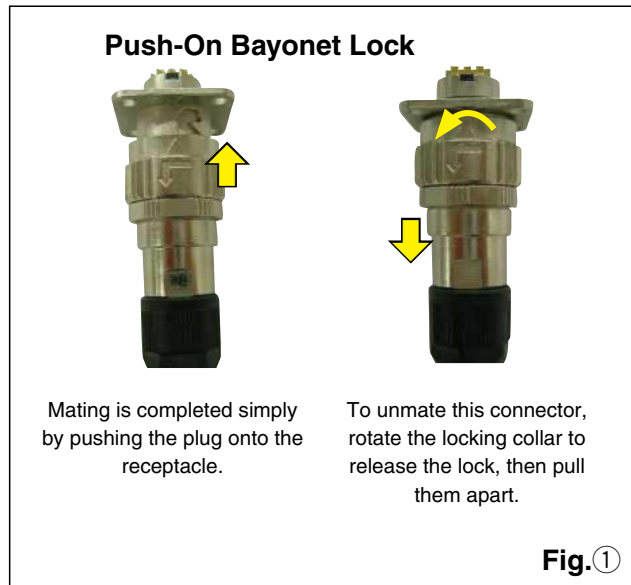


**NEW**

# Small, Waterproof, Push-On Bayonet Lock Connectors

HR08D Series



## ■ Features

### 1. Simplified mating operations

- To mate the connector, simply push it onto the receptacle. To unmate, rotate the locking collar and pull the plug back from the receptacle. (Please refer to Fig. ①)
- Simplified mating is enabled by the alignment markings
- Mating guide keys are provided at 3 points to prevent contact damage. They also provide the ability to blind mate these connectors when needed. Plug connector does not damage the receptacle contacts.

### 2. Waterproof structure

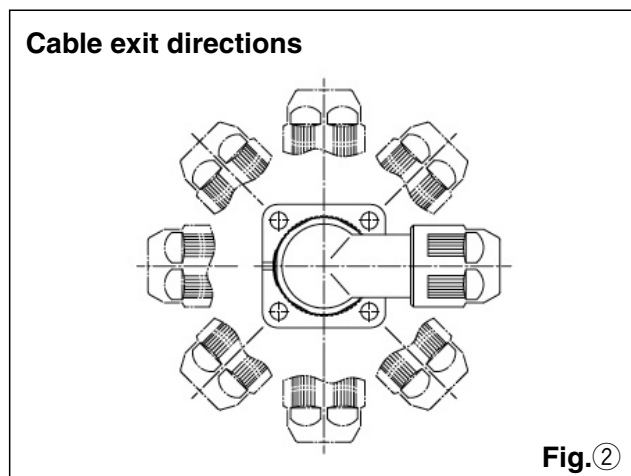
Supports IP67 and IP68 ratings while in the mated condition. (Ratings explained below\*)

\*IP67: Submerged in 1 m for 30 minutes

\*IP68: Submerged in 2 m for 14 days

### 3. Adjustable cable direction

The right angle plug can be adjusted to mount in any of the 8 different directions (adjustable in 45° increments). (Please refer to Fig. ②)



### 4. Variations available

Items	
No. of Contacts	2 or 10 positions available
Connector Type	Straight Plug, Right Angle Plug, Receptacle (10 pos. only)
Plug Termination	Crimp, solder
Receptacle Termination	Solder
Cord Tube Material	Plastic, metal
Cable Diameter Range (Reference)	( $\phi 5.7 \sim 6.5$ ) ( $\phi 6.5 \sim 7.3$ ) ( $\phi 8.0 \sim 9.0$ )

## ■ Product Specifications

Ratings	Rated Current	3A	Operating Temperature Range	-20°C~+85°C
	Rated Voltage	AC200V, DC250V	Storage Temperature Range	-10°C~+60°C

Items	Specifications	Conditions
1. Contact Resistance	20 mΩ or below	Measured with DC 1 A
2. Insulation Resistance	Minimum of 1,000 MΩ	Measured with DC 500 V
3. Withstanding Voltage	No flashover or breakdown	10 pos. AC 900 V for 1 minute 2 pos. AC 1,500 V for 1 minute
4. Vibration Resistance	No electrical discontinuity of 10 μs or greater	Tested in 3 directions with 10 to 500 Hz /cycle, total vibration width of 0.75 mm, and 98 m/s <sup>2</sup> , 3 hours each.
5. Shock	No electrical discontinuity of 10 μs or greater	Tested in 3 directions with the acceleration of 490 m/s <sup>2</sup> , and a duration of 11 ms, 3 times each
6. Durability	Contact Resistance: Maximum of 30 mΩ	500 mating cycles
7. Temperature Cycles	Insulation Resistance: Minimum of 500 MΩ	Left at -55°C: 30 minutes ⇒ Ordinary temperature: 2~3 minutes ⇒ 85°C:30 minutes ⇒ Ordinary temperature: 2~3 minutes, 2~3 minutes, Total of 5 cycles
8. Humidity Resistance	Insulation resistance Minimum of 50 MΩ (high humidity) Minimum of 500 MΩ (dry)	Left at temperature 71°C and humidity 95% for 336 hours. Left at the temperature of 71°C and 95% humidity for 336 hours.
9. Waterproof Structure	Should be no water leakage inside the connector	Left submerged in water at the depth of 1 m, for 0.5 hours, in the mated condition.

## ■ Materials

### ● Plug

Component	Materials	Finish	Remarks
Outer Shell	Zinc Alloy, aluminum alloy and polyamide resin (black)	Nickel under plating	_____
Insulator	PPS resin (black)	_____	UL94V-0
Female Contact	Phosphorous bronze	Gold plating	_____
O Ring, Gasket	NBR, Nitrile hydride rubber	_____	_____

### ● Receptacle

Component	Materials	Finish	Remarks
Outer Shell	Zinc alloy	Nickel under plating	_____
Insulator	PPS resin (black)	_____	UL94V-0
Male Contact 10 position	Brass	Gold plating	_____
O Ring	NBR	_____	_____

## ■ Product Number Structure

Refer to this page when determining product specifications by model types. Please place orders with part numbers listed in this catalog. The characteristics and specifications of the product described in this catalog are reference values. Please make sure to check the latest delivery specifications at the time of product use.

### ● Plug

**HR08D 12 WP A - 10 S**

①      ②      ③      ④      ⑤      ⑥

① Model Name: HR08D series
② Shell Size: Diameter (mm) of the mating interface of the plug
③ Shell Type WP: Straight plug, WLP: Right angle plug
④ Cord Tube and Cable Range Type A: Material of cord tube: Metal, with cable dia. range of (φ 5.7 to 6.5) B: Material of cord tube: Metal, with cable dia. range of (φ 6.5 to 7.3) M: Material of cord tube: Plastic, with cable dia. range of (φ 5.7 to 6.5) N: Material of cord tube: Plastic, with cable dia. range of (φ 6.5 to 7.3) K: Material of cord tube: Metal, with cable dia. range of (φ 8.0 to 9.0)
⑤ Number of Contacts: Contacts available (2 or 10)
⑥ Contact Shape S: Female contact for solder termination SC: Female contact for crimping termination

### ● Receptacle

**HR08D 12 WR - 10 P**

①      ②      ③      ④      ⑤

① Model Name: HR08D series
② Shell Size: Diameter (mm) of the mating interface of the plug
③ Shell Type WR : Receptacle
④ Number of Contacts: Contacts available (10 only)
⑤ Contact Shape P: Male contact for solder termination

### ● Crimp contact

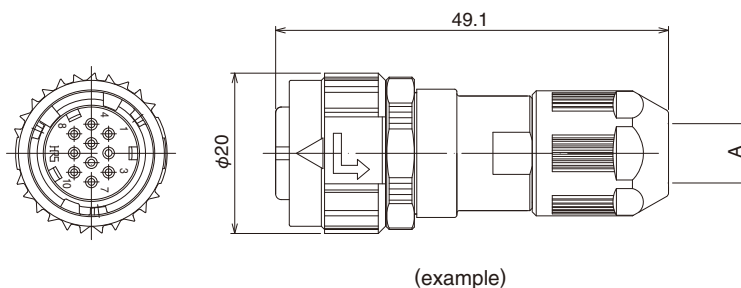
**HR34B - SC1 - 2 1 1**

①      ②      ③      ④      ⑤

① Model Name: HR34B series (Shares the same contacts as the HR34B series)
② Contact Type SC1: Female contact
③ Contact Shape 1: Single contact 2: Reel contact
④ Barrel Shape: 1: 20-25 AWG
⑤ Plating Type 1: Gold plating

## ■ Straight plug

### ● Regular version ( Cord tube material: Plastic)



### ◆ Solder termination version

Part No.	HRS No.	A	Applicable cable diameter range (Reference)	Contact solder cup inner diameter
HR08D-12WPM-10S	108-0274-5-00	φ7.4	(φ5.7~6.5)	φ1
HR08D-12WPN-10S	108-0275-8-00	φ8.5	(φ6.5~7.3)	
HR08D-12WPM-2S	108-0272-0-00	φ7.4	(φ5.7~6.5)	φ1.8
HR08D-12WPN-2S	108-0266-7-00	φ8.5	(φ6.5~7.3)	

### ◆ Crimp termination version

Part No.	HRS No.	A	Applicable cable diameter range (Reference)
HR08D-12WPM-10SC	108-0268-2-00	φ7.4	(φ5.7~6.5)
HR08D-12WPN-10SC	108-0269-5-00	φ8.5	(φ6.5~7.3)

### ● Robust version (Cord tube material: Metal)

#### ◆ Solder termination version

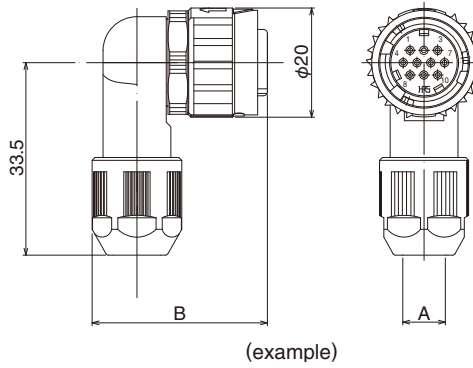
Part No.	HRS No.	A	Applicable cable diameter range (Reference)	Contact solder cup inner diameter
HR08D-12WPA-10S	108-0219-7-00	φ7.4	(φ5.7~6.5)	φ1
HR08D-12WPB-10S	108-0231-2-00	φ8.5	(φ6.5~7.3)	
HR08D-12WPK-10S	108-0262-6-00	φ9.5	(φ8.0~9.0)	
HR08D-12WPA-2S	108-0279-9-00	φ7.4	(φ5.7~6.5)	φ1.8
HR08D-12WPB-2S	108-0280-8-00	φ8.5	(φ6.5~7.3)	
HR08D-12WPK-2S	108-0281-0-00	φ9.5	(φ8.0~9.0)	

#### ◆ Crimp termination version

Part No.	HRS No.	A	Applicable cable diameter range (Reference)
HR08D-12WPA-10SC	108-0220-6-00	φ7.4	(φ5.7~6.5)
HR08D-12WPB-10SC	108-0232-5-00	φ8.5	(φ6.5~7.3)
HR08D-12WPK-10SC	108-0263-9-00	φ9.5	(φ8.0~9.0)

## ■ Right angle plug

### ● Regular version ( Cord tube material: Plastic)



### ◆ Solder termination version

Part No.	HRS No.	A	B	Applicable cable diameter range (Reference)	Contact solder cup inner diameter
HR08D-12WLPM-10S	108-0276-0-00	$\phi 7.4$	30.85	( $\phi 5.7 \sim 6.5$ )	$\phi 1$
HR08D-12WLPN-10S	108-0277-3-00	$\phi 8.5$		( $\phi 6.5 \sim 7.3$ )	
HR08D-12WLPM-2S	108-0273-2-00	$\phi 7.4$		( $\phi 5.7 \sim 6.5$ )	$\phi 1.8$
HR08D-12WLPN-2S	108-0267-0-00	$\phi 8.5$		( $\phi 6.5 \sim 7.3$ )	

### ◆ Crimp termination version

Part No.	HRS No.	A	B	Applicable cable diameter range (Reference)
HR08D-12WLPM-10SC	108-0270-4-00	$\phi 7.4$	30.85	( $\phi 5.7 \sim 6.5$ )
HR08D-12WLPN-10SC	108-0271-7-00	$\phi 8.5$		( $\phi 6.5 \sim 7.3$ )

### ● Robust version (Cord tube material: Metal)

#### ◆ Solder termination version

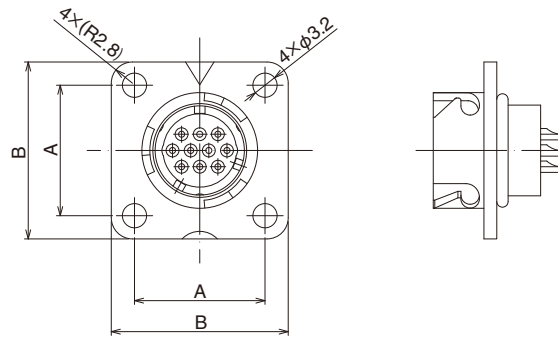
Part No.	HRS No.	A	B	Applicable cable diameter range (Reference)	Contact solder cup inner diameter
HR08D-12WLPA-10S	108-0221-9-00	$\phi 7.4$	30.5	( $\phi 5.7 \sim 6.5$ )	$\phi 1$
HR08D-12WLPB-10S	108-0233-8-00	$\phi 8.5$		( $\phi 6.5 \sim 7.3$ )	
HR08D-12WLPK-10S	108-0264-1-00	$\phi 9.5$	31.5	( $\phi 8.0 \sim 9.0$ )	
HR08D-12WLPA-2S	108-0282-3-00	$\phi 7.4$	30.5	( $\phi 5.7 \sim 6.5$ )	$\phi 1.8$
HR08D-12WLPB-2S	108-0283-6-00	$\phi 8.5$		( $\phi 6.5 \sim 7.3$ )	
HR08D-12WLPK-2S	108-0284-9-00	$\phi 9.5$	31.5	( $\phi 8.0 \sim 9.0$ )	

#### ◆ Crimp termination version

Part No.	HRS No.	A	B	Applicable cable diameter range (Reference)
HR08D-12WLPA-10SC	108-0222-1-00	$\phi 7.4$	30.5	( $\phi 5.7 \sim 6.5$ )
HR08D-12WLPB-10SC	108-0234-0-00	$\phi 8.5$		( $\phi 6.5 \sim 7.3$ )
HR08D-12WLPK-10SC	108-0265-4-00	$\phi 9.5$	31.5	( $\phi 8.0 \sim 9.0$ )

## ■ Receptacle

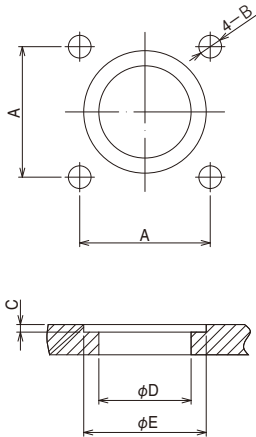
### ◆ Solder termination version



Product No.	HRS No.	A	B	Contact solder cup inner diameter
HR08D-12WR-10P	108-0218-4-00	17.26	23.4	φ1.1

Note: The number 10 contact is connected to the outer shell, which provides the ground connection.

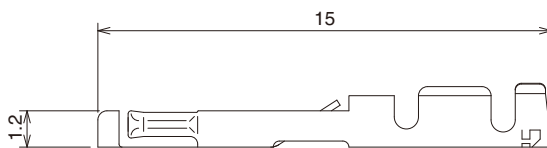
### ◆ Panel Mount Hole Dimensions



Dimension	HR08D-12WR-10P
A	17.26±0.05
B	M3×0.5
C	1 0/ - 0.1
D	12.2 +0.1/0
E	16.2 +0.1/0

## ■ Crimp contact

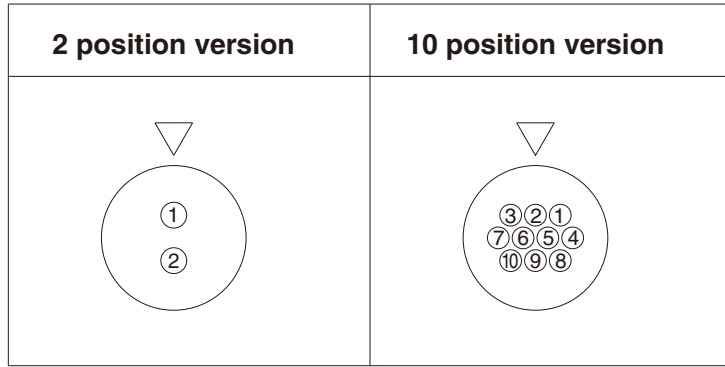
### ● Female contact



Type	Part No.	HRS No.	Applicable electric wires
Loose piece contact	HR34B-SC1-111	134-0051-7-00	AWG20~25
Reel contact	HR34B-SC1-211	134-0050-4-00	

Note: The loose piece contacts are sold in packs of 100. Reel contacts are sold in full reel quantities of 10,000 pieces per reel.

### ◆ Plug Contact Diagram



Note: The numbering of the contact is from the plug termination side.

### ◆ Applicable Tools

Tools	Part No.	HRS No.	Applicable contacts	Applicable wire size
Manual Crimping Tool	HT304/HR34B-1	150-0107-9	HR34B-SC1-111	AWG20、AWG23、AWG25
Automatic Crimping Press	CM-105	901-0005-4	HR34B-SC1-211	AWG20~25
Automatic Crimping Applicator	AP105-HR34B-1	901-2051-2		
Contact Extraction Tool	RP6-SC-TP	150-0039-0	HR34B-SC1-111 HR34B-SC1-211	—————

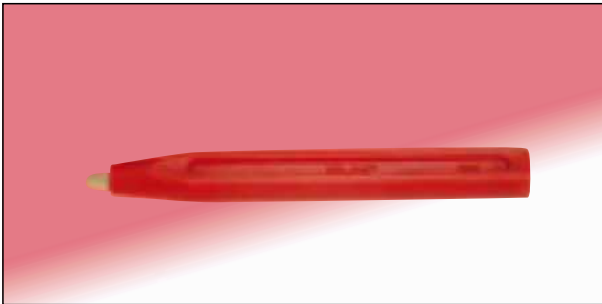
#### ◆ Manual Crimping Tool



#### ◆ Automatic Crimping Press CM-105 Model (applicator sold separately)



#### ◆ Contact Extraction Tool



### ◆ Operating Precautions

1. Prior to inserting or extracting this connector, make sure that the connector is not energized and the power is in the OFF position.
2. There may be some resistance when inserting the cables into this connector, even if the cables are within the applicable cable range. This is to be expected due to the connector's waterproof ability. The waterproof performance and clamp force is dependant on the cable specification. Please check the cable specifications before using as they can cause a difference in performance in the waterproof protection and cable clamp force.
3. Please contact your local Hirose Sales Representative for any inquiries regarding the assembly procedures of this connector.



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6-3, Nakagawa Chuoh-2-Chome, Tsuzuki-Ku, Yokohama-Shi 224-8540, JAPAN  
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