

JR-W Series

Waterproof Circular Connectors



Waterproof



Corrosion Prevention



Wide Variation



Features

1. Waterproof Design

Achieves IPX7 and IPX8 waterproof standards when fully mated.

IPX7 certified for immersion at 1 meter for 30 minutes, and IPX8 certified for immersion at 2 meters for 14 days, ensuring durability in wet conditions.

2. Corrosion Resistance

The exterior shell is coated with corrosion resistant plating and can be used in various environments.

Product Specifications

Rated Current	Shell Size	No. of Pos.	Rated Current
	13	5	5A
	16	7	10A
		10	5A
25	3	15A	
	4	30A	
	24	5A	

Rated Voltage	Shell Size	No. of Pos.	Rated Voltage
	13	5	100V AC, 140V DC
	16	7	
		10	
	25	3	300V AC, 420V DC
		4	
24		100V AC, 140V DC	

Operating Temperature	-25 to +85°C (Note)
Storage Temperature	-10 to +60°C

Item	Specification	Conditions
Contact Resistance	5m Ω Max. JR16-10pos. crimp type : 10m Ω Max. JR25-3pos. : 3m Ω Max.	Measured at 1A DC
Insulation Resistance	1,000M Ω Min. JR25-4pos. : 10,000M Ω Min.	Measured at 500V DC
Withstanding Voltage	No insulation breakdown	1,000V AC for 1 min. JR25-4pos. : 3,000V AC for 1 min.
Vibration Resistance	No electrical discontinuity of 10 μs or more	10 to 55Hz/cycle, amplitude 0.75mm, 2 hours each in 3 axis directions
Shock Resistance	No electrical discontinuity of 10 μs or more	Acceleration 490m/s ² , duration 11ms, 3 times each in 6 axis directions
Mating Durability	Contact Resistance : 5m Ω Max. JR16-10pos. crimp type : 10m Ω Max. JR25-3pos. : 3m Ω Max.	500 times
Temperature Cycles	Insulation resistance : 1,000M Ω Min. JR25-4pos. : 10,000M Ω Min.	-40°C : 30 minutes ⇒ normal temperature : 10 to 15 minutes ⇒ 100°C : 30 minutes ⇒ normal temperature : 10 to 15 minutes, Repeated for 5 cycles. JR25-3pos. : -30°C : 2 hours ⇒ normal temperature : 2 hours ⇒ 80°C : 2 hours ⇒ normal temperature : 2 hours. Repeated for 50 cycles.
Humidity Resistance	Insulation resistance : 10M Ω Min. (High Humidity) 100M Ω Min. (Dry) JR25-4pos. : 100M Ω Min. (High Humidity) 1,000M Ω Min. (Dry)	96 hours at temperature of 40°C and humidity of 90% to 95%
Waterproof	No water immersion into connector	Mated : Immersed in 1.8 meters water depth for 48 hours

Note : -40°C products are also available. Please contact a Hirose sales representative for details.

Materials / Finish

Item	Material	Finish
Outer Shell	Aluminum Alloy, Brass	Black Chromium Plating
Insulator	PPS	-
Contact	Copper Alloy	Silver Plating
Waterproof Packing	Silicone Rubber	-

Product Number Structure

Refer to the chart below when determining the product specifications from the product number.

Please select from the product numbers listed in this catalog when placing orders.

■ Plug / Receptacle

JR 13 WP A - 3 P C (##)

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

■ Cord Clamp

JR 13 WCC A - 4 (##)

① ② ③ ④ ⑧ ⑨

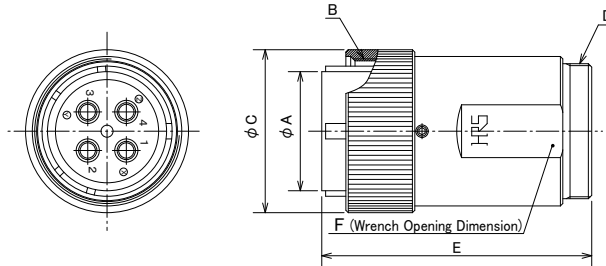
① Series Name	JR	⑥ Contact Gender	P : Male Contact S : Female Contact
② Shell Size	Outer diameter of the case of the plug mating part	⑦ Contact Assembly	None : Solder Termination C : Crimp Termination
③ Shell Type	WP : Waterproof Plug WR : Waterproof Receptacle WCC : Waterproof Cramp	⑧ Applicable Cable Diameter	
④ Shell Variation	Connectors are distinguished by A, B, or C if a shell variation is applied in the same form.	⑨ Other Specifications	A two-digit character is added to indicate other specifications as needed.
⑤ No. of Pos.			

Plug

Plug



JR25WPH-4S



(Representative Example)

Solder Type

Unit : mm

Part No.	HRS No.	No. of Pos.	ϕA	B	ϕC	D	E	F	Purchase Unit
JR13WPH-5P	CL0114-0062-0-00	5	12.7	M18 × 1	21.8	M16 × 0.75	44.7	17	40pcs per tray
JR16WPH-7P	CL0114-0072-0-00	7	16.3	M22 × 1	25.8	M20 × 0.75	46.5	21	
JR25WPH-4P	CL0114-2185-0-00	4	24.7	M30 × 1	33.8	M28 × 0.75	56	29	30pcs per tray
JR25WPH-24P	CL0114-0077-0-00	24							
JR13WPH-5S	CL0114-0063-0-00	5	12.7	M18 × 1	21.8	M16 × 0.75	44.7	17	40pcs per tray
JR16WPH-7S	CL0114-0073-0-00	7	16.3	M22 × 1	25.8	M20 × 0.75	46.5	21	
JR25WP-3S(71)	CL0114-2159-0-71	3	24.7	M30 × 1	33.8	M28 × 0.75	56	29	30pcs per tray
JR25WPH-4S	CL0114-2183-4-00	4							
JR25WPH-24S	CL0114-0078-0-00	24							

Note : When using the plug, be sure to use it in combination with the cord clamp.

Crimp Type

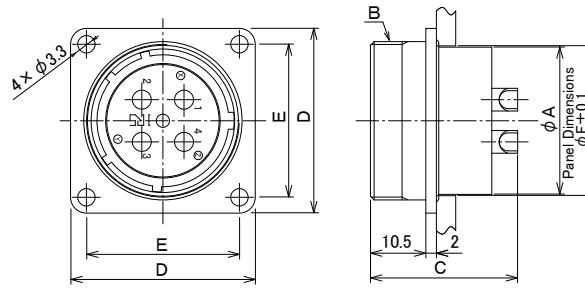
Unit : mm

Part No.	HRS No.	No. of Pos.	ϕA	B	ϕC	D	E	F	Contact Dia.	Purchase Unit
JR16WP-10SC(31)	CL0114-2122-0-31	10	16.3	M22 × 1	25.8	M20 × 0.75	46.5	21	1	40pcs per tray

Receptacle



JR25WRH-4P



(Representative Example)

Solder Type (Square Flange Type)

Unit : mm

Part No.	HRS No.	No. of Pos.	ϕA	B	C	D	E	ϕF	Purchase Unit
JR13WRH-5P	CL0114-0066-0-00	5	15.9	M18 × 1	26.1	26	20	16.3	20pcs per bag
JR16WRH-7P	CL0114-0074-0-00	7	19.9	M22 × 1	26.6	29	23	20.3	
JR25WR-3P(71)	CL0114-2158-7-71	3	27.9	M30 × 1	29.1	35	29	28.3	30pcs per tray
JR25WRH-4P	CL0114-2184-7-00	4			28				
JR25WRH-24P	CL0114-0079-0-00	24			26.1				
JR13WRH-5S	CL0114-0067-0-00	5	15.9	M18 × 1	27	26	20	16.3	20pcs per bag
JR16WRH-7S	CL0114-0075-0-00	7	19.9	M22 × 1	28	29	23	20.3	
JR25WRH-4S	CL0114-2186-2-00	4	27.9	M30 × 1		35	29	28.3	30pcs per tray
JR25WRH-24S	CL0114-0080-0-00	24			27				

Crimp Type (Square Flange Type)

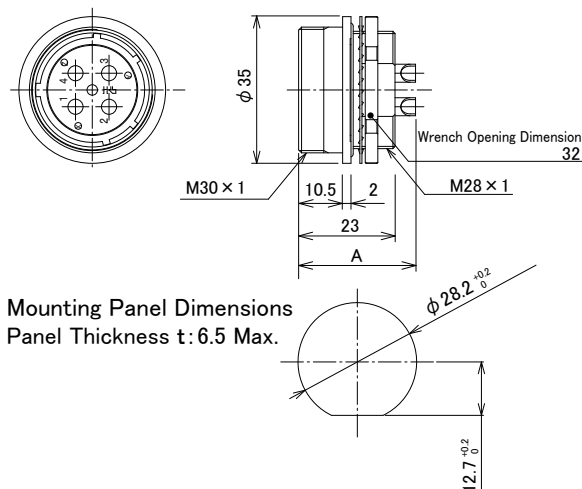
Unit : mm

Part No.	HRS No.	No. of Pos.	ϕA	B	C	D	E	ϕF	Contact Dia.	Purchase Unit
JR16WR-10PC(31)	CL0114-2130-8-31	10	19.9	M22 × 1	25.1	29	23	20.3	1	20pcs per bag

Solder Type (Jam Nut Rear Panel Mount, Hex Nut Type)



JR25WRHA-4P



(Representative Example)

Unit : mm

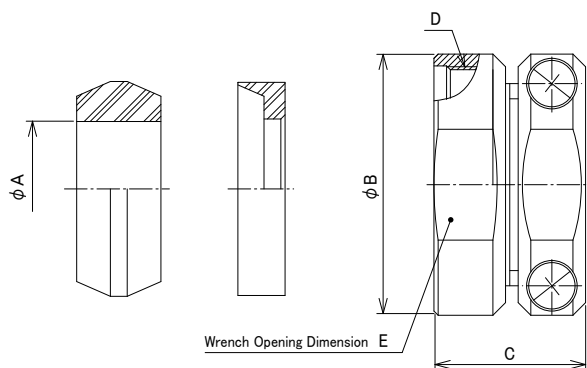
Part No.	HRS No.	No. of Pos.	A	Purchase Unit
JR25WRHA-4P	CL0114-1136-9-00	4	28	30pcs per tray
JR25WRHA-4S	CL0114-1135-6-00			

Cord Clamp

Cord Clamp (Standard Type)



JR13WCC-6(71)



(Representative Example)

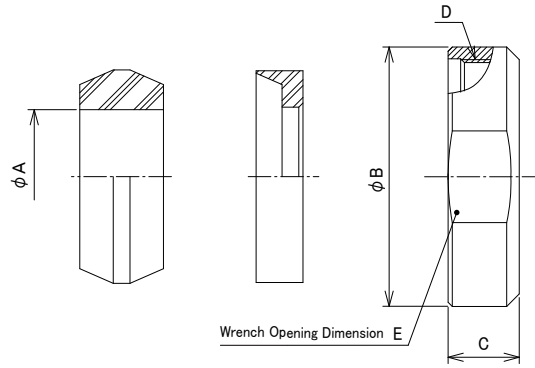
Unit : mm

Part No.	HRS No.	ϕA	ϕB	C	D	E	Purchase Unit	
JR13WCC-4(31)	CL0114-2045-0-31	4	20	17	M16 × 0.75	17	20pcs per bag	
JR13WCC-5(31)	CL0114-2046-3-31	5						
JR13WCC-6(71)	CL0114-2047-6-71	6						
JR13WCC-7(31)	CL0114-2048-9-31	7						
JR13WCC-8(31)	CL0114-2049-1-31	8						
JR13WCC-9(31)	CL0114-2050-0-31	9						
JR13WCC-10(31)	CL0114-2051-3-31	10						
JR16WCC-4(71)	CL0114-2052-6-71	4	23	17.5	M20 × 0.75	21		
JR16WCC-6(71)	CL0114-2053-9-71	6						
JR16WCC-8(71)	CL0114-2054-1-71	8						
JR16WCC-10(71)	CL0114-2055-4-71	10						
JR16WCC-12(71)	CL0114-2056-7-71	12						
JR25WCC-8(71)	CL0114-2063-2-71	8	31	18	M28 × 0.75	29		10pcs per bag
JR25WCC-10(71)	CL0114-2064-5-71	10						
JR25WCC-12(31)	CL0114-2065-8-31	12						
JR25WCC-14(31)	CL0114-2066-0-31	14						
JR25WCC-16(31)	CL0114-2067-3-31	16						
JR25WCC-18(71)	CL0114-2068-6-71	18						

Cord Clamp (Simplified Type)



JR13WCCA-6(71)



(Representative Example)

Unit : mm

Part No.	HRS No.	ϕA	ϕB	C	D	E	Purchase Unit
JR13WCCA-4(31)	CL0114-2069-9-31	4	19	7.5	M16 × 0.75	17	10pcs per bag
JR13WCCA-5(31)	CL0114-2070-8-31	5					
JR13WCCA-6(71)	CL0114-2071-0-71	6					
JR13WCCA-7(31)	CL0114-2072-3-31	7					
JR13WCCA-8(31)	CL0114-2073-6-31	8					
JR13WCCA-9(31)	CL0114-2074-9-31	9					
JR13WCCA-10(31)	CL0114-2075-1-31	10					
JR16WCCA-4(71)	CL0114-2076-4-71	4	23	8	M20 × 0.75	21	
JR16WCCA-6(71)	CL0114-2077-7-71	6					
JR16WCCA-8(71)	CL0114-2078-0-71	8					
JR16WCCA-10(71)	CL0114-2079-2-71	10					
JR16WCCA-12(71)	CL0114-2080-1-71	12					
JR25WCCA-8(71)	CL0114-2087-0-71	8	31	8.5	M28 × 0.75	29	
JR25WCCA-10(71)	CL0114-2088-3-71	10					
JR25WCCA-12(31)	CL0114-2089-6-31	12					
JR25WCCA-14(31)	CL0114-2090-5-31	14					
JR25WCCA-16(31)	CL0114-2091-8-31	16					
JR25WCCA-18(71)	CL0114-2092-0-71	18					

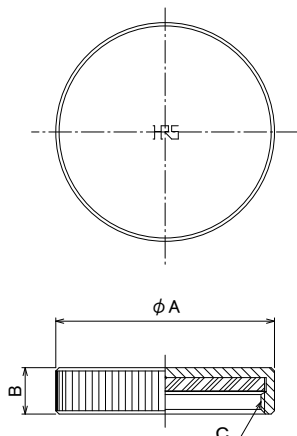
Note : The cable clamping force of the simplified type cord clamp is not very high, so please check the cable clamping force before use.

Cap

Cap (No Chain Type)



JR16WRC(31)



(Representative Example)

Unit : mm

Part No.	HRS No.	φ A	B	C	Purchase Unit
JR13WRC4 (Note 1)	CL0114-2192-5-00	21	7	M18 × 1	20pcs per bag
JR13WRC5 (Note 1)(Note 2)	CL0114-2105-0-00		7.5		
JR16WRC(31)	CL0114-2162-4-31	25	7	M22 × 1	
JR16WRC(75) (Note 1)	CL0114-2162-4-75			M30 × 1	
JR25WRC(31)	CL0114-2163-7-31	33	7.5	M30 × 1	30pcs per tray
JR25WRC(75) (Note 1)	CL0114-2163-7-75				
JR25WRC5 (Note 1)(Note 2)	CL0114-2175-6-00				20pcs per bag

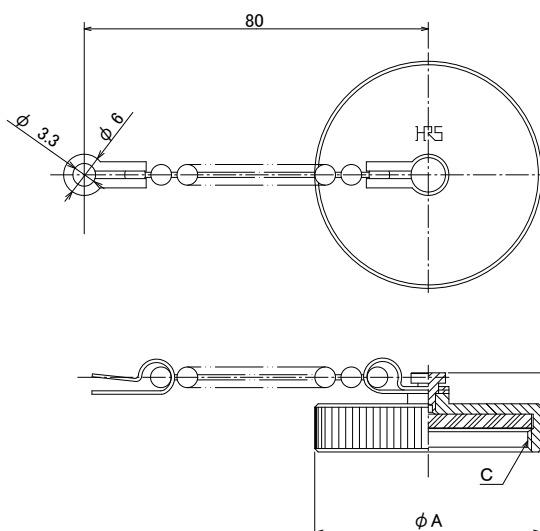
Note 1 : Waterproof gaskets with a silicone rubber specification

Note 2 : Plastic shell

Cap (Chain Type)



JR25WRC3



(Representative Example)

Unit : mm

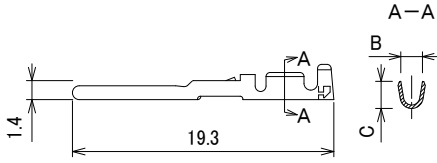
Part No.	HRS No.	φ A	B	C	Purchase Unit
JR13WRC3 (Note)	CL0114-2170-2-00	21	11.5	M18 × 1	20pcs per bag
JR16WRC3 (Note)	CL0114-2171-5-00	25		M22 × 1	
JR25WRC3 (Note)	CL0114-2172-8-00	33		M30 × 1	

Note : Waterproof gaskets with a silicone rubber specification

Crimp Contact

For Contact Diameter $\phi 1$

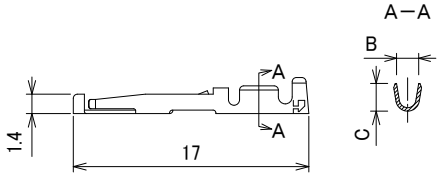
Male Contact



Unit : mm

Type	Part No.	HRS No.	B	C	Applicable Wire	Purchase Unit
Loose Contact	JRC-PC2-112	CL0114-0243-3-00	1.6	2.0	20 to 24 AWG	100pcs per bag
	JRC-PC2-122	CL0114-0244-6-00	1.45	1.5	24 to 28 AWG	
Reel Contact	JRC-PC2-212	CL0114-0245-9-00	1.6	2.0	20 to 24 AWG	8,000pcs per reel
	JRC-PC2-222	CL0114-0246-1-00	1.45	1.5	24 to 28 AWG	

Female Contact



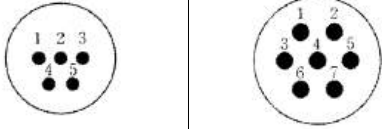
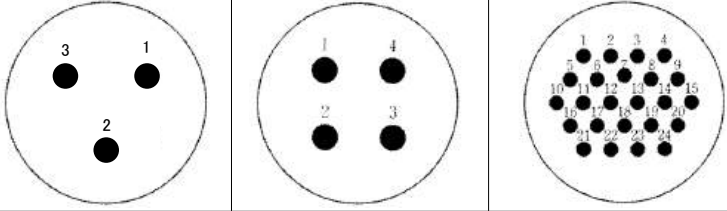
Unit : mm

Type	Part No.	HRS No.	B	C	Applicable Wire	Purchase Unit
Loose Contact	JRC-SC2-112	CL0114-0247-4-00	1.6	2.0	20 to 24 AWG	100pcs per bag
	JRC-SC2-122	CL0114-0248-7-00	1.45	1.5	24 to 28 AWG	
Reel Contact	JRC-SC2-212	CL0114-0249-0-00	1.6	2.0	20 to 24 AWG	8,000pcs per reel
	JRC-SC2-222	CL0114-0250-9-00	1.45	1.5	24 to 28 AWG	

Applicable Tools

Contact Dia.	Type	Part No.	HRS No.	Applicable Contact	Applicable Cable
$\phi 1$	Manual Crimping Tool	HT802/RM-11	CL0150-0401-6-00	JRC-PC2-112	20 to 24 AWG
				JRC-SC2-112	
		HT802/RM-12	CL0150-0402-9-00	JRC-PC2-122	24 to 28 AWG
				JRC-SC2-122	
	Automatic Crimping Machine	CM-105C	CL0901-0001-0-00	-	-
	Applicator	AP105-JRC2-1	CL0901-2037-1-00	JRC-PC2-212	20 to 24 AWG
				JRC-SC2-212	
		AP105-JRC2-2	CL0901-2038-4-00	JRC-PC2-222	24 to 28 AWG
JRC-SC2-222					
Extraction Tool	RM-TP	CL0150-0008-7-00	-	-	

Contact Arrangement and Specifications

Shell Size 13, 16	13		16	
				
No. of Pos.	5	7	10	
Withstanding Voltage	1,000V AC / 1 minute			
Current Rating	5A	10A	5A	
Insulation Resistance	1,000M Ω Min.			
Contact Resistance	5m Ω Max.			
Solder Pot Inner Diameter	ϕ 1.1	ϕ 1.7	ϕ 1.1	
Shell Size 25	25			
				
No. of Pos.	3	4	24	
Withstanding Voltage	1,000V AC / 1 minute	3,000V AC / 1 minute	1,000V AC / 1 minute	
Current Rating	15A	30A	5A	
Insulation Resistance	1,000M Ω Min.	10,000M Ω Min.	1,000M Ω Min.	
Contact Resistance	3m Ω Max.	5m Ω Max.	5m Ω Max.	
Solder Pot Inner Diameter	ϕ 3 (Receptacle), ϕ 3.4 (Plug)	ϕ 3.4	ϕ 1.1	

Note 1 : The figure above shows the connector with the female contact as seen from the mating side.

Note 2 : Withstanding voltages indicate test voltage values.

Precautions

1. Always switch off the circuit power before disconnecting or connecting the connectors.
2. Use connectors with female contacts on the power side of the circuit.
3. Ensure the coupling is fully locked.
4. Match the correct plug/receptacle for effective dust and water protection.
5. This series features silver-plated contacts. Silver may tarnish when exposed to sulfur gases under certain conditions such as:
 - * Dusty environments
 - * High sulfur gas concentration areas, e.g., near factory exhausts, automotive emissions
 - * Extreme temperature variations, high humidity, proximity to heaters
 - * Near rubber products, including adhesives.Tarnishing does not affect electrical connections due to the contact pins' wiping effect.

Storage Instructions:

- * Store in original or equivalent packaging.
- * Temperature range: -10 to +60°C, with a maximum humidity of 85%.
- * Store in a stable temperature and humidity environment.

Use products within 6 months of delivery. After 6 months, verify solderability before use.
'Storage' refers to keeping unused products in sealed packaging before PCB assembly.

While Taking into Consideration

Specifications mentioned in this catalog are reference values.

When considering to order or use this product, please review the Drawing and Product Specifications sheets.

Use an appropriate cable when using the connector in combination with cables.

If considering usage of a non-specified cable, please contact your sales representative.

If assembly process is done by jigs & tools which are not identified by Hirose, the warranty of the product may be affected.

If considering usage for below mentioned applications, please contact your sales representative.

In cases where the application will demand a high level of reliability, such as automotive, medical instruments, public infrastructure, aerospace/defense etc. Hirose must review before assurance of reliability can be given.