

HRS General-purpose Multi-Contact Circular Waterproof Connectors

RM-W Series



Overview

High performance waterproof circular connectors and cable assemblies used in variety of applications requiring high reliability, ease of assembly and small size.

Features

1. Variety of types

Plugs : Available in 3 types - straight / long back shell, straight / short back shell, right angle back shell. Straight and right angle (overmolded) cable assemblies of various lengths can be ordered.

Receptacles : Waterproof types with front, back or flange panel mounting.

All types with 2, 3, 4, 8, 10, 12 contacts. Contacts in 2 plating types: gold or silver.

2. Dust and water protection

When fully mated, the connector meet requirements of IP67 (48 hours at depth of 1.8 m)
(Single-body waterproof receptacles also meet requirements of IP67.)

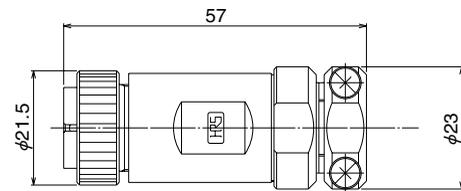
3. Cable exit in 360° directions

The right-angle plugs permit exiting of the cable over a 360-degree range in any direction.

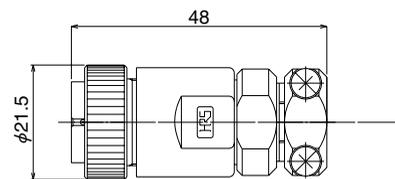
Applications

Base stations, factory automation equipment, robotic equipment, exploration and construction equipment, research instrumentation, variety of industrial and measuring instruments. Any other applications requiring high reliability waterproof circular connectors.

Plug – straight

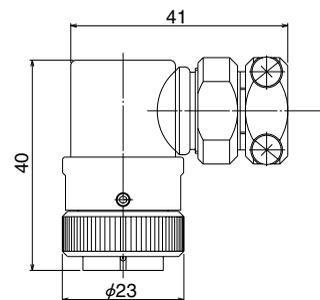


Long backshell

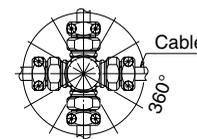


Short backshell

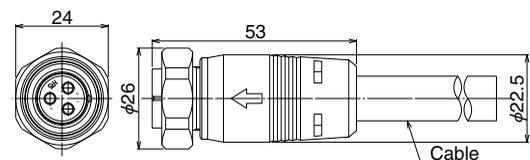
Plug – Right angle



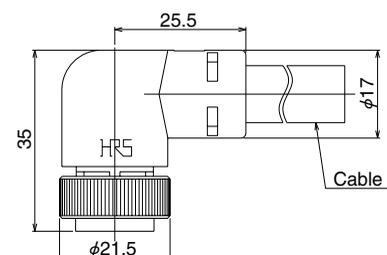
360° Cable exit



Plug – straight overmolded cable assembly



Plug – Right angle overmolded cable assembly



■Product Specifications

Rating	Voltage rating	600V AC, 840V DC (2 pos.) 500V AC, 700V DC (3, 4, 8 pos.) 350V AC, 490V DC (10 pos.) 100V AC, 140V DC (12 pos.)
	Current rating	10A (2, 3, 4 pos.) 5A (8, 10, 12 pos.)
	Operating temperature range (Note 1)	-25°C to +85°C
	Storage temperature range (Note 2)	-25°C to +85°C

Characteristic	Specification	Conditions
1. Contact resistance	2 m Ω max.(2, 3, 4 pos.) 4 m Ω max.(8, 10, 12 pos.)	1A DC
2. Insulation resistance	1000 M Ω min	500V DC
3. Withstanding voltage	No flashover or insulation breakdown.	1800V AC/one minute (2 pos.) 2000V AC/one minute (3 pos.) 1500V AC/one minute (4, 8 pos.) 1000V AC/one minute (10, 12 pos.)
4. Vibration	No electrical discontinuity for 10μs max.	Frequency: 10 to 55Hz, single amplitude of 0.75mm,for 3 hours in 3 axis.
5. Shock	No electrical discontinuity for 10μs max.	Acceleration of 490m/s ² , 11ms duration, sine half-wave waveform, 3 cycles in each of the 3 axis.
6. Durability (insertion/withdrawal)	4 m Ω max.(2, 3, 4 pos.) 8 m Ω max.(8, 10, 12 pos.)	2000 cycles
7. Temperature cycle	Insulation resistance: 100 M Ω min.	Temperature : -55°C → Room temperature → +85°C → Room temperature Time : 30 → 10 to 15 → 30 → 10 to 15 (Minutes) 5 cycles
8. Humidity	Insulation resistance: 100 M Ω min. (Dry state)	96 hours at temperature Of 40°C and humidity Of 90% to 95%.
9. Water / dust protection	0When mated with corresponding connector.	Complete dust protection. No water penetration when submerged for 48 hours at the depth of 1.8 meter.

Note 1: Includes temperature rise caused by the current flow.

Note 2: The term "storage" refers to products stored for long period of time prior to mounting and use. Operating temperature range and humidity range covers non-conducting condition of installed connectors in storage, shipment or during transportation.

■Materials

Item	Material	Finish	Remarks
Body	Zinc alloy, brass, pliable PVC	Chrome plated or nickel plated	
Insulator	Diallyl phthalate, PBT	Color: Black	UL94V-0
Contacts	Brass, phosphor bronze, or copper alloy	Silver plated or gold plated	—————
Gasket	SIR (black or red), or NBR (gray)	Color: black or red (SIR), color: gray (NBR)	—————

Note: Do not mix different contact plating.

■Additional Product Information

1. Product number suffixes

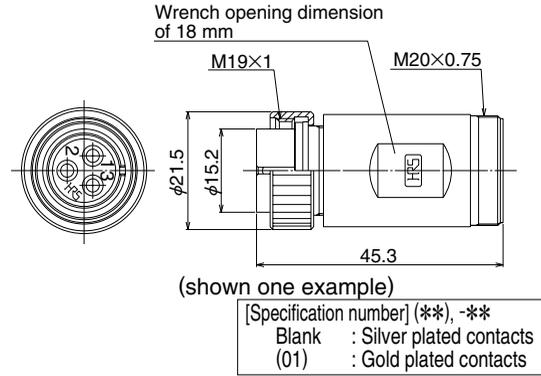
Blank : Contacts silver plated.

(01) : Contacts gold plated.

Example: Part number RM15WTPZ-3P (01) indicates gold plated contacts.

Plugs - straight, long back shell

RM15WTPZA-10S



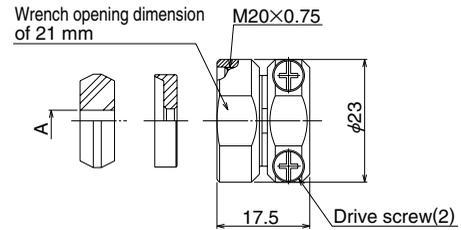
Part Number	CL No.	Number of Contacts	Weight
RM15WTPZA-2P(**)	CL109-1734-5-**-	2	43g
RM15WTPZA-3P(**)	CL109-1602-4-**-	3	45g
RM15WTPZA-4P(**)	CL109-1735-8-**-	4	44g
RM15WTPZA-8P(**)	CL109-1736-0-**-	8	43g
RM15WTPZA-10P(**)	CL109-1737-3-**-	10	44g
RM15WTPZA-12P(**)	CL109-1738-6-**-	12	44g

Part Number	CL No.	Number of Contacts	Weight
RM15WTPZA-2S(**)	CL109-1729-5-**-	2	45g
RM15WTPZA-3S(**)	CL109-1601-1-**-	3	47g
RM15WTPZA-4S(**)	CL109-1730-4-**-	4	45g
RM15WTPZA-8S(**)	CL109-1731-7-**-	8	45g
RM15WTPZA-10S(**)	CL109-1732-0-**-	10	45g
RM15WTPZA-12S(**)	CL109-1733-2-**-	12	45g

Applicable Strain reliefs

- External cable clamp + internal, self-tightening

JR16WCC-10(02)



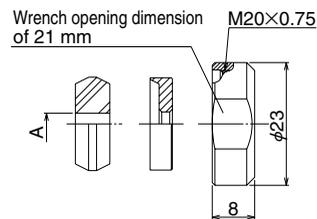
(shown one example)

Part Number	CL No.	A	Weight
JR16WCC-4(02)	CL114-2052-6-02	4	17.5g
JR16WCC-6(02)	CL114-2053-9-02	6	17.5g
JR16WCC-8(02)	CL114-2054-1-02	8	17.5g

Part Number	CL No.	A	Weight
JR16WCC-10(02)	CL114-2055-4-02	10	17.5g
JR16WCC-11(02)	CL114-2154-6-02	11	17.5g
JR16WCC-12(02)	CL114-2056-7-02	12	17.5g

- Internal, self tightening

JR16WCCA-10(02)



(shown one example)

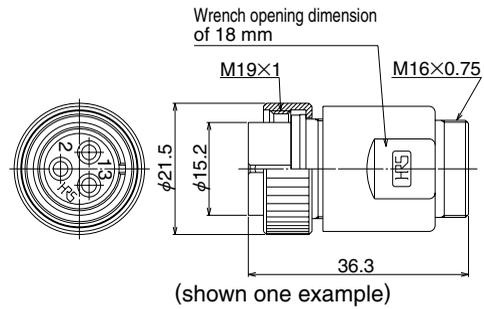
Part Number	CL No.	A	Weight
JR16WCCA-4(02)	CL114-2076-4-02	4	16g
JR16WCCA-6(02)	CL114-2077-7-02	6	16g
JR16WCCA-8(02)	CL114-2078-0-02	8	16g

Part Number	CL No.	A	Weight
JR16WCCA-10(02)	CL114-2079-2-02	10	16g
JR16WCCA-11(02)	CL114-2155-9-02	11	16g
JR16WCCA-12(02)	CL114-2080-1-02	12	16g

Notes : 1. Cable jacket diameter: Use $A \pm 0.3\text{mm}$
2. When using the self-tightening strain relief verify the cable pull force requirements.

Plugs - Straight, short back shell

RM15WTPZ-10S



[Specification number] (**), -**
Blank : Silver plated contacts
(01) : Gold plated contacts

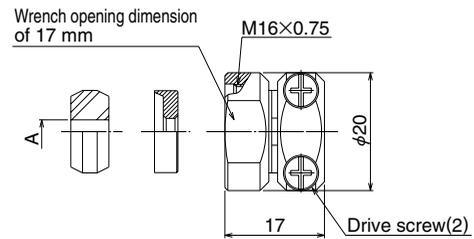
Part Number	CL No.	Number of Contacts	Weight
RM15WTPZ-2P(**)	CL109-1616-9-**-	2	32g
RM15WTPZ-3P(**)	CL109-1622-1-**-	3	34g
RM15WTPZ-4P(**)	CL109-1617-1-**-	4	33g
RM15WTPZ-8P(**)	CL109-1618-4-**-	8	32g
RM15WTPZ-10P(**)	CL109-1619-7-**-	10	33g
RM15WTPZ-12P(**)	CL109-1620-6-**-	12	33g

Part Number	CL No.	Number of Contacts	Weight
RM15WTPZ-2S(**)	CL109-1611-5-**-	2	34g
RM15WTPZ-3S(**)	CL109-1621-9-**-	3	36g
RM15WTPZ-4S(**)	CL109-1612-8-**-	4	34g
RM15WTPZ-8S(**)	CL109-1613-0-**-	8	34g
RM15WTPZ-10S(**)	CL109-1614-3-**-	10	34g
RM15WTPZ-12S(**)	CL109-1615-6-**-	12	34g

Applicable Strain reliefs

- External cable clamp + internal, self-tightening

JR13WCC-10(02)



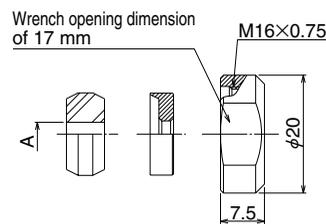
(shown one example)

Part Number	CL No.	A	Weight
JR13WCC-4(02)	CL114-2045-0-02	4	17g
JR13WCC-5(02)	CL114-2046-3-02	5	17g
JR13WCC-6(02)	CL114-2047-6-02	6	17g

Part Number	CL No.	A	Weight
JR13WCC-7(02)	CL114-2048-9-02	7	17g
JR13WCC-8(02)	CL114-2049-1-02	8	17g
JR13WCC-9(02)	CL114-2050-0-02	9	17g
JR13WCC-10(02)	CL114-2051-3-02	10	17g

- Internal, self tightening

JR16WCCA-10(02)



(shown one example)

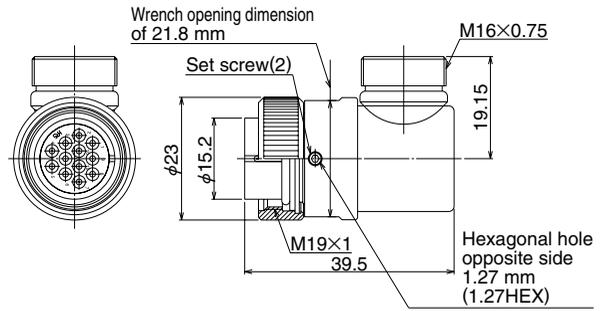
Part Number	CL No.	A	Weight
JR13WCCA-4(02)	CL114-2069-9-02	4	12g
JR13WCCA-5(02)	CL114-2070-8-02	5	12g
JR13WCCA-6(02)	CL114-2071-0-02	6	12g

Part Number	CL No.	A	Weight
JR13WCCA-7(02)	CL114-2072-3-02	7	12g
JR13WCCA-8(02)	CL114-2073-6-02	8	12g
JR13WCCA-9(02)	CL114-2074-9-02	9	12g
JR13WCCA-10(02)	CL114-2075-1-02	10	12g

Notes : 1. Cable jacket diameter: Use $A \pm 0.3\text{mm}$
2. When using the self-tightening strain relief verify the cable pull force requirements.

Plugs - right angle

RM15WTLP-10S



(shown one example)

Part Number	CL No.	Number of Contacts	Weight
RM15WTLP-12P(※※)	CL109-0997-9	12	62.3g

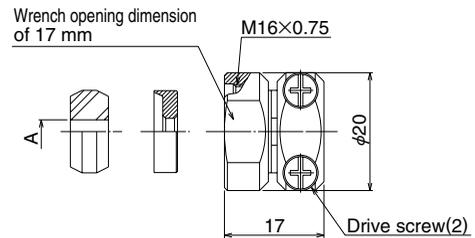
Part Number	CL No.	Number of Contacts	Weight
RM15WTLP-10S	CL109-0999-4	10	63.1g

Notes : 1 Gasket material: NBR, body plating: nickel
 2 Recommended set screw tightening torque: 0.3 to 0.35 N·m.
 HRS recommended tool: PB205/1.27(CL 150-0066-3)

Applicable Strain reliefs

- External cable clamp + internal, self-tightening

JR13WCC-10(02)



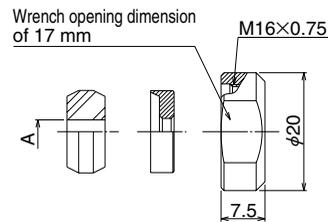
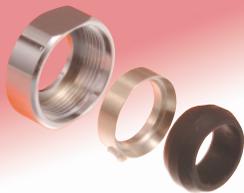
(shown one example)

Part Number	CL No.	A	Weight
JR13WCC-4(02)	CL114-2045-0-02	4	17g
JR13WCC-5(02)	CL114-2046-3-02	5	17g
JR13WCC-6(02)	CL114-2047-6-02	6	17g

Part Number	CL No.	A	Weight
JR13WCC-7(02)	CL114-2048-9-02	7	17g
JR13WCC-8(02)	CL114-2049-1-02	8	17g
JR13WCC-9(02)	CL114-2050-0-02	9	17g
JR13WCC-10(02)	CL114-2051-3-02	10	17g

- Internal, self tightening

JR13WCCA-10(02)



(shown one example)

Part Number	CL No.	A	Weight
JR13WCCA-4(02)	CL114-2069-9-02	4	12g
JR13WCCA-5(02)	CL114-2070-8-02	5	12g
JR13WCCA-6(02)	CL114-2071-0-02	6	12g

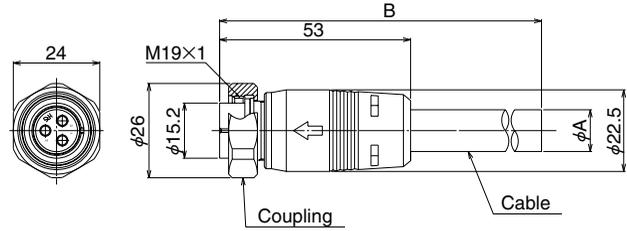
Part Number	CL No.	A	Weight
JR13WCCA-7(02)	114-2072-3-02	7	12g
JR13WCCA-8(02)	114-2073-6-02	8	12g
JR13WCCA-9(02)	114-2074-9-02	9	12g
JR13WCCA-10(02)	114-2075-1-02	10	12g

Notes : 1 Cable jacket diameter: Use $A \pm 0.3\text{mm}$
 2 When using the self-tightening strain relief verify the cable pull force requirements.

Overmolded Cable assembly - Plugs

● Straight

RM15WTPPT-3SA2000



(shown one example)

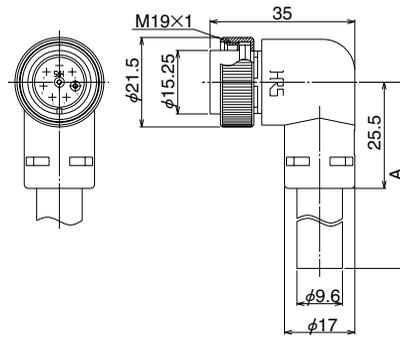
Part Number	CL No.	Number of Contacts	A
RM15WTPVA-3S500	CL109-1838-0	3	11.5

Part Number	CL No.	Number of Contacts	A
RM15WTPWA-4SA500	CL109-1839-3	4	8

Notes : 1. Recommended coupling nut tightening torque: 2N·m
 2. Available only with gold plated contacts.
 3. Contact Hirose sales representative for dimension B.

● Right angle

RM15WTPQ-8PA260



(shown one example)

Part Number	CL No.	Number of Contacts	A
RM15WTPQ-8PA260	CL109-1264-3	8	260

Part Number	CL No.	Number of Contacts	A
RM15WTPQ-12SA706	CL109-1274-7	12	706

Notes : 1. Available only with gold plated contacts.
 2. Contact Hirose sales representative for dimension A.

◆ Cable Specifications

Construction		3-Conductor Cable (VVR 3×2 mm dia.)	2-Pair Shielded Cable CPEV 2P×0.65 dia	8-Conductor Combination Cable		12-Conductor Combination Shielded Cable	
Conductor	Material	Soft copper wire	Soft copper wire	Soft copper			
	Construction	Solid	Solid	Stranded, 34 /0.18 mm dia.	Stranded, 17 /0.16 mm dia.	Stranded, 21 /0.18 mm dia.	Stranded, 7 /0.16 mm dia.
	Diameter	2 mm	0.65 mm	1.2 mm	0.78 mm	0.95 mm	0.48 mm
	Size	AWG #13	AWG #24	AWG #18	AWG #22	AWG #20	AWG #26
Insulator	Material	PVC	Cross-linked polyethylene	PVC		PVC	
(Lead wires)	Color	White, red, black	Blue, white (blue stripes) Yellow, white (yellow stripes)	Red, brown	Black, white, gray, blue, yellow	Blue, peach, green, dark brown	Blue (red dots), peach (red dots), green (red dots), dark brown (red dots), blue (black dots), peach (black dots), green (black dots), dark brown (black dots)
	Diameter	3.6 mm	1.25 mm	2.1 mm	1.7 mm	1.7 mm	0.98 mm
	Material	—	Aluminum Mylar tape	—		Braiding density 85%	
Shield	Drain wire	—	0.5 mm dia.	—		—	
	Material	PVC	PVC	PVC		PVC	
Jacket	Color	Black	Black	Black		Black	
	Diameter	11.5 mm	8 mm	9.6 mm		9.6 mm	

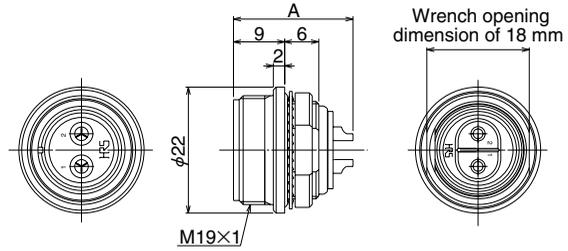
◆ Wiring Specifications

Contact Number	Color			
	3 Conductors	4 Conductors	8 Conductors	12 Conductors
1	Black	Blue	Red	Blue
2	White	White (blue stripes)	Brown	Peach
3	Red	Yellow	Black	Blue (red dots)
4	—	White (yellow stripes)	White	Blue (black dots)
5	—	—	Gray	Dark brown (red dots)
6	—	—	Blue	Dark brown (black dots)
7	—	—	Yellow	—
8	—	—	Orange	Peach (red dots)
9	—	—	—	Green (red dots)
10	—	—	—	Peach (black dots)
11	—	—	—	Green
12	—	—	—	Dark brown

■ Receptacles

● Front panel mount

RM15WTRZ-10S



(shown one example)

[Specification number] (**), -**
 Blank : Silver plated contacts
 (01) : Gold plated contacts

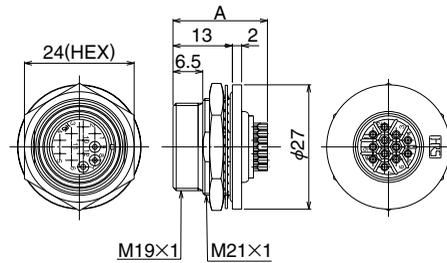
Part Number	CL No.	Number of Contacts	A	Weight
RM15WTRZ-2P(**)	CL109-1631-2-**-	2	21	13g
RM15WTRZ-3P(**)	CL109-1632-5-**-	3	22.1	15g
RM15WTRZ-4P(**)	CL109-1633-8-**-	4	21	14g
RM15WTRZ-8P(**)	CL109-1634-0-**-	8	20.65	13g
RM15WTRZ-10P(**)	CL109-1635-3-**-	10	20.65	14g
RM15WTRZ-12P(**)	CL109-1636-6-**-	12	20.65	14g

Part Number	CL No.	Number of Contacts	A	Weight
RM15WTRZ-2S(**)	CL109-1637-9-**-	2	21.75	15g
RM15WTRZ-3S(**)	CL109-1638-1-**-	3	22.1	17g
RM15WTRZ-4S(**)	CL109-1639-4-**-	4	21.75	15g
RM15WTRZ-8S(**)	CL109-1640-3-**-	8	21.6	15g
RM15WTRZ-10S(**)	CL109-1641-6-**-	10	21.6	15g
RM15WTRZ-12S(**)	CL109-1642-9-**-	12	21.6	15g

Notes : Recommended nut tightening torque: 3N·m

● Rear panel mount

RM15WTRZA-10S



(shown one example)

[Specification number] (**), -**
 Blank : Silver plated contacts
 (01) : Gold plated contacts

Part Number	CL No.	Number of Contacts	A	Weight
RM15WTRZA-2P(**)	CL109-1651-0-**-	2	21	22g
RM15WTRZA-3P(**)	CL109-1652-2-**-	3	22.1	24g
RM15WTRZA-4P(**)	CL109-1653-5-**-	4	21	23g
RM15WTRZA-8P(**)	CL109-1654-8-**-	8	20.65	22g
RM15WTRZA-10P(**)	CL109-1655-0-**-	10	20.65	23g
RM15WTRZA-12P(**)	CL109-1656-3-**-	12	20.65	23g

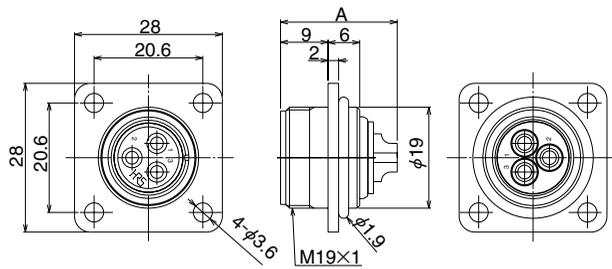
Part Number	CL No.	Number of Contacts	A	Weight
RM15WTRZA-2S(**)	CL109-1657-6-**-	2	21.75	24g
RM15WTRZA-3S(**)	CL109-1658-9-**-	3	22.1	26g
RM15WTRZA-4S(**)	CL109-1659-1-**-	4	21.75	24g
RM15WTRZA-8S(**)	CL109-1660-0-**-	8	21.6	24g
RM15WTRZA-10S(**)	CL109-1661-3-**-	10	21.6	24g
RM15WTRZA-12S(**)	CL109-1662-6-**-	12	21.6	24g

Notes : Recommended nut tightening torque: 3N·m

■ Receptacles (Square flange)

● Waterproof (When mated with corresponding plug)

RM15WTRZB-10S



(shown one example)

[Specification number] (**), -**
 Blank : Silver plated contacts
 (01) : Gold plated contacts

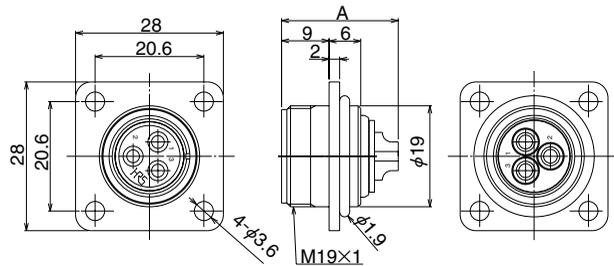
Part Number	CL No.	Number of Contacts	A	Weight
RM15WTRZB-2P(***)	CL109-1671-7-***	2	21	19g
RM15WTRZB-3P(***)	CL109-1672-0-***	3	22.1	21g
RM15WTRZB-4P(***)	CL109-1673-2-***	4	21	20g
RM15WTRZB-8P(***)	CL109-1674-5-***	8	20.65	19g
RM15WTRZB-10P(***)	CL109-1675-8-***	10	20.65	20g
RM15WTRZB-12P(***)	CL109-1676-0-***	12	20.65	20g

Part Number	CL No.	Number of Contacts	A	Weight
RM15WTRZB-2S(***)	CL109-1677-3-***	2	21.75	21g
RM15WTRZB-3S(***)	CL109-1678-6-***	3	22.1	23g
RM15WTRZB-4S(***)	CL109-1679-9-***	4	21.75	21g
RM15WTRZB-8S(***)	CL109-1680-8-***	8	21.6	21g
RM15WTRZB-10S(***)	CL109-1681-0-***	10	21.6	21g
RM15WTRZB-12S(***)	CL109-1682-3-***	12	21.6	21g

Notes : 1. Screw size: M3
 2. Recommended nut tightening torque : 0.3 to 0.35N·m

● Waterproof (single body)

JR15WTRZB-10PA



(shown one example)

[Specification number] (**), -**
 Blank : Silver plated contacts
 (01) : Gold plated contacts

Part Number	CL No.	Number of Contacts	A	Weight
RM15WTRZB-3PA	CL109-1692-7	3	22.1	20g
RM15WTRZB-4PA	CL109-1693-0	4	21	21g

Part Number	CL No.	Number of Contacts	A	Weight
RM15WTRZB-8PA	CL109-1694-2	8	20.65	22g
RM15WTRZB-10PA	CL109-1695-5	10	20.6	24g

Notes : 1. Screw size: M3
 2. Recommended nut tightening torque : 0.3 to 0.35N·m

◆ Plug – Disassembly / Assembly

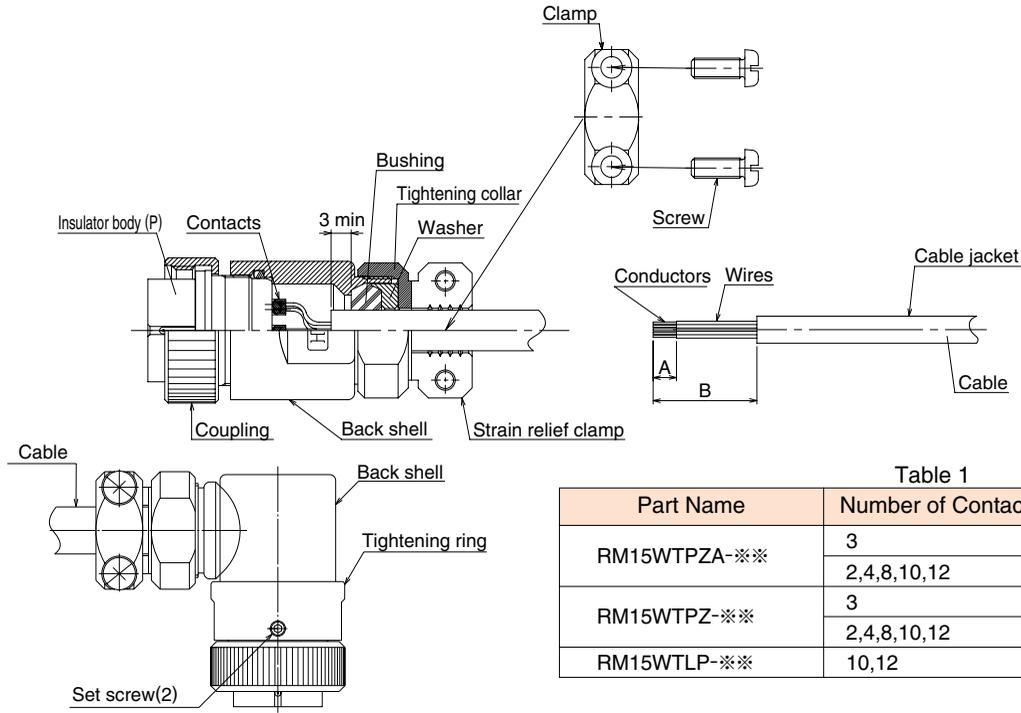


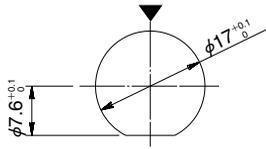
Table 1

Part Name	Number of Contacts	A	B
RM15WTPZA-***	3	6mm	12mm
	2,4,8,10,12	3mm	12mm
RM15WTPZ-***	3	6mm	21mm
	2,4,8,10,12	3mm	21mm
RM15WTLP-***	10,12	3mm	25mm

1.	<p>Disassembly</p> <p>① Fix the plug in the assembly fixture (RM15TP-T01 (CL150-0098-0)), then remove the insulator body (P) and the back shell. Right-angle plugs have set screws in the tightening ring at 2 locations. Loosen the set screws before removing the back shell.</p> <p>② Remove the 2 screws of the strain relief clamp, and then remove the clamp from the tightening collar.</p>
2.	<p>Wiring</p> <p>① Assure that the cable outer diameter will fit the strain relief clamp, and is prepared as recommended in Table 1. It is recommended that the exposed conductors be pre-soldered, to assure easier insertion in the soldering cup.</p> <p>② Pass the parts over the cable in the order of: tightening collar, washer, bushing, back shell, and coupling. Refer to the drawings (above) for assembly orientation of all components.</p> <p>③ Solder the wires to the contacts of the insulator body (P). Use of heat-shrink tubing or another insulating media between the soldered contacts is suggested.</p>
3.	<p>Connector Assembly</p> <p>Straight Plugs</p> <p>① Place the completely wired insulator body (P) in the assembly fixture secured in a vise. Insert in the coupling, then back shell. The back shell should be tightened to a torque of 3 N·m.</p> <p>Right-angle Plugs</p> <p>① Place the completely wired insulator body (P) in an assembly fixture secured by a vise. Insert in the coupling, then back shell (with tightening ring). When attaching the back shell, orient the cable in the desired direction and fasten the tightening ring to the insulator body (P) with a torque of 3 N·m. After this, tighten and fix the 2 sets crews with a torque of 0.3 to 0.35 N·m.</p> <p>Additional assembly recommendations: In applications where continuous extremely high vibrations may be encountered it is recommended that a thread locking compound be applied to male threads prior to assembly (Loctite 271, manufactured by Henkel Japan K.K. or equivalent)</p>
4.	<p>Waterproof verification - plug assembly</p> <p>Apply air pressure of 17.6 kPa for 30 seconds from the mating side of the plug assembly. There shall not be any air leakage from inside the connector when submerged in the water tank.</p>
5.	<p>Precautions</p> <p>① Follow the correct assembly sequence, cable preparation and tightening torques.</p> <p>② Assure that the applicable cable outer surfaces are free of scratches, oil, grease or any other contamination.</p> <p>③ Do not use excessive forces or improper tools when assembling or mounting the connectors.</p>

◆ Receptacle – recommended panel cut-outs

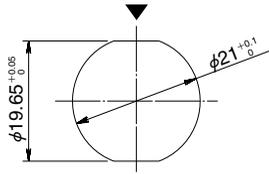
Front mounting, rear nut



Panel thickness: 0.5 to 2 mm

For RM15WTRZ receptacles

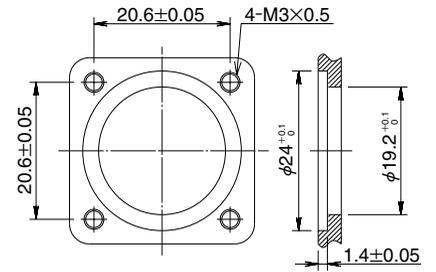
Rear mounting, front nut



Panel thickness: 0.5 to 2.5 mm

For RM15WTRZA receptacles

Square flange, screw mounting



Panel thickness: 2.5 to 4 mm

For RM15WTRZB receptacles

- Notes : 1. When attaching the receptacle to the panel, be certain to check that the gasket is in place in the groove. Do not pinch the gasket.
 2. The view of the above diagrams is from the receptacle mating side.
 3. The ▼ symbol in the above diagrams indicates the coupling guide position of the receptacles.

◆ Contact Position Arrangement and Specifications

Contact configuration						
Number of contacts	2	3	4	8	10	12
Withstanding voltage	1800 V AC / 1 minute	2000 V AC / 1 minute	1500 V AC / 1 minute	1500 V AC / 1 minute	1000 V AC / 1 minute	1000 V AC / 1 minute
Current rating	10A	10A	10A	5A	5A	5A
Insulation resistance	1000 M Ω min					
Contact resistance	2 m Ω max.	2 m Ω max.	2 m Ω max.	4 m Ω max.	4 m Ω max.	4 m Ω max.
Solder pot inner diameter	1.7mm	2.8mm	1.7mm	1.1mm	1.1mm	1.1mm

- Notes : 1. The contact configuration as viewed from the wiring side.
 2. The ▼ symbol in the above diagrams indicates the coupling guide position of the receptacles.
 3. Withstanding voltages indicate test voltage values.

◆ Precautions

1. Switch off the power of the circuit before disconnecting or plugging- in the connectors.
2. Use a connectors with socket contacts at the power side of the circuit.
3. Make sure that the coupling is in completely cocked position.
4. Use correct plug / receptacle to assure dust and water protection.

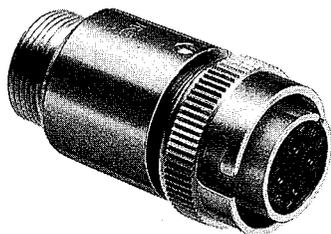
Waterproof RM Series

The Waterproof RM Series has been developed by redesigning the standard RM Series, but maintaining the same electrical specifications as the standard RM Series.

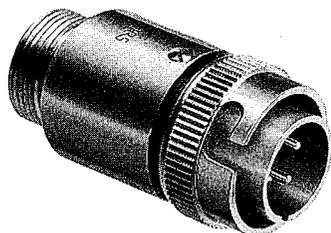
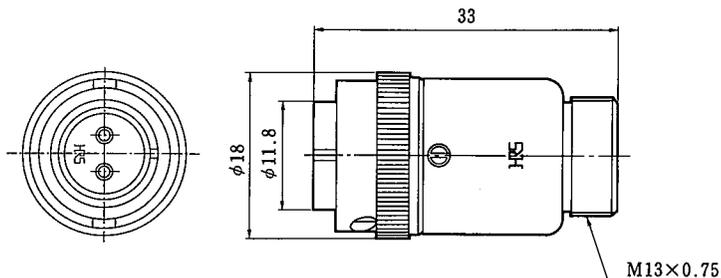
Model RM12WB Connectors

The RM12B is designed to be watertight for 48 hours at 0.5 M under water, and the RM15T or above is designed to be watertight for 48 hours at 1.0 M under water.

Plug



RM12WBP-4S



RM12WBP-4P

(An example in shape)

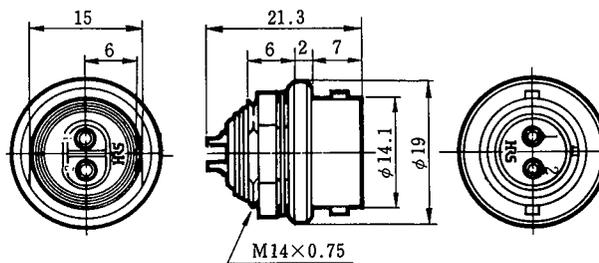
HRS No.	Part No.	No. of pins	HRS No.	Part No.	No. of pins
109-1141-3	RM12WBP-2S	2	109-1146-7	RM12WBP-2P	2
109-1142-6	RM12WBP-3S	3	109-1147-0	RM12WBP-3P	3
109-1143-9	RM12WBP-4S	4	109-1148-2	RM12WBP-4P	4
109-1144-1	RM12WBP-5S	5	109-1149-5	RM12WBP-5P	5
109-1145-4	RM12WBP-6S	6	109-1150-4	RM12WBP-6P	6

Note 1: Be sure to use plugs in combination with code clamps.

Receptacle



RM12WBR-4P



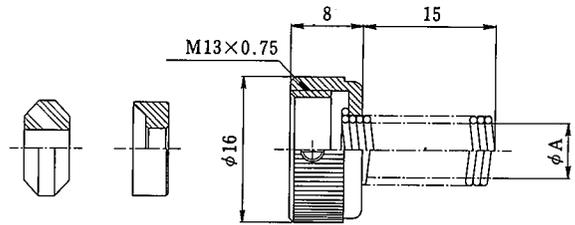
(An example in shape)

HRS No.	Part No.	No. of pins	HRS No.	Part No.	No. of pins
109-1021-1	RM12WBR-2P	2	109-1026-5	RM12WBR-2S	2
109-1022-4	RM12WBR-3P	3	109-1027-8	RM12WBR-3S	3
109-1023-7	RM12WBR-4P	4	109-1028-0	RM12WBR-4S	4
109-1024-0	RM12WBR-5P	5	109-1029-3	RM12WBR-5S	5
109-1025-2	RM12WBR-6P	6	109-1030-2	RM12WBR-6S	6

Remark: For mounting holes, see page 60.

RM12WBR-4S

Cord Clamp



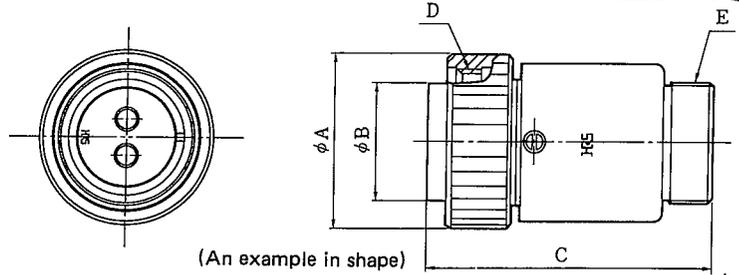
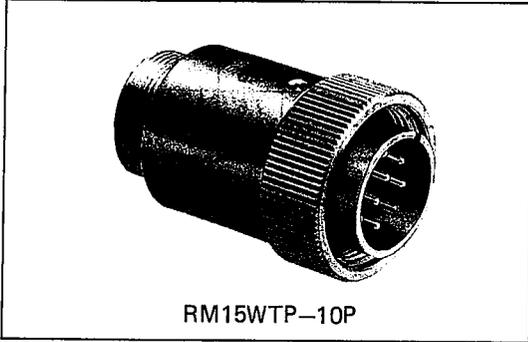
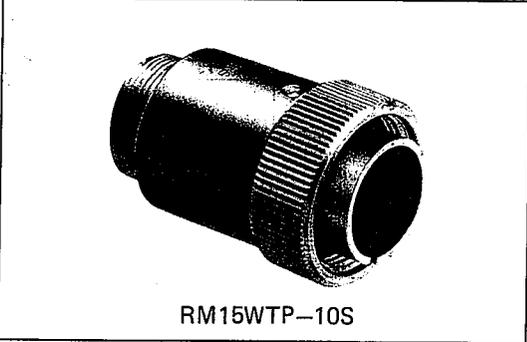
(An example in shape)

HRS No.	Part No.	ϕA	Cable dia.
109-1151-7	RM12WBP-CP(4)	5.5	$\phi 4$
109-1152-0	RM12WBP-CP(5)	5.5	$\phi 5$
109-1153-2	RM12WBP-CP(6)	7.5	$\phi 6$
109-1154-5	RM12WBP-CP(7)	7.5	$\phi 7$

Note: Carefully choose the applicable cable because clamping force and waterproofness differ according to the type.

RM()WT type connector

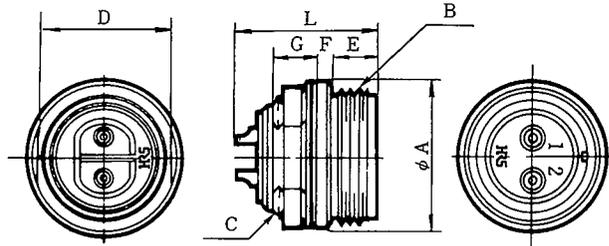
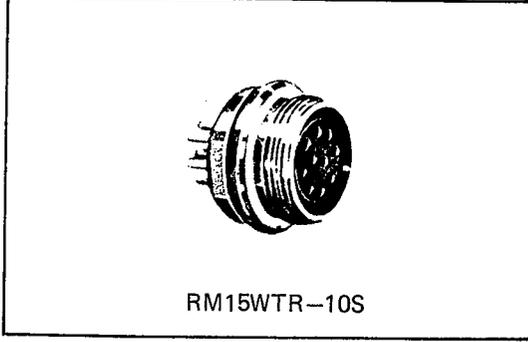
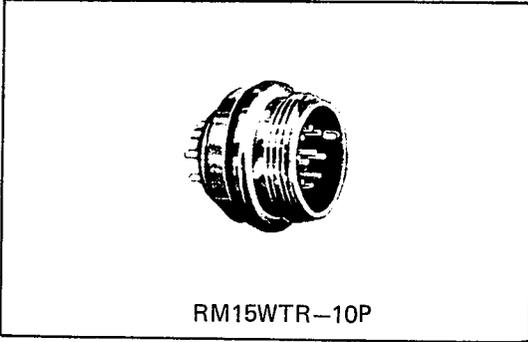
Plug



HRS No.	Part No.	No. of pin	ϕA	ϕB	C	D	E
109-1241-8	RM15WTP-2S	2	23	15.2	36.8	M19X1	M16X0.75
109-1242-0	RM15WTP-4S	4	23	15.2	36.8	M19X1	M16X0.75
109-1243-3	RM15WTP-8S	8	23	15.2	36.8	M19X1	M16X0.75
109-1244-6	RM15WTP-10S	10	23	15.2	36.8	M19X1	M16X0.75
109-1262-6	RM15WTP-12S	12	23	15.2	36.8	M19X1	M16X0.75
109-1245-9	RM15WTP-2P	2	23	15.2	36.8	M19X1	M16X0.75
109-1246-1	RM15WTP-4P	4	23	15.2	36.8	M19X1	M16X0.75
109-1247-4	RM15WTP-8P	8	23	15.2	36.8	M19X1	M16X0.75
109-1248-7	RM15WTP-10P	10	23	15.2	36.8	M19X1	M16X0.75
109-1257-8	RM15WTP-12P	12	23	15.2	36.8	M19X1	M16X0.75
109-1401-2	RM21WTP-15S	15	32	21	37.5	TM25X2	M20X0.75
109-1402-5	RM21WTP-20S	20	32	21	37.5	TM25X2	M20X0.75
109-1403-8	RM21WTP-15P	15	32	21	37.5	TM25X2	M20X0.75
109-1404-0	RM21WTP-20P	20	32	21	37.5	TM25X2	M20X0.75
109-1491-5	RM24WTP-31S	31	36	24.3	44	TM29X2	M24X0.75
109-1492-8	RM24WTP-31P	31	36	24.3	44	TM29X2	M24X0.75
109-1571-2	RM31WTP-40S	40	42	30.8	52	TM35X2	M28X0.75
109-1572-5	RM31WTP-55S	55	42	30.8	52	TM35X2	M28X0.75
109-1573-8	RM31WTP-40P	40	42	30.8	52	TM35X2	M28X0.75
109-1574-0	RM31WTP-55P	55	42	30.8	52	TM35X2	M28X0.75

Note 1) Be sure to use plugs in combination with code clamps.

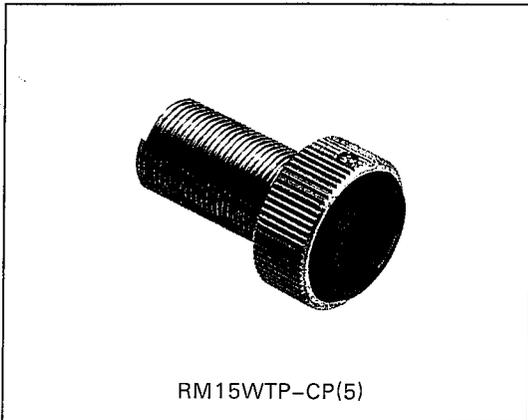
Receptacle



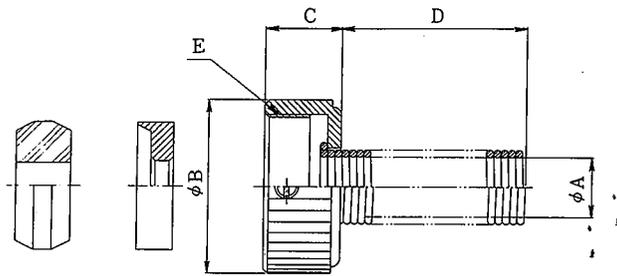
HRS No.	Part No.	No. of pin	ϕA	B	C	D	E	F	G	L
109-1309-0	RM15WTR-2P	2	22	M19X1	M17X0.75	18	7	2	6	21.0
109-1316-5	RM15WTR-2S	2	22	M19X1	M17X0.75	18	7	2	6	21.5
109-1311-1	RM15WTR-4P	4	22	M19X1	M17X0.75	18	7	2	6	21.0
109-1318-0	RM15WTR-4S	4	22	M19X1	M17X0.75	18	7	2	6	21.5
109-1313-7	RM15WTR-8P	8	22	M19X1	M17X0.75	18	7	2	6	20.5
109-1320-2	RM15WTR-8S	8	22	M19X1	M17X0.75	18	7	2	6	21.5
109-1315-2	RM15WTR-10P	10	22	M19X1	M17X0.75	18	7	2	6	20.5
109-1322-8	RM15WTR-10S	10	22	M19X1	M17X0.75	18	7	2	6	21.0
109-1261-5	RM15WTR-12P	12	22	M19X1	M17X0.75	18	7	2	6	21.0
109-1260-2	RM15WTR-12S	12	22	M19X1	M17X0.75	18	7	2	6	21.5
109-1445-8	RM21WTR-15P	15	31	TM25X2	M22X0.75	23.5	6.5	2.5	6	21.0
109-1447-3	RM21WTR-15S	15	31	TM25X2	M22X0.75	23.5	6.5	2.5	6	21.0
109-1446-0	RM21WTR-20P	20	31	TM25X2	M22X0.75	23.5	6.5	2.5	6	21.0
109-1448-6	RM21WTR-20S	20	31	TM25X2	M22X0.75	23.5	6.5	2.5	6	21.0
109-1483-7	RM24WTR-31P	31	35	TM29X2	M26X0.75	28	6.5	2.5	6	21.0
109-1484-0	RM24WTR-31S	31	35	TM29X2	M26X0.75	28	6.5	2.5	6	21.0
109-1525-5	RM31WTR-40P	40	41	TM35X2	M32X0.75	34	6.5	2.5	6	21.5
109-1527-0	RM31WTR-40S	40	41	TM35X2	M32X0.75	34	6.5	2.5	6	21.5
109-1526-8	RM31WTR-55P	55	41	TM35X2	M32X0.75	34	6.5	2.5	6	21.5
109-1528-3	RM31WTR-55S	55	41	TM35X2	M32X0.75	34	6.5	2.5	6	21.5

Remark: For the mounting holes, see page 60.

Cord Clamp



RM15WTP-CP(5)



(An example in shape)

HRS No.	Part No.	φA	φB	C	D	E	Cable dia.
109-1249-0	RM15WTP-CP(5)	6.5	19	8.5	20	M16x0.75	φ5
109-1250-9	RM16WTP-CP(6)	6.5	19	8.5	20	M16x0.75	φ6
109-1251-1	RM15WTP-CP(7)	8	19	8.5	20	M16x0.75	φ7
109-1252-4	RM15WTP-CP(8)	10.5	19	8.5	20	M16x0.75	φ8
109-1253-7	RM15WTP-CP(9)	10.5	19	8.5	20	M16x0.75	φ9
109-1254-0	RM15WTP-CP(10)	10.5	19	8.5	20	M16x0.75	φ10
109-1405-3	RM21WTP-CP(8)	10.3	23	7.5	30	M20x0.75	φ8
109-1406-6	RM21WTP-CP(10)	10.3	23	7.5	30	M20x0.75	φ10
109-1407-9	RM21WTP-CP(12)	12.3	23	7.5	30	M20x0.75	φ12
109-1493-0	RM24WTP-CP(10)	12.5	27	8	30	M24x0.75	φ10
109-1494-3	RM24WTP-CP(12)	12.5	27	8	30	M24x0.75	φ12
109-1495-6	RM24WTP-CP(14)	16.5	27	8	30	M24x0.75	φ14
109-1496-9	RM24WTP-CP(16)	16.5	27	8	30	M24x0.75	φ16
109-1575-3	RM31WTP-CP(10)	14.5	31	12	30	M28x0.75	φ10
109-1576-6	RM31WTP-CP(12)	14.5	31	12	30	M28x0.75	φ12
109-1579-4	RM31WTP-CP(14)	14.5	31	12	30	M28x0.75	φ14
109-1577-9	RM31WTP-CP(16)	18.5	31	12	30	M28x0.75	φ16
109-1578-1	RM31WTP-CP(18)	18.5	31	12	30	M28x0.75	φ18

Note: Carefully chose the applicable cable because clamping force and waterproofness differ according to the type.