

# IP67 WEARABLE ENCLOSURE

A stylish design enclosure with wrist strap,  
perfect solution for wearable devices.

## SMW series



**Stylish and luxurious mirror  
finish enclosure body**



**Water-repellent comfortable  
silicone wrist strap**

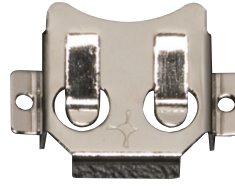


High water resistance of IP67 withstands submersion in 1m depth for 30 minutes.

Degradation resistant silicone gasket for long-lasting performance.



**Tabbed battery and coin battery holder can be installed.**



## For various wearable IoT devices

Suitable for small IoT devices including LoRaWAN and Sigfox, detectors, RFID tags, GPS terminals and others.

### Environmental sensor



### Access control system



### GPS tracker



### Emergency alert system



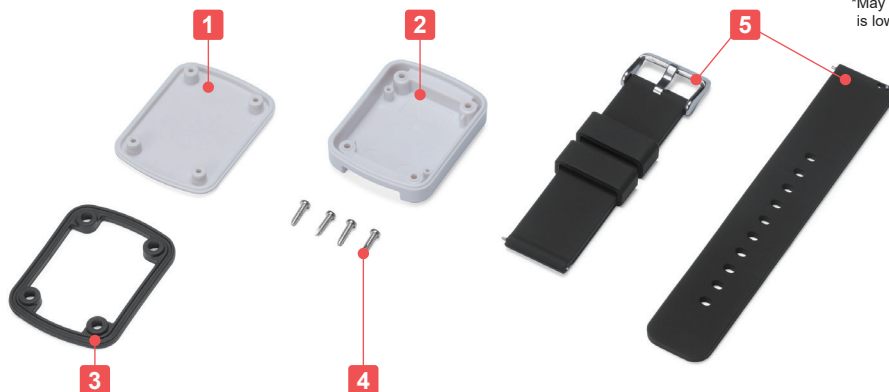


- Wearable enclosure with IP67 waterproof rating (30min / 1m-depth).
- Off-white models are made of weather-resistant ASA material. Suitable for devices intended to be used under direct sunlight.
- Stylish and easy-to-wear design that suits any situations.
- Suitable for detectors, GPS terminals, RFID devices, small IoT devices and others.

## Technical Data

Protection class : IP67 (30min / 1m-depth)  
 Operating temperature  
 Black (ABS) : -10°C ~ +60°C  
 Off-white (ASA) : -30°C ~ +60°C  
 Recommended torque : SMW-46□ : 0.2N • m  
 SMW-50□ : 0.35N • m

\*May become brittle and break under impact when temperature is lowered close to -30°C.



## Components

No.	Part name	Pcs	Material	Color / Finish
1	Top cover	1	ABS (UL94HB)	Black / Polished
			ASA (UL94HB)	Off-white / Polished
2	Bottom cover	1	ABS (UL94HB)	Black / Polished
			ASA (UL94HB)	Off-white / Polished
3	Gasket	1	Silicon	Black
4	Tapping screw	4	Stainless steel	Unfinished
5	Wrist strap	1	Silicon • Stainless steel	Black • Polished

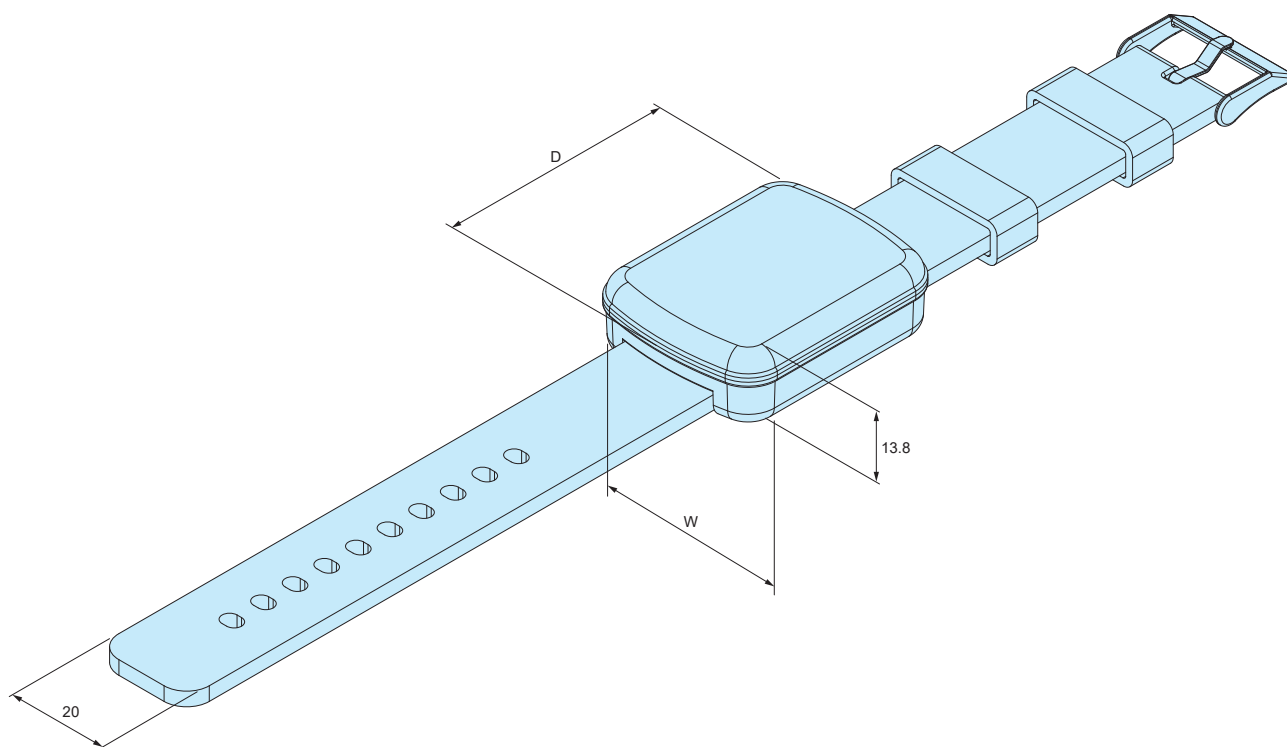
## Accessories (Optional parts)



PCB mounting screw  
EM-1.6  
See page 398

## SMW dimensions

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



### Product no. / Details

Product no.		External dimensions		Weight (g)
● Black	● Off-white	W	D	
SMW-46B	SMW-46W	36	46	28
SMW-50B	SMW-50W	44	50	30.5

## Accessories (Optional parts) – COIN CELL BATTERY HOLDERS



- Various coin cell battery holders can be stored.  
See coin cell battery holders on our website for more details.
- Chart on the right is based upon mounting onto a 1.0mm thick PCB and attached to the top cover.
- Please note that depending on the mounting location, PCB may not be able to be properly affixed on.

### COMPATIBLE COIN CELL BATTERY HOLDERS CHART

Product no.	Compatible coin cell battery holders
SMW-46□	PB621 BK-879 • 2032M BS-M-1225 • BS-S-1225 • SMTM1632
SMW-50□	PB621 BK-879 • 5067 • 2430SM • 2032M BS-M-1225 • BS-S-1225 • SMTM1632 • 2032



## PB621

## ML621 • SR621 SMALL BATTERY HOLDER

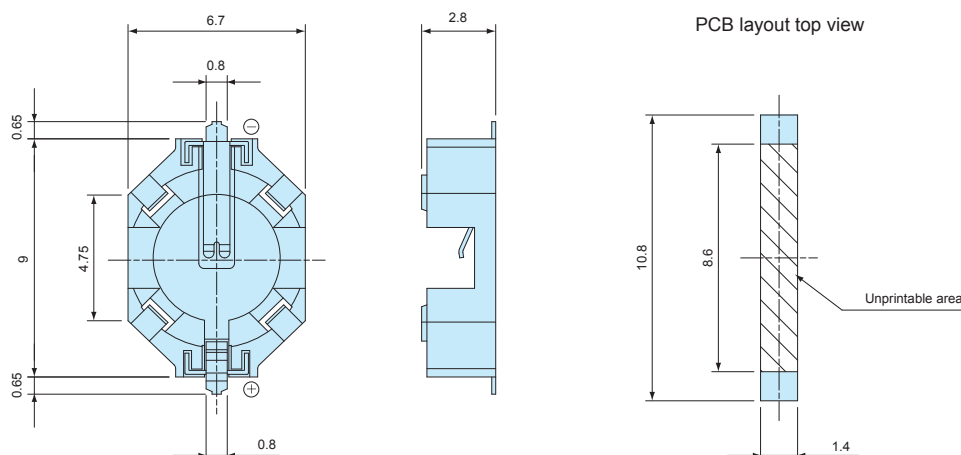


## Technical Data

Operating temperature: -25°C ~ +85°C

- Heat resistant glass fiber filled LCP for lead free reflow soldering.

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



## Components

Holder material	Holder color	Contact material	Contact finish
Glass fiber filled LCP (UL94V-0)	Ivory	Copper alloy	Gold plated

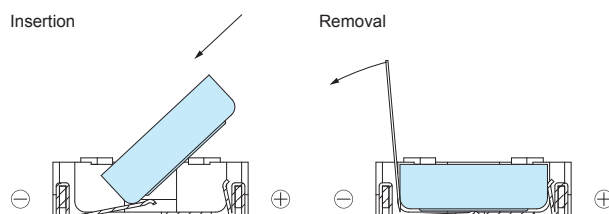
## Product no. / Feature

Product no.	Matching battery	Contact type	Weight (g)	Pack of
PB621	ML621 / SR621	Surface mount x 2	0.1	10

## NOTE

Be careful not to damage the holder when removing the battery without tools. Recommended to use a fine tipped stick or a flat head screwdriver to remove the battery.

How to replace a coin cell.



## PD SERIES

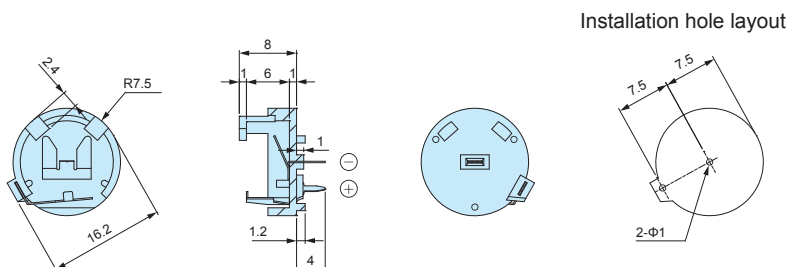
## BUTTON BATTERY HOLDER



## Technical Data

Operating temperature: -40°C ~ +80°C

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



## Components

Holder material	Holder color	Contact material	Contact finish
PBT (UL94V-0)	Black	Phosphor bronze	Sn plated

## NOTE

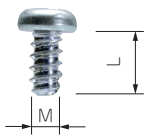
Insert battery fully in until it is completely flat, otherwise there may be a risk of short-circuiting.

## Product no. / Feature

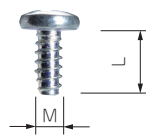
Product no.	Matching battery	Contact type	Weight (g)	Pack of
PD23	LR44 / SR44	Through hole pin x 2	0.7	1
PD23-T	LR44 / SR44	Through hole pin x 2	—	100

**EM** series**PCB MOUNTING SCREW**

Pan head



Bind head



- 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.

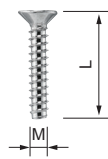
**Product no. / Details**

■ Material / Finish : Steel / Trivalent chromate

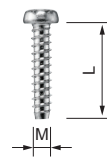
Product no.	M	L	Head type	Suitable models	Pack of
EM-1.6	1.6	4	Pan	SMW • CSS • CS SIC • SIM • WC • PS (M1.6 boss models)	50
EM-2	2	5	Pan	PS • TW • TWN • TWF SIC • SIM • PF • WC • WP (M2 boss models)	50
<b>NEW</b> EM-B2	2	5	Bind	SIC • SIM (M2 boss models) SIC • SIM6-12-□ (when installing PCB46-101)	50
EM-2.3	2.3	6	Pan	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	Pan	WSC (Bottom base bosses)	50
EM-2.6	2.6	6	Pan	PF • PFF • WP (M2.6 boss models)	50
EM-3	3	5	Pan	SU • OP	50
EM-3-6	3	6	Pan	TWS • TW • TWN • TWF (M3 boss models)	50

**MR** series**TORX SCREW**

Flat head



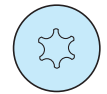
Pan head



With 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