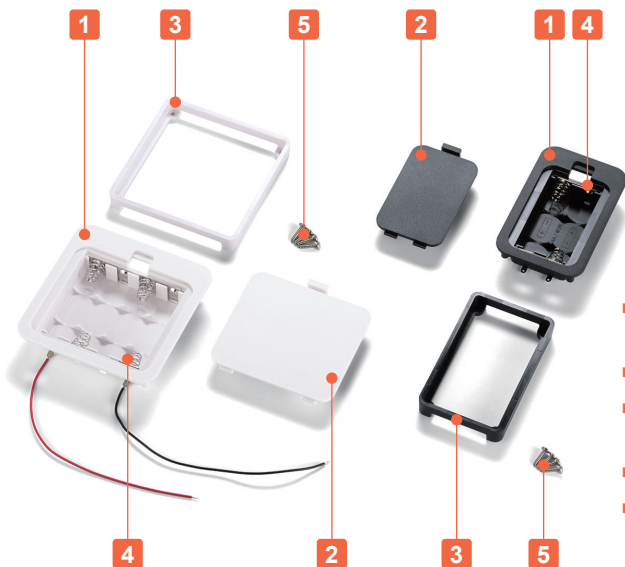
Product no.	W	H	D	Weight (g)
YM18-4-13	180	40	130	230
YM20-4-15	200	40	150	280
YM25-5-17	250	50	170	395
YM30-5-20	300	50	200	525
YM35-6-23	350	55	230	680
YM40-6-25	400	55	250	815



Technical Data

Operating temperature: -10°C ~ +60°C

Mount Example



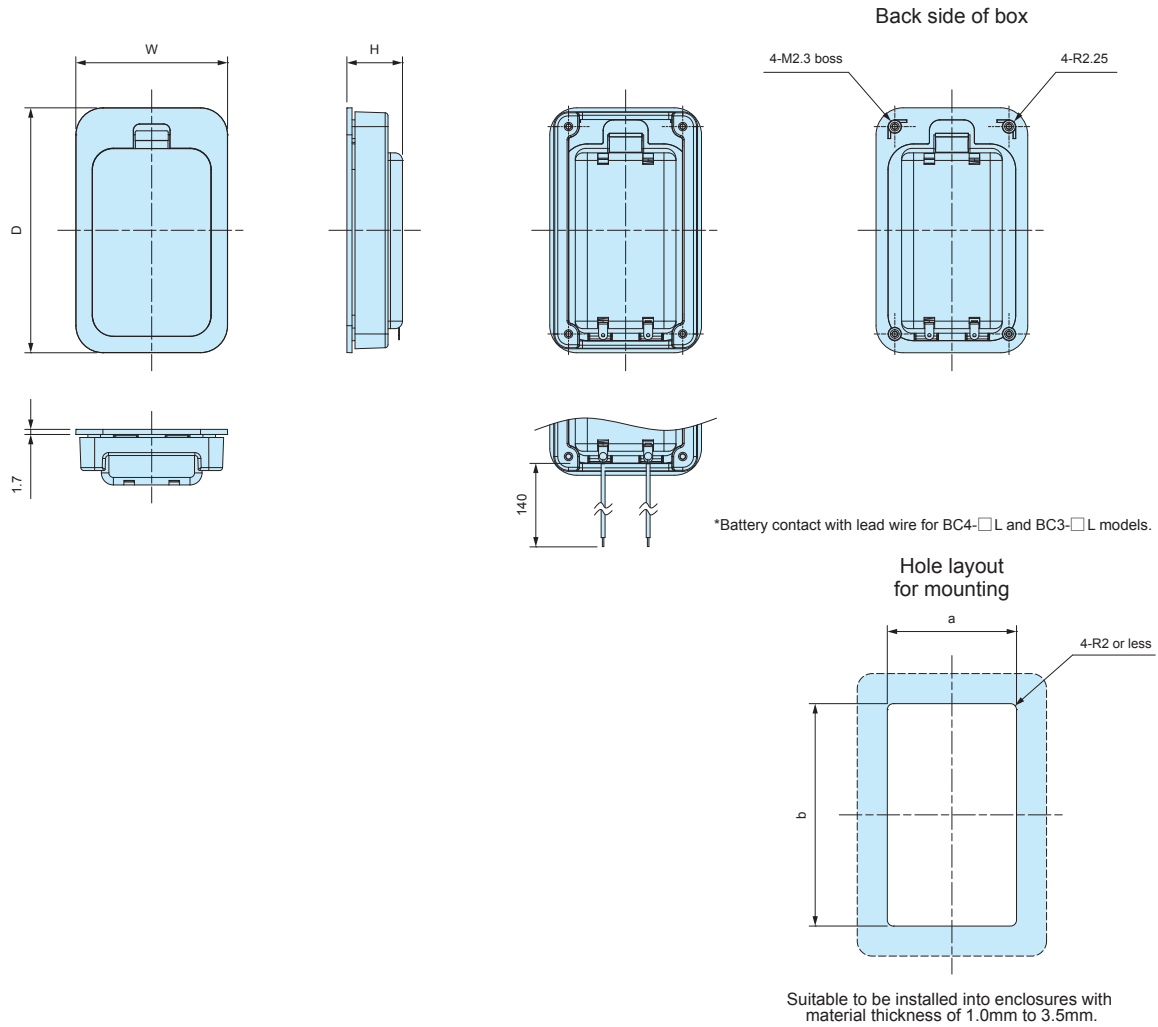
- Suitable to be installed into enclosures with material thickness of 1.0mm to 3.5mm.
- Cover can be opened/closed without any tool for easy battery replacement.
- 5 different battery layouts are available as AA x 2, AA x 3, AA x 4, AAA x 2 and AAA x 4. Each layout comes in 2 models: with lead-wire,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



Type: Without Lead Wire

Product no. / Details

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

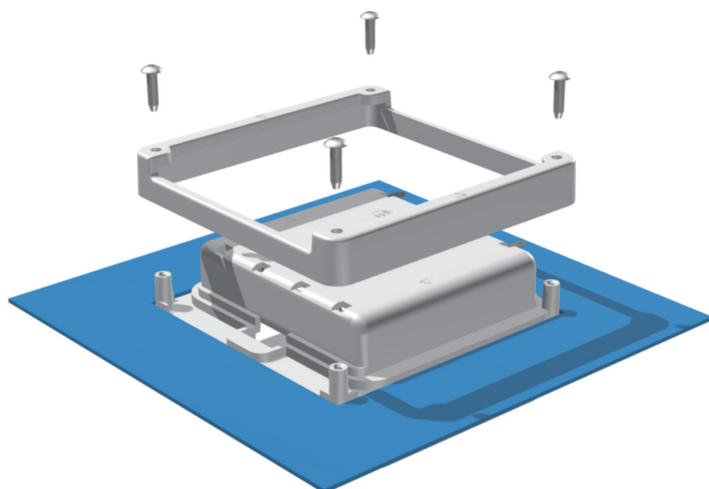
Product no. / Details

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

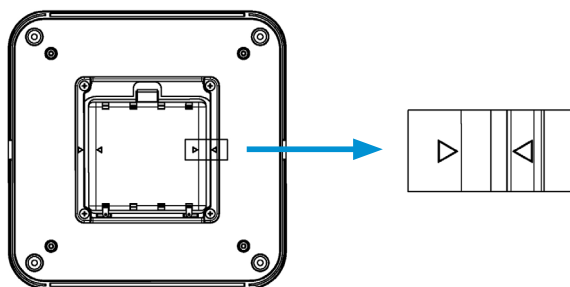
*Alkaline or manganese batteries

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.



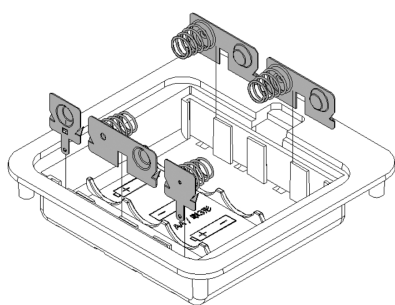
- For BC3-4□ models, ▷ markings are shown on the frame. Install by matching the markings.



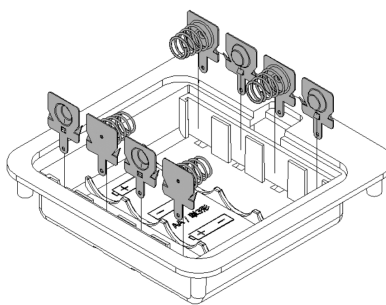
Parallel circuit conversion on BC series battery box

- 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.

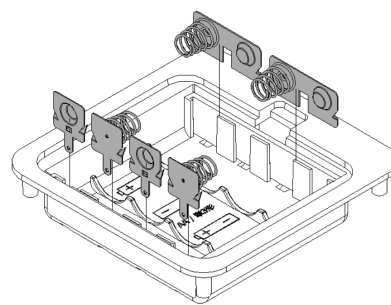
Conversion Example



Series Circuit (Standard)

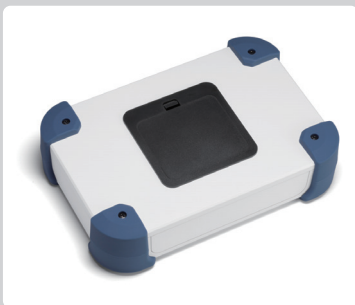


Parallel Circuit (4 batteries)



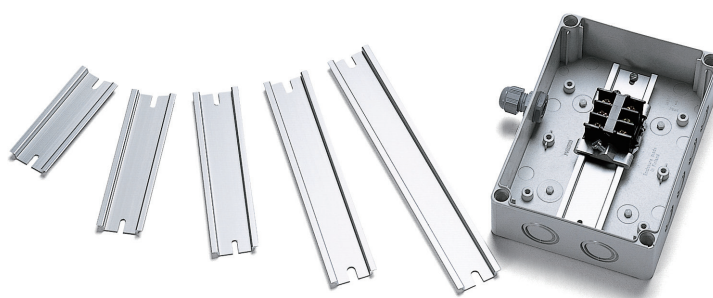
Parallel Circuit (2 batteries x 2)

Customization Available



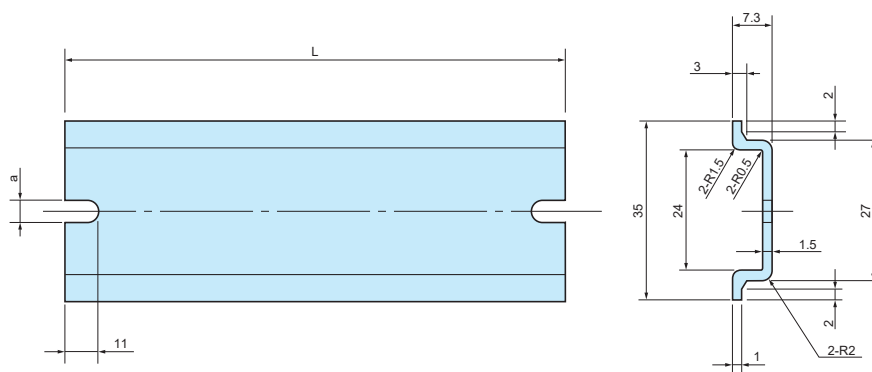
For more information, contact us here:

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

FDR series**DIN RAIL**

Application example

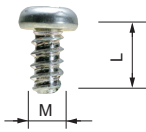
- DIN Rail for installation of terminals, relays, or switches inside enclosures.
- Suitable for DIN Rail types of various manufacturers.

**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.

EM series**PCB MOUNTING SCREW**

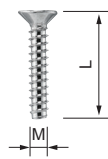
- Self-tapping screws for mounting PCB on bosses or standoffs.
- EM-3-6 self-tapping screws are suitable for mounting 1.6mm or thicker PCB.

Product no. / Details

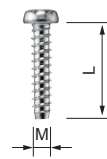
Product no.	M	L	Material	Finish	Suitable models	Pack of
EM-1.6	1.6	4	Steel	Trivalent chromate	SMW • CSS • CS SIC • SIM • WC • PS (M1.6 boss models)	50
EM-2	2	5	Steel	Trivalent chromate	PS • TW • TWN • TWF SIC • SIM • PF • WC • WP (M2 boss models)	50
EM-2.3	2.3	6	Steel	Trivalent chromate	DRC • WH • LC • 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	SU • OP	50
EM-3-6	3	6	Steel	Trivalent chromate	TWS • TW • TWN • TWF (M3 boss models)	50

MR series**TORX SCREW**

Flat head



Pan head

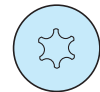


With pin



pin

★ Without pin



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

★ : MR1.6-6S, MR2.6-10□, MR3-5Z□ and MR3-14□ are without pin.

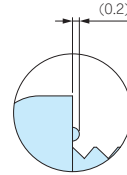
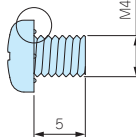
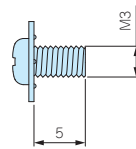
Product no. / Details

★ 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)	20
MR2.6-12PS	2.6	12	T8	Pan	Steel	Nickel plated	MX • MXA • MXB • MXF (M2.6 size)	20
MR2.6-14PS	2.6	14	T8	Pan	Steel	Nickel plated	LCT • LCS • LC115-F2 / F3 LCT • LCS • LC145S-F6	20
MR2.6-14S	2.6	14	T8	Flat	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
MR2.6-18S	2.6	18	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
MR-1S	3	5	T10	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
MR-1B	3	5	T10	Flat	Steel	Black trivalent chromate	UC	20
MR3-5ZS★	3	5	T10	Slotted raised countersunk	Steel	Nickel plated	FC • HY • HYR • HYRH (M3 size)	20
MR3-5ZB★	3	5	T10	Flat	Steel	Black trivalent chromate	CF	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

EV series**CONDUCTIVE SCREW**

Conductive



Base material exposed after being shaved.



Example: Internal grounding use.



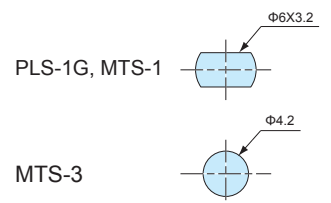
- When tightened, protrusions on the underside of the screw head will shave away at the painted or anodized surface to expose the base material for achieving conductivity.

Product no. / Dimensions

Product no.	M	L	Material	Finish	Suitable series	Pack of
EV3-5S	3	5	Steel	Nickel plated	YM • MB • others	20
NEW EV-4S	4	5	Steel	Nickel plated	BDN • others	20

PLS • MTS • PM series**CAPTIVE FASTENER • CAPTIVE SCREW**PLS-1G
Plastic fastenerMTS-1
Metal fastenerMTS-3
Metal fastener

Hole layout for mounting

**Product no. / Dimensions Fastener**

Product no.	M	Material	Color / Finish	Pack of
PLS-1G	2.5	POM	White gray	50
MTS-1	2.5	Steel	Zinc plated	8
NEW MTS-3	2.5	Steel	Nickel plated	10

Conductive

PM-1□



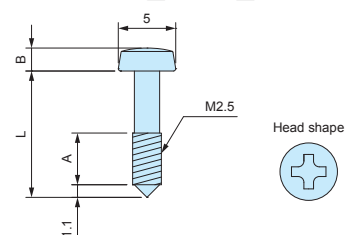
PM-2□



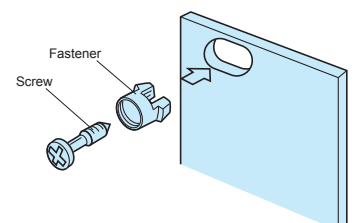
PM-3

**PM dimensions**

PM-1□ • PM-2□

**Product no. / Dimensions Screw**

Product no.	Material	Finish	L	A	B	Suitable screw driver	Pack of
PM-1B	Steel	Black trivalent chromate	10	4	1.5	#1	50
PM-1S	Steel	Chrome plated	10	4	1.5	#1	50
PM-2B	Steel	Black trivalent chromate	11	5	2	#2	50
PM-2S	Steel	Nickel plated	11	5	2	#2	50
NEW PM-3	Steel	Nickel plated	7	2.5	2	#2	50



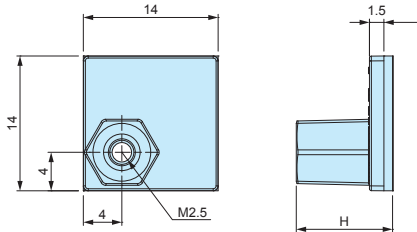
AST series**INSERT NUT ADHESIVE STANDOFF**

- 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.

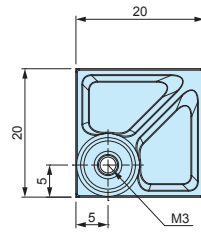
AST dimensions

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

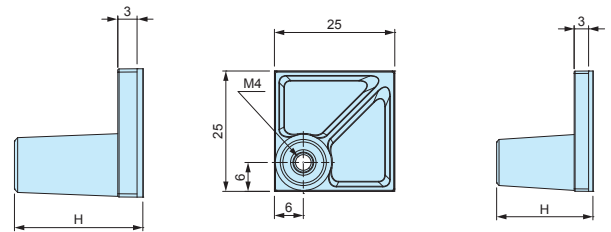
AST2.5-□



AST3-□



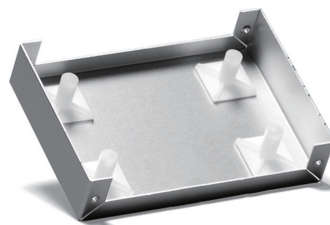
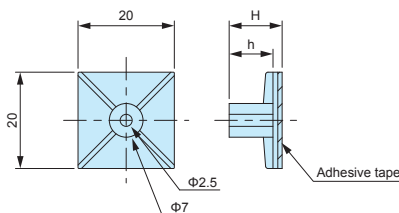
AST4-□

**Product no. / Details****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 398).
- Please ensure that surface is cleaned and grease-free before adhering.
- Once removed, it cannot be adhered on again.

Product no. / Details

■ Material / Color: Nylon 66 (UL94V-2) / Natural

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