

IP68 WATERPROOF CONNECTOR MODEL CHART LINE-UP

● PLUG - SOCKET

Connector Type	Insertion / Extraction	Wire Connection	Number of pole	Applicable Wire	Specification	Details on Website
THB381 	Snap-Lock Push/Pull	Screw Lock	2P 3P	$\phi 5.5 \sim \phi 7.0$ $\phi 7.0 \sim \phi 8.0$ $\phi 5.5 \sim \phi 7.0$ $\phi 7.0 \sim \phi 8.0$	Rated Voltage 500V AC (12V~60V DC) Rated Current 10AAC/DC Rated Voltage 500V AC Rated Current 10AAC	Details
THB387 	Screw Lock	Screw Lock	3P 4P 5P	$\phi 7.0 \sim \phi 12$	Rated Voltage Max 500V AC Rated Current Max 17.5A	Details
THB387L  UL Certified	Screw Lock	Screw Lock	4P 5P	$\phi 7.0 \sim \phi 13.5$	Rated Voltage Max 500V AC Rated Current Max 17.5A (EN61984) Rated Current Max 10A • 15A (UL2238/C22.2 No.182.3)	Details
THB389 	Snap-Lock Push/Pull	Screw Lock	4P 5P	$\phi 7.0 \sim \phi 13.5$	Rated Voltage 500V AC Rated Current 17.5A	Details
THS389  UL Certified	Snap-Lock Push/Pull	Spring/Lever	4P 5P	$\phi 7.0 \sim \phi 13.5$	Rated Voltage Max 500V AC (EN61984) Rated Voltage Max 600V AC (UL2238/C22.2 No.182.3) Rated Current Max 17.5A (EN61984) Rated Current Max 10A(UL2238/C22.2 No.182.3)	Details
THB405 	Ring-Lock Push/Pull	Screw Lock	6P 8P	$\phi 7.0 \sim \phi 13.5$	Rated Voltage Max 400V AC Rated Current Max 17.5A Rated Voltage Max 400V AC (DC60V) Rated Current Max 10AAC/DC	Details

Panel-Mount Type	Insertion / Extraction	Wire Connection	Number of pole	Applicable Wire	Specification	Details on Website
THB381E 	Snap-Lock Push/Pull	Screw Lock	2P 3P	$\phi 5.5 \sim \phi 7.0$ $\phi 7.0 \sim \phi 8.0$ $\phi 5.5 \sim \phi 7.0$ $\phi 7.0 \sim \phi 8.0$	Rated Voltage 500V AC (12V~60V DC) Rated Current 10AAC/DC Rated Voltage 500V AC Rated Current 10AAC	Details
THB387E 	Screw Lock	Screw Lock	3P 4P 5P	$\phi 7.0 \sim \phi 12$	Rated Voltage Max 500V AC Rated Current Max 17.5A	Details
THB387LE  UL Certified	Screw Lock	Screw Lock	4P 5P	$\phi 7.0 \sim \phi 13.5$	Rated Voltage Max 500V AC Rated Current Max 17.5A (EN61984) Rated Current Max 10A • 15A (UL2238/C22.2 No.182.3)	Details
THB389E 	Snap-Lock Push/Pull	Screw Lock	4P 5P	$\phi 7.0 \sim \phi 13.5$	Rated Voltage 500V AC Rated Current 17.5A	Details
THS389E  UL Certified	Snap-Lock Push/Pull	Spring/Lever	4P 5P	$\phi 7.0 \sim \phi 13.5$	Rated Voltage Max 500V AC (EN61984) Rated Voltage Max 600V AC (UL2238/C22.2 No.182.3) Rated Current Max 17.5A (EN61984) Rated Current Max 10A(UL2238/C22.2 No.182.3)	Details
THB406 	Ring-Lock Push/Pull	Screw Lock	3P 6P 8P	$\phi 7.0 \sim \phi 13.5$	Rated Voltage Max 400V AC Rated Current Max 25A (EN61984) Rated Voltage Max 400V AC Rated Current Max 17.5A Rated Voltage Max 400V AC (DC60V) Rated Current Max 10AAC/DC	Details

● INTEGRATED

Straight Type	Wire Connection	Number of pole	Applicable Wire	Specification	Details on Website
THB391 	Screw Lock	2P 3P 4P	$\phi 7.0 \sim \phi 12$	Rated Voltage 450V AC Rated Current 17.5A	Details
THB390 • 400 	Screw Lock	3P • 4P 6P • 2WP 3WP • D4P No Terminal	$\phi 7.0 \sim \phi 13.5$ $\phi 8.0 \sim \phi 17.0$ $\phi 13.5 \sim \phi 15.5$ $\phi 16 \sim \phi 20$	Rated Voltage 450V AC Rated Current 24A Rated Voltage 250V AC Rated Current 32A Rated Voltage 750V AC Rated Current 41A	Details
3 BRANCH T SHAPE	Wire Connection	Number of pole	Applicable Wire	Specification	Details on Website
THB390T • 402T 	Screw Lock	3P 6P 3WP No Terminal	$\phi 7.0 \sim \phi 13.5$	Rated Voltage 250V AC Rated Current 24A Rated Voltage 250V AC Rated Current 32A	Details
3 BRANCH Y SHAPE	Wire Connection	Number of pole	Applicable Wire	Specification	Details on Website
THB399Y 	Screw Lock	3P 6P 3WP No Terminal	$\phi 7.0 \sim \phi 13.5$	Rated Voltage 250V AC Rated Current 24A Rated Voltage 250V AC Rated Current 32A	Details
4 BRANCH H SHAPE	Wire Connection	Number of pole	Applicable Wire	Specification	Details on Website
THB392 	Screw Lock	4P×4	$\phi 7.0 \sim \phi 12$	Rated Voltage 450V AC Rated Current 17.5A	Details

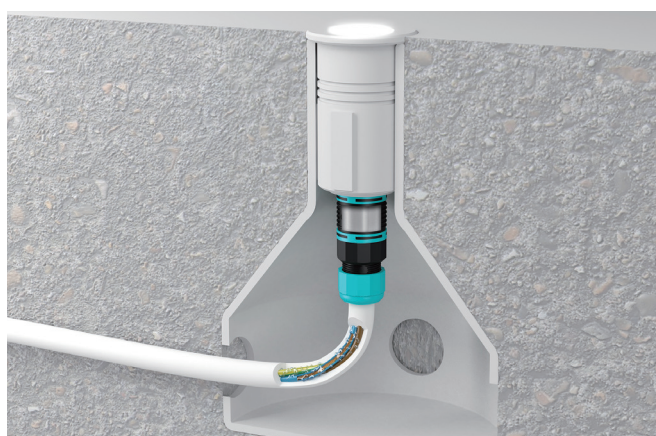
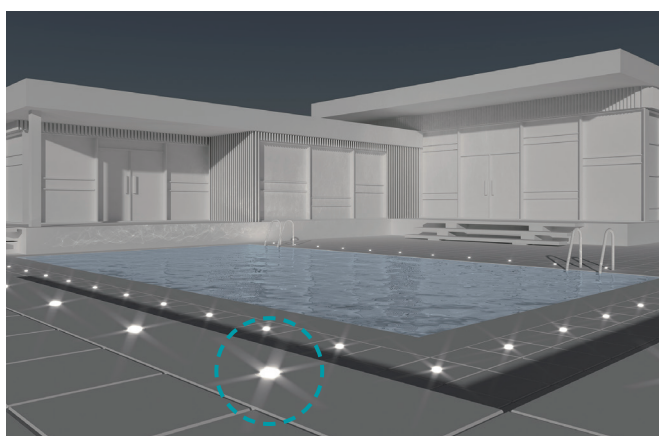
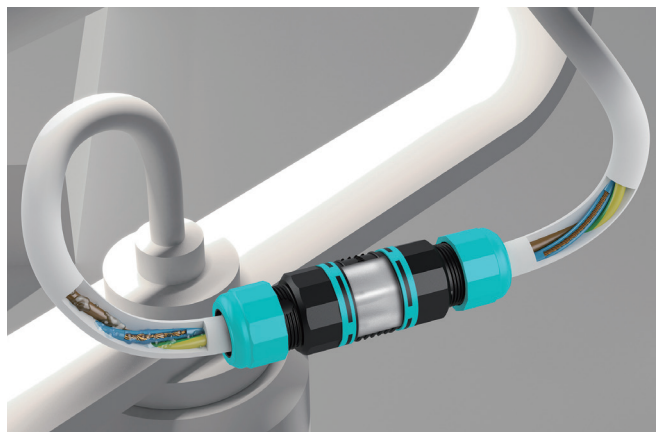
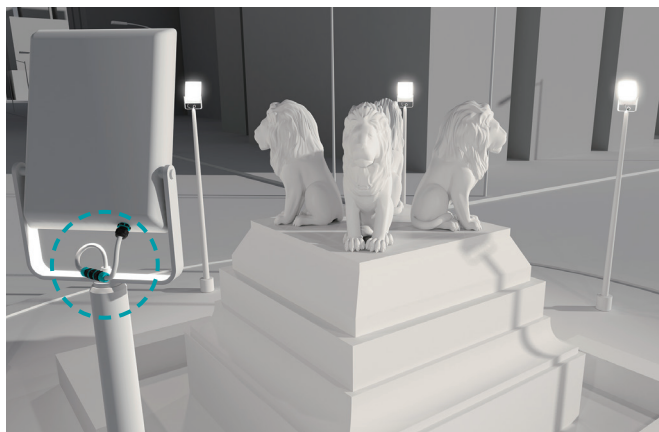
● RELAY BOX

3 • 4 BRANCH TYPE	Wire Connection	Number of pole	Applicable Wire	Specification	Details on Website
THA209A • 209B 	Screw Lock	3P • 5P 8P • 3WP 4WP • 3LP No Terminal	$\phi 7.0 \sim \phi 13.5$	Rated Voltage 450V AC Rated Current 24A • 32A • 41A	Details



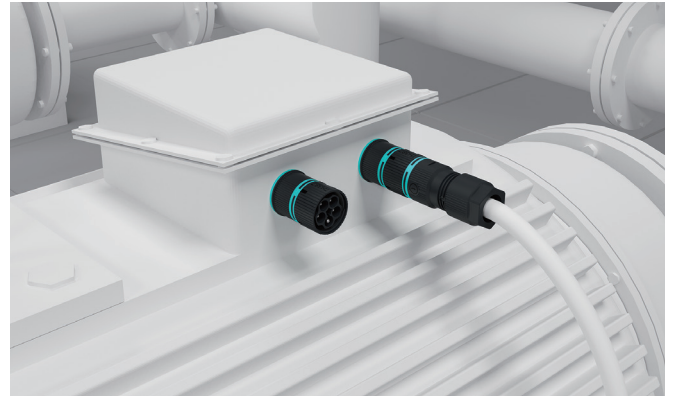
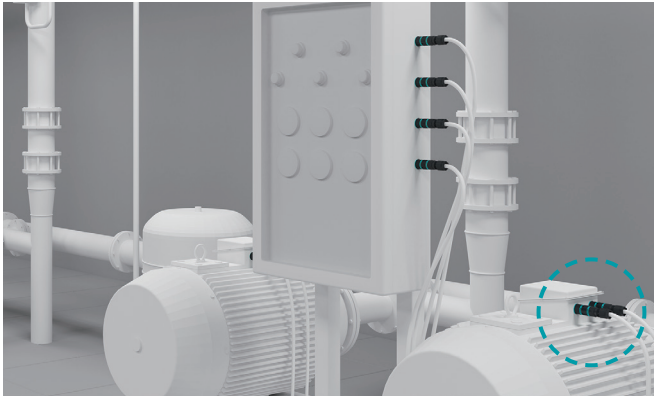
Application Example - Waterproof Connector

Outdoor LED Lighting Connection

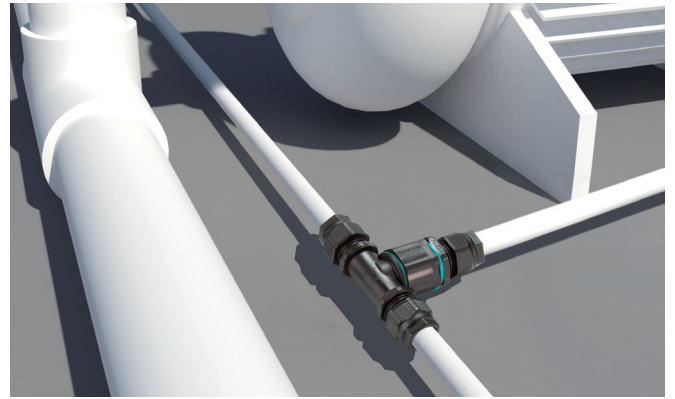
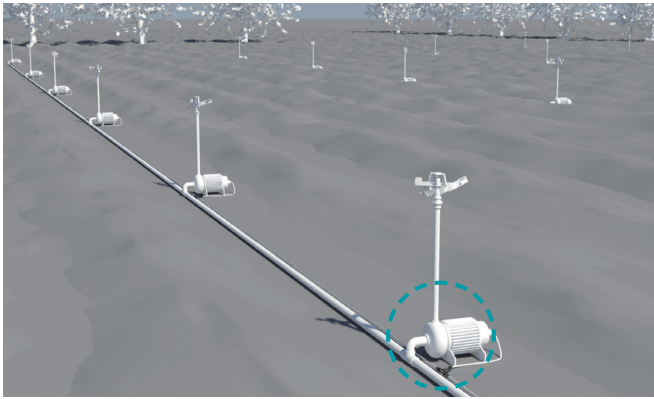


Application Example-1

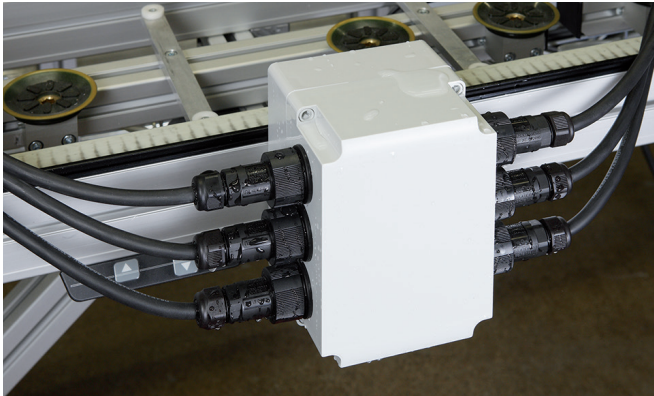
Industrial Motor Connection



Sprinkler System Connection



Power / Sensor Signal Relay in Factory Automation



Machinery



Circuit Breaker Connector



Underground • Underfloor Wiring





SCREWLESS



- Screwless terminal block for high-speed connection.
- 4P and 5P pole terminal models are available.
- UL2238 / C22.2 No. 182.3 certified products.

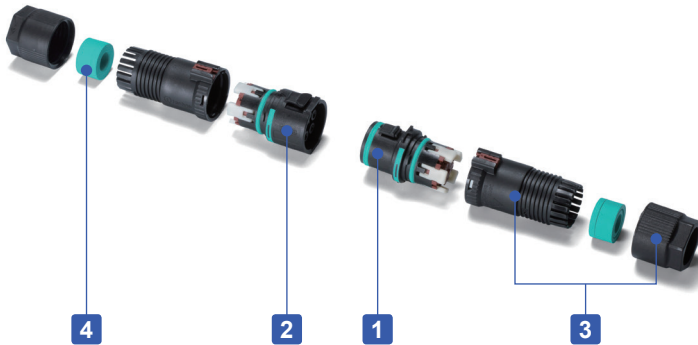
**PUSH PULL
EASY CLICK !**



- Easy connection / disconnection through the use of the snap-lock mechanism.

Technical Data

Protection class : IP68 0.5bar/1h (1 hour / 5m depth)
Operating temperature : -40°C ~ +100°C
EN61984 compliant.



Specifications

Rated voltage	AC500V (EN61984)
	AC600V (UL2238/C22.2 No.182.3)
Rated current	17.5A (EN61984)
	10A (UL2238/C22.2 No.182.3)
Applicable wire (Stranded • Single)	0.25mm ² ~ 1.5mm ²
Impulse withstand voltage	2.5kV
Number of insertion/extraction	100 times

Components

No.	Part name	Pcs	Material	Color / Finish
1	Plug	1	PA66GF (UL94V-0) • TPE	Black • Green
2	Socket	1	PA66GF (UL94V-0) • TPE	Black • Green
3	Cable gland	2	PA66 (UL94V-2)	Black
4	Sealing insert	2	TPE	Green

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

Accessories (Optional parts)



Sealing insert
See page Tool-5



Exclusive bracket
See page Tool-1



Sealing plug • socket cap
See page Cap-1



Exclusive tightening tool
See page Tool-5

Terminal sequence

Plug side (Male)



THS389-4P



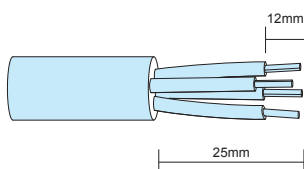
THS389-5P



Socket side (Female)



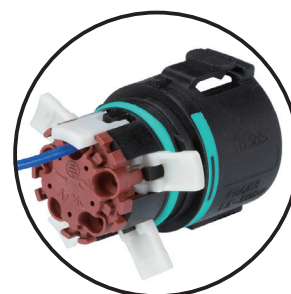
Wire connection diagram



■ Ready the wiring.



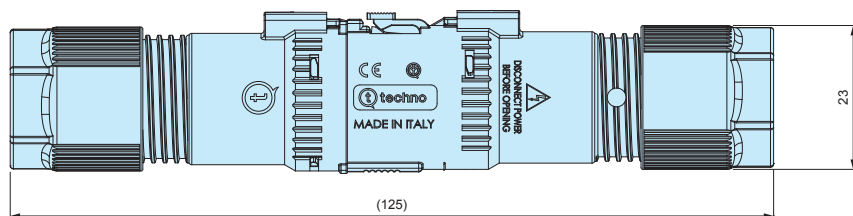
■ Lift the lever and insert wire.



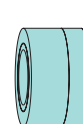
■ Close / drop the lever to complete the connection.

THS389 dimensions

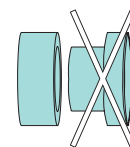
■ DXF/DWG/PDF drawings available on our website.



Sealing insert



Cable diameter
Φ7mm ~ Φ9mm

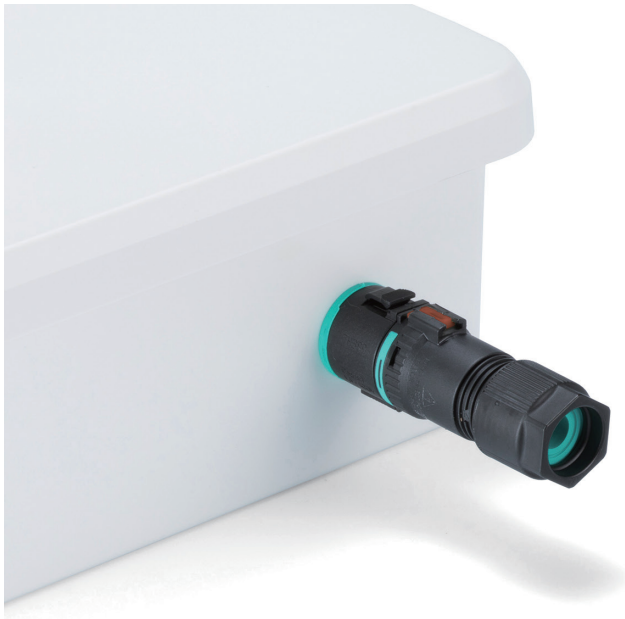


Cable diameter
Φ9mm ~ Φ13.5mm

■ Applicable cable size range can be expanded by removing the inner sealing insert.

Product no. / Details

Product no.	Cable range	Number of poles
THS389-4P	Φ7.0 ~ Φ13.5	4P
THS389-5P	Φ7.0 ~ Φ13.5	5P

THS389E series**IP68 UL CERTIFIED SNAP-LOCK SCREWLESS MINI PANEL-MOUNT CONNECTOR****SCREWLESS**

- Screwless terminal block for high-speed connection.
- 4P and 5P pole terminal models are available.
- UL2238 / C22.2 No. 182.3 certified products.

**PUSH PULL
EASY CLICK !**

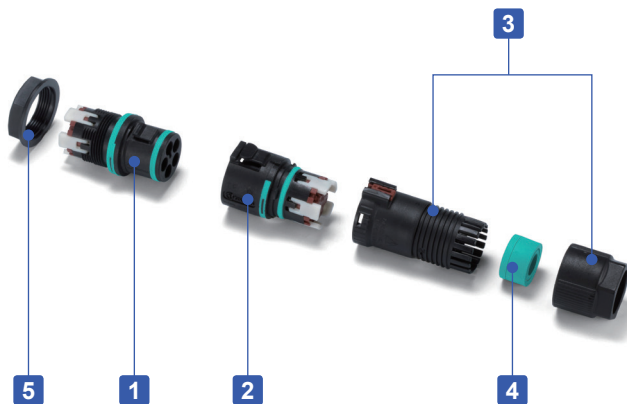
- Easy connection / disconnection through the use of the snap-lock mechanism while installed on panels or enclosures.

Technical Data

Protection class : IP68 0.5bar/1h (1 hour / 5m depth)
 Operating temperature : -40°C ~ +100°C
 EN61984 compliant.

Specifications

Rated voltage	AC500V (EN61984)
	AC600V (UL2238/C22.2 No.182.3)
Rated current	17.5A (EN61984)
	10A (UL2238/C22.2 No.182.3)
Applicable wire (Stranded • Single)	0.25mm ² ~ 1.5mm ²
Impulse withstand voltage	2.5kV
Number of insertion/extraction	100 times

**Components**

No.	Part name	Pcs	Material	Color / Finish
1	Plug	1	PA66GF (UL94V-0) • TPE	Black • Green
2	Socket	1	PA66GF (UL94V-0) • TPE	Black • Green
3	Cable gland	1	PA66 (UL94V-2)	Black
4	Sealing insert	1	TPE	Green
3	Lock nut	1	PA66 (UL94V-2)	Black

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

Accessories (Optional parts)



Sealing insert
See page Tool-5



Sealing plug • socket cap
See page Cap-1



Exclusive tightening tool
See page Tool-5



Exclusive locking tool
See page Tool-1

Terminal sequence

Cable side



THS389E-4P-SP

THS389E-4P-PS

THS389E-5P-SP

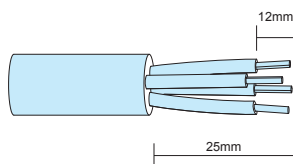
THS389E-5P-PS



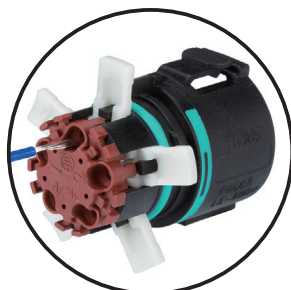
Panel-mount side



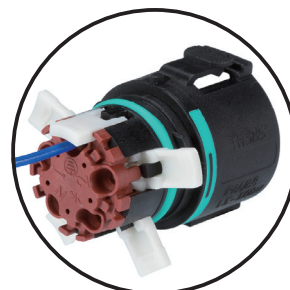
Wire connection diagram



■ Ready the wiring.



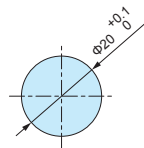
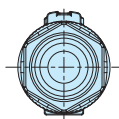
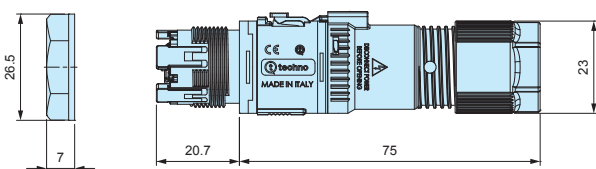
■ Lift the lever and insert wire.



■ Close / drop the lever to complete the connection.

THS389E dimensions

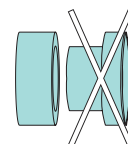
■ DXF/DWG/PDF drawings available on our website.



Sealing insert



Cable diameter
Φ7mm ~ Φ9mm



Cable diameter
Φ9mm ~ Φ13.5mm

■ Applicable cable size range can be expanded by removing the inner sealing insert.

Product no. / Details

Product no.	Cable side / Panel-mount side	Cable range	Number of poles	Mounting thickness (mm)
THS389E-4P-SP	Socket / Plug	Φ7.0 ~ Φ13.5	4P	1 ~ 3
THS389E-4P-PS	Plug / Socket	Φ7.0 ~ Φ13.5	4P	1 ~ 3
THS389E-5P-SP	Socket / Plug	Φ7.0 ~ Φ13.5	5P	1 ~ 3
THS389E-5P-PS	Plug / Socket	Φ7.0 ~ Φ13.5	5P	1 ~ 3

SEALING PLUG CAP for THB389・389E・THS389・389E

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



Installation example



- Protect plug from dust or foreign objects when not in use. Material : Cap / Polyamide 66・Ring / Silicone.
- Sealing plug caps are not waterproof.

Product no. / Details

Product no.	Suitable models
6DB055400	THB389・389E・THS389・389E - Plug side

SEALING SOCKET CAP for THB389・389E・THS389・389E

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



Installation example



- Protect socket from dust or foreign objects when not in use. Material : Cap / Polyamide 66・Ring / Silicone.
- Sealing socket caps are not waterproof.

Product no. / Details

Product no.	Suitable models
6DB055300	THB389・389E・THS389・389E - Socket side

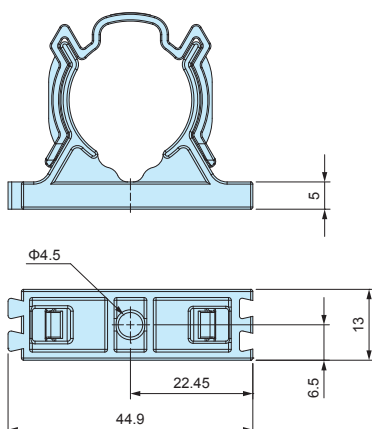
EXCLUSIVE BRACKET for THB389 • THS389



Installation example



- Use when affixing / securing the connector onto a surface.



Product no. / Details

■ PA66 = Polyamide 66

Product no.	Material / Color	Suitable models
6000589CC	PA66 / Black	THB389 • THS389

EXCLUSIVE LOCKING TOOL for THB389E • THS389E



Plug side installation



Socket side installation

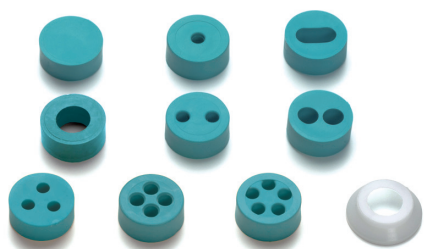
- Exclusive Locking Tool for THB389E • THS389E

Product no. / Details

■ PA66 = Polyamide 66

Product no.	Material / Color	Suitable models
6000532KC	PA66 / Black	THB389E • THS389E - Panel mount side

SEALING INSERT for THA • THB • THS



- Optional sealing insert for THA209, THB387L, 387LE, 389, 389E, 390, 399Y, 400, 402T, 405, 406, THS389 and 389E.

(Not applicable to be used for THB381, 381E, 387, 387E, 391 and 392 series.)

- Recommended to be used to change the compatible wire diameter, or for installation of multiple wires.
- 6000087LF cap can be used to prevent the rubber bushing from protruding, as well as stabilizing the waterproof performance when using wire of diameter 7.0mm or smaller.

Product no. / Details

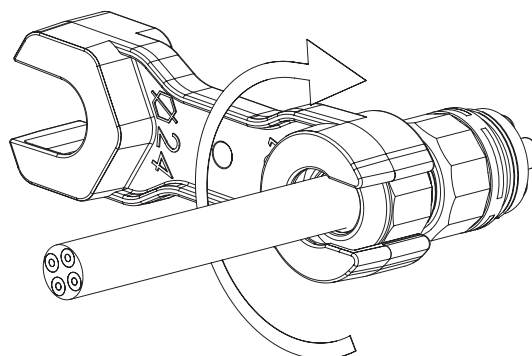
Product no.	Appearance	Cable range	Material	Pack of
600013700		Blind insert without hole	TPE	10
600012700		11mm × 5.5mm	TPE	10
600037000		Φ4.0 ~ Φ6.5mm	TPE • POM	10 each
604001100		Φ5.5 ~ Φ9.5mm Use fixing cap for cables sized Φ7.0mm or smaller	TPE • POM	10 each
600013600		Φ2.0 ~ Φ4.0mm	TPE • POM	10 each
600012500		Φ2.0 ~ Φ4.0mm	TPE • POM	10 each
600030600		Φ4.5 ~ Φ6.0mm	TPE	10
600012600		Φ2.0 ~ Φ4.0mm	TPE	10
600018200		Φ2.0 ~ Φ3.5mm	TPE	10
600022400		Φ2.5 ~ Φ3.5mm	TPE	10
6000087LF		Cap for cables sized Φ7.0mm or smaller	POM	10

- 6000087LF cap cannot be used with 600030600 and 600022400

EXCLUSIVE TIGHTENING TOOL for THB • THS



How to use



- Dedicated locking tool for tightening of the cable gland cap.

Product no. / Details

- PA66GF = Glass fiber filled polyamide 66

Product no.	Material / Color	Suitable models
6000337BC	PA66GF / Black	THB387 • 387E • 387L • 387LE • 389 • 389E • 390 • 390T • 391 • 392 • 399Y • 400 • 402T • 405 • 406 • THS389 • 389E

THB389 series

IP68 SNAP-LOCK MINI CONNECTOR



- IP68 snap-lock connector for easy and frequent connection / disconnection.
- 4P and 5P pole models are available.
- Plug-socket connector type consisting of the plug side (male) and socket side (female).

Technical Data

Protection class : IP68 0.5bar/1h (1 hour / 5m depth)
Operating temperature : -40°C ~ +100°C
EN61984 compliant.

Specifications

Rated voltage	AC500V
Rated current	17.5A
Applicable wire	Stranded wire 0.25mm ² ~ 1.5mm ²
Impulse withstand voltage	2.5kV



Components

No.	Part name	Pcs	Material	Color / Finish
1	Plug	1	PA66GF (UL94V-0) • TPE	Black • Green
2	Socket	1	PA66GF (UL94V-0) • TPE	Black • Green
3	Cable gland	2	PA66 (UL94V-2)	Black
4	Sealing insert	2	TPE	Green

■ PA66 = Polyamide 66
■ PA66GF = Glass fiber filled polyamide 66

Accessories (Optional parts)



Sealing insert
See page Sealing Insert-2



Exclusive bracket
See page Tool-1



Sealing plug • socket cap
See page Cap-1



Exclusive tightening tool
See page Tool-4

Terminal sequence

Plug side (Male)



THB389-4P



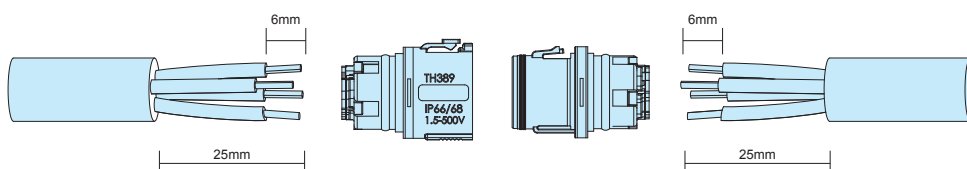
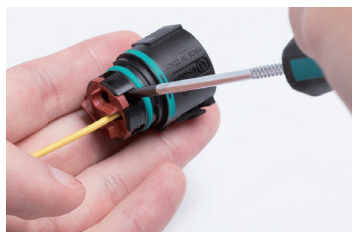
THB389-5P



Socket side (Female)



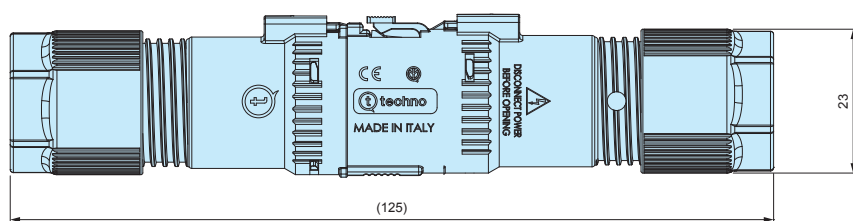
Wire connection diagram



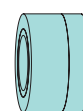
- Screw type connection method; soldering or special tools are not required.
- Screwdriver flathead tip width of 3mm is recommended.
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

THB389 dimensions

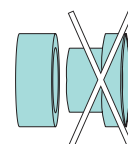
■ DXF/DWG/PDF drawings available on our website.



Sealing insert



Cable diameter
Φ7mm ~ Φ9mm



Cable diameter
Φ9mm ~ Φ13.5mm

- Applicable cable size range can be expanded by removing the inner sealing insert.

Product no. / Details

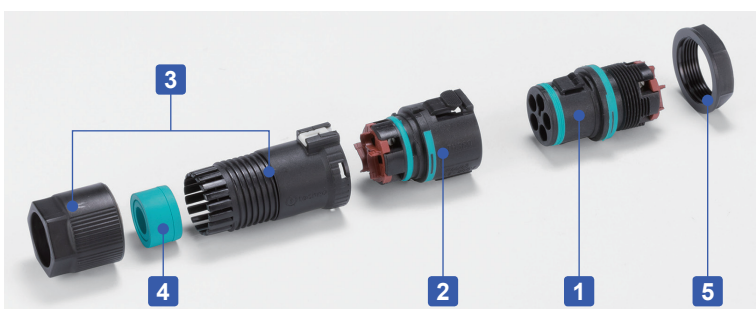
Product no.	Cable range	Number of poles
THB389-4P	Φ7.0 ~ Φ13.5	4P
THB389-5P	Φ7.0 ~ Φ13.5	5P



- IP68 snap-lock mini panel-mount connector for easy and frequent connection / disconnection.
- Can be attached / detached while installed on panels or enclosures.
- 4P and 5P pole models are available.
- Plug-socket panel-mount type consisting of the plug side (male) and socket side (female).

Technical Data

Protection class : IP68 0.5bar/1h (1 hour / 5m depth)
Operating temperature : -40°C ~ +100°C
EN61984 compliant.



- Shown above is SP (Socket / Plug) type.

Specifications

Rated voltage	AC500V
Rated current	17.5A
Applicable wire	Stranded wire 0.25mm ² ~ 1.5mm ²
Impulse withstand voltage	2.5kV

Components

No.	Part name	Pcs	Material	Color / Finish
1	Plug	1	PA66GF (UL94V-0) • TPE	Black • Green
2	Socket	1	PA66GF (UL94V-0) • TPE	Black • Green
3	Cable gland	2	PA66 (UL94V-2)	Black
4	Sealing insert	2	TPE	Green
5	Lock nut	1	PA66 (UL94V-2)	Black

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

Accessories (Optional parts)



Sealing insert
See page Tool-5



Sealing plug • socket cap
See page Cap-1



Exclusive tightening tool
See page Tool-5



Exclusive locking tool
See page Tool-1

Terminal sequence

Cable side

THB389E-4P-SP

THB389E-4P-PS

THB389E-5P-SP

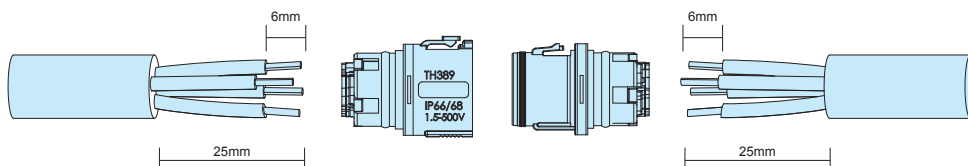
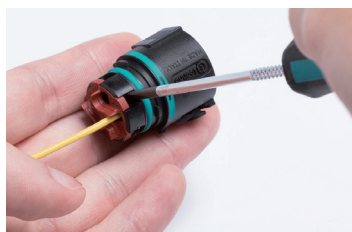
THB389E-5P-PS



Panel-mount side



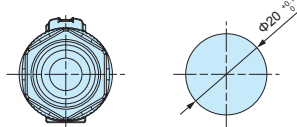
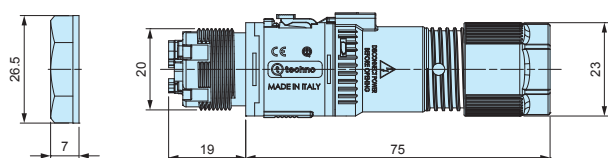
Wire connection diagram



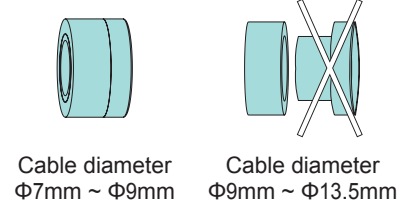
- Screw type connection method; soldering or special tools are not required.
- Screwdriver flathead tip width of 3mm is recommended.
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

THB389E dimensions

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



Sealing insert



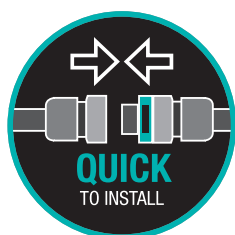
- Applicable cable size range can be expanded by removing the inner sealing insert.

Product no. / Details

Product no.	Cable side / Panel mount side	Cable range	Number of poles	Mounting thickness (mm)
THB389E-4P-SP	Socket / Plug	Φ7.0 ~ Φ13.5	4P	1 ~ 3
THB389E-4P-PS	Plug / Socket	Φ7.0 ~ Φ13.5	4P	1 ~ 3
THB389E-5P-SP	Socket / Plug	Φ7.0 ~ Φ13.5	5P	1 ~ 3
THB389E-5P-PS	Plug / Socket	Φ7.0 ~ Φ13.5	5P	1 ~ 3

THB381 series

IP68 SNAP-LOCK MICRO CONNECTOR

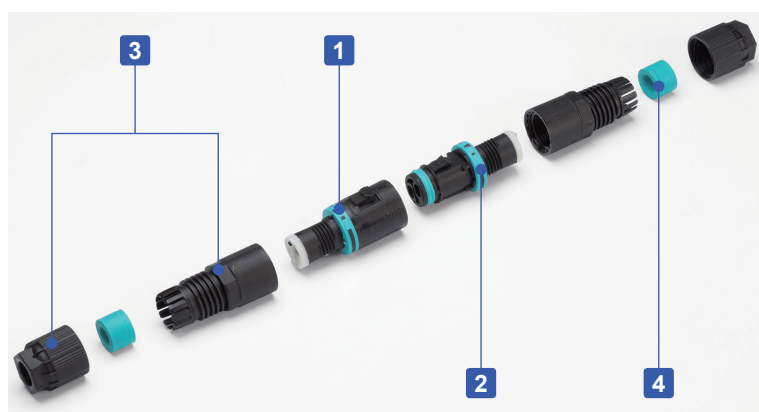


- IP68 snap-lock micro connector of just 14mm in diameter.
- Easy connection / disconnection by simply snapping it to lock, and pulling while pressing the tab to release.
- Plug-socket connector type consisting of the plug side (male) and socket side (female).



Technical Data

Protection class : IP68 3bar/1h (1 hour / 30m depth)
 Operating temperature : -40°C ~ +125°C
 EN61984 compliant.



Specifications

THB381-2P-7 • THB381-2P-8

Rated voltage	AC500V (12V ~ 60V DC)
Rated current	10A AC/DC
Applicable wire	Stranded wire 0.25mm ² ~ 1.0mm ²
Impulse withstand voltage	4kV
Number of insertion/extraction	100 times

THB381-3P-7 • THB381-3P-8

Rated voltage	AC500V
Rated current	10A AC
Applicable wire	Stranded wire 0.25mm ² ~ 1.0mm ²
Impulse withstand voltage	4kV
Number of insertion/extraction	100 times

Components

No.	Part name	Pcs	Material	Color / Finish
1	Plug	1	PA66GF (UL94V-0) • TPE	Black • Green
2	Socket	1	PA66GF (UL94V-0) • TPE	Black • Green
3	Cable gland	2	PA66 (UL94V-2)	Black
4	Sealing insert	2	TPE	Green

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

Terminal sequence

Plug side (Male)



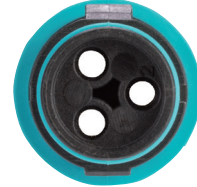
THB381-2P-□



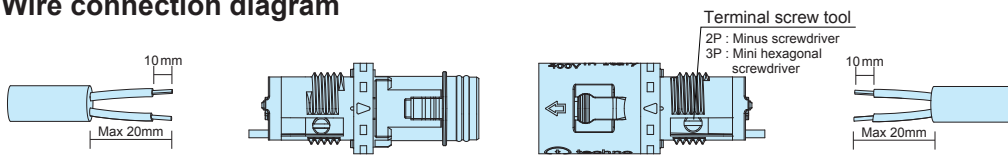
THB381-3P-□



Socket side (Female)



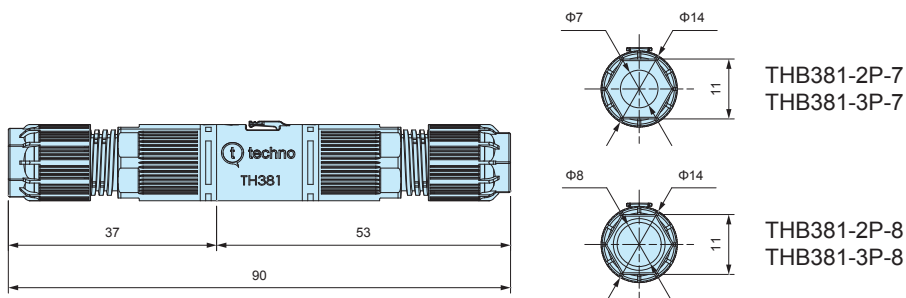
Wire connection diagram



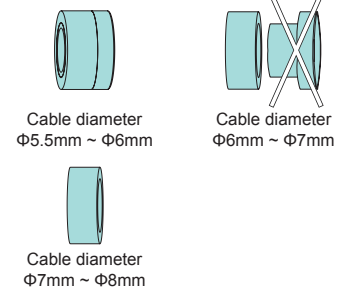
- Screw type connection method; soldering or special tools are not required.
- For 2P models, use a flathead (minus) screwdriver of tip width 3mm.
For 3P models, use a hexagonal screwdriver (tip width of 0.9mm width across flats).
- Wire connection diagram above is for 2P models.
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

THB381 dimensions

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



Sealing insert



Product no. / Details

Product no.	Cable range	Number of poles
THB381-2P-7	Φ5.5 ~ Φ7.0	2P
THB381-3P-7	Φ5.5 ~ Φ7.0	3P
THB381-2P-8	Φ7.0 ~ Φ8.0	2P
THB381-3P-8	Φ7.0 ~ Φ8.0	3P

- Applicable cable size range can be expanded by removing the inner sealing insert.

Accessories (Optional parts)



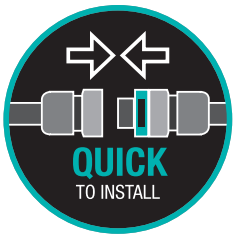
Sealing insert
See page Tool-2



Exclusive tightening tool
See page Tool-2



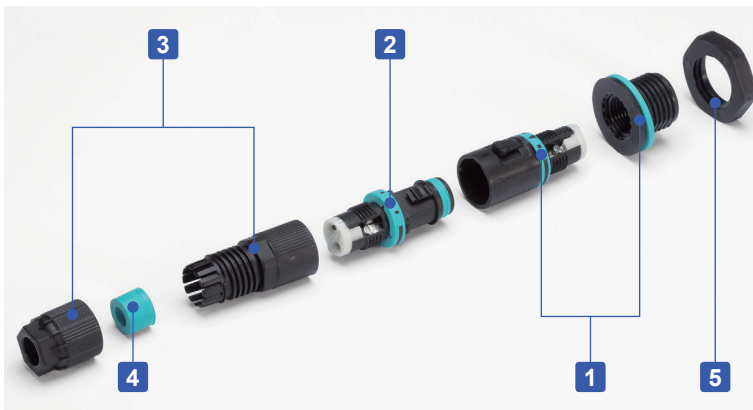
Mini hexagonal screwdriver
See page Tool-2

THB381E series**IP68 SNAP-LOCK PANEL-MOUNT MICRO CONNECTOR**

- IP68 snap-lock panel-mount micro connector of just 14mm in diameter.
- Easy connection / disconnection by simply snapping it to lock, and pulling while pressing the tab to release.
- Plug-socket panel-mount type consisting of the plug side (male) and socket side (female).

**Technical Data**

Protection class : IP68 3bar/1h (1 hour / 30m depth)
 Operating temperature : -40°C ~ +125°C
 EN61984 compliant.

**Specifications**

THB381E-2P-7 • THB381E-2P-8

Rated voltage	AC500V (12V~60V DC)
Rated current	10A AC/DC
Applicable wire	Stranded wire 0.25mm ² ~ 1.0mm ²
Impulse withstand voltage	4kV
Number of insertion/extraction	100 times

THB381E-3P-7 • THB381E-3P-8

Rated voltage	AC500V
Rated current	10A AC
Applicable wire	Stranded wire 0.25mm ² ~ 1.0mm ²
Impulse withstand voltage	4kV
Number of insertion/extraction	100 times

Components

No.	Part name	Pcs	Material	Color / Finish
1	Plug	1	PA66GF (UL94V-0) • TPE	Black • Green
2	Socket	1	PA66GF (UL94V-0) • TPE	Black • Green
3	Cable gland	1	PA66 (UL94V-2)	Black
4	Sealing insert	1	TPE	Green
5	Lock nut	1	PA66 (UL94V-2)	Black

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

Terminal sequence

Plug side (Male)



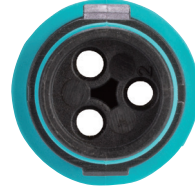
THB381E-2P-□



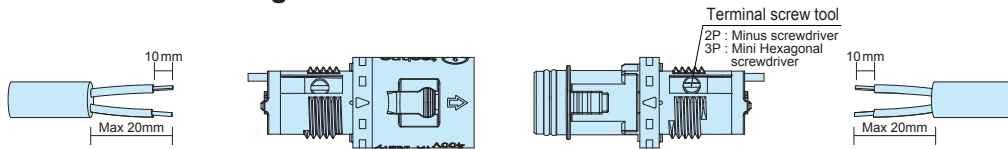
THB381E-3P-□



Socket side(Female)



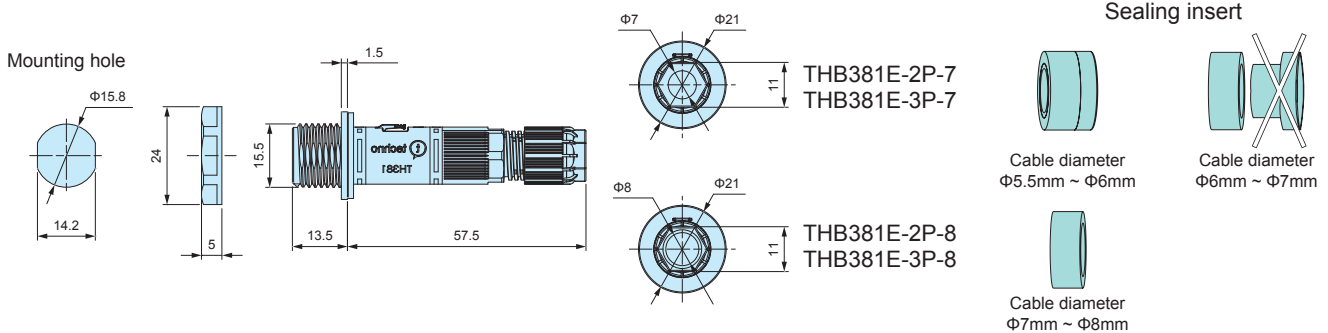
Wire connection diagram



- Screw type connection method; soldering or special tools are not required.
- For 2P models, use a flathead (minus) screwdriver of tip width 3mm.
For 3P models, use a hexagonal screwdriver (tip width of 0.9mm width across flats).
- Wire connection diagram above is for 2P models.
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

THB381E dimensions

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



Product no. / Details

Product no.	Cable range	Number of poles
THB381E-2P-7	Φ5.5 ~ Φ7.0	2P
THB381E-3P-7	Φ5.5 ~ Φ7.0	3P
THB381E-2P-8	Φ7.0 ~ Φ8.0	2P
THB381E-3P-8	Φ7.0 ~ Φ8.0	3P

- Applicable cable size range can be expanded by removing the inner sealing insert.

Accessories (Optional parts)



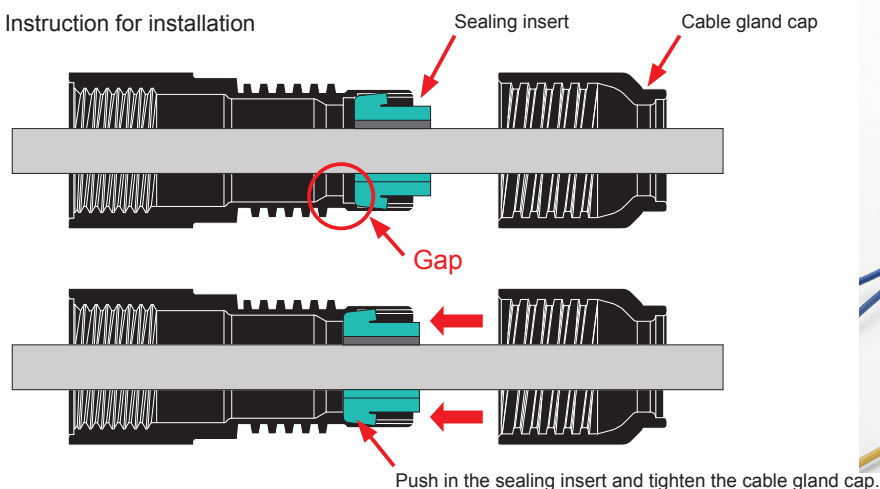
SEALING INSERT for THB381 • 381E

Product no. / Details

Product no.	Appearance	Cable range	Pack of	Material
6000473GT		Φ3.0 ~ Φ5.0mm	10	TPE
6000461GT		Φ1.9 ~ Φ2.5mm	10	TPE
6000520GT		Φ1.9 ~ Φ2.5mm	10	TPE

- Recommended for use with small diameter cables.
- 6000473GT is not suitable for THB381-2P-8, 381-3P-8, 381E-2P-8 and 381E3P-8.
- The outer diameter of 6000461GT and 6000520GT is about 1mm larger. The brim can be rolled up during installation.

Instruction for installation



EXCLUSIVE TIGHTENING TOOL for THB381 • 381E

Product no. / Details

■ PA66GF = Glass fiber filled polyamide 66

Product no.	Suitable models	Material / Color
6000462KC	THB381 • THB381E	PA66GF / Black

- Dedicated locking tool for tightening of the cable gland cap.
- Tighten until the tool slips and spins idly around.



MINI HEXAGONAL SCREWDRIVER for THB381-3P • 381E-3P

- Hexagonal screwdriver with a tip of 0.9mm width across flats.
- For terminal screws on THB381-3P and 381E-3P.



Product no. / Details

Product no.	Suitable models
650000800	THB381-3P • THB381E-3P

SEALING PLUG CAP for THB381E



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



Installation example



Installation example on THB381E



■ Protect plug from dust or foreign objects when not in use. Material : Cap / Polyamide 66 • Ring / Silicone.

■ Sealing plug caps are not waterproof.

Product no. / Details

Product no.	Suitable models	Material / Color
6DB057400	THB381E - Plug side	PA66 • Silicone / Black

SEALING SOCKET CAP for THB381E



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



Installation example



Installation example on THB381E



■ Protect socket from dust or foreign objects when not in use. Material : Cap / Polyamide 66 • Ring / Silicone.

■ Sealing socket caps are not waterproof.

Product no. / Details

Product no.	Suitable models	Material / Color
6DB057300	THB381E - Socket side	PA66 • Silicone / Black

THB387L series

IP68 UL CERTIFIED MINI PLUG-TYPE RELAY CONNECTOR



- UL2238 / C22.2 No. 182.3 certified products.
- Plug-socket connector type consisting of the plug side (male) and socket side (female).
- A screw type wiring connection is adopted, allowing for easy installation and removal.
- 4P and 5P pole models are available.
- For safety reasons, please arrange the connector such that the primary side is female (socket side) and the secondary side is male (plug side).

Technical Data

Protection class : IP68 3bar/3h (3 hour / 30m depth)
Operating temperature : -40°C ~ +125°C
EN61984 compliant.

Specifications

THB387L-4P

Rated voltage	Max AC500V
Rated current	Max 17.5A (EN61984)
	Max 15A (UL2238/C22.2 No. 182.3)
Applicable wire	Stranded wire 0.5mm ² ~ 4.0mm ²
Impulse withstand voltage	4kV
Number of insertion/extraction	1,000 times

THB387L-5P

Rated voltage	Max AC500V
Rated current	Max 17.5A (EN61984)
	Max 10A (UL2238/C22.2 No. 182.3)
Applicable wire	Stranded wire 0.25mm ² ~ 1.5mm ²
Impulse withstand voltage	4kV
Number of insertion/extraction	1,000 times



Components

No.	Part name	Pcs	Material	Color / Finish
1	Plug	1	PA66GF (UL94V-0) • PA66 • TPE	Black • Green
2	Socket	1	PA66GF (UL94V-0) • PA66 • TPE	Black • Green
3	Cable gland	2	PA66 (UL94V-2)	Black
4	Sealing insert	2	TPE	Green

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

Accessories (Optional parts)



Sealing insert
See page Tool-5



Exclusive bracket
See page Tool-6



Sealing plug • socket cap
See page Cap-3



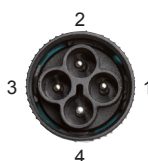
Exclusive tightening tool
See page Tool-5

Terminal sequence

Plug side (Male)



THB387L-4P



THB387L-5P



Socket side (Female)



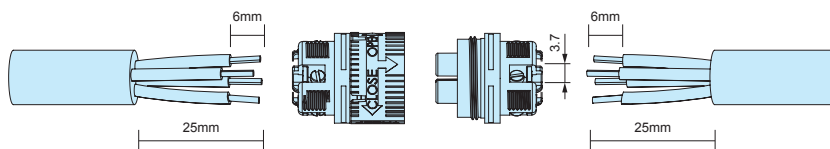
THB387L-4P



THB387L-5P



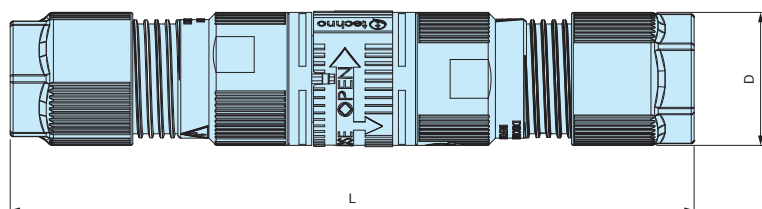
Wire connection diagram



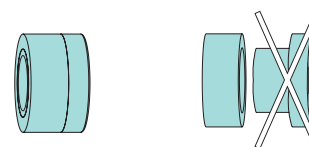
- Screw type connection method; soldering or special tools are not required.
- A flathead (minus) screwdriver of tip width 3mm is recommended.
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

THB387L dimensions

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



Sealing insert



Cable diameter
Φ7mm ~ Φ9mm

Cable diameter
Φ9mm ~ Φ13.5mm

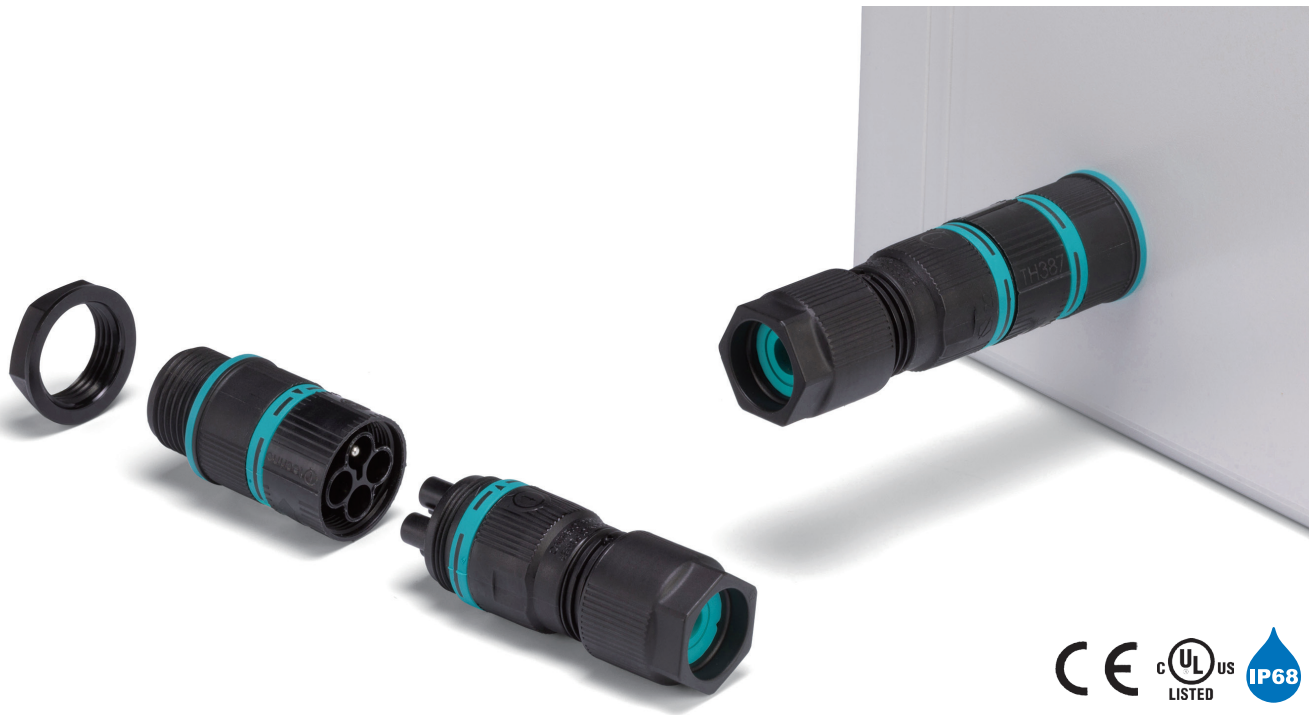
- Applicable cable size range can be expanded by removing the inner sealing insert.

Product no. / Details

Product no.	L	D	Cable range	Number of poles
THB387L-4P	118	23	Φ7.0 ~ Φ13.5	4P
THB387L-5P	118	23	Φ7.0 ~ Φ13.5	5P

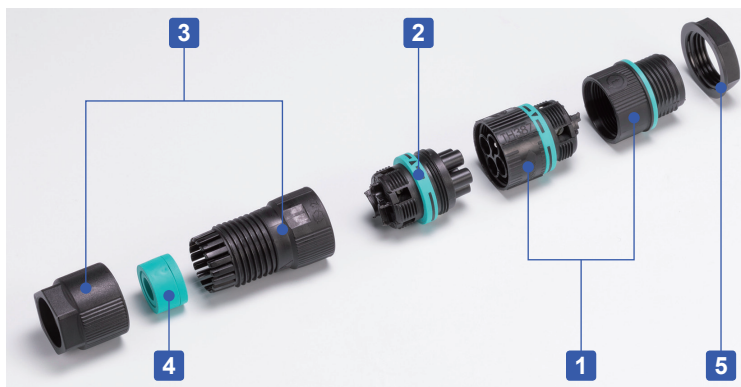
THB387LE series

IP68 UL CERTIFIED MINI PANEL-MOUNT PLUG-TYPE RELAY CONNECTOR



- UL2238 / C22.2 No. 182.3 certified products.
- Plug-socket panel-mount type consisting of the plug side (male) and socket side (female).
- Can be attached / detached while installed on panels or enclosures.
- A screw type wiring connection is adopted, allowing for easy installation and removal.
- 4P and 5P pole models are available.
- For safety reasons, please arrange the connector such that the primary side is female (socket side) and the secondary side is male (plug side).

Technical Data
Protection class : IP68 3bar/3h (3 hour / 30m depth) Operating temperature : -40°C ~ +125°C EN61984 compliant.



Specifications

THB387LE-4P

Rated voltage	Max AC500V
Rated current	Max 17.5A (EN61984) Max 15A (UL2238/C22.2 No. 182.3)
Applicable wire	Stranded wire 0.5mm ² ~ 4.0mm ²
Impulse withstand voltage	4kV
Number of insertion/extraction	1,000 times

THB387LE-5P

Rated voltage	Max AC500V
Rated current	Max 17.5A (EN61984) Max 10A (UL2238/C22.2 No. 182.3)
Applicable wire	Stranded wire 0.25mm ² ~ 1.5mm ²
Impulse withstand voltage	4kV
Number of insertion/extraction	1,000 times

Components

No.	Part name	Pcs	Material	Color / Finish
1	Plug	1	PA66GF (UL94V-0) • PA66 • TPE	Black • Green
2	Socket	1	PA66GF (UL94V-0) • PA66 • TPE	Black • Green
3	Cable gland	1	PA66 (UL94V-2)	Black
4	Sealing insert	1	TPE	Green
5	Lock nut	1	PA66 (UL94V-2)	Black

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

Accessories (Optional parts)



Sealing insert
See page Tool-5



Sealing plug • socket cap
See page Cap-3



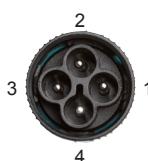
Exclusive tightening tool
See page Tool-5

Terminal sequence

Plug side (Male)



THB387LE-4P



THB387LE-5P



Socket side (Female)



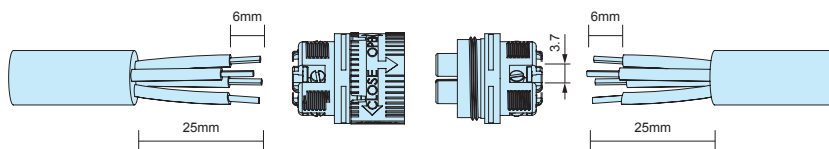
THB387LE-4P



THB387LE-5P



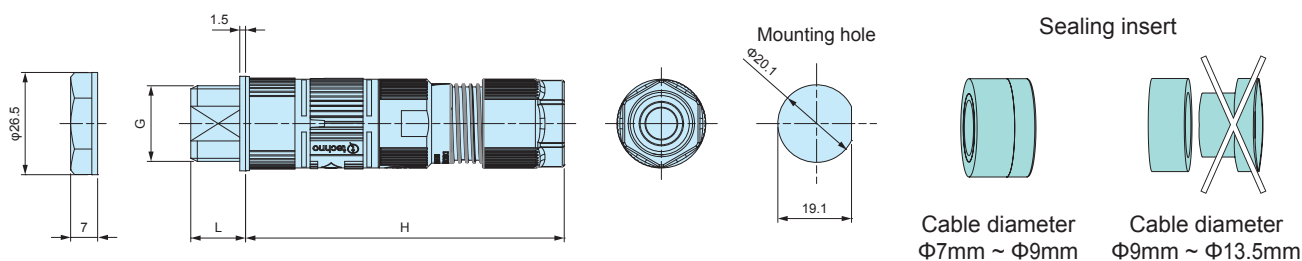
Wire connection diagram



- Screw type connection method; soldering or special tools are not required.
- A flathead (minus) screwdriver of tip width 3mm is recommended.
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

THB387LE dimensions

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



- Applicable cable size range can be expanded by removing the inner sealing insert.

Product no. / Details

Product no.	L	D	G	Cable range	Number of poles
THB387LE-4P-M20	14	82	20	Φ7.0 ~ Φ13.5	4P
THB387LE-5P-M20	14	82	20	Φ7.0 ~ Φ13.5	5P

THB387 series

IP68 PLUG-TYPE RELAY CONNECTOR



- Plug-socket connector type consisting of the plug side (male) and socket side (female).
- A screw type wiring connection is adopted, allowing for easy installation and removal.
- 3P, 4P and 5P pole models are available.
- Plug / Socket can be purchased separately. See page THB387-2 for more information.
- For safety reasons, please arrange the connector such that the primary side is female (socket side) and the secondary side is male (plug side).

Technical Data

Protection class :
IP68 3bar/3h (3 hour / 30m depth)
Operating temperature : -40°C ~ +125°C
EN61984 compliant.



THB387-3P • THB387-4P

Rated voltage	Max AC500V
Rated current	Max 17.5A
Applicable wire	Stranded wire 0.5mm ² ~ 4.0mm ²
Impulse withstand voltage	4kV
Number of insertion/extraction	1,000 times

THB387-5P

Rated voltage	Max AC500V
Rated current	Max 17.5A
Applicable wire	Stranded wire 0.25mm ² ~ 1.5mm ²
Impulse withstand voltage	4kV
Number of insertion/extraction	1,000 times

Components

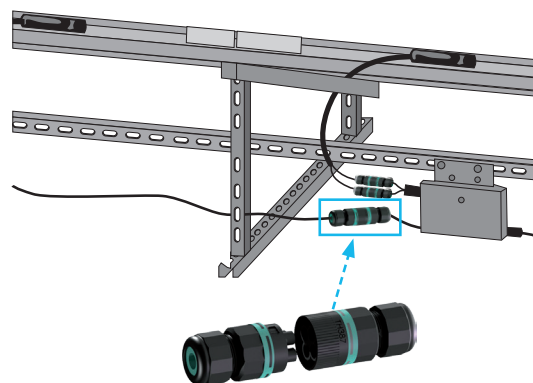
No.	Part name	Pcs	Material	Color / Finish
1	Plug	1	PA66GF (UL94V-0) • TPE	Black • Green
2	Socket	1	PA66GF (UL94V-0) • TPE	Black • Green
3	Cable gland	2	PA66 (UL94V-2)	Black
4	Sealing insert	2	TPE	Green

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

- Suitable for use as power or sensor signal relay of industrial plant, machining instrument, outdoor LED lighting, underground wiring, marine equipment where waterproof is required.

Installation example



THB387-1



Accessories (Optional parts)



Sealing insert
See page Tool-3



Exclusive bracket
See page Tool-6



Sealing plug • socket cap
See page Cap-3



Exclusive tightening tool
See page Tool-5

Terminal sequence

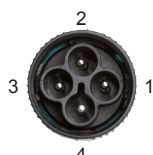
Plug side (Male)



THB387-3P



THB387-4P



THB387-5P



Socket side (Female)



THB387-3P



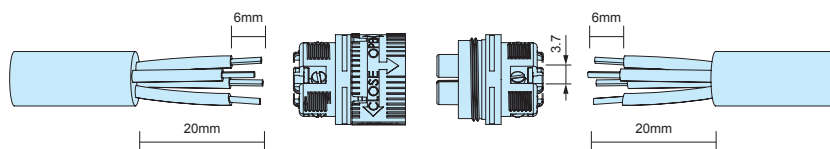
THB387-4P



THB387-5P

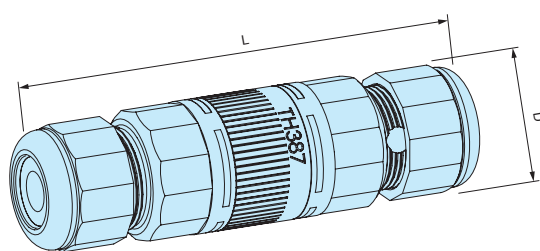


Wire connection diagram

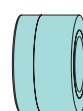


- Screw type connection method; soldering or special tools are not required.
- A flathead (minus) screwdriver of tip width 3mm is recommended.
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

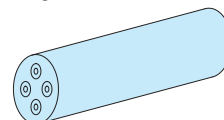
THB387 dimensions



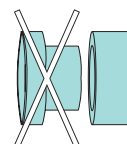
- DXF/DWG/PDF drawings available on our website.



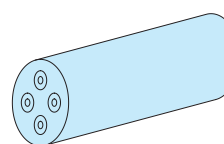
Sealing insert



Cable diameter
Φ7mm ~ Φ9mm



Sealing insert



Cable diameter
Φ9mm ~ Φ12mm

- Applicable cable size range can be expanded by removing the inner sealing insert.

Product no. / Details

- Product includes plug and socket.

Product no.	L	D	Cable range	Number of poles
THB387-3P	85	23	Φ7 ~ Φ12	3P
THB387-4P	85	23	Φ7 ~ Φ12	4P
THB387-5P	85	23	Φ7 ~ Φ12	5P

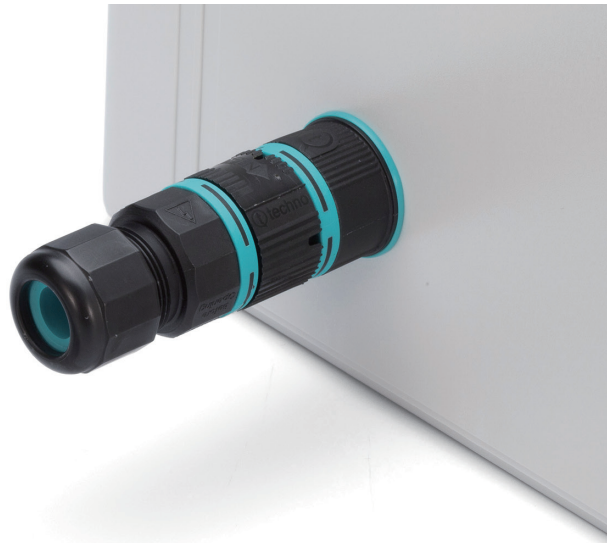
Product no. / Details

- Plug / Socket can be purchased separately.

Product no.	Plug / Socket	Cable range	Number of poles
THB387-3P-P	Plug	Φ7 ~ Φ12	3P
THB387-3P-S	Socket	Φ7 ~ Φ12	3P
THB387-4P-P	Plug	Φ7 ~ Φ12	4P
THB387-4P-S	Socket	Φ7 ~ Φ12	4P
THB387-5P-P	Plug	Φ7 ~ Φ12	5P
THB387-5P-S	Socket	Φ7 ~ Φ12	5P

THB387E series

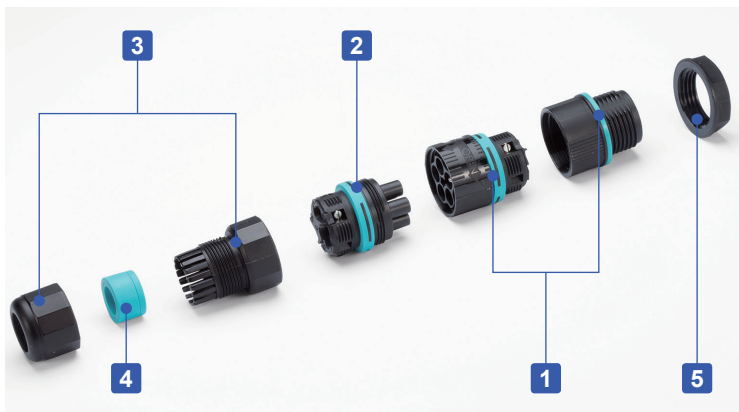
IP68 MINI PANEL-MOUNT PLUG-TYPE RELAY CONNECTOR



- Plug-socket panel-mount type consisting of the plug side (male) and socket side (female).
- Can be attached / detached while installed on panels or enclosures.
- A screw type wiring connection is adopted, allowing for easy installation and removal.
- 3P, 4P and 5P pole models are available.
- Plug / Socket can be purchased separately. See page THB387E-2 for more information.
- For safety reasons, please arrange the connector such that the primary side is female (socket side) and the secondary side is male (plug side).

Technical Data

Protection class :
IP68 3bar/3h (3 hour / 30m depth)
Operating temperature : -40°C ~ +125°C
EN61984 compliant.



THB387E-3P • THB387E-4P

Rated voltage	Max AC500V
Rated current	Max 17.5A
Applicable wire	Stranded wire 0.5mm ² ~ 4.0mm ²
Impulse withstand voltage	4kV
Number of insertion/extraction	1,000 times

THB387E-5P

Rated voltage	Max AC500V
Rated current	Max 17.5A
Applicable wire	Stranded wire 0.25mm ² ~ 1.5mm ²
Impulse withstand voltage	4kV
Number of insertion/extraction	1,000 times

Components

No.	Part name	Pcs	Material	Color / Finish
1	Plug	1	PA66GF (UL94V-0) • TPE	Black • Green
2	Socket	1	PA66GF (UL94V-0) • TPE	Black • Green
3	Cable gland	1	PA66 (UL94V-2)	Black
4	Sealing insert	1	TPE	Green
5	Lock nut	1	PA66 (UL94V-2)	Black

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

Accessories (Optional parts)



Sealing insert
See page Tool-3



Sealing plug • socket cap
See page Cap-3



Exclusive tightening tool
See page Tool-5

Terminal sequence

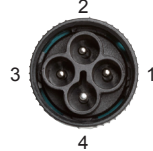
Plug side (Male)



THB387E-3P



THB387E-4P



THB387E-5P



Socket side (Female)



THB387E-3P



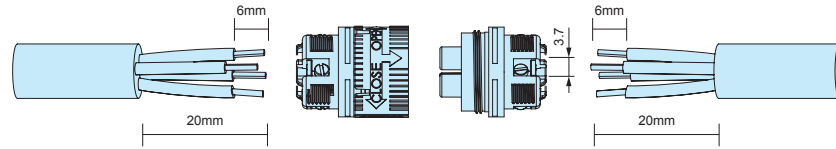
THB387E-4P



THB387E-5P



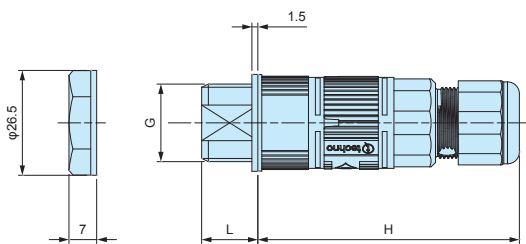
Wire connection diagram



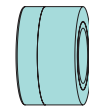
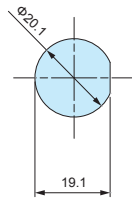
- Screw type connection method; soldering or special tools are not required.
- A flathead (minus) screwdriver of tip width 3mm is recommended.
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

THB387 dimensions

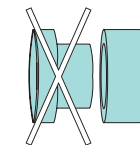
- DXF/DWG/PDF drawings available on our website.



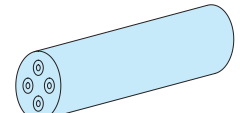
Mounting hole



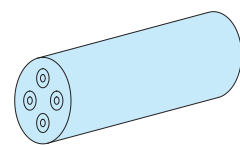
Sealing insert



Sealing insert



Cable diameter
Φ7mm ~ Φ9mm



Cable diameter
Φ9mm ~ Φ12mm

- Applicable cable size range can be expanded by removing the inner sealing insert.

Product no. / Details

- Product includes plug and socket.

Product no.	L	H	G	Cable range	Maximum mounting thickness (mm)	Number of poles
THB387E-3P-M20	14	66.5	20	Φ7 ~ Φ12	6.5	3P
THB387E-4P-M20	14	66.5	20	Φ7 ~ Φ12	6.5	4P
THB387E-5P-M20	14	66.5	20	Φ7 ~ Φ12	6.5	5P

Product no. / Details

- Plug / Socket can be purchased separately.

Product no.	Plug / Socket	Cable range	Number of poles
THB387E-3P-M20-P	Plug	—	3P
THB387 -3P-S	Socket	Φ7 ~ Φ12	3P
THB387E-4P-M20-P	Plug	—	4P
THB387 -4P-S	Socket	Φ7 ~ Φ12	4P
THB387E-5P-M20-P	Plug	—	5P
THB387 -5P-S	Socket	Φ7 ~ Φ12	5P

SEALING INSERT for THB387 • 387E • 391 • 392



- Optional sealing insert for THB387, 387E, 391 and 392 series.
- Recommended to be used to change the compatible wire diameter, or for installation of multiple wires.
- 6000347LA cap can be used to prevent the rubber bushing from protruding, as well as stabilizing the waterproof performance when using wire of diameter 7.0mm or smaller.
- Not applicable to be used for THA209, THB381, 381E, 387L, 387LE, 389, 389E, 390, 399Y, 400, 402T, 405, 406 series.

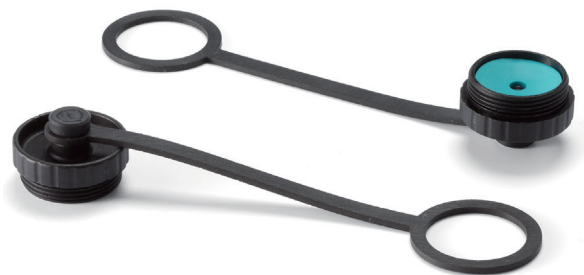
Product no. / Details

Product no.	Appearance	Cable range	Material	Pack of
6000338GT		Blind insert without hole	TPE	10
6000377GT		Φ2.5 ~ Φ4.0mm	TPE • POM	10 each
6000339GT		Φ5.0 ~ Φ7.0mm	TPE • POM	10 each
6000340GT		Φ3.0 ~ Φ4.5mm	TPE • POM	10 each
6000341GT		Φ4.5 ~ Φ6.0mm	TPE	10
6000342GT		Φ2.5 ~ Φ4.5mm	TPE	10
6000343GT		Φ2.5 ~ Φ4.0mm	TPE	10
6000347LA		Cap for cables sized Φ7.0mm or smaller	POM	10

- 6000347LA cap cannot be used with 6000341GT and 6000343GT.

SEALING PLUG CAP for THB387 • 387E • 387L • 387LE

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



Installation example on THB387



Installation example on THB387E



- Protect plug from dust or foreign objects when not in use. Material : Cap / Polyamide 66 • Ring / Silicone.
- Sealing plug caps are not waterproof.

Product no. / Details

Product no.	Suitable models
6DB0219M20	THB387 • 387E • 387L • 387LE - Plug side

SEALING SOCKET CAP for THB387 • 387E • 387L • 387LE



Installation example on THB387



Installation example on THB387E



- Protect socket from dust or foreign objects when not in use. Material : Cap / Polyamide 66 • Ring / Silicone.
- Sealing socket caps are not waterproof.

Product no. / Details

Product no.	Suitable models
6DB0234M20	THB387 • 387E • 387L • 387LE - Socket side

THB405 series

IP68 PLUG-TYPE RELAY CONNECTOR



- Plug-socket connector type consisting of the plug side (male) and socket side (female).
- A screw type wiring connection is adopted, allowing for easy installation and removal.
- 6P and 8P pole models are available.
- For safety reasons, please arrange the connector such that the primary side is female (socket side) and the secondary side is male (plug side).

Technical Data
Protection class : IP68 1bar/1h (1 hour / 10m depth) Operating temperature : -40°C ~ +125°C EN61984 compliant.



THB405-6P

Rated voltage	Max AC400V
Rated current	Max 17.5A
Applicable wire	Stranded wire 0.5mm ² ~ 4.0mm ²
Impulse withstand voltage	6kV
Number of insertion/extraction	1,000 times

THB405-8P

Rated voltage	Max AC400V (DC60V)
Rated current	Max 10A AC/DC
Applicable wire	Stranded wire 0.25mm ² ~ 1.0mm ²
Impulse withstand voltage	2.5kV
Number of insertion/extraction	1,000 times

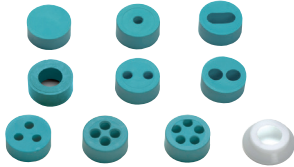
Components

No.	Part name	Pcs	Material	Color / Finish
1	Plug	1	PA66GF (UL94V-0) • PA66 (UL94V-2) • TPE	Black • Green
2	Socket	1	PA66GF (UL94V-0) • PA66 (UL94V-2) • TPE	Black • Green
3	Cap	2	PA66 (UL94V-2)	Black
4	Sealing insert	2	TPE	Green

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

Accessories (Optional parts)



Sealing insert
See page Tool-5



Exclusive bracket
See page Tool-6



Sealing plug • socket cap
See page Cap-4



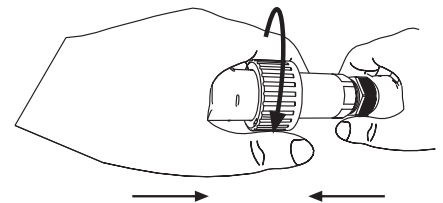
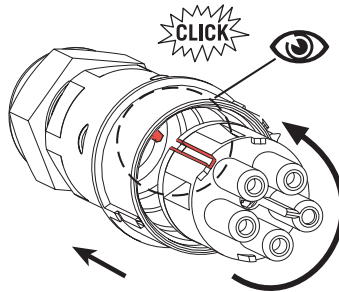
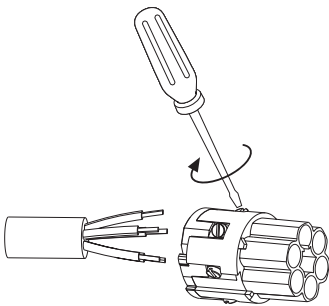
Exclusive tightening tool
See page Tool-4



Exclusive terminal installation tool
See page Tool-4

How to connect

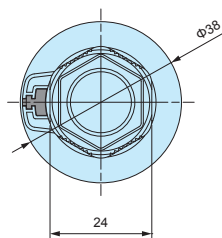
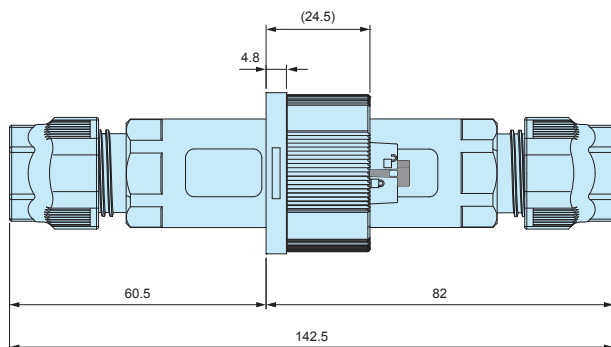
1. Connect the wires to the terminal block using a flathead (minus) screwdriver.
2. Align the terminal block with the groove and insert it into the plug / socket. Turn / twist to lock.
3. Ensure that the plug and socket are firmly attached before turning the retaining ring to secure.



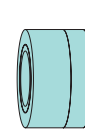
- Screw type connection method; soldering or special tools are not required.
- A flathead (minus) screwdriver of tip width 3mm is recommended.
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

THB405 dimensions

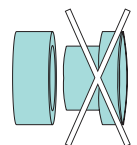
- DXF/DWG/PDF drawings available on our website.



Sealing insert



Cable diameter
Φ7mm ~ Φ9mm



Cable diameter
Φ9mm ~ Φ13.5mm

- Applicable cable size range can be expanded by removing the inner sealing insert.

Product no. / Details

Product no.	Cable range	Number of poles
THB405-6P	Φ7.0 ~ Φ13.5	6P
THB405-8P	Φ7.0 ~ Φ13.5	8P

THB406 series

IP68 PANEL-MOUNT PLUG-TYPE RELAY CONNECTOR



- IP68 panel-mount plug-type connector for installation on panels or boxes.
- Set consisting of a plug (male) and socket (female).
- Plug-socket panel-mount type consisting of the plug side (male) and socket side (female).
- 3P, 6P and 8P pole models are available.
- THB406-3P is UL2238 / C22.2 No. 182.3 compliant product.
- For safety reasons, please arrange the connector such that the primary side is female (socket side) and the secondary side is male (plug side).

Technical Data

Protection class :
IP68 1bar/1h (1 hour / 10m depth)
Operating temperature : -40°C ~ +125°C
EN61984 compliant.



THB406-3P



Rated voltage	Max AC400V
Rated current	Max 25A (EN61984) Max 20A (UL2238/C22.2No. 182.3)
Applicable wire	Stranded wire 0.5mm ² ~ 4.0mm ²
Impulse withstand voltage	4kV
Number of insertion/extraction	1,000 times

THB406-6P



Rated voltage	Max AC400V
Rated current	Max 17.5A
Applicable wire	Stranded wire 0.5mm ² ~ 4.0mm ²
Impulse withstand voltage	6kV
Number of insertion/extraction	1,000 times

THB406-8P



Rated voltage	Max AC400V (DC60V)
Rated current	Max 10A AC/DC
Applicable wire	Stranded wire 0.25mm ² ~ 1.0mm ²
Impulse withstand voltage	2.5kV
Number of insertion/extraction	1,000 times

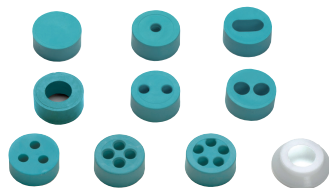
Components

No.	Part name	Pcs	Material	Color / Finish
1	Plug	1	PA66GF (UL94V-0) • PA66 (UL94V-2) • TPE	Black • Green
2	Socket	1	PA66GF (UL94V-0) • PA66 (UL94V-2) • TPE	Black • Green
3	Cap	1	PA66 (UL94V-2)	Black
4	Sealing insert	1	TPE	Green
5	Lock nut	1	PA66 (UL94V-2)	Black

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

Accessories (Optional parts)



Sealing insert
See page Tool-5



Exclusive tightening tool
See page Tool-5



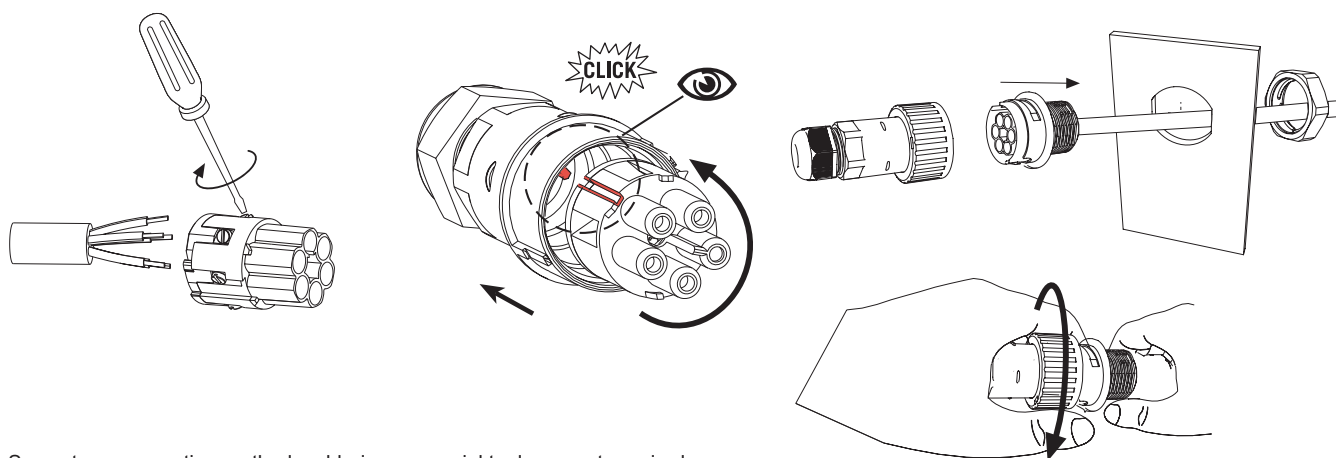
Sealing plug • socket cap
See page Cap-4



Exclusive terminal installation tool
See page Tool-4

How to connect

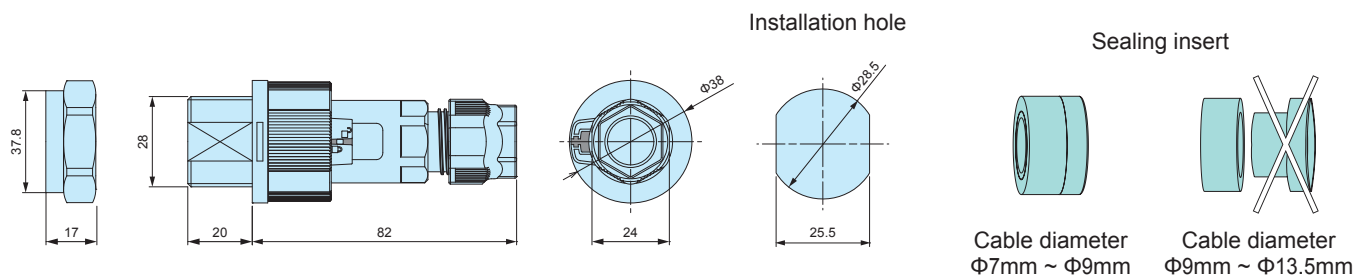
1. Connect the wires to the terminal block using a flathead (minus) screwdriver.
2. Align the terminal block with the groove and insert it into the plug / socket. Turn / twist to lock.
3. Insert the plug into the mounting hole and secure with the nut. Insert the socket into the plug and turn the retaining ring to secure.



- Screw type connection method; soldering or special tools are not required.
- A flathead (minus) screwdriver of tip width 3mm is recommended.
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

THB406 dimensions

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



- Applicable cable size range can be expanded by removing the inner sealing insert.

Product no. / Details

Product no.	Cable range	Maximum mounting thickness (mm)	Number of poles
THB406-3P	$\Phi 7.0 \sim \Phi 13.5$	10	3P
THB406-6P	$\Phi 7.0 \sim \Phi 13.5$	10	6P
THB406-8P	$\Phi 7.0 \sim \Phi 13.5$	10	8P

SEALING SOCKET CAP for THB405 • 406



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



- Protect socket from dust or foreign objects when not in use. Material : Cap / Polyamide 66 • Ring / Silicone.
- Sealing socket caps are not waterproof.



Product no. / Details

Product no.	Suitable models
6DB058000	THB405 • THB406 - Socket side

SEALING PLUG CAP for THB405 • 406

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



- Protect plug from dust or foreign objects when not in use. Material : Cap / Polyamide 66 • Ring / Silicone.
- Sealing plug caps are not waterproof.



Product no. / Details

Product no.	Suitable models
6DB00900C	THB405 • THB406 - Plug side

EXCLUSIVE TERMINAL INSTALLATION TOOL for THB405•406



- Terminal installation tool for 8P mode.
- Insert terminal into the tool and rotate it counterclockwise until a clicking sound can be heard.
- Not applicable for THB405-6P, 406-3P, and 406-6P models.

How to use



Insert terminal installation tool.



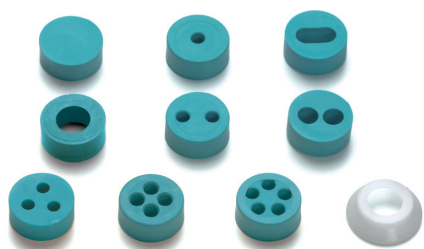
Rotate it counterclockwise to secure.

Product no. / Details

■ PA66GF = Glass fiber filled polyamide 66

Product no.	Material	Suitable models
600052600	PA66GF	THB405-8P • THB406-8P

SEALING INSERT for THA • THB • THS



- Optional sealing insert for THA209, THB387L, 387LE, 389, 389E, 390, 399Y, 400, 402T, 405, 406, THS389 and 389E.

(Not applicable to be used for THB381, 381E, 387, 387E, 391 and 392 series.)

- Recommended to be used to change the compatible wire diameter, or for installation of multiple wires.
- 6000087LF cap can be used to prevent the rubber bushing from protruding, as well as stabilizing the waterproof performance when using wire of diameter 7.0mm or smaller.

Product no. / Details

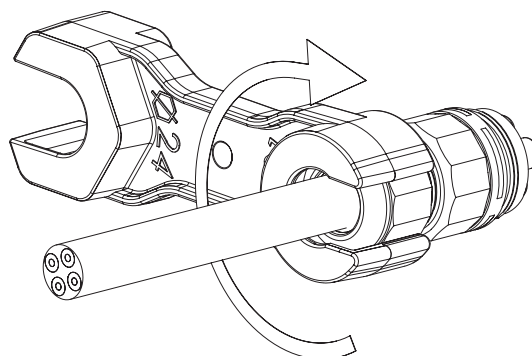
Product no.	Appearance	Cable range	Material	Pack of
600013700		Blind insert without hole	TPE	10
600012700		11mm × 5.5mm	TPE	10
600037000		Φ4.0 ~ Φ6.5mm	TPE • POM	10 each
604001100		Φ5.5 ~ Φ9.5mm Use fixing cap for cables sized Φ7.0mm or smaller	TPE • POM	10 each
600013600		Φ2.0 ~ Φ4.0mm	TPE • POM	10 each
600012500		Φ2.0 ~ Φ4.0mm	TPE • POM	10 each
600030600		Φ4.5 ~ Φ6.0mm	TPE	10
600012600		Φ2.0 ~ Φ4.0mm	TPE	10
600018200		Φ2.0 ~ Φ3.5mm	TPE	10
600022400		Φ2.5 ~ Φ3.5mm	TPE	10
6000087LF		Cap for cables sized Φ7.0mm or smaller	POM	10

- 6000087LF cap cannot be used with 600030600 and 600022400

EXCLUSIVE TIGHTENING TOOL for THB • THS



How to use



- Dedicated locking tool for tightening of the cable gland cap.

Product no. / Details

- PA66GF = Glass fiber filled polyamide 66

Product no.	Material / Color	Suitable models
6000337BC	PA66GF / Black	THB387 • 387E • 387L • 387LE • 389 • 389E • 390 • 390T • 391 • 392 • 399Y • 400 • 402T • 405 • 406 • THS389 • 389E

THB391 series

IP68 COMPACT RELAY CONNECTOR



- IP68 compact relay connector with an integrated cable gland and terminal block structure.
- A screw type wiring connection is adopted, allowing for easy installation and removal.
- 2P, 3P and 4P pole terminal models are available.



Technical Data

Protection class :
 IP68 2bar/3h (3hours / 20m depth)
 Operating temperature : -40°C ~ +125°C
 EN60529, EN60998 compliant

Specifications

Rated voltage	AC450V
Rated current	17.5A
Applicable wire	Stranded wire 0.5mm ² ~ 2.5mm ²

Components

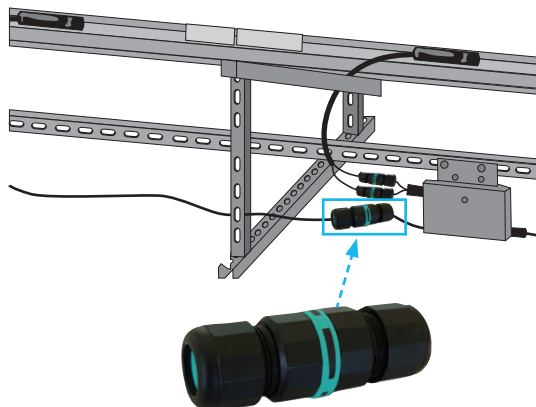
No.	Part name	Pcs	Material	Color / Finish
1	Body	1	PA66GF (UL94V-0) • TPE	Black • Green
2	Cable gland	2	PA66 (UL94V-2)	Black
3	Sealing insert	2	TPE	Green
-	Terminal	2 ~ 4	Brass	Nickel plated
-	Terminal screw (M3 slotted)	4 ~ 8	Steel	Zinc plated

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

- Suitable for use as power or sensor signal relay of industrial plant, machining instrument, outdoor LED lighting, underground wiring, marine equipment where waterproof is required.

Installation example



Accessories (Optional parts)



Sealing insert
See page Tool-3



Exclusive bracket
See page Tool-6



Exclusive tightening tool
See page Tool-5

How to connect wire



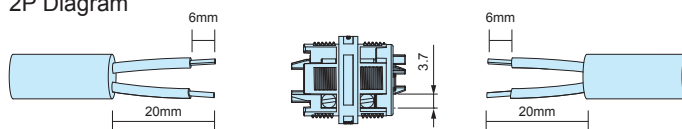
Insert the wires according to the terminal numbers.



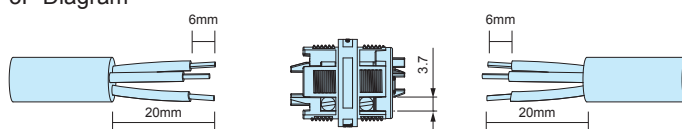
Tighten screws to secure the connection.

- A flathead (minus) screwdriver of tip width 3mm is recommended to be used.
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

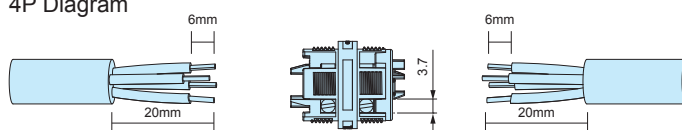
2P Diagram



3P Diagram

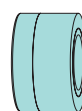
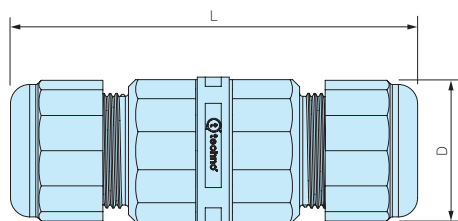


4P Diagram

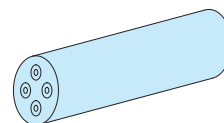


THB391 dimensions

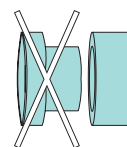
- DXF/DWG/PDF drawings available on our website.



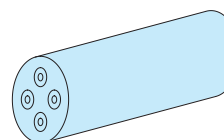
Sealing insert



Cable diameter
Φ7mm ~ Φ9mm



Sealing insert



Cable diameter
Φ9mm ~ Φ12mm

- Applicable cable size range can be expanded by removing the inner sealing insert.

Product no. / Details

Product no.	L	D	Cable range	Number of poles
THB391-2P	68	23	Φ7 ~ Φ12	2P
THB391-3P	68	23	Φ7 ~ Φ12	3P
THB391-4P	68	23	Φ7 ~ Φ12	4P

THB392 series**IP68 H-SHAPED COMPACT RELAY CONNECTOR**

IP68

- IP68 4 ways compact relay connector with an integrated cable gland and terminal block structure.
- A screw type wiring connection is adopted, allowing for easy installation and removal.
- 4P x 4 common pole terminal model.

Technical Data

Protection class :
 IP68 3bar/2h (2hours / 30m depth)
 Operating temperature : -40°C ~ +125°C
 EN60529, EN60998 compliant

Specifications

Rated voltage	AC450V
Rated current	17.5A
Applicable wire	Stranded wire 0.5mm ² ~ 4.0mm ²

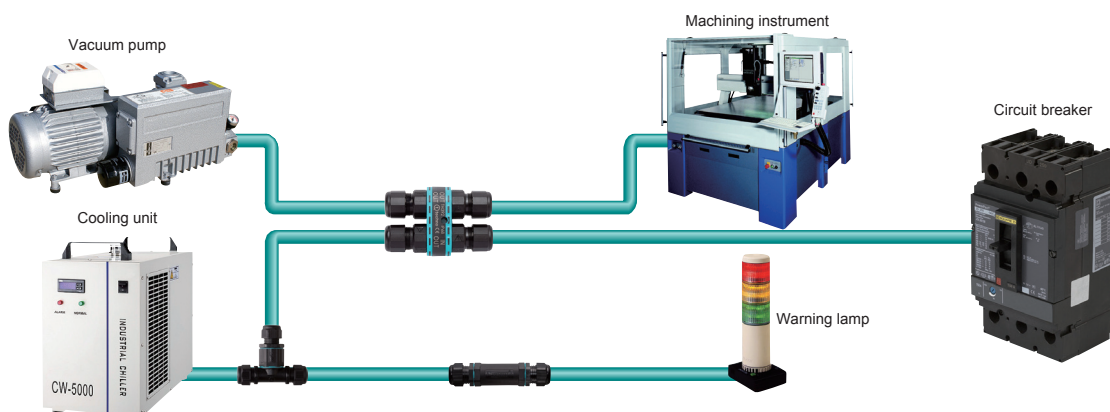
**Components**

No.	Part name	Pcs	Material	Color / Finish
1	Body	1	PA66GF (UL94V-0) • TPE	Black • Green
2	Cable gland	4	PA66 (UL94V-2)	Black
3	Sealing insert	4	TPE	Green
-	Terminal	4P x 4	Brass	Nickel plated
-	Terminal screw (M3 slotted)	16	Steel	Zinc plated

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

- Suitable for use as power or sensor signal relay of industrial plant, machining instrument, outdoor LED lighting, underground wiring, marine equipment where waterproof is required.

Installation example

Accessories (Optional parts)



Sealing insert
See page Tool-5



Exclusive tightening tool
See page Tool-5

How to connect wire



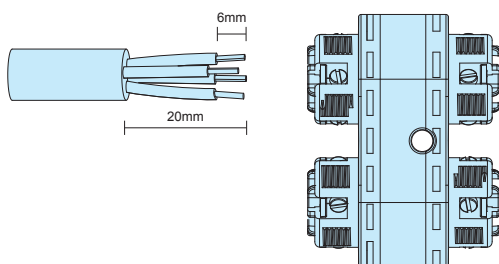
Insert the wires according to the terminal numbers.

- A flathead (minus) screwdriver of tip width 3mm is recommended to be used.
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

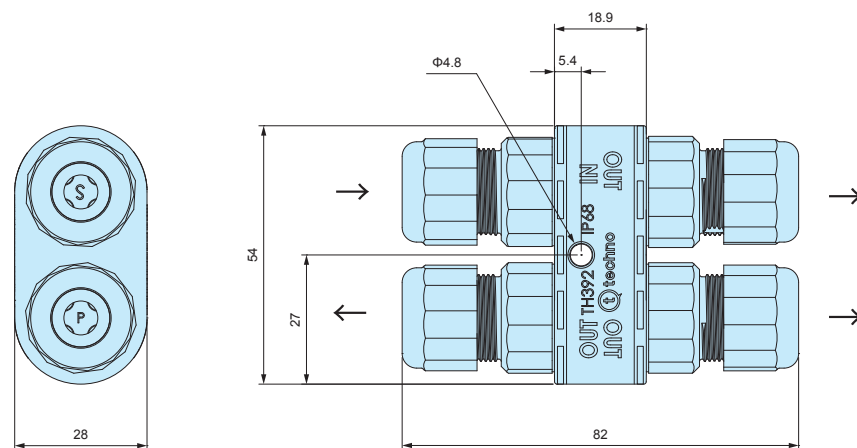


Tighten screws to secure the connection.

Terminal connection diagram



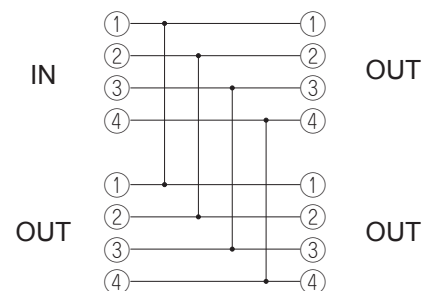
THB392 dimensions



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

- IN and OUT directions are fixed.
Confirm direction before use.

Diagram



Product no. / Details

Product no.	Cable range	Number of poles
THB392-4P	Φ7 ~ Φ12	4P×4

SEALING INSERT for THB387 • 387E • 391 • 392



- Optional sealing insert for THB387, 387E, 391 and 392 series.
- Recommended to be used to change the compatible wire diameter, or for installation of multiple wires.
- 6000347LA cap can be used to prevent the rubber bushing from protruding, as well as stabilizing the waterproof performance when using wire of diameter 7.0mm or smaller.
- Not applicable to be used for THA209, THB381, 381E, 387L, 387LE, 389, 389E, 390, 399Y, 400, 402T, 405, 406 series.

Product no. / Details

Product no.	Appearance	Cable range	Material	Pack of
6000338GT		Blind insert without hole	TPE	10
6000377GT		Φ2.5 ~ Φ4.0mm	TPE • POM	10 each
6000339GT		Φ5.0 ~ Φ7.0mm	TPE • POM	10 each
6000340GT		Φ3.0 ~ Φ4.5mm	TPE • POM	10 each
6000341GT		Φ4.5 ~ Φ6.0mm	TPE	10
6000342GT		Φ2.5 ~ Φ4.5mm	TPE	10
6000343GT		Φ2.5 ~ Φ4.0mm	TPE	10
6000347LA		Cap for cables sized Φ7.0mm or smaller	POM	10

- 6000347LA cap cannot be used with 6000341GT and 6000343GT.

THB390•400 series

IP68 RELAY CONNECTOR

IP68

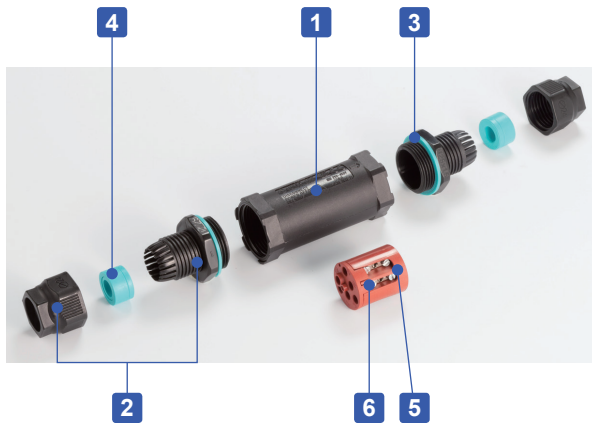


- IP68 relay connector with screw type wiring connection for easy installation and removal.
- 3P, 6P, 2WP and 3WP pole models and no terminal model are available.
- No terminal model can be used to protect the connector.
- Possible to adopt wide cable range with the optional sealing insert.
(See page Sealing insert - 2 for the details.)
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.



Technical Data

Protection class :
IP68 5bar/1h (1 hour / 50m depth)
Operating temperature : -40°C ~ +125°C
EN60529 : 1991+A1 : 2000,
EN60998-1 : 2004, EN60998-2-1 : 2004
compliant



Specifications

3P • 4P • 6P models

Rated voltage	AC450V
Rated current	24A
Applicable wire	Stranded wire 0.5mm ² ~ 2.5mm ²

2WP • 3WP models

Rated voltage	AC250V
Rated current	32A
Applicable wire	Stranded wire 0.5mm ² ~ 4.0mm ²

D4P model

Rated voltage	AC750V
Rated current	41A
Applicable wire	Stranded wire 2.5mm ² ~ 6.0mm ²

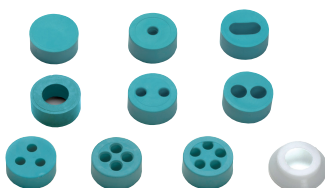
Components

No.	Part name	Pcs	Material	Color / Finish
1	Body	1	PA66GF (UL94V-0)	Black
2	Cable gland	2	PA66 (Φ7 ~ Φ13.5, Φ13.5 ~ Φ15.5, Φ16 ~ Φ20) • PA6 (Φ8 ~ Φ17)	Black
3	Gasket	2	Silicone	Green
4	Sealing insert	2	TPE (Φ7 ~ Φ13.5, Φ13.5 ~ Φ15.5, Φ16 ~ Φ20) • NBR (Φ8 ~ Φ17)	Green • Black
5	Terminal block	1	PA66GF (UL94V-0)	Black • Brown
6	Terminal screw (M3 slotted)	6 ~ 12	Steel	Zinc plated

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

Accessories (Optional parts)



Sealing insert
See page Tool-5



Exclusive bracket
See page Tool-6



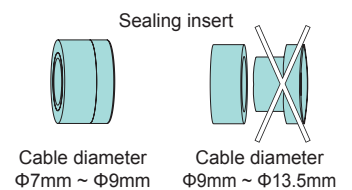
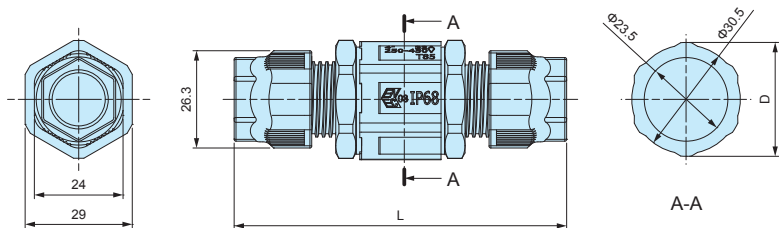
Exclusive tightening tool
See page Tool-5

Product no. / Details

Product no.	L	D	Cable range	Number of poles
THB390-3P-13	90	32	$\Phi 7 \sim \Phi 13.5$	3P
THB400-N-13	134	35	$\Phi 7 \sim \Phi 13.5$	None
THB400-4P-13	134	35	$\Phi 7 \sim \Phi 13.5$	4P
THB400-6P-13	134	35	$\Phi 7 \sim \Phi 13.5$	6P
THB400-2WP-13	134	35	$\Phi 7 \sim \Phi 13.5$	2WP
THB400-3WP-13	134	35	$\Phi 7 \sim \Phi 13.5$	3WP
THB400-D4P-13	134	35	$\Phi 7 \sim \Phi 13.5$	D4P
THB400-N-17	137	35	$\Phi 8 \sim \Phi 17$	None
THB400-4P-17	137	35	$\Phi 8 \sim \Phi 17$	4P
THB400-6P-17	137	35	$\Phi 8 \sim \Phi 17$	6P
THB400-D4P-15	134	37	$\Phi 13.5 \sim \Phi 15.5$	D4P
THB400-N-20	134	37	$\Phi 16 \sim \Phi 20$	None
THB400-D4P-20	134	37	$\Phi 16 \sim \Phi 20$	D4P

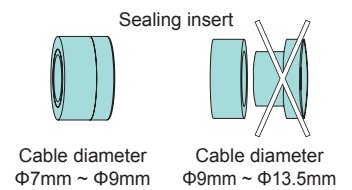
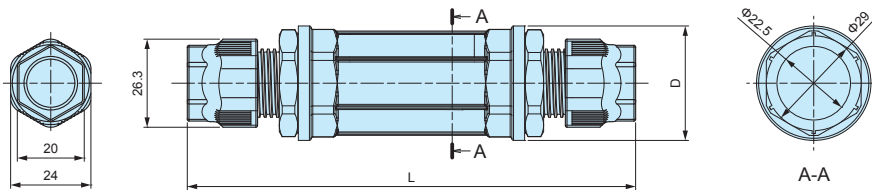
THB390 • 400 dimensions

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



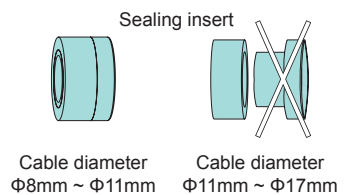
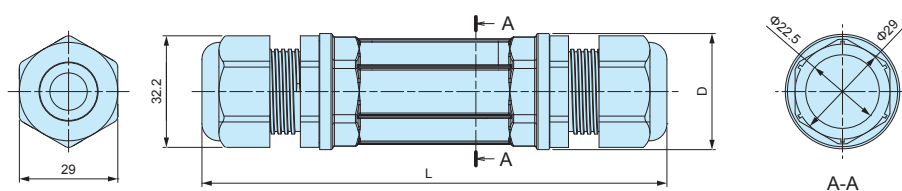
■ Applicable cable size range can be expanded by removing the inner sealing insert.

Product no.	Cable range	Number of poles
THB390-3P-13	$\Phi 7 \sim \Phi 13.5$	3P



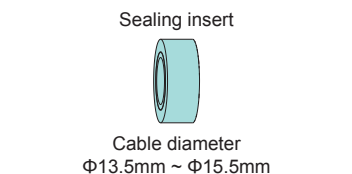
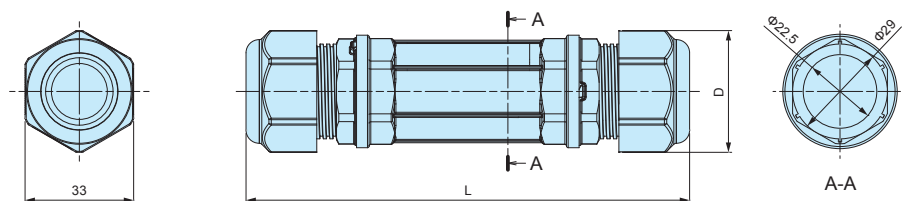
■ Applicable cable size range can be expanded by removing the inner sealing insert.

Product no.	Cable range	Number of poles
THB400-□-13	$\Phi 7 \sim \Phi 13.5$	N (No terminal) • 4P • 6P • 2WP • 3WP • D4P



■ Applicable cable size range can be expanded by removing the inner sealing insert.

Product no.	Cable range	Number of poles
THB400-□-17	$\Phi 8 \sim \Phi 17$	N (No terminal) • 4P • 6P

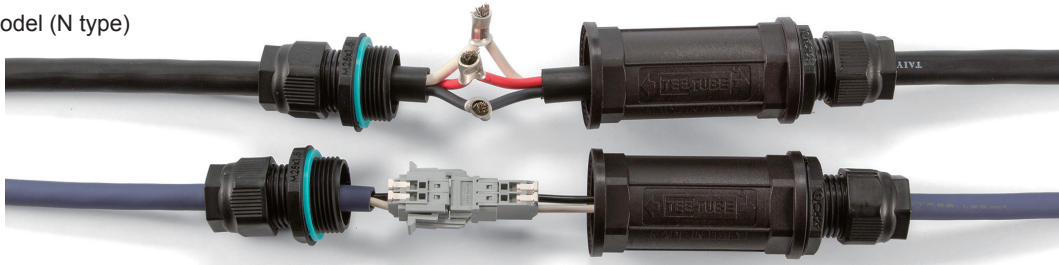


■ Applicable cable size range can be expanded by removing the inner sealing insert.

Product no.	Cable range	Number of poles
THB400-D4P-15	$\Phi 13.5 \sim \Phi 15.5$	D4P
THB400-□-20	$\Phi 16 \sim \Phi 20$	N (No terminal) • 4P

Terminal block diagram

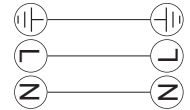
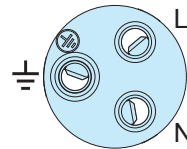
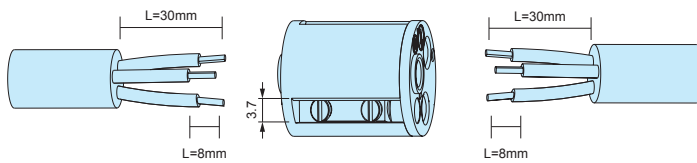
No Terminal Model (N type)



- No terminal model.
- Use when utilizing other terminals or connecting without terminal.

3P Terminal

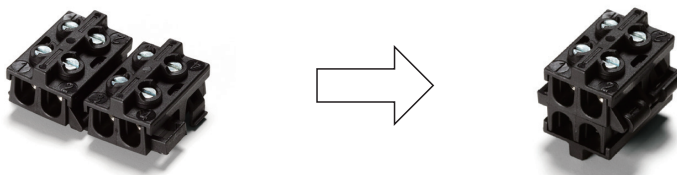
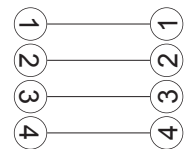
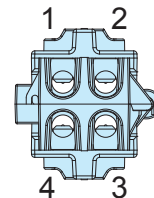
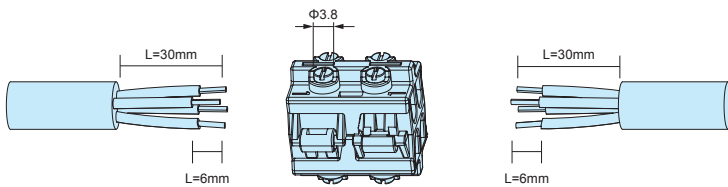
Wire Connection Diagram



- A flathead (minus) screwdriver of tip width 3mm is recommended to be used.

4P Terminal

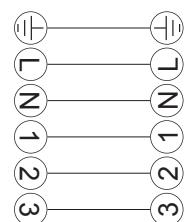
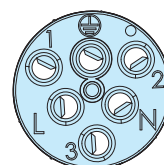
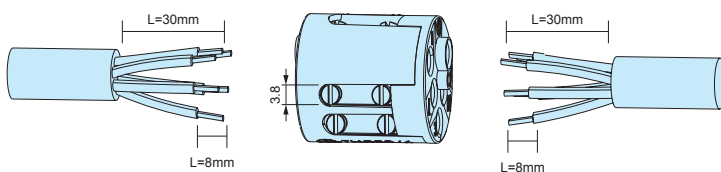
Wire Connection Diagram



- A hinged structure on the 4P terminal block allows wiring to be performed easily.
- Easily closed for installation.
- A flathead (minus) screwdriver of tip width 3mm is recommended to be used.

6P Cable diameter

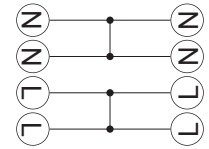
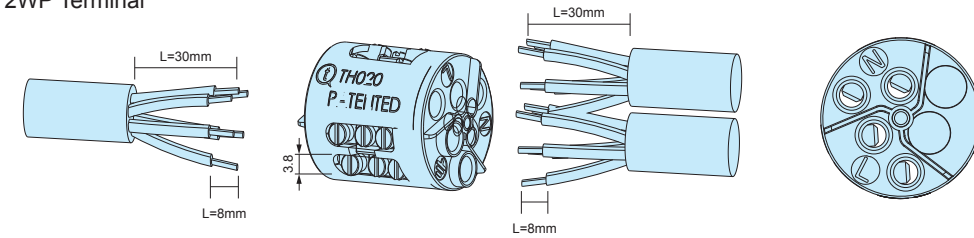
Cable diameter



- A flathead (minus) screwdriver of tip width 3mm is recommended to be used.

2WP Terminal

Wire Connection Diagram



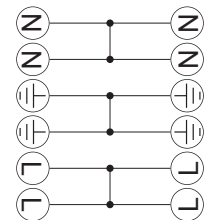
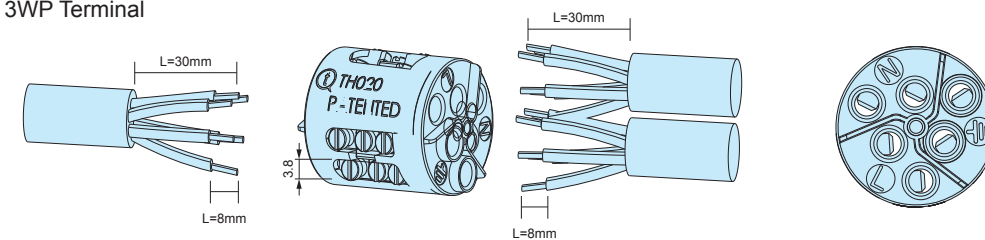
Two poles are divided into two.
(Each is common)



- Wiring can be branched.
Use optional sealing insert for branch wiring.(See page Sealing Insert-1 for optional sealing inserts.)
- A flathead (minus) screwdriver of tip width 3mm is recommended to be used.

3WP Terminal

Wire Connection Diagram



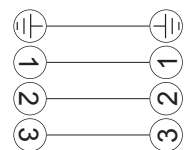
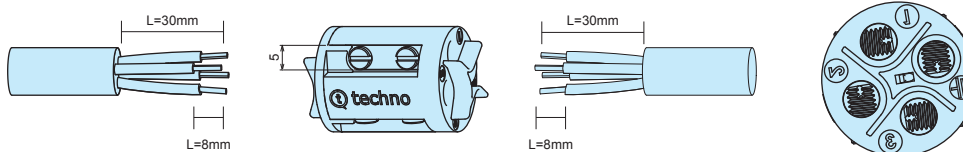
Two poles are divided into three.
(Each is common)



- Wiring can be branched.
Use optional sealing insert for branch wiring.(See page Sealing Insert-1 for optional sealing inserts.)
- A flathead (minus) screwdriver of tip width 3mm is recommended to be used.

D4P Terminal

Wire Connection Diagram



- A flathead (minus) screwdriver of tip width 3mm is recommended to be used.

THB390T•402T series

IP68 T-SHAPED RELAY CONNECTOR

IP68

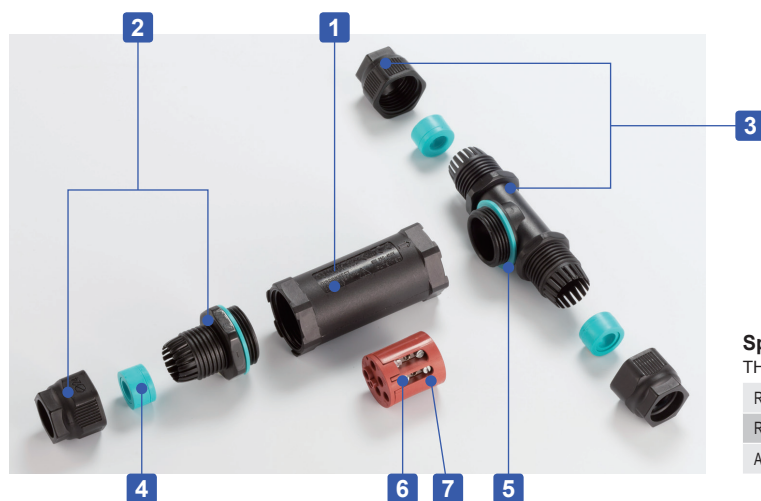


- IP68 3 ways relay connector for branching of cables or for connecting devices in a daisy chain.
- A screw type wiring connection is adopted, allowing for easy installation and removal.
- 3P, 6P and 3WP pole terminal models and no terminal model are available.
- Possible to adopt wide cable range with the optional sealing insert.
(See page Tool-5 for the details.)
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

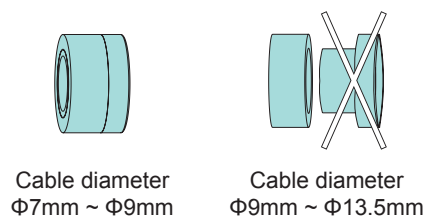


Technical Data

Protection class :
IP68 2bar/1h (1 hour / 20m depth)
Operating temperature : -40°C ~ +125°C
EN60529 : 1991+A1 : 2000,
EN60998-1 : 2004,
EN60998-2-1 : 2004 compliant



- Applicable cable size range can be expanded by removing the inner sealing insert.



Specifications

THB390T-3P • THB402T-6P

Rated voltage	AC250V
Rated current	24A
Applicable wire	Stranded wire 0.5mm ² ~ 2.5mm ²

THB402T-3WP

Rated voltage	AC250V
Rated current	32A
Applicable wire	Stranded wire 0.5mm ² ~ 4.0mm ²

■ PA66 = Polyamide 66

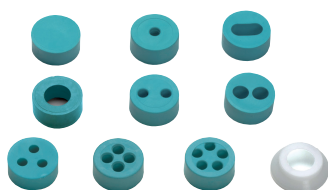
■ PA66GF = Glass fiber filled polyamide 66

Components

No.	Part name	Pcs	Material	Color / Finish
1	Body	1	PA66GF (UL94V-0)	Black
2	Cable gland	1	PA66 (UL94V-2)	Black
3	T-shaped cable gland	1	PA66 (UL94V-2)	Black
4	Sealing insert	3	TPE	Green
5	Gasket	2	Silicone	Green
6	Terminal	1	PA66GF (UL94V-0)	Black • Brown
7	Terminal screw (M3 slotted)	6 ~ 12	Steel	Zinc plated

Accessories

(Optional parts)



Sealing insert
See page Tool-5



Exclusive bracket
See page Tool-6



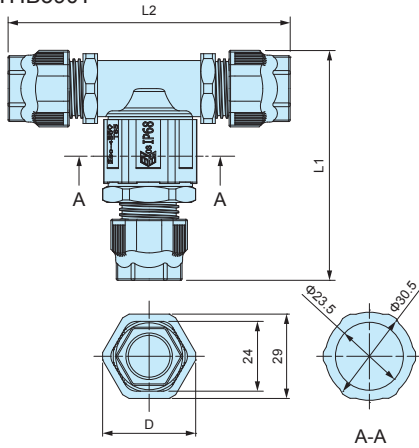
Exclusive tightening tool
See page Tool-5

Product no. / Details

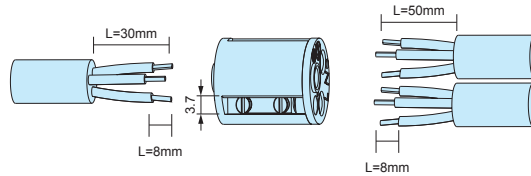
Product no.	L1	L2	D	Cable range	Number of poles
THB390T-3P	79	97	32	Φ7 ~ Φ13.5	3P
THB402T-6P	124	97	32	Φ7 ~ Φ13.5	6P
THB402T-3WP	124	97	32	Φ7 ~ Φ13.5	3WP
THB402T-N	124	97	32	Φ7 ~ Φ13.5	None

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

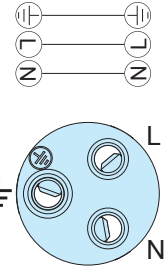
THB390T



3P Terminal

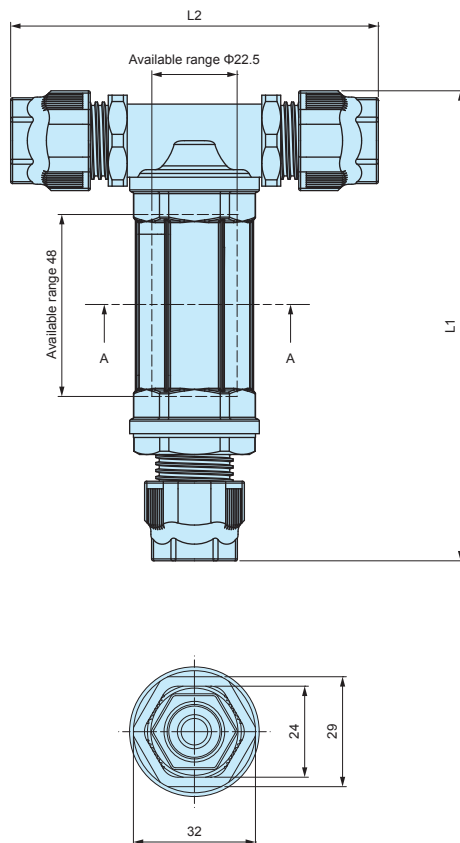


Wire connection diagram

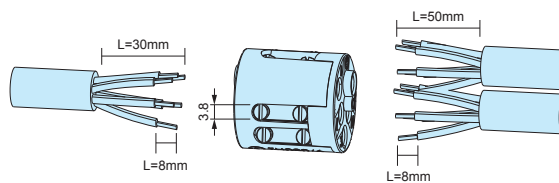


■ A flathead (minus) screwdriver of tip width 3mm is recommended to be used.

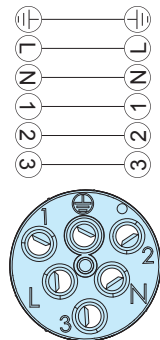
THB402T



THB402T-6P (Terminal model)

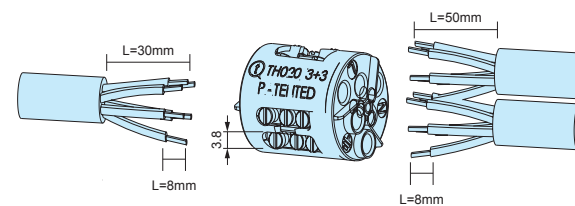


Wire connection diagram

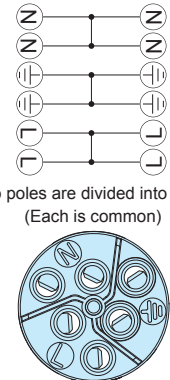


■ A flathead (minus) screwdriver of tip width 3mm is recommended to be used.

THB402T-3WP (Terminal model)



Wire connection diagram



■ A flathead (minus) screwdriver of tip width 3mm is recommended to be used.

THB402T-N (No terminal model)

- No terminal model.
- Use when utilizing other terminals or connecting without terminal.



THB399Y series

IP68 Y-SHAPED RELAY CONNECTOR

IP68

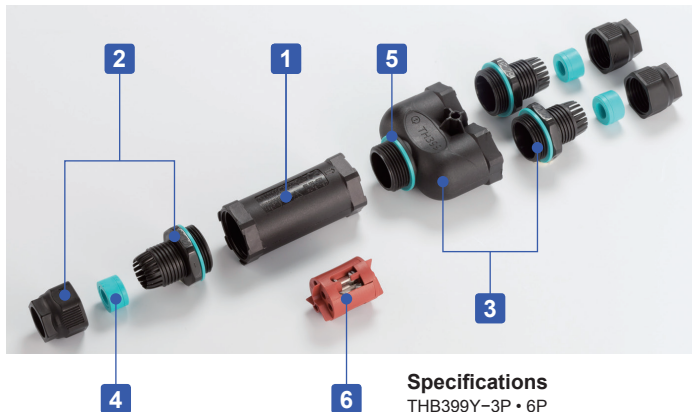


- IP68 3 ways relay connector for branching of cables.
- A screw type wiring connection is adopted, allowing for easy installation and removal.
- 3P, 6P and 3WP pole terminal models and no terminal model are available.
- Possible to adopt wide cable range with the optional sealing insert. (See page Tool-5 for the details.)
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.



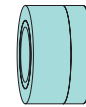
Technical Data

Protection class :
IP68 2bar/1h (1 hour / 20m depth)
Operating temperature : -40°C ~ +125°C
EN60529 : 1991+A1 : 2000,
EN60998-1 : 2004,
EN60998-2-1 : 2004 compliant

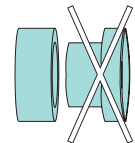
Specifications
THB399Y-3P • 6P

Rated voltage	AC250V
Rated current	24A
Applicable wire	Stranded wire 0.5mm ² ~ 2.5mm ²

Sealing insert



Cable diameter
Φ7mm ~ Φ9mm



Cable diameter
Φ9mm ~ Φ13.5mm

- Applicable cable size range can be expanded by removing the inner sealing insert.

THB399Y-3WP

Rated voltage	AC250V
Rated current	32A
Applicable wire	Stranded wire 0.5mm ² ~ 4.0mm ²

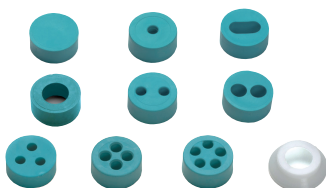
Components

No.	Part name	Pcs	Material	Color / Finish
1	Body	1	PA66GF (UL94V-0)	Black
2	Cable gland	3	PA66 (UL94V-2)	Black
3	Y shape cable gland	1	PA66GF (UL94V-0)	Black
4	Sealing insert	3	TPE	Green
5	Gasket	4	Silicone	Green
6	Terminal	1	PA66GF (UL94V-0)	Black • Brown
-	Terminal screw (M3 slotted)	6 ~ 12	Steel	Zinc plated

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

Accessories (Optional parts)



Sealing insert
See page Tool-5



Exclusive bracket
See page Tool-6

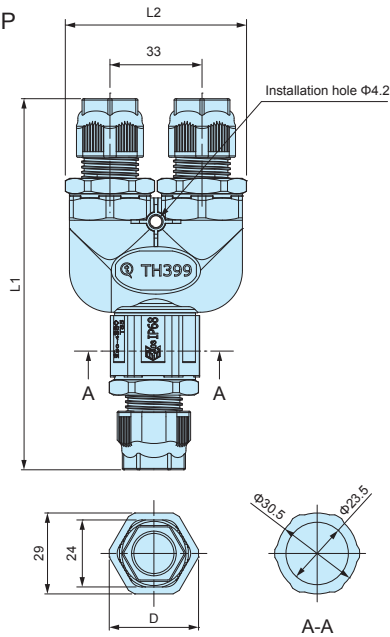


Exclusive tightening tool
See page Tool-5

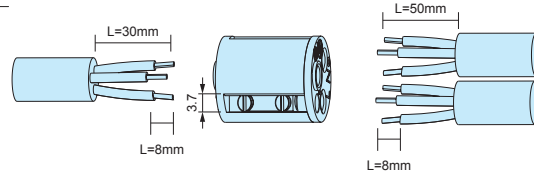
Product no. / Details

Product no.	L1	L2	D	Cable range	Number of poles
THB399Y-3P	133	65	32	Φ7 ~ Φ13.5	3P
THB399Y-6P	176	65	32	Φ7 ~ Φ13.5	6P
THB399Y-3WP	176	65	32	Φ7 ~ Φ13.5	3WP
THB399Y-N	176	65	32	Φ7 ~ Φ13.5	None

THB399Y-3P

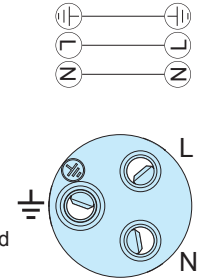


3P Terminal

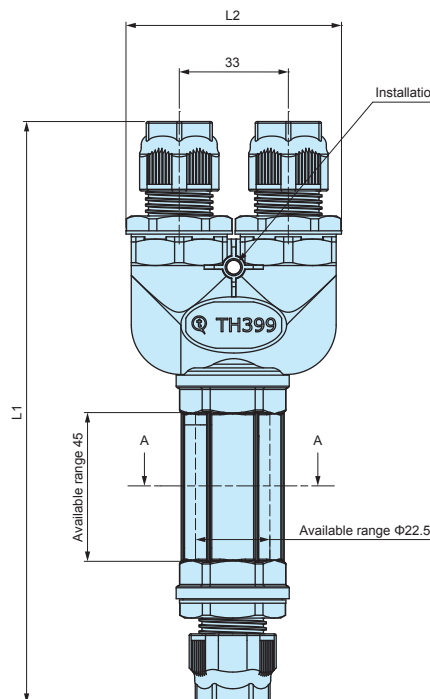


■ A flathead (minus) screwdriver of tip width 3mm is recommended to be used.

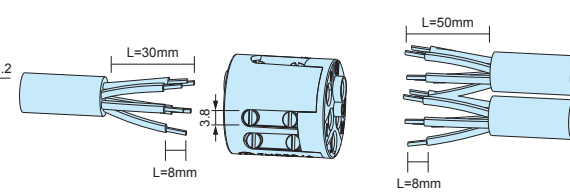
Wire connection diagram



THB399Y

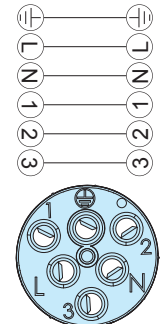


THB399Y-6P (Terminal model)

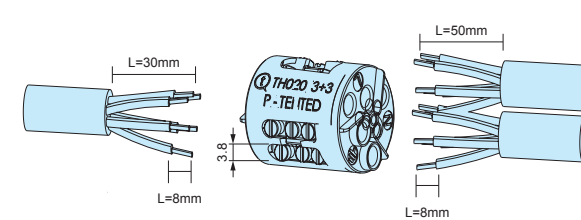


■ A flathead (minus) screwdriver of tip width 3mm is recommended to be used.

Wire connection diagram

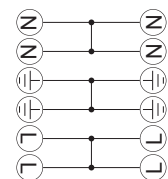


THB399Y-3WP (Terminal model)

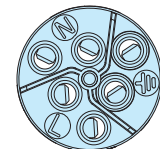


■ A flathead (minus) screwdriver of tip width 3mm is recommended to be used.

Wire connection diagram



Two poles are divided into three.
(Each is common)



THB399Y-N (No terminal model)



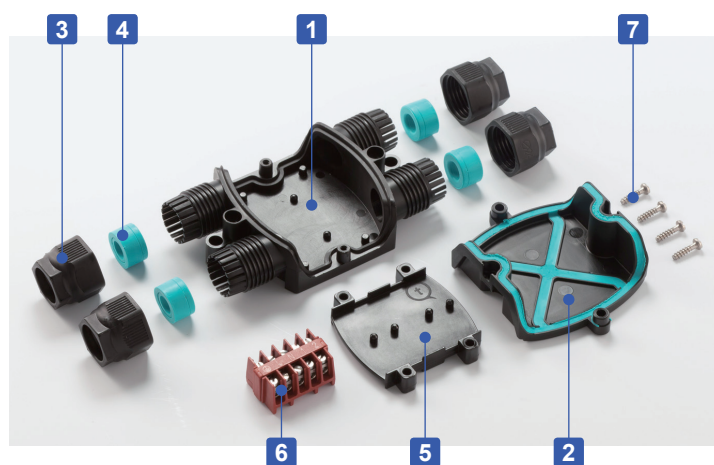
- No terminal model.
- Use when utilizing other terminals or connecting without terminal.



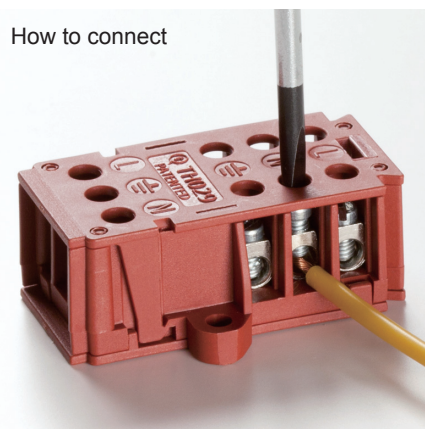
- IP68 relay box with easy screw connection with an integrated cable gland and terminal block structure.
- 3 and 4 ways type are available.
- A screw type wiring connection is adopted, allowing for easy installation and removal.
- 3P, 5P, 8P, 3WP, 4WP and 3LP pole models and no terminal model are available.
- Possible to adopt wide cable range with the optional sealing insert.
(See page Sealing insert - 2 for the details.)
- Screws may be screwed in firmly. Use a screwdriver with proper grip handles to loosen it.

Technical Data

Protection class :
IP68 0.5bar/3h (3 hour / 5m depth)
Operating temperature : -40°C ~ +125°C
EN60529 : 1991+A1 : 2000,
EN60998-1 : 2004
compliant



How to connect



Components

No.	Part name	Pcs	Material	Color / Finish
1	Body	1	PA66GF (UL94V-2)	Black
2	Cover	1	PA66 • SEBS	Black • Green
3	Lock nut	3 ~ 4	PA66FV (UL94V-0)	Black
4	Sealing insert	3 ~ 4	TPE	Green
5	Terminal base	*1	PA66	Black
6	Terminal block	1	PA66GF (UL94V-0)	Brown
-	Terminal screw	6 ~ 16	Steel	Zinc plated
7	Cover screw	4	Stainless steel	Unfinished

■ PA66 = Polyamide 66

■ PA66GF = Glass fiber filled polyamide 66

*Terminal base is not included in 3WP, 4WP, and no terminal models.



Accessories (Optional parts)

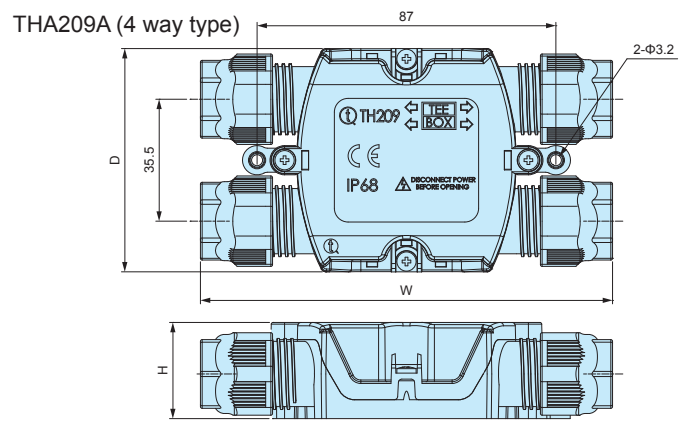
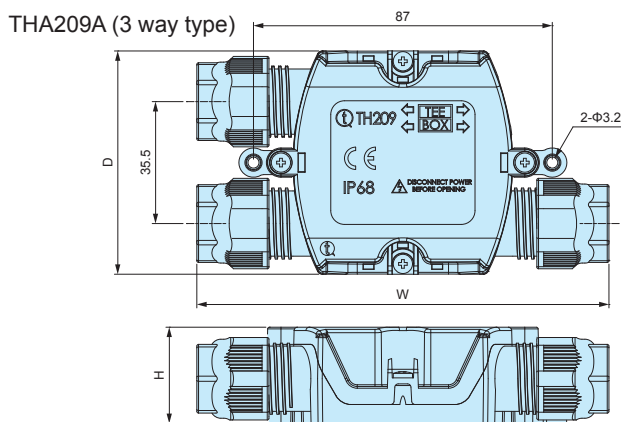
Sealing insert
See page Tool-5

Product no. / Details

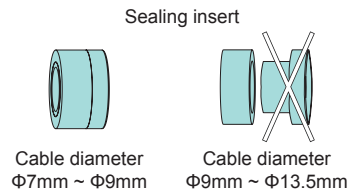
Product no.	W	D	H	Number of poles	Ways	Cable range
THA209A-N	120	65	28	None	3	Φ7 ~ Φ13.5
THA209B-N	120	65	28	None	4	Φ7 ~ Φ13.5
THA209A-3P	120	65	28	3P	3	Φ7 ~ Φ13.5
THA209B-3P	120	65	28	3P	4	Φ7 ~ Φ13.5
THA209A-5P	120	65	28	5P	3	Φ7 ~ Φ13.5
THA209B-5P	120	65	28	5P	4	Φ7 ~ Φ13.5
THA209A-8P	120	65	28	8P	3	Φ7 ~ Φ13.5
THA209B-8P	120	65	28	8P	4	Φ7 ~ Φ13.5
THA209A-3WP	120	65	28	3WP	3	Φ7 ~ Φ13.5
THA209B-3WP	120	65	28	3WP	4	Φ7 ~ Φ13.5
THA209A-4WP	120	65	28	4WP	3	Φ7 ~ Φ13.5
THA209B-4WP	120	65	28	4WP	4	Φ7 ~ Φ13.5
THA209A-3LP	120	65	28	3LP	3	Φ7 ~ Φ13.5
THA209B-3LP	120	65	28	3LP	4	Φ7 ~ Φ13.5

THA209 dimensions

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

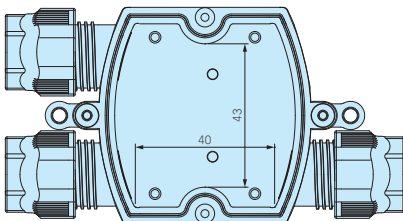


■ Applicable cable size range can be expanded by removing the inner sealing insert.

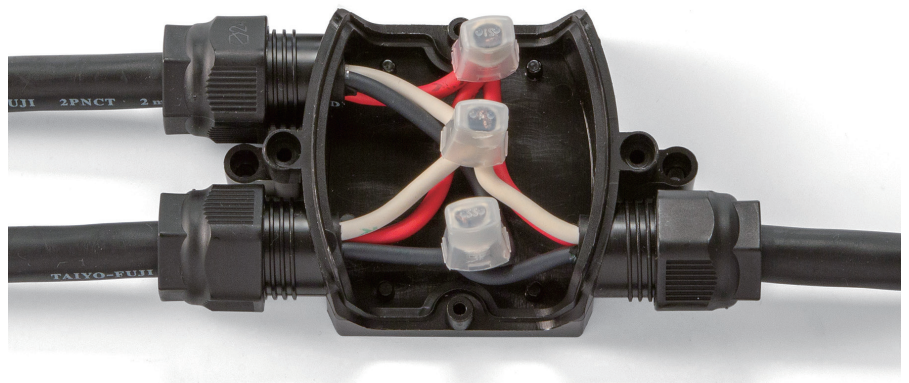
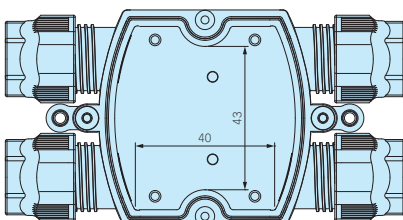


Terminal Block Diagram

THA209A-N (No terminal model)



THA209B-N (No terminal model)

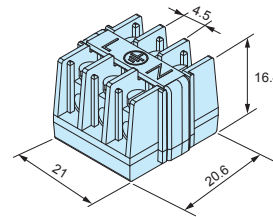
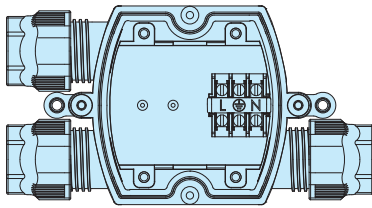


Installation example

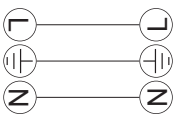
- No terminal model.
- Use when utilizing other terminals or connecting without terminal.

Terminal Block Diagram

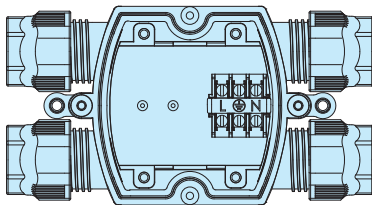
THA209A-3P



Wire Connection Diagram



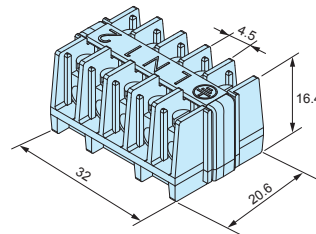
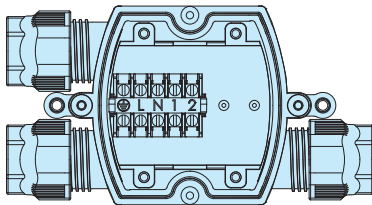
THA209B-3P



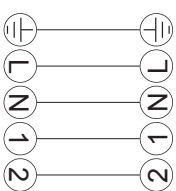
3P terminal block

Rated voltage / current	AC450V / 24A
Applicable wire	Stranded wire 0.5mm ² ~ 2.5mm ²
Terminal screw	M3 minus head

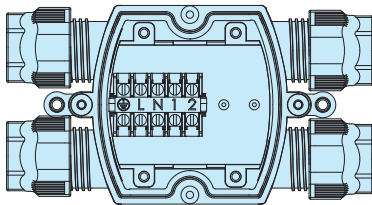
THA209A-5P



Wire Connection Diagram



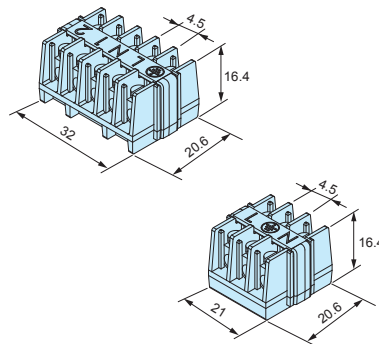
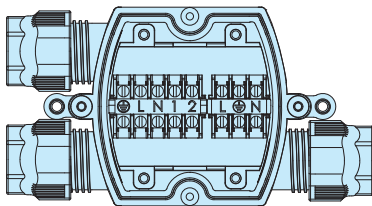
THA209B-5P



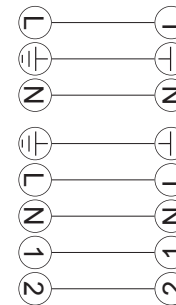
5P terminal block

Rated voltage / current	AC450V / 24A
Applicable wire	Stranded wire 0.5mm ² ~ 2.5mm ²
Terminal screw	M3 minus head

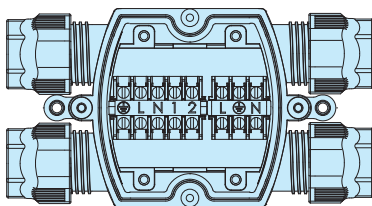
THA209A-8P



Wire Connection Diagram



THA209B-8P

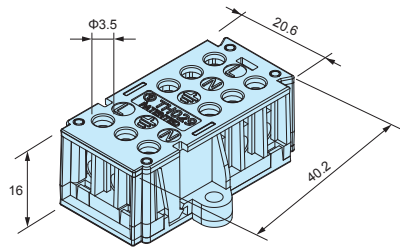
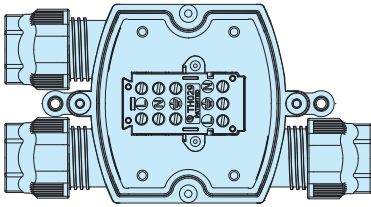


8P terminal block

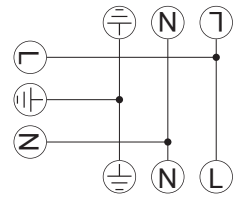
Rated voltage / current	AC450V / 24A
Applicable wire	Stranded wire 0.5mm ² ~ 2.5mm ²
Terminal screw	M3 minus head

■ 8P terminal block is composed by 3P and 5P blocks.

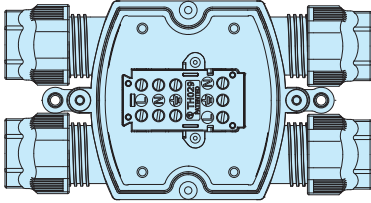
THA209A-3WP



Wire Connection Diagram



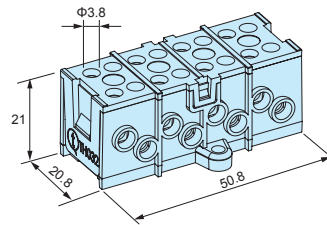
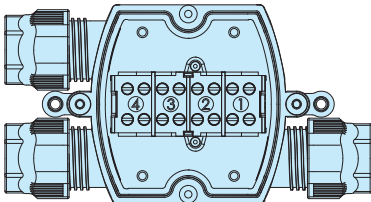
THA209B-3WP



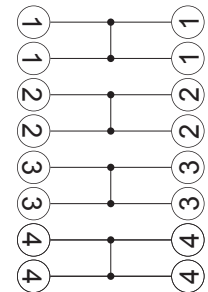
3WP terminal block

Rated voltage / current	AC450V / 32A
Applicable wire	Max 4.0mm ² (stranded wire)
Terminal screw	M3 minus head

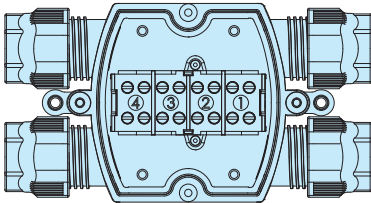
THA209A-4WP



Wire Connection Diagram



THA209B-4WP

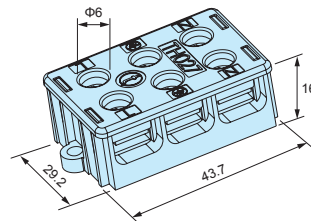
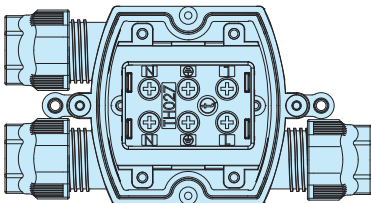


4WP terminal block

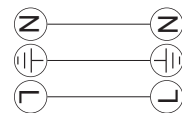
Rated voltage / current	AC450V / 32A
Applicable wire	Max 4.0mm ² (stranded wire)
Terminal screw	M3 minus head

Two poles are divided into four.
(Each is common)

THA209A-3LP

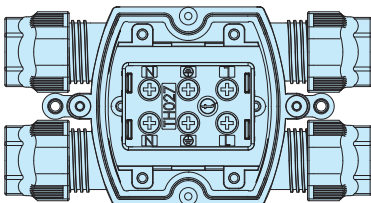


Wire Connection Diagram



Max 6.0mm² stranded wire can be connected.
Multiple wires can be branched.

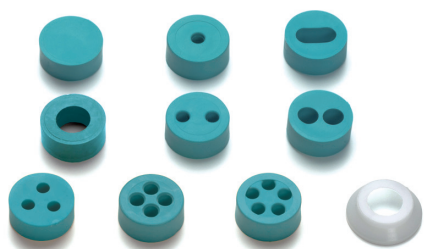
THA209B-3LP



3LP terminal block

Rated voltage / current	AC450V / 41A
Applicable wire	Max 6.0mm ² (stranded wire)
Terminal screw	M3.5 plus head

SEALING INSERT for THA • THB • THS



- Optional sealing insert for THA209, THB387L, 387LE, 389, 389E, 390, 399Y, 400, 402T, 405, 406, THS389 and 389E.

(Not applicable to be used for THB381, 381E, 387, 387E, 391 and 392 series.)

- Recommended to be used to change the compatible wire diameter, or for installation of multiple wires.
- 6000087LF cap can be used to prevent the rubber bushing from protruding, as well as stabilizing the waterproof performance when using wire of diameter 7.0mm or smaller.

Product no. / Details

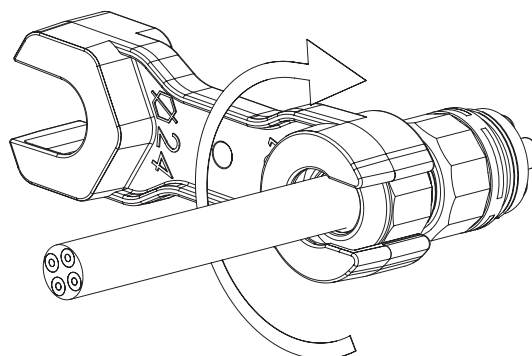
Product no.	Appearance	Cable range	Material	Pack of
600013700		Blind insert without hole	TPE	10
600012700		11mm × 5.5mm	TPE	10
600037000		Φ4.0 ~ Φ6.5mm	TPE • POM	10 each
604001100		Φ5.5 ~ Φ9.5mm Use fixing cap for cables sized Φ7.0mm or smaller	TPE • POM	10 each
600013600		Φ2.0 ~ Φ4.0mm	TPE • POM	10 each
600012500		Φ2.0 ~ Φ4.0mm	TPE • POM	10 each
600030600		Φ4.5 ~ Φ6.0mm	TPE	10
600012600		Φ2.0 ~ Φ4.0mm	TPE	10
600018200		Φ2.0 ~ Φ3.5mm	TPE	10
600022400		Φ2.5 ~ Φ3.5mm	TPE	10
6000087LF		Cap for cables sized Φ7.0mm or smaller	POM	10

- 6000087LF cap cannot be used with 600030600 and 600022400

EXCLUSIVE TIGHTENING TOOL for THB • THS



How to use



- Dedicated locking tool for tightening of the cable gland cap.

Product no. / Details

- PA66GF = Glass fiber filled polyamide 66

Product no.	Material / Color	Suitable models
6000337BC	PA66GF / Black	THB387 • 387E • 387L • 387LE • 389 • 389E • 390 • 390T • 391 • 392 • 399Y • 400 • 402T • 405 • 406 • THS389 • 389E



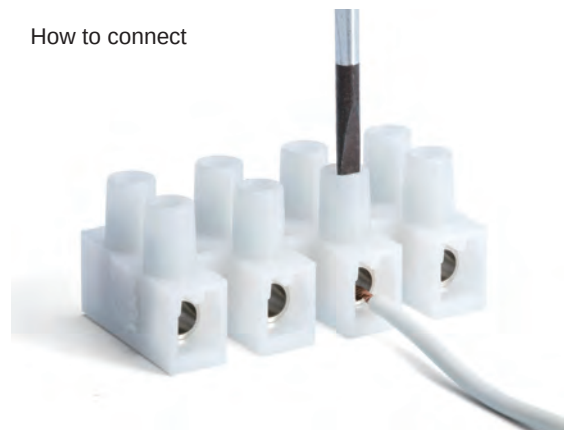
- Hinged structure allows easy access for maintenance or replacement of components.
- 2, 3 and 4 way types are available.
- A screw type wiring connection is adopted; allowing for easy installation and removal.
- 4P pole models and no terminal models are available.

Technical Data

Protection class : Equivalent to IP68 (24-hours / 1m-depth)
 Operating temperature : -25°C ~ +60°C
 Recommended cover tightening torque : 0.5 ~ 0.6N • m



How to connect



Components

- PA66 = Polyamide 66
- PA6 = Polyamide 6

No.	Part name	Pcs	Material	Color / Finish
1	Body	1	PA66	Black
2	Hinged cover	1	PA66	Black
3	Gasket	1	Silicone	Yellow
4	Lock nut	2 ~ 4	PA6	Black
5	Sealing insert	2 ~ 4	Silicone	Green
6	Terminal block	1	PA6 / Brass	Nickel plated
7	Self-tapping screw	3	Stainless steel	Black / plated

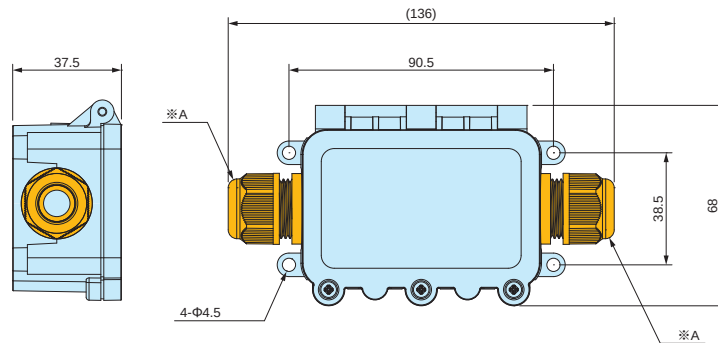
Product no. / Details

Product no.	W	D	H	Number of Poles	Branches	Cable range	
JW-2W-N	136	68	37.5	None	2	M20 : $\Phi 5 \sim \Phi 9$	
JW-2W-4P	136	68	37.5	4P	2	M20 : $\Phi 5 \sim \Phi 9$	
JW-3W-N	136	81	37.5	None	3	M20 : $\Phi 5 \sim \Phi 9$	M16 : $\Phi 7 \sim \Phi 10$
JW-3W-4P	136	81	37.5	4P	3	M20 : $\Phi 5 \sim \Phi 9$	M16 : $\Phi 7 \sim \Phi 10$
JW-4W-N	136	97	37.5	None	4	M20 : $\Phi 5 \sim \Phi 9$	M16 : $\Phi 7 \sim \Phi 10$
JW-4W-4P	136	97	37.5	4P	4	M20 : $\Phi 5 \sim \Phi 9$	M16 : $\Phi 7 \sim \Phi 10$

JW dimensions

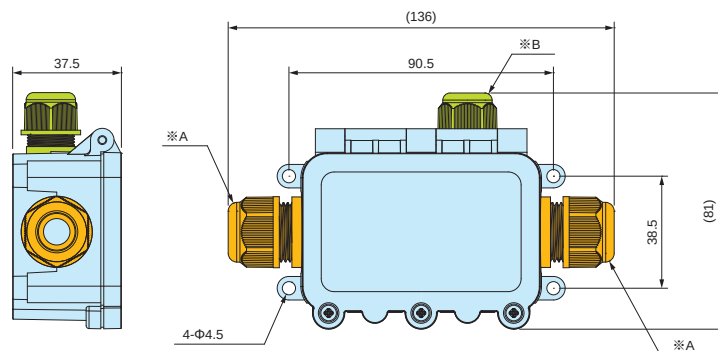
■ DXF/DWG/PDF drawings available on our website.

JW-2W-N • JW-2W-4P



*A : M20 Cable gland

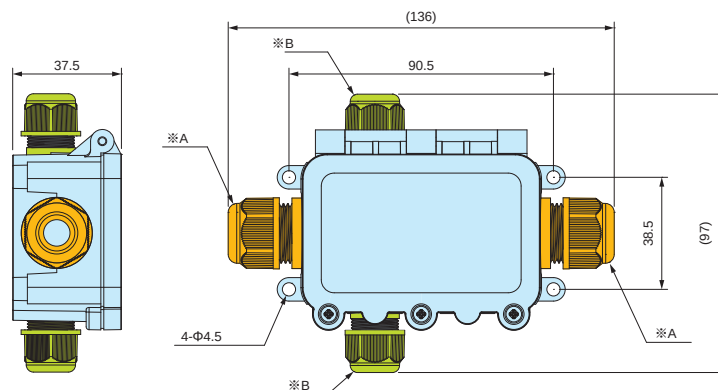
JW-3W-N • JW-3W-4P



*A : M20 Cable gland

*B : M16 Cable gland

JW-4W-N • JW-4W-4P



*A : M20 Cable gland

*B : M16 Cable gland

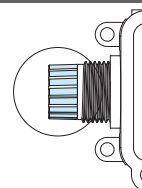
Accessories (Optional parts)

RBM series

SEALING INSERT for JW



- Recommended to be used to change to a compatible cable diameter.
- Do not bend the blue part (shown in the figure) outwards with excessive force or it may cause damage when replacing sealing insert.
- Pay attention to the suitable cable gland and cable range when selecting.

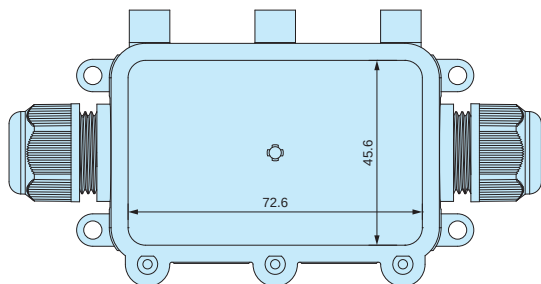


Product no. / Details

Product no.	Appearance	Suitable cable gland	Cable range	Material	Pack of
RBM20-12 (Dedicated for M20)		M20	$\Phi 9 \sim \Phi 12$	Silicone	10
RBM16-7 (Dedicated for M16)		M16	$\Phi 3.5 \sim \Phi 7$	Silicone	10

Terminal Block Diagram

JW-2W-N (No terminal model)



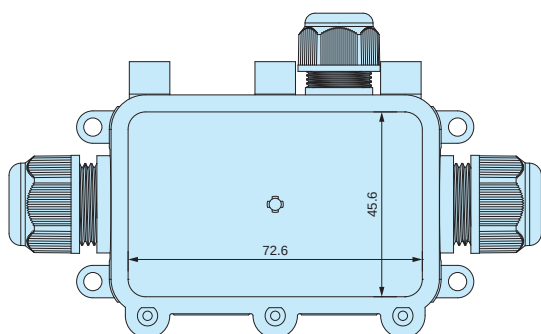
- No terminal model.
- Use for protecting the connected part.
- Protrusion on the center.

Installation example



- Use when utilizing other terminals or connecting without terminal.

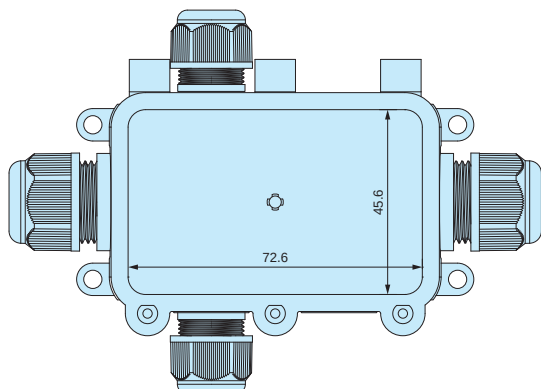
JW-3W-N (No terminal model)



Installation example



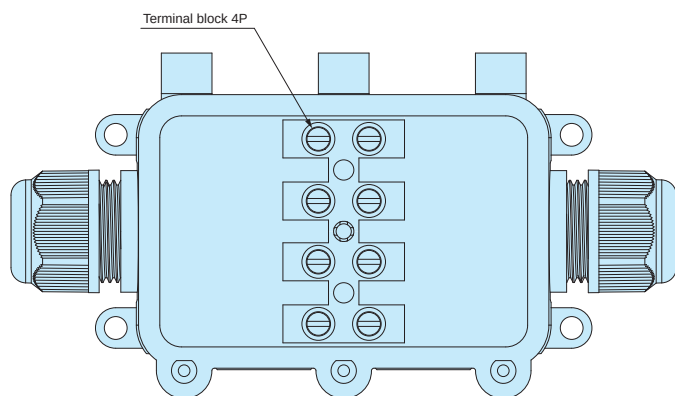
JW-4W-N (No terminal model)



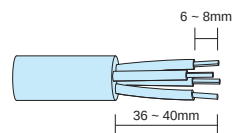
Installation example



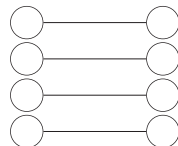
JW-2W-4P



- Wire connection dimensions below are for reference only; check under actual usage conditions.



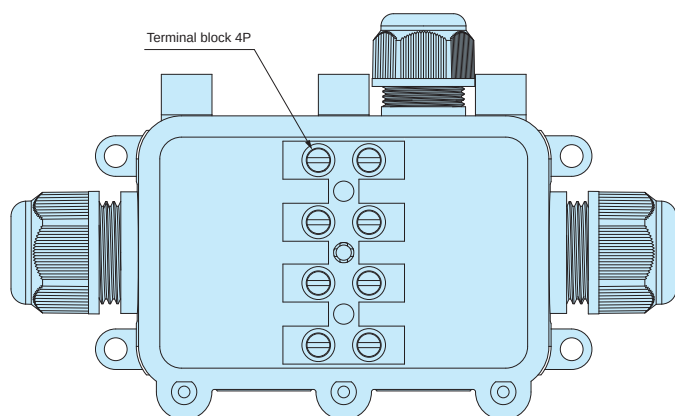
Wire Connection Diagram



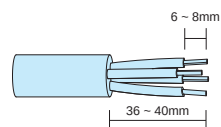
4P terminal block

Rated voltage / current	AC450V / 40A
Applicable wire	Max 1.0 ~ 5.5 mm ² (stranded wire)
Terminal screw	M3.5 minus head

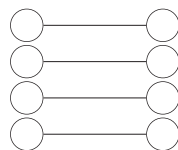
JW-3W-4P



- Wire connection dimensions below are for reference only; check under actual usage conditions.



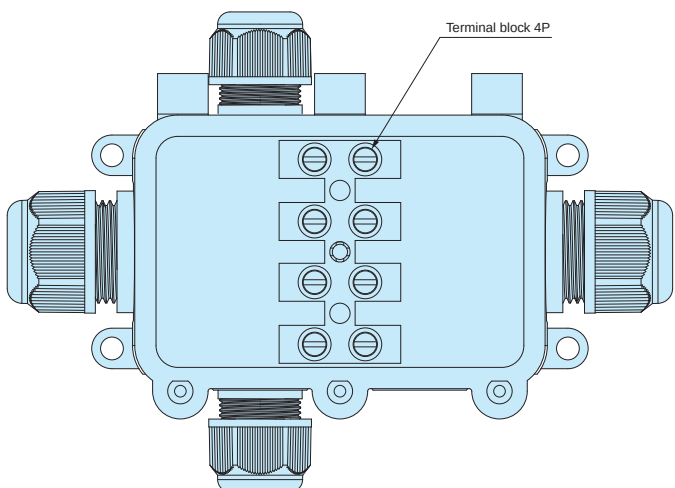
Wire Connection Diagram



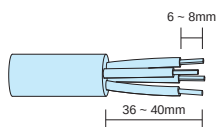
4P terminal block

Rated voltage / current	AC450V / 40A
Applicable wire	Max 1.0 ~ 5.5 mm ² (stranded wire)
Terminal screw	M3.5 minus head

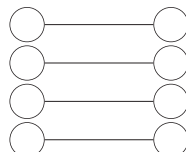
JW-4W-4P



- Wire connection dimensions below are for reference only; check under actual usage conditions.

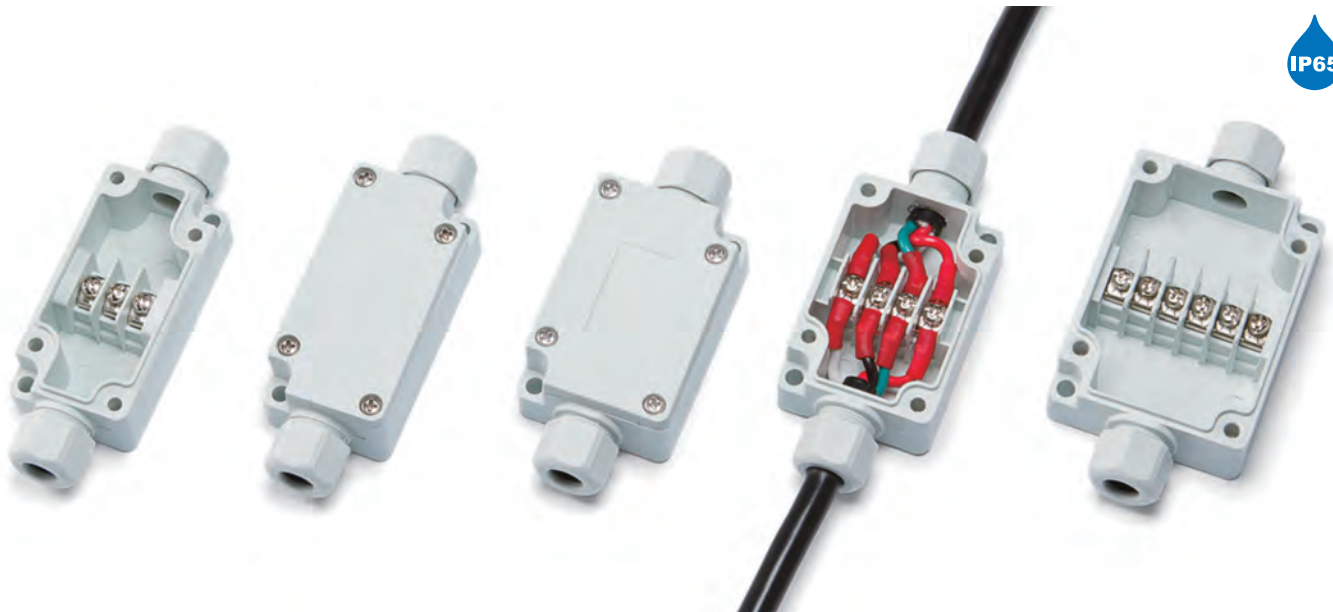


Wire Connection Diagram



4P terminal block

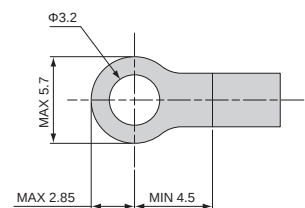
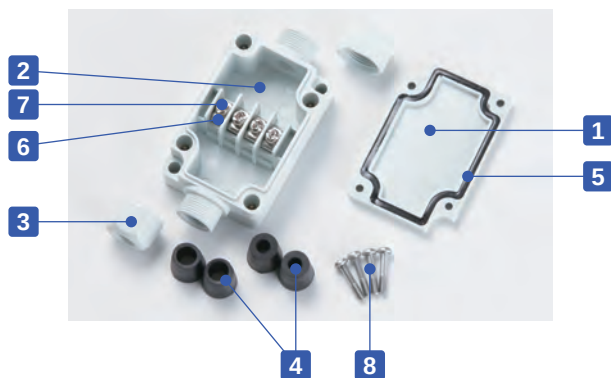
Rated voltage / current	AC450V / 40A
Applicable wire	Max 1.0 ~ 5.5 mm ² (stranded wire)
Terminal screw	M3.5 minus head



- Integrated junction box consisting of cable glands and a terminal block.
- Suitable for industrial facilities, power cable joints, relay between motors and/or sensors.
- IP65 protection class with high oil resistant PBT material.
- 3, 4, and 6 pole types are available.
- $\Phi 5.0$ and $\Phi 7.4$ rubber cable bushes (2 pcs each) are included.

Technical Data

Protection class : IP65
 Operating temperature : $-20^{\circ}\text{C} \sim +75^{\circ}\text{C}$
 Recommended torque : $0.5\text{N} \cdot \text{m}$

Applicable crimp terminal
R1.25-3

Terminal Block Specification

Rated voltage	250V
Rated current	15A
Applicable wire	1.25mm ²
Standard tightening torque	0.5N · m

Components

No.	Part name	Pcs	Material	Color / Finish
1	Cover	1	PBT UL94V-0	Light gray
2	Base	1	PBT UL94V-0	Light gray
3	Cable cap	2	PBT UL94V-0	Light gray
4	Rubber bush	2 pairs	EPDM	Black
5	Gasket	1	Polyurethane	Black
6	Conductive plate	3~6	Brass	Nickel plated
7	Terminal screw	3~6	Steel M3	Nickel plated
8	Cover screw	4	Stainless steel M3	Unfinished

Accessories (Optional parts)



Shorting Bar SBR series
 See website

Rubber Bush RB-9
 See page 176

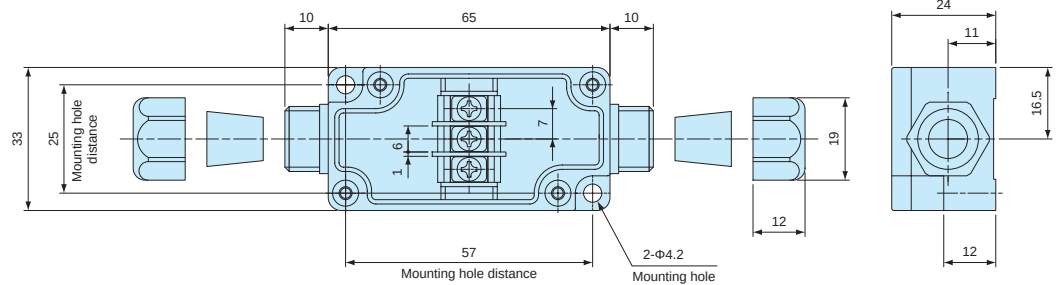
Product no. / Details

Product no.	L	W	H	Number of poles	Weight (g)
● Light gray					
TMC-3PG	65	33	24	3P	52
TMC-4PG	60	40	24	4P	58
TMC-6PG	70	50	24	6P	73

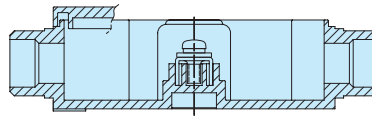
TMC dimensions

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

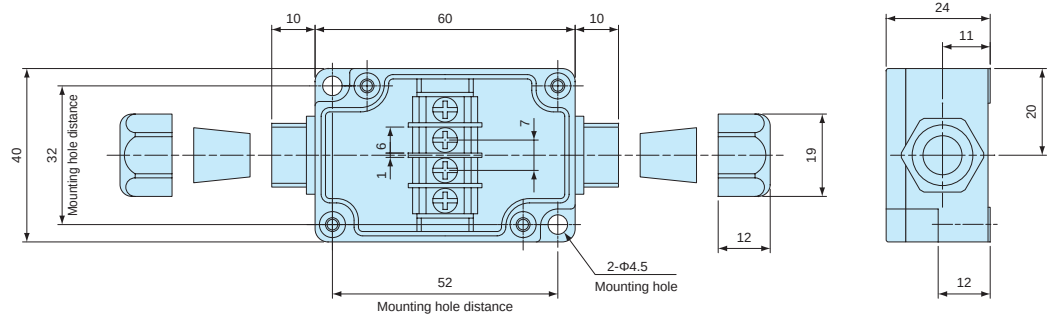
TMC-3PG



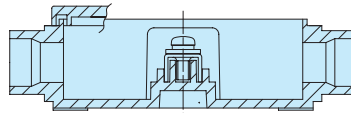
Inner diameter of rubber bush	Cable range
Φ5.0	Φ4 ~ Φ5
Φ7.4	Φ6 ~ Φ7



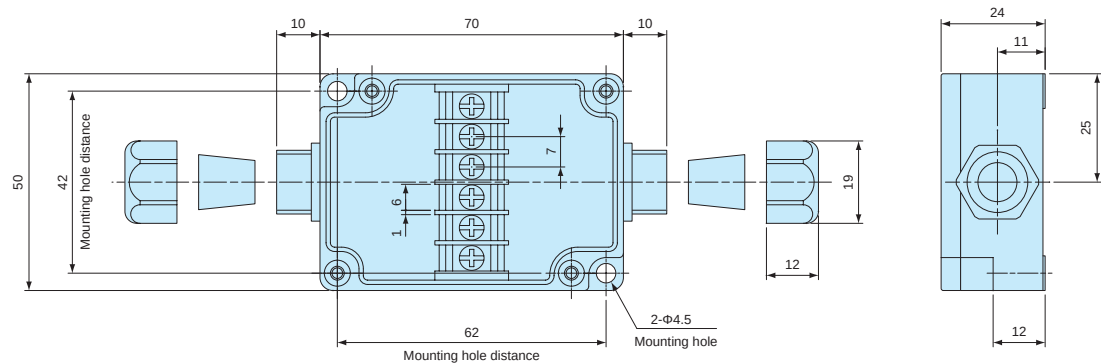
TMC-4PG



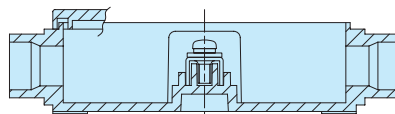
Inner diameter of rubber bush	Cable range
Φ5.0	Φ4 ~ Φ5
Φ7.4	Φ6 ~ Φ7



TMC-6PG

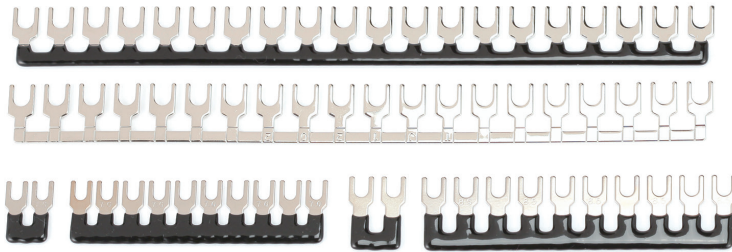


Inner diameter of rubber bush	Cable range
Φ5.0	Φ4 ~ Φ5
Φ7.4	Φ6 ~ Φ7



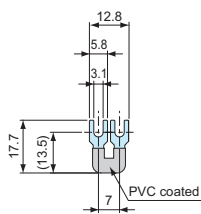
SBR SERIES

SHORTING BAR

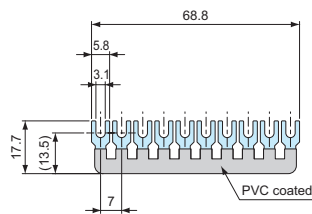


- Shorting bar for common-wiring.
- SBR70-10P, SBR85-10P, SBR95-20P, and SBR95-20N can be cut accordingly into required poles.
- PVC coated. SBR95-20 available in both PVC coated (SBR95-20P) and non PVC coated (SBR95-20N) models.
- See chart below for suitable box.

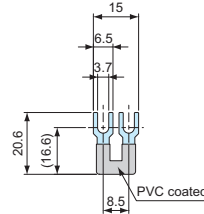
SBR70-2P



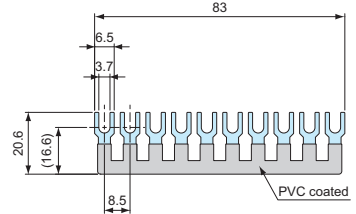
SBR70-10P



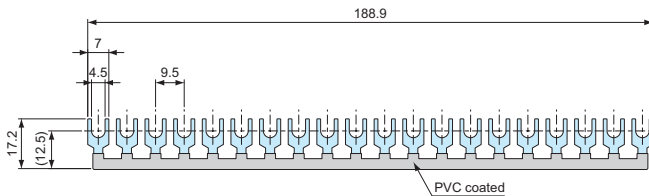
SBR85-2P



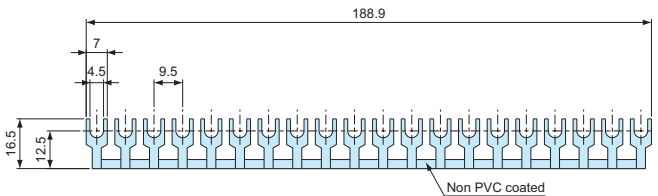
SBR85-10P



SBR95-20P



SBR95-20N



Suitable Box Chart

Product no.	Number of poles	Pole distance	Suitable box
SBR70 - 2P	2P	7.0mm	TMC series
SBR70 -10P	10P	7.0mm	TMC series
SBR85 - 2P	2P	8.6mm	TMB-20P, TMA-20P-AS, TMA30P-AS
SBR85 -10P	10P	8.6mm	TMB-20P, TMA-20P-AS, TMA30P-AS
SBR95 -20P	20P	9.6mm	TMA • TMB series (Not applicable for TMB-20P, TMA20P-AS, and TMA30P-AS models)
SBR95 -20N	20P	9.6mm	TMA • TMB series (Not applicable for TMB-20P, TMA20P-AS, and TMA30P-AS models)

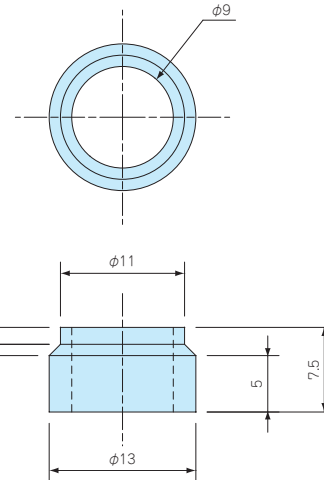
Product no. / Feature

■ Pack quantity differs by models.

Product no.	Number of poles	Material	Finish	PVC coating	Pack of
SBR70 - 2P	2P	Brass	Nickel plated	Yes	10
SBR70 -10P	10P	Brass	Nickel plated	Yes	1
SBR85 - 2P	2P	Brass	Nickel plated	Yes	10
SBR85 -10P	10P	Brass	Nickel plated	Yes	1
SBR95 -20P	20P	Brass	Nickel plated	Yes	1
SBR95 -20N	20P	Brass	Nickel plated	No	1

RB-9

RUBBER BUSH



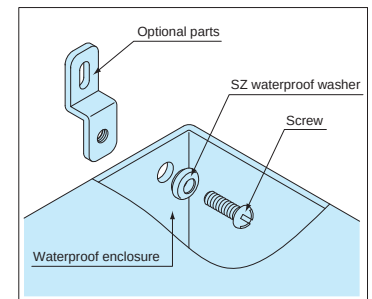
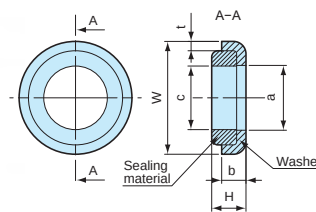
- Rubber bush for TMC series terminal junction box.
- Applicable for $\phi 8 \sim \phi 9$ mm diameter cable.

Product no. / Details

Product no.	Material	Color	Cable range	Pack of
RB-9	NBR	Black	$\phi 8 \sim \phi 9$ mm	2

SZ series

WATERPROOF WASHER



- Waterproof washer for screwing onto waterproof boxes.
- NBR sealing material has superior oil resistance (N models only).
- Silicone sealing material has wider operating temperature with superior temperature and water resistance (S models only).

Technical Data

Water pressure resistance :
M3 ~ M16
0.98MPa (10kgf/cm²) / 1 hour

- Shape of the sealing material vary by product.

Product no. / Details

Product no.	W	H	a	b	c	t	Washer material	Sealing material	Color	Screw size	Pack of
SZ- 3N	7	2.7	3.2	2.2	3.1	0.5	SUS304	NBR	Black	M 3	1
SZ- 3S	7	2.7	3.2	2.2	3.1	0.5	SUS304	Silicone	Brown	M 3	1
SZ- 4N	8	2.8	4.2	2.1	4.1	0.5	SUS304	NBR	Black	M 4	1
SZ- 4S	8	2.8	4.2	2.1	4.1	0.5	SUS304	Silicone	Brown	M 4	1
SZ- 5N	9.5	3.6	5.2	2.7	5.1	0.8	SUS304	NBR	Black	M 5	1
SZ- 5S	9.5	3.6	5.2	2.7	5.1	0.8	SUS304	Silicone	Brown	M 5	1
SZ- 6N	11.5	4	6.2	3	6.2	1	SUS304	NBR	Black	M 6	1
SZ- 6S	11.5	4	6.2	3	6.2	1	SUS304	Silicone	Brown	M 6	1
SZ- 8N	15.2	3.8	8.2	3.2	8.2	1	SUS304	NBR	Black	M 8	1
SZ- 8S	15.2	3.8	8.2	3.2	8.2	1	SUS304	Silicone	Brown	M 8	1
SZ-10N	18	5.3	10.2	4	10.2	1.5	SUS304	NBR	Black	M10	1
SZ-10S	18	5.3	10.2	4	10.2	1.5	SUS304	Silicone	Brown	M10	1
SZ-12N	24	6.1	14.2	4.8	12.2	1.5	SUS304	NBR	Black	M12	1
SZ-12S	24	6.1	14.2	4.8	12.2	1.5	SUS304	Silicone	Brown	M12	1
SZ-16N	30	6.8	18.4	5.3	16	1.9	SUS304	NBR	Black	M16	1
SZ-16S	30	6.8	18.4	5.3	16	1.9	SUS304	Silicone	Brown	M16	1
NEW SZ-3N-P	7	2.7	3.2	2.2	3.1	0.5	SUS304	NBR	Black	M 3	50
NEW SZ-3S-P	7	2.7	3.2	2.2	3.1	0.5	SUS304	Silicone	Brown	M 3	50
NEW SZ-4N-P	8	2.8	4.2	2.1	4.1	0.5	SUS304	NBR	Black	M 4	50
NEW SZ-4S-P	8	2.8	4.2	2.1	4.1	0.5	SUS304	Silicone	Brown	M 4	50
NEW SZ-5N-P	9.5	3.6	5.2	2.7	5.1	0.8	SUS304	NBR	Black	M 5	50
NEW SZ-5S-P	9.5	3.6	5.2	2.7	5.1	0.8	SUS304	Silicone	Brown	M 5	50

SHP series

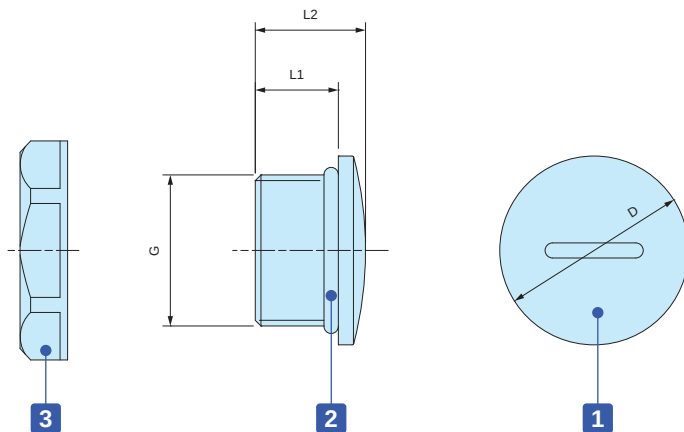
BLIND PLUG with O-ring

IP67



- A hole plug for sealing holes that are not in use.
- IP67 rating is achieved through the use of a lock nut.
- Waterproofing is not guaranteed when directly secured through thread holes.

SHP dimensions



A gloss-like finish distinctive to injection molded products may be visible in certain areas of the black color type. This does not affect the performance of the product.

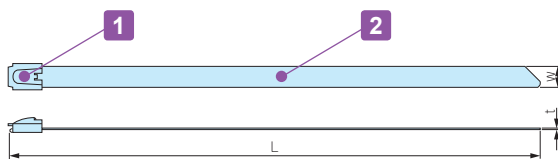
Components

■ PA = Polyamide

No.	Part name	Material
1	Housing	PA66 (UL94V-2)
2	O-ring	NBR
3	Lock nut	PA66 (UL94V-2)

Product no. / Details

Product no.		G		D	L1	L2	Pack of
● Black	● Light gray	Thread size	Mounting hole				
SHP-12B	SHP-12S	M12×1.5	Φ12.2	Φ16	9	12.2	1
SHP-16B	SHP-16S	M16×1.5	Φ16.2	Φ20	9	12.2	1
SHP-20B	SHP-20S	M20×1.5	Φ20.2	Φ25	11	14.6	1
SHP-25B	SHP-25S	M25×1.5	Φ25.2	Φ30	11	14.5	1
SHP-32B	SHP-32S	M32×1.5	Φ32.3	Φ38	11	15	1
SHP-40B	SHP-40S	M40×1.5	Φ40.3	Φ46	12	16	1

SCT series**STAINLESS STEEL TIES for POLE MOUNTING**

- Corrosion resistant stainless steel (SUS304) cable tie.
- Can be used to bundle cables or mounting enclosures to poles.
- Self-locking bracket allows easy mounting / cable bundling.
- Designed for one time use only (not reusable).

- Suitable for easy mounting.
- Wear gloves or other protections while installation.

Components

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

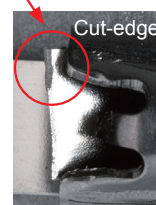
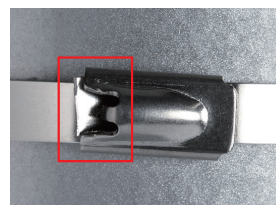
Product no. / Details

Product no.	W	L	t	Pack of
SCT 4.6- 100	4.6	100	0.25	10
SCT 4.6- 150	4.6	150	0.25	10
SCT 4.6- 200	4.6	200	0.25	10
SCT 4.6- 300	4.6	300	0.25	10
SCT 4.6- 500	4.6	500	0.25	2
SCT 4.6-1000	4.6	1,000	0.25	2
SCT 4.6-1500	4.6	1,500	0.25	2
SCT 7.9- 100	7.9	100	0.25	10
SCT 7.9- 150	7.9	150	0.25	10
SCT 7.9- 200	7.9	200	0.25	10
SCT 7.9- 300	7.9	300	0.25	10
SCT 7.9- 500	7.9	500	0.25	2
SCT 7.9-1000	7.9	1,000	0.25	2
SCT 7.9-1500	7.9	1,500	0.25	2

G3388**TIGHTEN GUN for SCT**

- Tool for cutting and tightening stainless steel strap.

*Be careful of the sharp cut-edge of strap.



Note: Tighten gun is not subject to RoHS regulations.

Product no.

G3388

SCT • G3388



- Weatherproof cable gland equipped with high ultraviolet and degradation resistant silicone sealing insert and O-ring.
- Recommended to use outdoors where waterproofing is critical.
- Protection class equivalent to IP67.

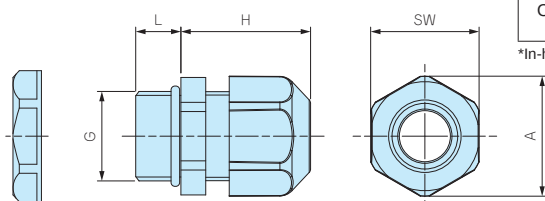
Components

■ PA = Polyamide

No.	Part name	Material
1	Cap	PA66 UL94V-2
2	Sealing insert	Silicone
3	Connector	PA66 UL94V-2
4	O-ring	Silicone
5	Lock nut	PA66 UL94V-2

RMW dimensions

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



Technical Data

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

*In-house test

Cap design varies by size



RMW40 or smaller



RMW50

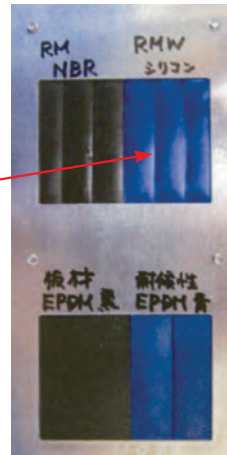
- Lock nut is not included for RMW10S-6.
- Please drill a proper thread hole into the enclosure for installation.

Product no. / Details

Product no.		G		Cable range		L	H Max	SW	A	Pack of
● Black	● Light gray	Thread size	Mounting hole	Min	Max					
RMW8L-2.5B	RMW8L-2.5S	M8×1.25	Φ8.2	1	2.5	13	19.5	12	13.6	1
RMW8L-4B	RMW8L-4S	M8×1.25	Φ8.2	2.5	4	13	19.5	12	13.6	1
RMW10S-6B	RMW10S-6S	M10×1.5	—	3	6	8	20.5	13	14.6	1
RMW10L-6B	RMW10L-6S	M10×1.5	Φ10.2	3	6	13	20.5	13	14.6	1
RMW12S-7B	RMW12S-7S	M12×1.5	Φ12.2	3.5	7	9	20.5	16	17.7	1
RMW12L-7B	RMW12L-7S	M12×1.5	Φ12.2	3.5	7	14.5	20.5	16	17.7	1
RMW16S-8B	RMW16S-8S	M16×1.5	Φ16.2	4	8	9	23.5	19.2	21.3	1
RMW16L-8B	RMW16L-8S	M16×1.5	Φ16.2	4	8	15	24	19.2	21.3	1
RMW20S-12B	RMW20S-12S	M20×1.5	Φ20.2	6	12	10	29	24.3	26.8	1
RMW20L-12B	RMW20L-12S	M20×1.5	Φ20.2	6	12	15	28.5	24.3	26.8	1
RMW25L-17B	RMW25L-17S	M25×1.5	Φ25.2	11	17	15	35	33.3	36.8	1
RMW32L-21B	RMW32L-21S	M32×1.5	Φ32.3	13	21	15	38	36.1	39.8	1
RMW40L-27B	RMW40L-27S	M40×1.5	Φ40.3	18	27	18	43.5	46.1	51.2	1
RMW50L-38B	RMW50L-38S	M50×1.5	Φ50.4	27	38	20	50.5	60	66.5	1
RMW10L-6B-P	RMW10L-6S-P	M10×1.5	Φ10.2	3	6	13	20.5	13	14.6	100
RMW12S-7B-P	RMW12S-7S-P	M12×1.5	Φ12.2	3.5	7	9	20.5	16	17.7	100
RMW12L-7B-P	RMW12L-7S-P	M12×1.5	Φ12.2	3.5	7	14.5	20.5	16	17.7	100
RMW16S-8B-P	RMW16S-8S-P	M16×1.5	Φ16.2	4	8	9	23.5	19.2	21.3	100
RMW16L-8B-P	RMW16L-8S-P	M16×1.5	Φ16.2	4	8	15	24	19.2	21.3	100
RMW20S-12B-P	RMW20S-12S-P	M20×1.5	Φ20.2	6	12	10	29	24.3	26.8	100
RMW20L-12B-P	RMW20L-12S-P	M20×1.5	Φ20.2	6	12	15	28.5	24.3	26.8	100

RMW series silicone sealing insert weatherproof test report

Object: Cut into a piece of the silicone sealing insert from RMW series and attach it onto an aluminium plate.
For comparison, NBR sealing insert from our RM and EPDM sealing insert from another manufacturer is also attached.



Before



After

Testing conditions

Equipment : 7.5kW Super Xenon Weather Meter SX75 (Suga Test Instruments Co., Ltd.- <http://www.sugatest.co.jp/english/>)
Conditions : JIS B7754 : 1991

Testing with an authorized Xenon arc lamp weathering test equipment under the conditions denoted below.

Irradiance : 180W/m^2 at 300-400nm

Black Panel Temperature : $63\pm 3^\circ\text{C}$ Humidity Range : $50\pm 10\%$

Cycle Conditions : 120 minutes cycle (18 minutes irradiation + water spray - 102 minutes irradiation)

2,000 hours (equivalent to a period of 4 years under natural conditions)

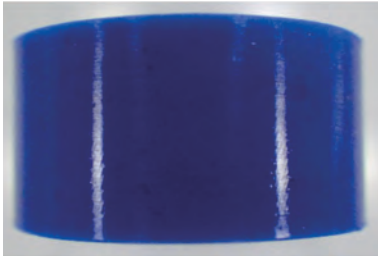
Time period :

Total radiant exposure : 1296MJ/m^2

Test result (visual / touch inspection)

Silicone sealing insert material : No cracks, no gloss transition, no powder - no appearance change at all. Flexibility remains unchanged.

Before



After



NBR material from our RM series : Lost glossiness on the surface and material is stiffened.

Before

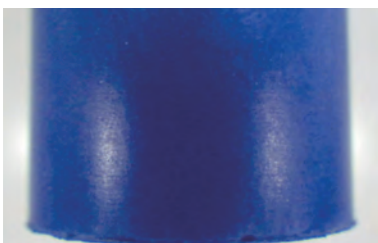


After

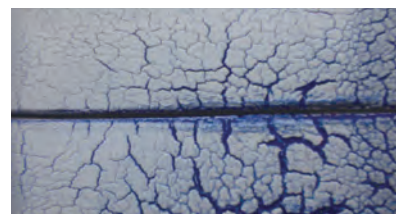


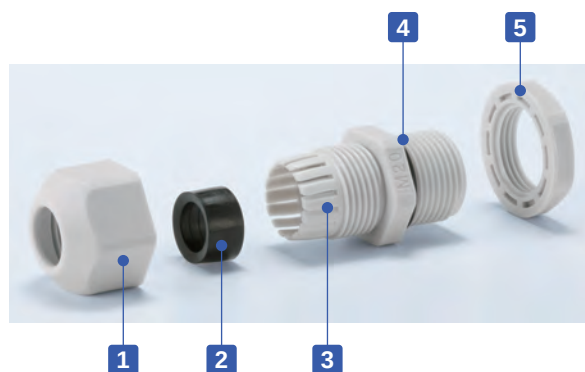
EPDM material from weatherproof cable gland of another manufacturer : Cracked, color drastically faded and powder appeared on the surface.

Before



After





- Low cost cable glands made from polyamide material.
- Wide selection, for M8 ~ M63, suitable for $\Phi 1\text{mm} \sim \Phi 44\text{ mm}$ cable.
- High oil resistant NBR rubber sealing and O-ring.
- Protection class equivalent to IP67.

Technical Data

Protection class : Equivalent to IP67*
Operating temperature : $-20^{\circ}\text{C} \sim +80^{\circ}\text{C}$

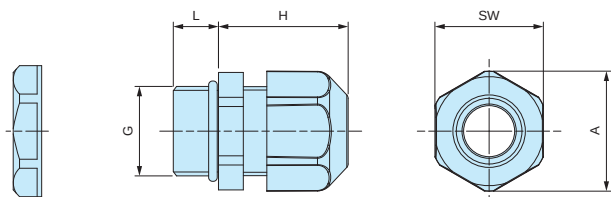
*In-house test

Components

■ PA = Polyamide

No.	Part name	Material
1	Cap	PA66 UL94V-2
2	Sealing insert	NBR
3	Connector	PA66 UL94V-2
4	O-ring	NBR
5	Lock nut	PA66 UL94V-2

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



- Lock nut is not included for RM8S-2.5, 8S-4, and 10S-6 models.

Please drill an appropriate thread hole into the enclosure for installation.

Cap design varies by size



Product no. / Details

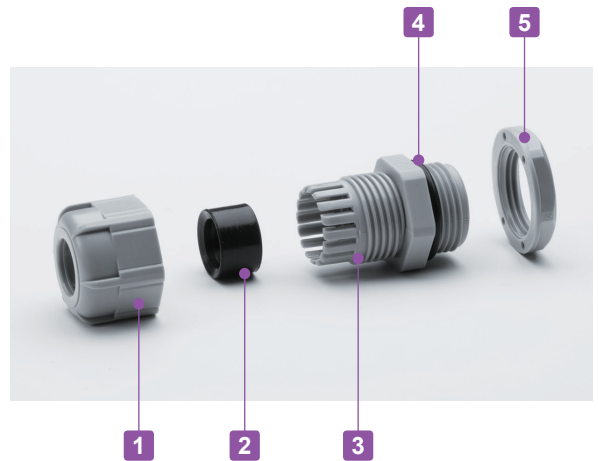
Product no.		G		Cable range		L	H Max	SW	A	Pack of
● Black	● Light gray	Thread size	Mounting hole	Min	Max					
RM8S-2.5B	RM8S-2.5S	M8×1.25	—	1	2.5	7.5	19.5	12	13.6	1
RM8L-2.5B	RM8L-2.5S	M8×1.25	$\Phi 8.2$	1	2.5	13	19.5	12	13.6	1
RM8S-4B	RM8S-4S	M8×1.25	—	2.5	4	7.5	19.5	12	13.6	1
RM8L-4B	RM8L-4S	M8×1.25	$\Phi 8.2$	2.5	4	13	19.5	12	13.6	1
RM10S-6B	RM10S-6S	M10×1.5	—	3	6	8	20.5	13	14.6	1
RM10L-6B	RM10L-6S	M10×1.5	$\Phi 10.2$	3	6	13	20.5	13	14.6	1
RM12S-7B	RM12S-7S	M12×1.5	$\Phi 12.2$	3.5	7	9	20.5	16	17.7	1
RM12L-7B	RM12L-7S	M12×1.5	$\Phi 12.2$	3.5	7	14.5	20.5	16	17.7	1
RM16S-8B	RM16S-8S	M16×1.5	$\Phi 16.2$	4	8	9	23.5	19.2	21.3	1
RM16L-8B	RM16L-8S	M16×1.5	$\Phi 16.2$	4	8	15	24	19.2	21.3	1
RM20S-12B	RM20S-12S	M20×1.5	$\Phi 20.2$	6	12	10	29	24.3	26.8	1
RM20L-12B	RM20L-12S	M20×1.5	$\Phi 20.2$	6	12	15	28.5	24.3	26.8	1
RM25L-17B	RM25L-17S	M25×1.5	$\Phi 25.2$	11	17	15	35	33.3	36.8	1
RM32L-21B	RM32L-21S	M32×1.5	$\Phi 32.3$	13	21	15	38	36.1	39.8	1
RM40L-27B	RM40L-27S	M40×1.5	$\Phi 40.3$	18	27	18	43.5	46.1	51.2	1
RM50L-38B	RM50L-38S	M50×1.5	$\Phi 50.4$	27	38	20	50.5	60	66.5	1
RM63L-44B	RM63L-44S	M63×1.5	$\Phi 63.4$	37	44	20	53	68	75.5	1
RM10L-6B-P	RM10L-6S-P	M10×1.5	$\Phi 10.2$	3	6	13	20.5	13	14.6	100
RM12S-7B-P	RM12S-7S-P	M12×1.5	$\Phi 12.2$	3.5	7	9	20.5	16	17.7	100
RM12L-7B-P	RM12L-7S-P	M12×1.5	$\Phi 12.2$	3.5	7	14.5	20.5	16	17.7	100
RM16S-8B-P	RM16S-8S-P	M16×1.5	$\Phi 16.2$	4	8	9	23.5	19.2	21.3	100
RM16L-8B-P	RM16L-8S-P	M16×1.5	$\Phi 16.2$	4	8	15	24	19.2	21.3	100
RM20S-12B-P	RM20S-12S-P	M20×1.5	$\Phi 20.2$	6	12	10	29	24.3	26.8	100
RM20L-12B-P	RM20L-12S-P	M20×1.5	$\Phi 20.2$	6	12	15	28.5	24.3	26.8	100
RM25L-17B-P	RM25L-17S-P	M25×1.5	$\Phi 25.2$	11	17	15	35	33.3	36.8	100

RPG SERIES

POLYAMIDE CABLE GLAND

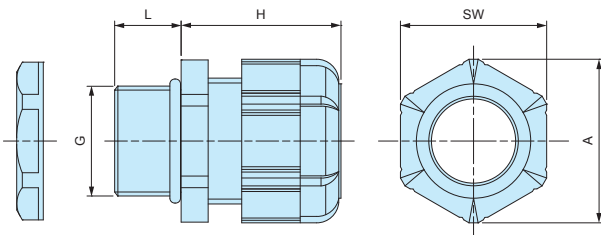


IP67



- Inexpensive cable glands made from polyamide material with PG threading.
- High oil resistant NBR rubber sealing and O-ring.
- IP67 protection class.

RPG dimensions



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

Components

■ PA = Polyamide

No.	Part name	Material
1	Cap	PA66 UL94V-2
2	Sealing insert	NBR
3	Connector	PA66 UL94V-2
4	O-Ring	NBR
5	Lock-nut	PA66 UL94V-2

Technical Data

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

Product no. / Dimensions

Product no.		G			Cable range		L	H Max	SW	A	Pack of
● Black	● Gray	Thread size	Thread dia.	Mounting hole	Min	Max					
RPG7-7B	RPG7-7G	PG7	12.5	Φ12.7	3	7	9	20.5	16	17.7	1
RPG9-8B	RPG9-8G	PG9	15.2	Φ15.4	4	8	9	23.5	19	21	1
RPG11-10B	RPG11-10G	PG11	18.6	Φ18.8	5	10	9	26	22	24	1
RPG13.5-11B	RPG13.5-11G	PG13.5	20.4	Φ20.6	6	11	10	29	24	26.4	1
RPG16-14B	RPG16-14G	PG16	22.5	Φ22.7	8	14	10	30	26.7	29.5	1
RPG21-18B	RPG21-18G	PG21	28.3	Φ28.5	13	18	12	35	33	36.5	1
RPG29-25B	RPG29-25G	PG29	37	Φ37.2	18	25	12	41.5	42	46.5	1



- High water protection IP68 (1bar / 30min) polyamide cable gland.
- Wide selection, for M8 ~ M50, suitable for $\Phi 2.5\text{mm}$ ~ $\Phi 42\text{ mm}$ cable.
- Super tough and superior heat resistant PA6GF (glass fiber filled PA6) material on cap and connector.
- Safer halogen free, eco-friendly product.

Technical Data

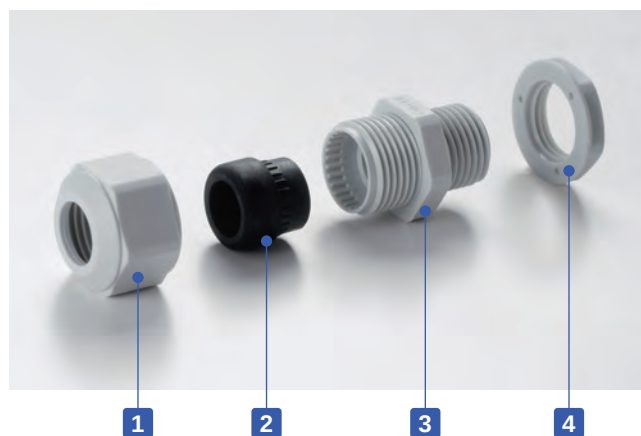
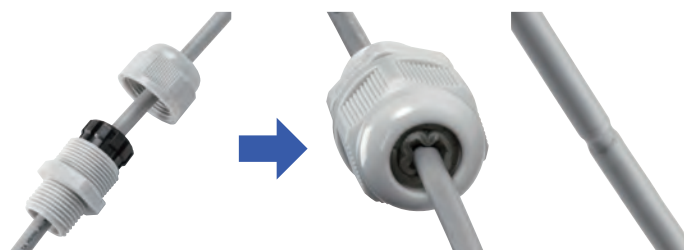
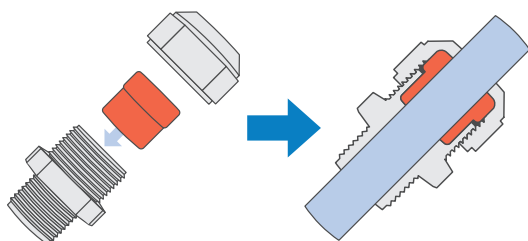
Protection class : IP68 1bar / 30min
 Operating temperature : -20°C ~ $+100^{\circ}\text{C}$
 Compliant with EN50262 Ver. A

AG series

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

Lamellar insert type

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



Components

■ PA6GF = Polyamide6 Glass Fiber Filled

No.	Part name	Material
1	Cap	PA6GF
2	Sealing insert	TPE
3	Connector	PA6GF
4	Lock nut	PA6

■ Lock nut is not included for M8 and M10 sizes.

Please drill an appropriate thread hole into the enclosure for installation.

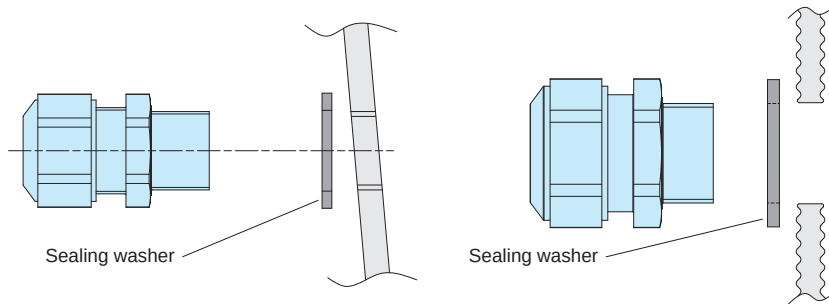
- Appropriate tightening torque varies by each cable diameter. Tighten the cap until top of the sealing insert forms a small bead between the cap and the cable.



■ No optional sealing washer is required when installing on an even surface because of the built-in waterproof rib.

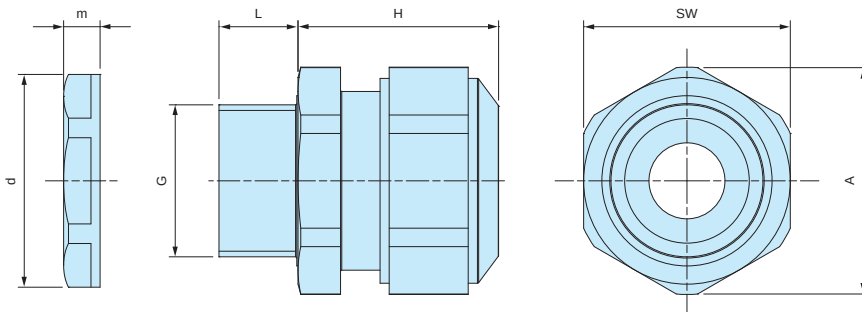
■ An optional sealing washer is required when installing on an uneven surface. (See website for more information on the optional sealing washer AGP series)

Waterproof rib



AG dimensions

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

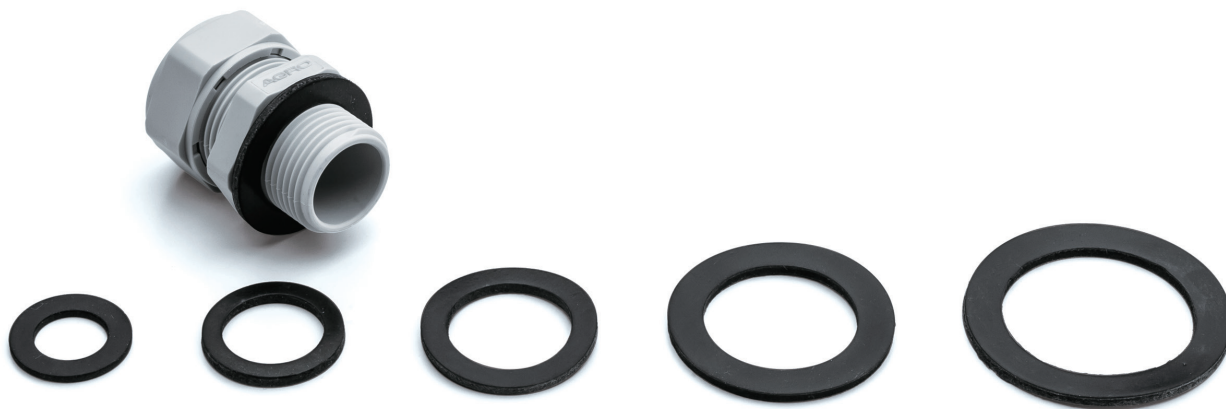


■ Lock nut is not included for M8 and M10 sizes.

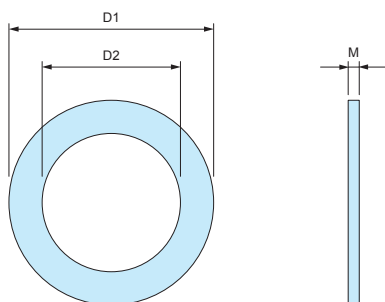
Please drill an appropriate thread hole into the enclosure for installation.

Product no. / Details

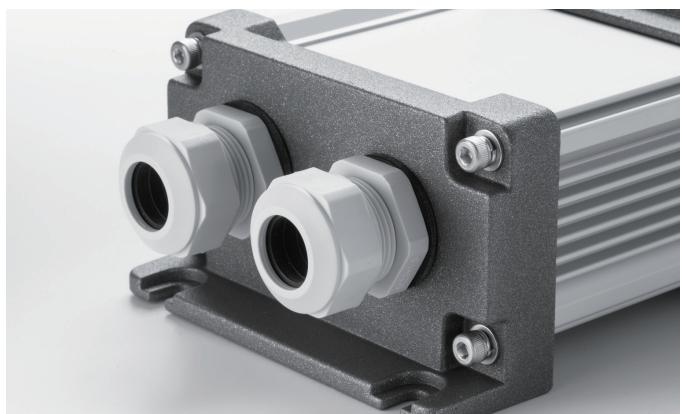
Product no.		G		Cable range		L	H Max	SW	A	d	m	Pack of
● Black	● Light gray	Thread size	Mounting hole	Min	Max							
AG8-3.5B	AG8-3.5S	M8×1.0	—	2.5	3.5	10	17	12	13.2	—	—	1
AG8-5B	AG8-5S	M8×1.0	—	3.5	4.7	10	17	12	13.2	—	—	1
AG10-6B	AG10-6S	M10×1.0	—	4	6	10	19	15	16.5	—	—	1
AG12-5B	AG12-5S	M12×1.5	Φ12.2	3.5	4.7	12	23.5	17	18.7	18.8	5	1
AG12-6.5B	AG12-6.5S	M12×1.5	Φ12.2	5	6.5	12	23	17	18.7	18.8	5	1
AG12-8B	AG12-8S	M12×1.5	Φ12.2	6.5	7.8	12	23	17	18.7	18.8	5	1
AG16-10B	AG16-10S	M16×1.5	Φ16.2	8	10	12	26	21	23.1	24.3	5	1
AG20-15B	AG20-15S	M20×1.5	Φ20.2	11	15	13	27	27	29.7	29	6	1
AG25-16B	AG25-16S	M25×1.5	Φ25.2	12.5	16	13	34	34	37.4	36	6.7	1
AG25-20B	AG25-20S	M25×1.5	Φ25.2	16	20	13	34	34	37.4	36	6.7	1
AG32-25.5B	AG32-25.5S	M32×1.5	Φ32.3	21	25.5	15	36	41	45.6	46	8	1
AG40-28.5B	AG40-28.5S	M40×1.5	Φ40.3	24	28.5	15	41	50	55.4	53.5	9	1
AG40-33B	AG40-33S	M40×1.5	Φ40.3	28.5	33	15	41	50	55.4	53.5	9	1
AG50-37B	AG50-37S	M50×1.5	Φ50.4	33	37	16	45	60	65.5	66	9.6	1
AG50-42B	AG50-42S	M50×1.5	Φ50.4	37	42	16	45	60	65.5	66	9.6	1

AGP SERIES**SEALING WASHER for AG • AGSP**

- Sealing washer for AG series.
- Made from oil resistant NBR material.
- Use in the case of installation on a rough or uneven surfaces.
- Selectable in 7 sizes (from M12 to M50)
- Sealing washer is not necessary for installation on flat surfaces.

AGP Dimensions

- Material : NBR

**Product no. / Dimensions**

Product no.	D1	D2	M	Suitable cable gland	Pack of
AGP-12	20	12	1.6	AG12	10
AGP-16	23.5	16.5	2.0	AG16	10
AGP-20	29	20	2.0	AG20	10
AGP-25	37	25	2.0	AG25	10
AGP-32	44	32	2.2	AG32	5
AGP-40	52	40	2.2	AG40	5
AGP-50	64	50	3.1	AG50	5

THA45 series

IP68 SEAMLESS CABLE GLAND

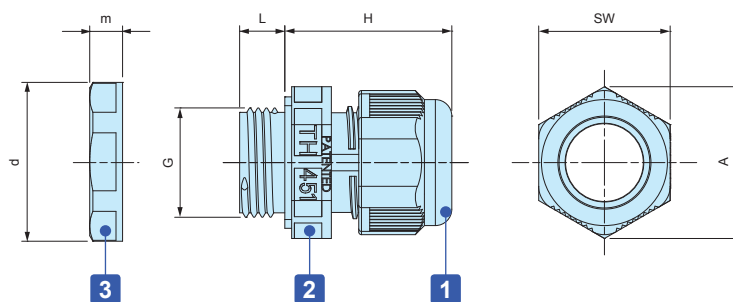
IP68



Seamless construction of connector and sealing insert for superb waterproof performance.



THA45 dimensions



Technical Data

Protection class : IP68 5bar/1h (1 hour / 50m depth)
Operating temperature : -40°C ~ +125°C
EN50262 VarA compliant

Color

Code	[L] Light gray / Gray	[B] Black / Gray	[G] Black / Green
Color			

Components

■ PA66 = Polyamide 66
■ PA66GF = Glass fiber filled polyamide 66

No.	Part name	Material
1	Cap	*PA66 • PA66GF
2	Connector	PA66 • TPE
3	Lock nut	PA66

*PA66 material for THA452-25 models.

Product no. / Details

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

Product no.	G			Cable range		L	H Max	SW	A	d	m	Pack of
	Thread size	Thread diameter	Mounting hole	Max	Min							
THA450-16S□	M16×1.5	15.3	Φ15.7	5	7.5	8	29.5	19	21.6	24	5	1
THA450-16L□	M16×1.5	15.3	Φ15.7	7.5	9.5	8	29.5	19	21.6	24	5	1
THA451-20□	M20×1.5	20	Φ20.2	10.5	14	8	31	24	26.3	26.5	7	1
THA451-20-2□	M20×1.5	20	Φ20.2	Φ6×2		8	31	24	26.3	26.5	7	1
THA452-25□	M25×1.5	25	Φ25.2	14	17	8	34	29	32	35.2	6	1

RSP series

STRAIN RELIEF CABLE GLAND



- A total of 14 models available for selection.
- Strain relief cap protects cables by preventing it from bending beyond its limit and breaking.
- Economical price but high waterproofing capability equivalent to IP67.

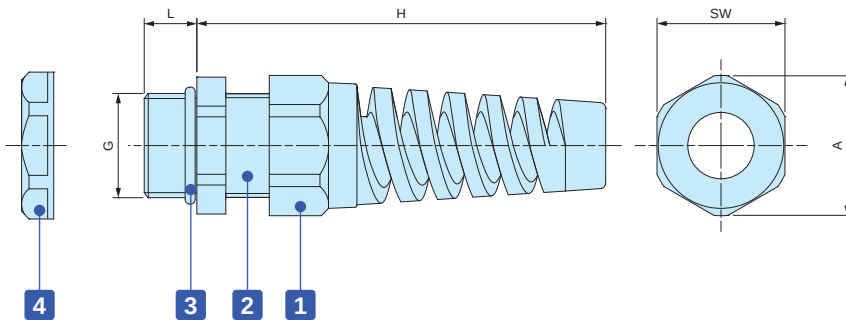
Technical Data

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

*In-house test

RSP dimensions

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



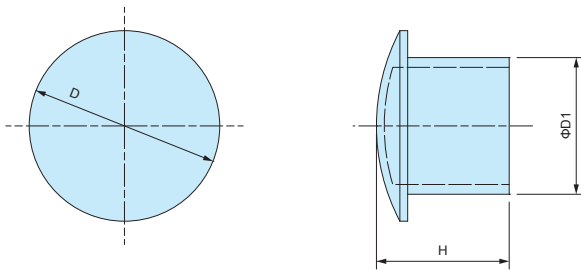
Components

■ PA = Polyamide

No.	Part name	Material
1	Strain relief cap	PA66 UL94V-2
-	Sealing insert	NBR
2	Connector	PA66 UL94V-2
3	O-ring	NBR
4	Lock nut	PA66 UL94V-2

Product no. / Details

Product no.		G		Cable range		L	H	SW	A	Pack of
● Black	● Light gray	Thread size	Mounting hole	Min	Max					
RSP 8-2.5B	RSP 8-2.5S	M 8×1.25	Φ 8.2	1	2.5	10.5	48	12.1	13.8	1
RSP 8-4B	RSP 8-4S	M 8×1.25	Φ 8.2	2.5	4	10.5	48	12.1	13.8	1
RSP10-6B	RSP10-6S	M10×1.5	Φ10.2	3	6	12.2	54	13.1	14.5	1
RSP12-6B	RSP12-6S	M12×1.5	Φ12.2	3.5	6	9	62	16	17	1
RSP16-8B	RSP16-8S	M16×1.5	Φ16.2	4	8	9	69	19.5	21	1
RSP20-11B	RSP20-11S	M20×1.5	Φ20.2	6	11	10	82	24	26	1
RSP25-16B	RSP25-16S	M25×1.5	Φ25.2	11	16	12	102	33	36	1

SP SERIES**SEALING PLUG****SP dimensions**

■ Material : Nylon

- Sealing plug for cable glands when not in use.
- Maintain a waterproof seal when plugged into the sealing insert on cable glands.

Product no. / Dimensions

Product no.	D	D1	H	Suitable cable glands	Pack of
SP-12	10.2	6	15.5	RMW12, RM12, RMW16, RM16, RPG7, RPG9	10
SP-16	15.6	9.5	15.5	RMW20, RM20, RPG11, RPG13.5	10
SP-20	19.6	13.5	16.5	RPG16	10
SP-25	24.4	17.5	17	RMW25, RM25, RMW32, RM32, RPG21	5
SP-40	32.5	24.5	17.5	RMW40, RM40, RPG29	5
SP-50	47.2	38.9	17.6	RMW50, RM50	5



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

Technical Data

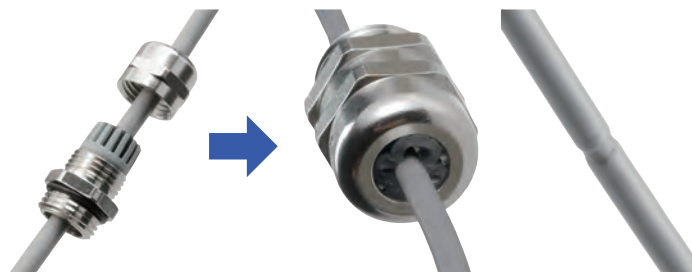
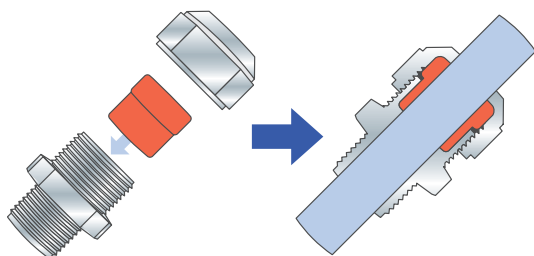
Protection class : IP68 1bar / 30min
 Operating temperature : -40°C ~ +100°C
 Compliant with EN50262 Ver. A

AGM series

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

Lamellar insert type

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



- Appropriate tightening torque varies by each cable diameter.

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

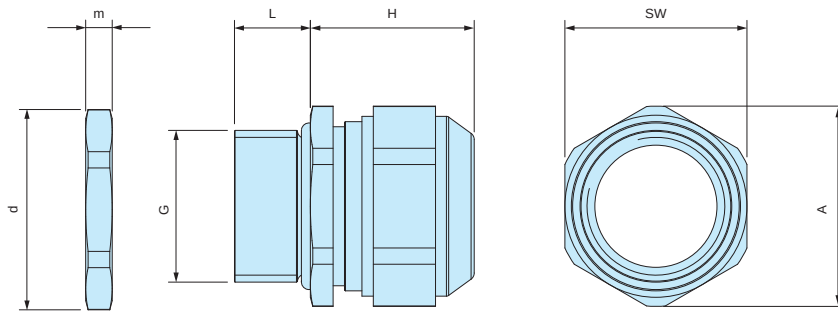


Components

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

AGM dimensions

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



Product no. / Details

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



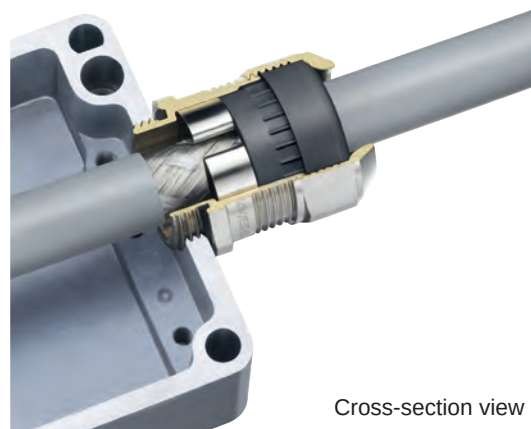
- Optimal contact spring provides excellent shield contact and the smallest possible transfer impedance.
- Clawed lock nut makes a good EMC shield contact possible on conductive enclosures.
- Shape of the contact spring not only allows for a large clamping range to the shield but also enables easy and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

Technical Data

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

Cable Range

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



Cross-section view

Components

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

INSTALLATION Instruction



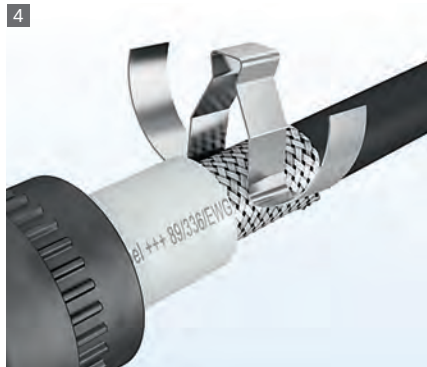
Remove the contact spring from the connector.



Install the connector onto the enclosure.



Strip the cable.



Clip the contact spring on the shielded cable.



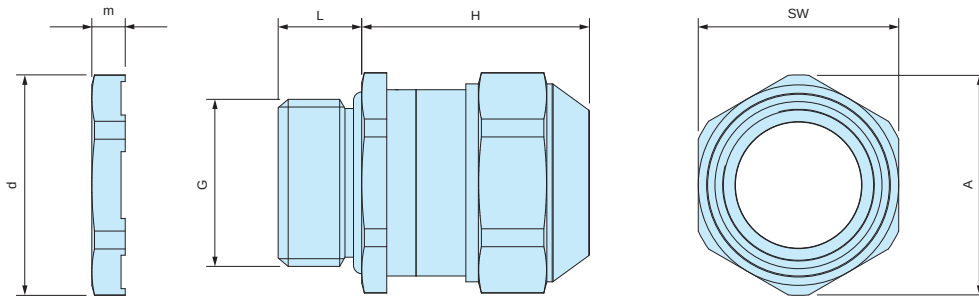
Pass the cable through the sealing insert and cap.



Tighten the cap to complete.

AGE dimensions

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



Product no. / Details

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

AGH SERIES

HEAT RESISTANT METAL CABLE GLAND



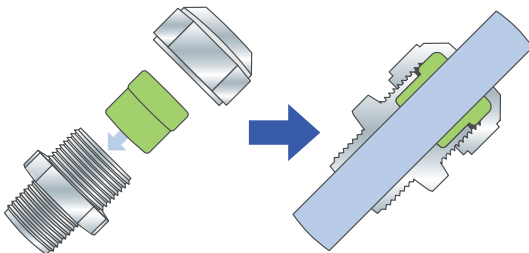
- Heat resistant sealing insert made of FPM material. Resistant up to 200°C
- IP68 1bar / 30min high performance waterproof cable gland.

Technical Data

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

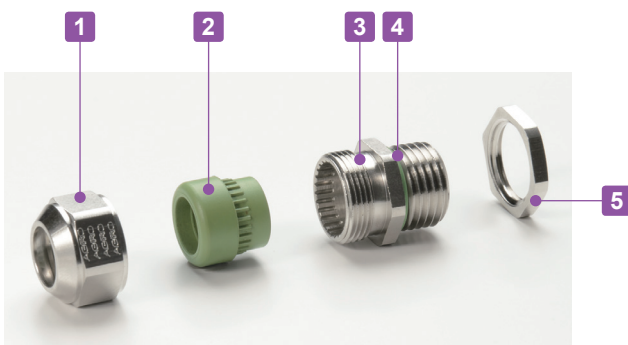
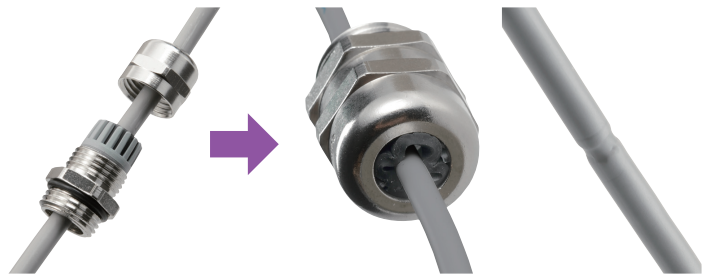
AGH series

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

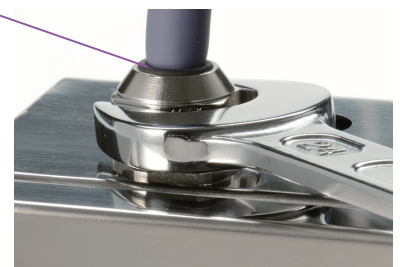


Conventional cable gland

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



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

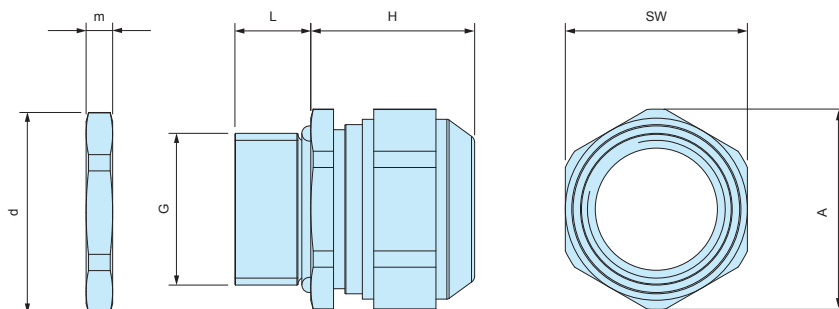


Components

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

AGH dimensions

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



Product no. / Dimensions

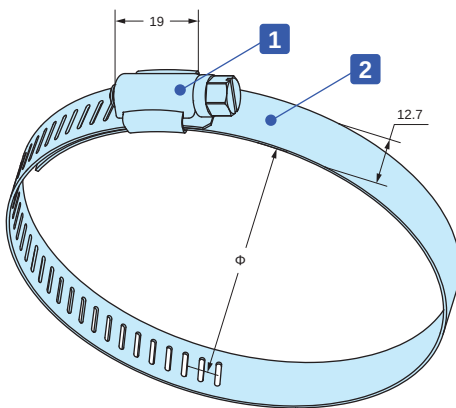
Product no.	G		Cable range		L	H Max	SW	A	d	m	Pack of
	Thread size	Mounting hole	Min	Max							
AGH10-6	M10×1.5	Φ10.2	4.0	6.0	10	15	13	14.3	14.2	3	1
AGH12-8	M12×1.5	Φ12.2	6.5	8.0	10	17	15	16.5	16.5	3	1
AGH16-10.5	M16×1.5	Φ16.2	8.0	10.5	10	20	18	20	21	3	1
AGH20-15	M20×1.5	Φ20.2	11.0	15.0	10	23	24	26.5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

SNB series

STAINLESS STEEL POLE MOUNTING STRAP



SNB dimensions



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

Components

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

Product no. / Details

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

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

SNB Strap required

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

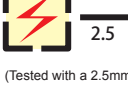
PROTECTION CLASS (IP RATING)

IP67
is

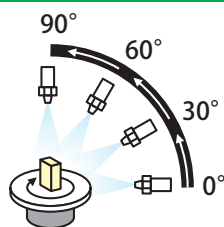
● IEC60529 standard is a system for classifying the degrees of protection provided by the enclosures of electrical equipment, such as against dust and water.

IP

First digit : Solid particle protection

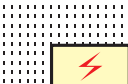
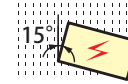
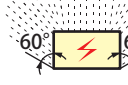
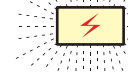
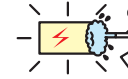
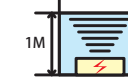
No.	Protection against ingress of solid foreign objects	Protection against access to hazardous parts
0	No Protection	No Protection
1	 Protected against solid objects over 50mm.	 Protected against accidental touch by a large surface of the body, such as by hands. (Tested with a 50mm diameter steel ball.)
2	 Protected against solid objects over 12.5mm.	 Protected against accidental touch by fingers or similar objects (Tested with a 12mm diameter, 80mm long articulated finger)
3	 Protected against solid objects over 2.5mm.	 Protected against accidental touch by tools or thick wires. (Tested with a 2.5mm diameter, 100mm long bar)
4	 Protected against solid objects over 1.0mm.	 1.0 Protected against accidental touch by most wires and screws. (Tested with a 1.0mm diameter, 100mm long wire)
5	 Protected against dust; limited ingress, no harmful deposits.	
6	 Complete protection against dust.	

69K



80 to 100 barrel steam jets at 80°C (±5°C) from a 0°, 30°, 60°, and 90° angle, at a distance of 100 ~ 150mm for 30 sec x 5 sets

Second digit: Liquid ingress protection

No.	Protection against ingress of liquid
0	No Protection
1	 Dripping water (vertically falling drops) for 10 minutes.
2	 Vertically dripping water when tilted at 15° for 10 minutes (2.5 minutes per position).
3	 Spraying water (at any angle) of 0.07l/min up to 60° from the vertical for 10 minutes.
4	 Spraying water of 0.07l/min from all directions for 10 minutes.
5	 Jets of water projected by a φ6.3 nozzle of 12.5l / min from all directions at 1 min / 1m ² for at least 3 minutes.
6	 Powerful jets of water projected by a φ12.3 nozzle of 100l / min from all directions at 1 min / 1m ² for at least 3 minutes.
7	 Immersion, up to 1 meter depth (for 30 mins).
8	 Immersion (test depth and duration beyond IPX7 requirements)

A point of note for Waterproof Boxes

- For outdoor use, direct sunlight will accelerate the degradation of the box. For more information, please see page Outdoor Use - 1.
- For customers planning to attach their own original mounting brackets onto the waterproof boxes, it is recommended to mill larger holes with enough clearance to attach the bracket. If the milled hole and clearance is too small, it may cause irreparable damage to the box.
- Waterproof boxes made of Polycarbonate or ABS plastic material may be damaged if certain types of washing chemicals, solvents, oils, or thread locking adhesives are present on the box. Furthermore, paint not suitable to be used on plastic materials may also cause damage.