NEW

# Small, Waterproof, Push-On Bayonet Lock Connectors

HR08D Series





#### 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

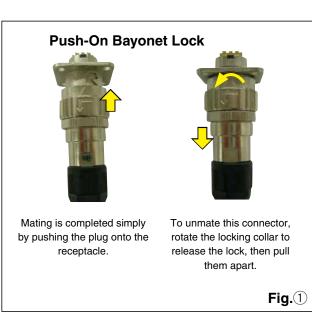
Supports IP67 and IP68 ratings while in the mated condition. (Ratings explained below\*) \*IP67: Submerged in 1 m for 30 minutes \*IP68: Submerged in 2 m for 14 days

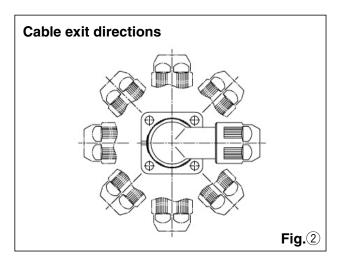
#### 3. Adjustable cable direction

The right angle plug can be adjusted to mount in any of the 8 different directions (adjustable in  $45^{\circ}$  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)	$(\phi 5.7 \sim 6.5) \ (\phi 6.5 \sim 7.3) \ (\phi 8.0 \sim 9.0)$		





2014.3 **HS** 1

### Product Specifications

Detinue	Rated Current	3A	Operating Temperature Range	-20℃~+85℃	
Ratings	Rated Voltage	AC200V, DC250V	Storage Temperature Range -10°C~+60°C		
Items		Specifications	Condition	ons	
1. Contact Resistance	e 20 mΩ or b	elow	Measured with DC 1 A		
2.Insulation Resistan	ice Minimum o	f 1,000 MΩ	Measured with DC 500 V		
3. Withstanding Volta	age No flashove	er or breakdown	10 pos. AC 900 V for 1 minute 2	pos. AC 1,500 V for 1 minute	
4. Vibration Resistan	No electrica	al discontinuity of 10 $\mu$ s or	Tested in 3 directions with 10 to	o 500 Hz /cycle, total	
4. VIDIALION RESISTAN	greater		vibration width of 0.75 mm, and	1 98 m/s², 3 hours each.	
5. Shock	No electrica	al discontinuity of 10 $\mu$ s or	Tested in 3 directions with the acceleration of 490 m/s <sup>2</sup> ,		
J. SHUCK	greater		and a duration of 11 ms, 3 times each		
6. Durability	Contact Res	sistance: Maximum of 30 mΩ	500 mating cycles		
			Left at -55°C: 30 minutes $\Rightarrow$ Ordinary temperature: 2 $\sim$ 3		
7. Temperature Cycl	es Insulation Re	esistance: Minimum of 500 MΩ	minutes $\Rightarrow$ 85°C:30 minutes $\Rightarrow$ Ordinary temperature: 2~3		
			minutes, 2~3 minutes, Total of 5 cycles		
	Insulation re	esistance	Left at temperature 71°C and humidity 95% for 336 hours.		
8. Humidity Resistance Minimum of 50 MΩ (high humidity)		Left at the temperature of 71 °C and 95% humidity for 336			
	Minimum of 500 MΩ (dry)		hours.		
9. Waterproof Struct	Should be i	no water leakage inside the	Left submerged in water at the depth of 1 m, for 0.5 hours,		
	connector		in the mated condition.		

# Materials

#### ●Plug

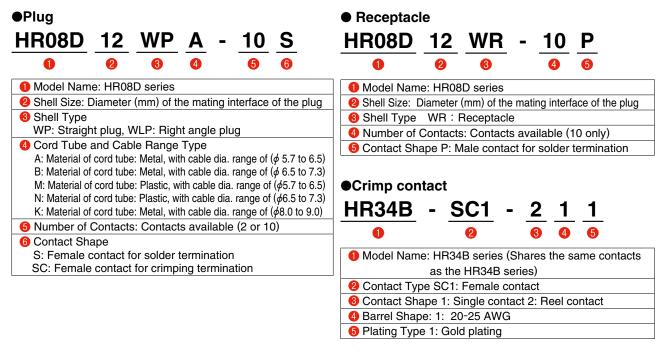
Component	Materials	Finish	Remarks
Outer Shell	Zinc Alloy, aluminum alloy and polyamide resin (black)		
		Nickel under plating	
Insulator	PPS resin (black)		UL94V-0
Female Contact	Phosphorous bronze	Gold plating	
O Ring, Gasket	NBR, Nitrile hydride rubber		

#### Receptacle

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

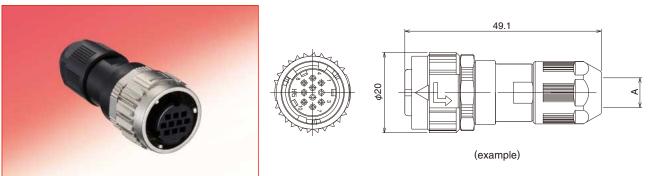
### Product Number Structure

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.



# 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	<i>φ</i> 7.4	( <b>\$</b> 5.7~6.5)	41
HR08D-12WPN-10S	108-0275-8-00	<i>φ</i> 8.5	( <b>\$</b> 6.5~7.3)	φ1
HR08D-12WPM-2S	108-0272-0-00	<i>φ</i> 7.4	( <b>\$</b> 5.7~6.5)	41.0
HR08D-12WPN-2S	108-0266-7-00	<i>\$</i> 8.5	( <b>\$</b> 6.5~7.3)	φ1.8

#### Crimp termination version

Part No.	HRS No.	А	Applicable cable diameter range (Reference)
HR08D-12WPM-10SC	108-0268-2-00	<i>φ</i> 7.4	( <b>ø</b> 5.7~6.5)
HR08D-12WPN-10SC	108-0269-5-00	<i>ф</i> 8.5	( <b>\$</b> 6.5~7.3)

#### •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	<i>ф</i> 7.4	( <b>\$</b> 5.7~6.5)	
HR08D-12WPB-10S	108-0231-2-00	<i>\$</i> 8.5	( <b>\$</b> 6.5~7.3)	<i>φ</i> 1
HR08D-12WPK-10S	108-0262-6-00	<i>φ</i> 9.5	( <b>\$</b> 8.0~9.0)	
HR08D-12WPA-2S	108-0279-9-00	φ7.4	( <b>\$</b> 5.7~6.5)	
HR08D-12WPB-2S	108-0280-8-00	<i>φ</i> 8.5	( <b>\$</b> 6.5~7.3)	<i>φ</i> 1.8
HR08D-12WPK-2S	108-0281-0-00	<i>\$</i> 9.5	( <b>\$</b> 8.0~9.0)	

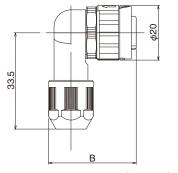
#### Crimp termination version

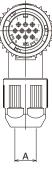
Part No.	HRS No.	А	Applicable cable diameter range (Reference)
HR08D-12WPA-10SC	108-0220-6-00	<i>φ</i> 7.4	( <b>\$</b> 5.7~6.5)
HR08D-12WPB-10SC	108-0232-5-00	<i>φ</i> 8.5	( <b>\$</b> 6.5~7.3)
HR08D-12WPK-10SC	108-0263-9-00	<i>\$</i> 9.5	( <b>\$</b> 8.0~9.0)

# Right angle plug

•Regular version ( Cord tube material: Plastic)







(example)

#### Solder termination version

Part No.	HRS No.	A	В	Applicable cable diameter range (Reference)	Contact solder cup inner diameter
HR08D-12WLPM-10S	108-0276-0-00	φ7.4		( <i>¢</i> 5.7~6.5)	44
HR08D-12WLPN-10S	108-0277-3-00	¢8.5	20.05	( <i>ø</i> 6.5~7.3)	φ1
HR08D-12WLPM-2S	108-0273-2-00	<i>φ</i> 7.4	30.85	( <i>ø</i> 5.7~6.5)	/1.0
HR08D-12WLPN-2S	108-0267-0-00	¢8.5		(¢6.5~7.3)	<i>\$</i> 1.8

#### Crimp termination version

				Applicable cable
Part No.	HRS No.	A	В	diameter range (Reference)
				(Reference)
HR08D-12WLPM-10SC	108-0270-4-00	<i>φ</i> 7.4	30.85	( <i>ϕ</i> 5.7~6.5)
HR08D-12WLPN-10SC	108-0271-7-00	<i>\$</i> 8.5	30.85	( <i>ø</i> 6.5~7.3)

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

#### Solder termination version

Part No.	HRS No.	A	В	Applicable cable diameter range (Reference)	Contact solder cup inner diameter
HR08D-12WLPA-10S	108-0221-9-00	<i>φ</i> 7.4	30.5	( <i>ϕ</i> 5.7~6.5)	
HR08D-12WLPB-10S	108-0233-8-00	<i>¢</i> 8.5	30.5	( <i>ø</i> 6.5~7.3)	<i>φ</i> 1
HR08D-12WLPK-10S	108-0264-1-00	<i>¢</i> 9.5	31.5	( <i>ø</i> 8.0~9.0)	
HR08D-12WLPA-2S	108-0282-3-00	<i>φ</i> 7.4	00 F	( <i>ø</i> 5.7~6.5)	
HR08D-12WLPB-2S	108-0283-6-00	<i>¢</i> 8.5	30.5	(\$\$\phi_6.5\$\scrime\$7.3\$)	<i>¢</i> 1.8
HR08D-12WLPK-2S	108-0284-9-00	<i>\$</i> 9.5	31.5	(\$\$.0~9.0)	

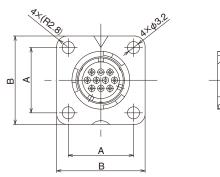
#### Crimp termination version

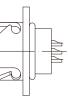
Part No.	HRS No.	A	В	Applicable cable diameter range (Reference)
HR08D-12WLPA-10SC	108-0222-1-00	φ7.4	30.5	( <i>¢</i> 5.7~6.5)
HR08D-12WLPB-10SC	108-0234-0-00	<i>¢</i> 8.5	30.5	( <i>ø</i> 6.5~7.3)
HR08D-12WLPK-10SC	108-0265-4-00	<i>\$</i> 9.5	31.5	( <i>ø</i> 8.0~9.0)

## **Receptacle**

#### Solder termination version



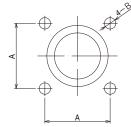




Product No.	HRS No.	А	В	Contact solder cup inner diameter
HR08D-12WR-10P	108-0218-4-00	17.26	23.4	¢1.1

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

#### Panel Mount Hole Dimensions

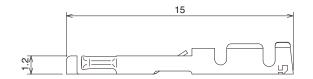


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ł			2
		φD	
		φE	

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

# Crimp contact

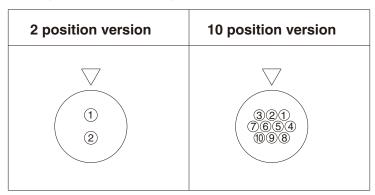
#### •Female contact



Туре	Part No.	HRS No.	Applicable electric wires	
Loose piece contact	HR34B-SC1-111	134-0051-7-00	AVA/C 00 05	
Reel contact	HR34B-SC1-211	134-0050-4-00	AWG20~25	

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		
Automatic Crimping Applicator	AP105-HR34B-1	901-2051-2	HR34B-SC1-211	AWG20~25
Contact Extraction Tool	RP6-SC-TP	150-0039-0	HR34B-SC1-111 HR34B-SC1-211	

#### Manual Crimping Tool



#### Contact Extraction Tool



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



## 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.



The characteristics and the specifications contained herein are for reference purpose. Please refer to the latest customer drawings prior to use. The contents of this catalog are current as of date of 3/2014. Contents are subject to change without notice for the purpose of improvements.

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