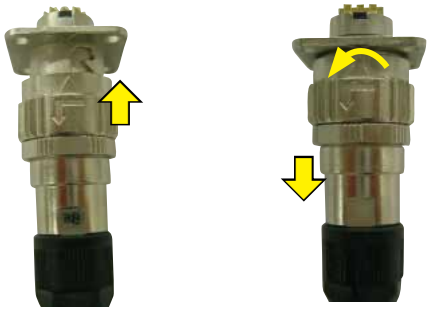
Small, Waterproof, Push-On Bayonet Lock Connectors

HR08D Series

Push-On Bayonet Lock



Mating is completed simply by pushing the plug onto the receptacle.

To unmate this connector, rotate the locking collar to release the lock, then pull them apart.

Fig.①

Cable exit directions

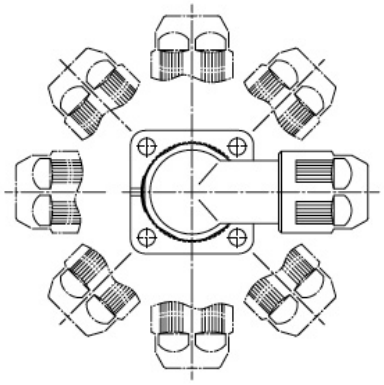


Fig.②

■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. (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). (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)	(ϕ5.7 to 6.5) (ϕ6.5 to 7.3) (ϕ8.0 to 9.0)

Sep.1.2022 Copyright 2022 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

■Product Specifications

Ratings	Rated Current	3A	Operating Temperature Range	-20℃ to +85℃
	Rated Voltage	AC200V, DC250V	Storage Temperature Range	-10℃ to +60℃

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

■Materials / Finish

●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 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

HR08D ❶ 12 ❷ WP ❸ A ❹ - 10 ❺ S ❻ (**) ❼

❶ Model Name : HR08D series
❷ Shell Size : Diameter (mm) of the mating interface of the plug
❸ Shell Type WP : Straight plug, WLP: Right angle plug
❹ 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 (ϕ5.7 to 6.5) N : Material of cord tube : Plastic, with cable dia. range of (ϕ6.5 to 7.3) K : Material of cord tube : Metal, with cable dia. range of (ϕ8.0 to 9.0)
❺ Number of Contacts : Contacts available (2 or 10)
❻ Contact Shape S : Female contact for solder termination SC : Female contact for crimping termination
❼ Other specifications : A two-digit character is added to indicate other specifications as needed.

● Receptacle

HR08D ❶ 12 ❷ WR ❸ - 10 ❹ P ❺ (**) ❻

❶ Model Name : HR08D series
❷ Shell Size : Diameter (mm) of the mating interface of the plug
❸ Shell Type WR : Receptacle
❹ Number of Contacts : Contacts available (10 only)
❺ Contact Shape P : Male contact for solder termination
❻ Other specifications : A two-digit character is added to indicate other specifications as needed.

●Crimp contact

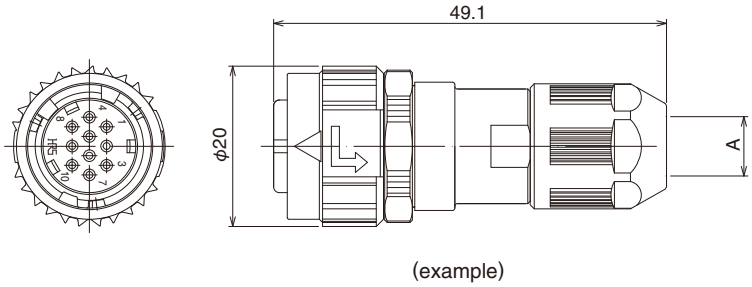
HR34B ❶ - SC1 ❷ - 2 ❸ 1 ❹ 1 ❺

❶ Model Name : HR34B series (Shares the same contacts as the HR34B series)
❷ Contact Type SC1 : Female contact
❸ Contact Shape 1 : Single contact 2 : Reel contact
❹ Barrel Shape : 1 : 20 to 25 AWG
❺ Plating Type 1 : Gold plating

Sep.1.2022 Copyright 2022 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

■Straight plug

●Regular version (Cord tube material : Plastic)



(example)

◆Solder termination version

Part No.	HRS No.	A	Applicable cable diameter range (Reference)	Contact solder cup inner diameter
HR08D-12WPM-10S(31)	108-0274-5 31	ϕ7.4	(ϕ5.7 to 6.5)	ϕ1
HR08D-12WPN-10S(31)	108-0275-8 31	ϕ8.5	(ϕ6.5 to 7.3)	
HR08D-12WPM-2S(31)	108-0272-0 31	ϕ7.4	(ϕ5.7 to 6.5)	ϕ1.8
HR08D-12WPN-2S(31)	108-0266-7 31	ϕ8.5	(ϕ6.5 to 7.3)	

◆ Crimp termination version

Part No.	HRS No.	A	Applicable cable diameter range (Reference)
HR08D-12WPM-10SC(31)	108-0268-2 31	ϕ7.4	(ϕ5.7 to 6.5)
HR08D-12WPN-10SC(31)	108-0269-5 31	ϕ8.5	(ϕ6.5 to 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(31)	108-0219-7 31	ϕ7.4	(ϕ5.7 to 6.5)	ϕ1
HR08D-12WPB-10S(31)	108-0231-2 31	ϕ8.5	(ϕ6.5 to 7.3)	
HR08D-12WPK-10S(31)	108-0262-6 31	ϕ9.5	(ϕ8.0 to 9.0)	
HR08D-12WPA-2S(31)	108-0279-9 31	ϕ7.4	(ϕ5.7 to 6.5)	ϕ1.8
HR08D-12WPB-2S(31)	108-0280-8 31	ϕ8.5	(ϕ6.5 to 7.3)	
HR08D-12WPK-2S(31)	108-0281-0 31	ϕ9.5	(ϕ8.0 to 9.0)	

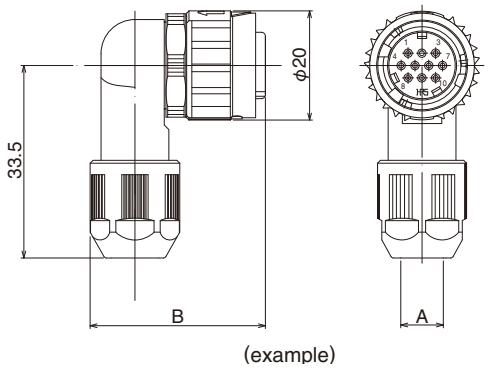
◆Crimp termination version

Part No.	HRS No.	A	Applicable cable diameter range (Reference)
HR08D-12WPA-10SC(31)	108-0220-6 31	ϕ7.4	(ϕ5.7 to 6.5)
HR08D-12WPB-10SC(31)	108-0232-5 31	ϕ8.5	(ϕ6.5 to 7.3)
HR08D-12WPK-10SC(31)	108-0263-9 31	ϕ9.5	(ϕ8.0 to 9.0)

Sep.1.2022 Copyright 2022 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

■Right angle plug

●Regular version (Cord tube material : Plastic)



(example)

◆Solder termination version

Part No.	HRS No.	A	B	Applicable cable diameter range (Reference)	Contact solder cup inner diameter
HR08D-12WLPM-10S(31)	108-0276-0 31	ϕ7.4	30.85	(ϕ5.7 to 6.5)	ϕ1
HR08D-12WLPN-10S(31)	108-0277-3 31	ϕ8.5		(ϕ6.5 to 7.3)	
HR08D-12WLPM-2S(31)	108-0273-2 31	ϕ7.4		(ϕ5.7 to 6.5)	ϕ1.8
HR08D-12WLPN-2S(31)	108-0267-0 31	ϕ8.5		(ϕ6.5 to 7.3)	

◆Crimp termination version

Part No.	HRS No.	A	B	Applicable cable diameter range (Reference)
HR08D-12WLPM-10SC(31)	108-0270-4 31	ϕ7.4	30.85	(ϕ5.7 to 6.5)
HR08D-12WLPN-10SC(31)	108-0271-7 31	ϕ8.5		(ϕ6.5 to 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(31)	108-0221-9 31	ϕ7.4	30.5	(ϕ5.7 to 6.5)	ϕ1
HR08D-12WLPB-10S(31)	108-0233-8 31	ϕ8.5		(ϕ6.5 to 7.3)	
HR08D-12WLPK-10S(31)	108-0264-1 31	ϕ9.5	31.5	(ϕ8.0 to 9.0)	
HR08D-12WLPA-2S(31)	108-0282-3 31	ϕ7.4	30.5	(ϕ5.7 to 6.5)	ϕ1.8
HR08D-12WLPB-2S(31)	108-0283-6 31	ϕ8.5		(ϕ6.5 to 7.3)	
HR08D-12WLPK-2S(31)	108-0284-9 31	ϕ9.5	31.5	(ϕ8.0 to 9.0)	

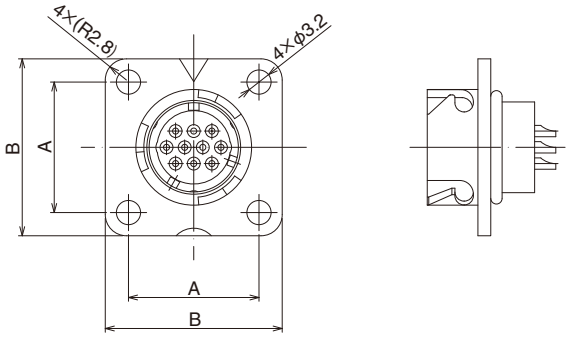
◆Crimp termination version

Part No.	HRS No.	A	B	Applicable cable diameter range (Reference)
HR08D-12WLPA-10SC(31)	108-0222-1 31	ϕ7.4	30.5	(ϕ5.7 to 6.5)
HR08D-12WLPB-10SC(31)	108-0234-0 31	ϕ8.5		(ϕ6.5 to 7.3)
HR08D-12WLPK-10SC(31)	108-0265-4 31	ϕ9.5	31.5	(ϕ8.0 to 9.0)

Sep.1.2022 Copyright 2022 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

■Receptacle

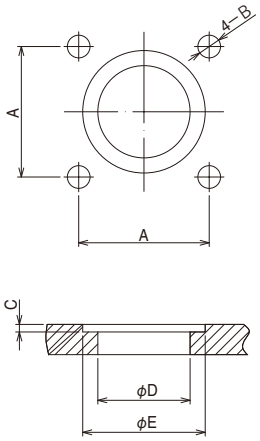
◆Solder termination version



Part No.	HRS No.	A	B	Contact solder cup inner diameter
HR08D-12WR-10P(31)	108-0218-4 31	17.26	23.4	φ1.1

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

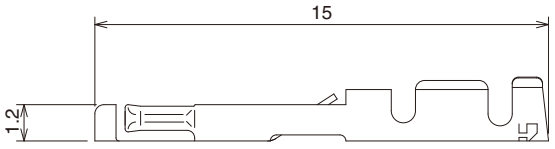
◆Panel Mount Hole Dimensions



Dimension	HR08D-12WR-10P(31)
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

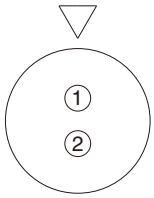
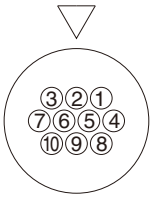


Type	Part No.	HRS No.	Applicable electric wires
Loose piece contact	HR34B-SC1-111	134-0051-7	20 to 25 AWG
Reel contact	HR34B-SC1-211	134-0050-4	

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.

Sep.1.2022 Copyright 2022 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

◆Plug Contact Diagram

2 position version	10 position version
	

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

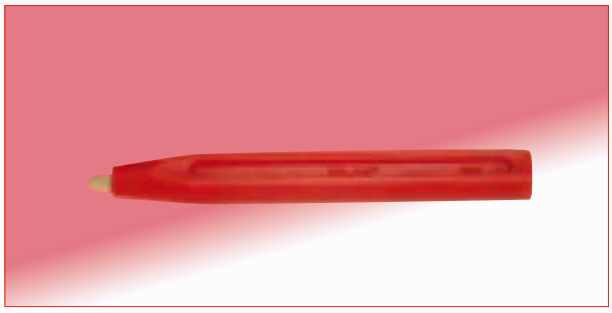
◆Applicable Tools

Tools	Part No.	HRS No.	Applicable contacts	Applicable wire size
Manual Crimping Tool	HT304/HR34B-1	150-0107-9	HR34B-SC1-111	20 AWG、23 AWG、25 AWG
Automatic Crimping Press	CM-105C	901-0001-0	HR34B-SC1-211	20 to 25 AWG
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-105C 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 (ETAD-C0290-00).

Creative Links to World Electronics ®

HRS

HIROSE ELECTRIC CO.,LTD.
2-6-3,Nakagawa Chuoh,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN
TEL: +81-45-620-3526 Fax: +81-45-591-3726
http://www.hirose.com
http://www.hirose-connectors.com

Sep.1.2022 Copyright 2022 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

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 12/2020. Contents are subject to change without notice for the purpose of improvements.