

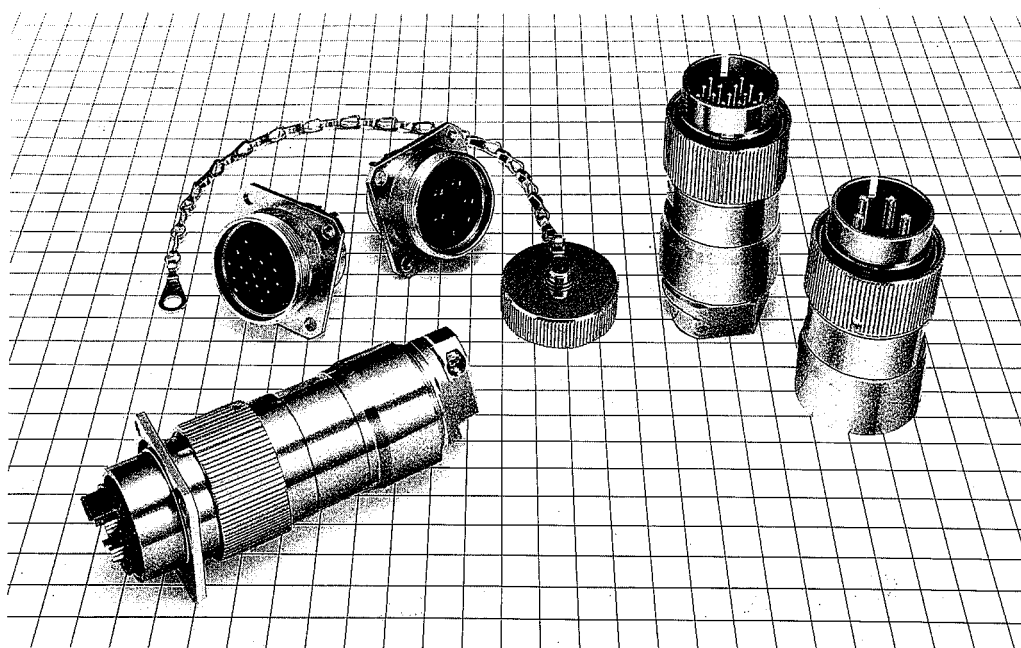
HR5 HR21 SERIES

CIRCULAR WATER-PROOF CONNECTORS FOR OUTDOOR USE

■ Scope

The HR21 Series are circular, multi-pin water-proof connectors developed for power switching devices.

They are chrome plated and have superior corrosion resistance and are suitable for outdoor use.



■ Features

1. Water-Proof

Both the plug and receptacle are water-proof and prevent water penetration into equipment, plug and connector. (They are free from water penetration for 48 hours if submersed in water to a depth of 1.8 meters.)

2. Environmentally Sealed Connector

The connector sheath is chrome-plated for superior withstandability and corrosion resistance in outdoor use.

3. Grounding Terminal

The connector sheath is provided with a special grounding terminal for easy connection of a shielded wire.

4. Variable orientation

A single connector may be used as three types by changing the insertion position by 45° or 90° to avoid mis-engagement if multiple connectors are used in a line.

■ Major Applications

Power switching devices for outdoor connections.

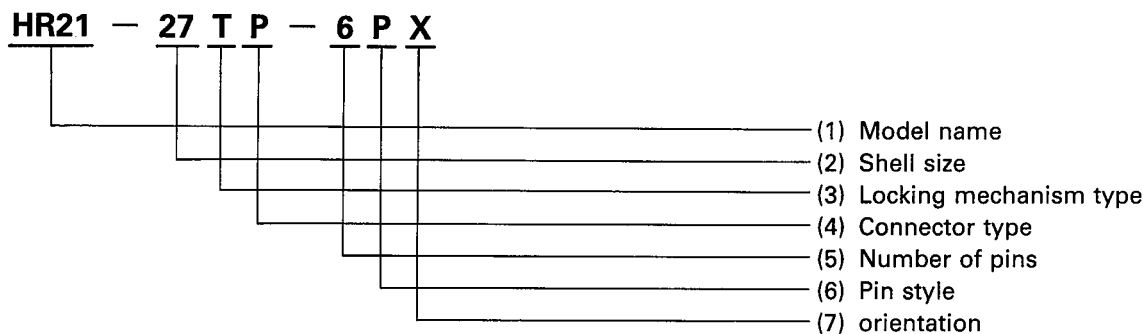
Material & Finish

Parts	Materials	Finish
Outer sheath	Brass	Chrome plating
Insulating material	Synthetic resin & PPS resin (*)	(Black)
Pin	Copper alloy	Nickel plating

*UL94V-0

Ordering Information

- Plug
- Receptacle

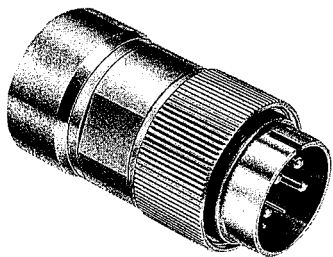


- Clamp

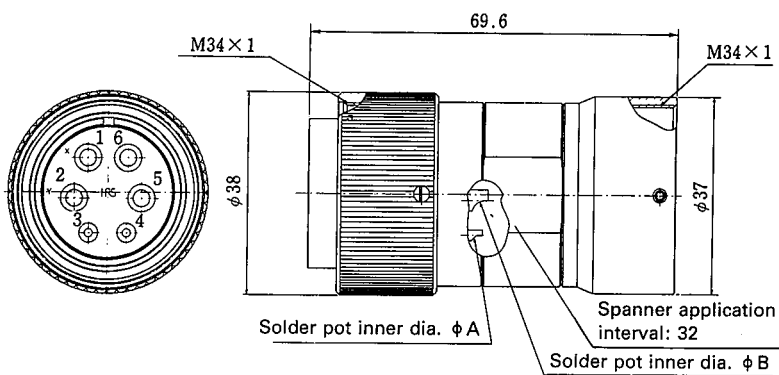


- (1) Model name : HR21 Series
- (2) Shell size : This number indicates the outer dia. of the shell of the plug mating part.
Size 27 only for this series.
- (3) Locking mechanism type : The symbol is the initial letter of the locking mechanism.
T indicates thread coupling.
- (4) Connector type : Indicates any of the following connector types:
P : Plug P-CP : Clamp for plug
R : Receptacle R-C : Cap for receptacle
- (5) Number of pins : Indicates the number of pins.
- (6) Pin style : Indicates the style of pins as follows:
P : Male pin S : Female pin
- (7) Insertion position variation : Indicates the orientation variations as follows:
No symbol : Standard type X : Variable by 45°
Y : Variable by 90°
- (8) Cable dia. : Indicates the dia. of the applicable cable.

■ Plug



HR21-27TP-6P

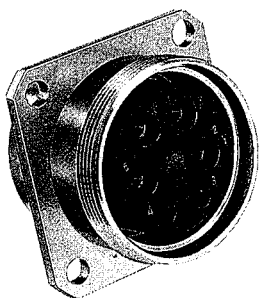


(An example in shape)

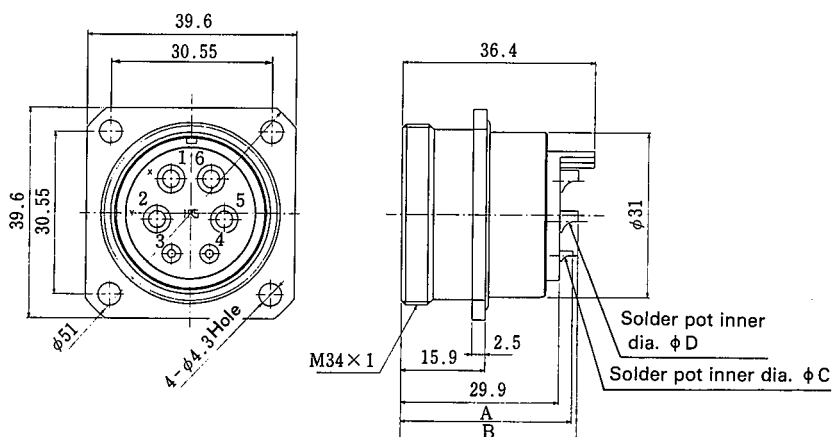
HRS No.	Part No.	No. of pins	φA	φB
121-0001-2	HR21-27TP-6P	6	1.5	3.4
121-0002-5	HR21-27TP-6S	6	1.5	3.4
121-0011-6	HR21-27TP-17P	17	1.5	—
121-0012-9	HR21-27TP-17S	17	1.5	—

Note: When plug is used, use the clamp in combination.

■ Receptacle



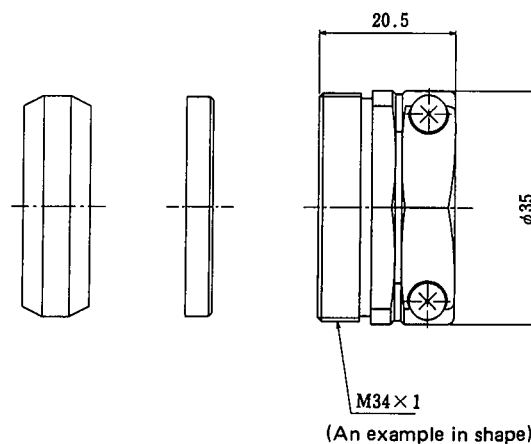
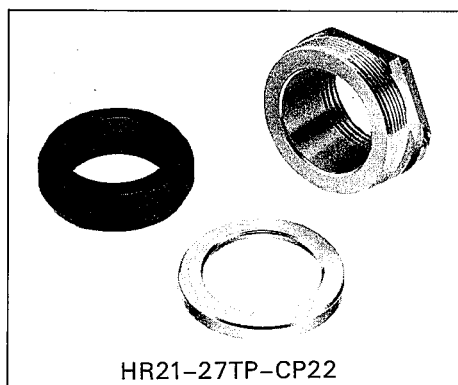
HR21-27TR-6S



(An example in shape)

HRS No.	Part No.	No. of pins	A	B	φC	φD
121-0005-3	HR21-27TR-6S	6	32.4	33.4	1.5	3.4
121-0006-6	HR21-27TR-6P	6	32.4	33.4	1.5	3.4
121-0013-1	HR21-27TR-17S	17	32.4	—	1.5	—
121-0014-4	HR21-27TR-17P	17	32.4	—	1.5	—

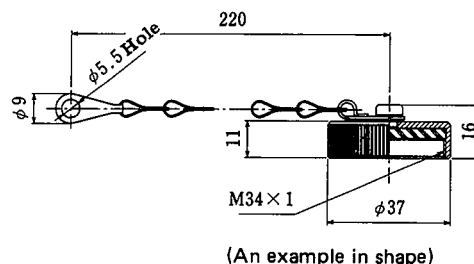
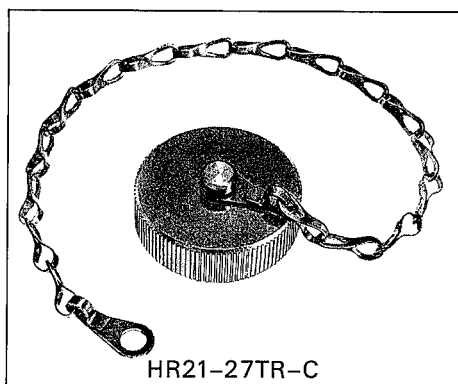
■ Clamp



HRS No.	Product No.	Cable diameter
121-0009-4	HR21-27TP-CP21	φ 21
121-0010-3	HR21-27TP-CP22	φ 22

Remark: Check to use the suitable cable diameter, it is depend the clamping force or water proof on the cable differences.

■ Cap



HRS No.	Product No.
121-5007-6	HR21-27TR-C

◆ Pin Assignment and Major Performances

Pin assignment				
	Number of pins	6		17
Withstand voltage	2,000VAC for 1 min.		2,000VAC for 1 min.	
Current capacity	5A	1A (Pins 3 & 4 only)	1A	
Insulation resistance	2000MΩ or more		2000MΩ or more	
Contact resistance	3mΩ MAX	5mΩ MAX	5mΩ MAX	
Pressure resistance	Free from leak if 50 kPa air pressure is applied for 20 seconds.			
Solder pot inner dia.	φ 3.4	φ 1.5 (Pins 3 & 4 only)	φ 1.5	

- Notes: 1. The above figures indicate the conditions viewed from the pin engaging side.
 2. Withstand voltage shows the testing voltage.
 3. Insulation resistance is as measured at 500V ADC.
 4. Contact resistance is as measured at 1 ADC.