PRODUCT CATALOG

HIROSE ELECTRIC CO.,LTD.

HR34B Series

Push-on Bayonet Lock Small Waterproof Connectors

Push On Bayonet

Waterproof

Compact



Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

Product Page
https://www.hirose.com/en/product/series/HR34B

Jan. 2023

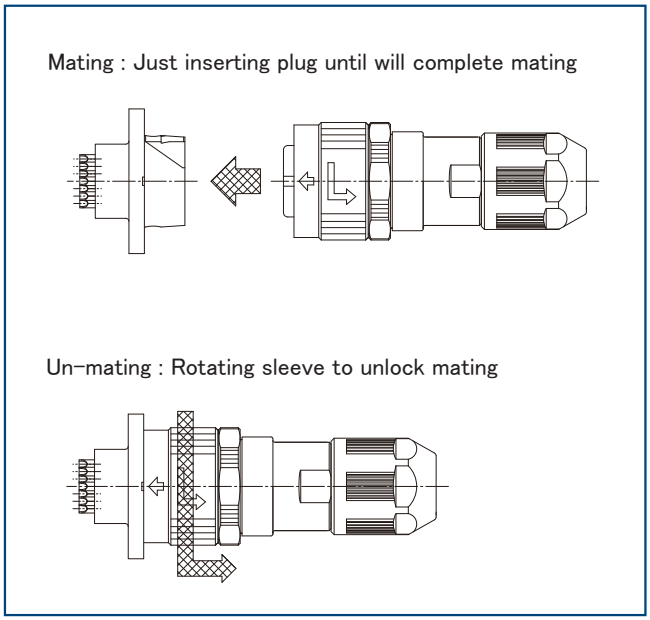
Features

1. Water and Dust Protection

IP67 or more (IP68) water and dust protection rating when fully mated.
Resistant to industrial grade oils.
4-position receptacles are sealed against water penetration when mounted on the panel - no protective cap is required.

2. Easy and Precise Mating

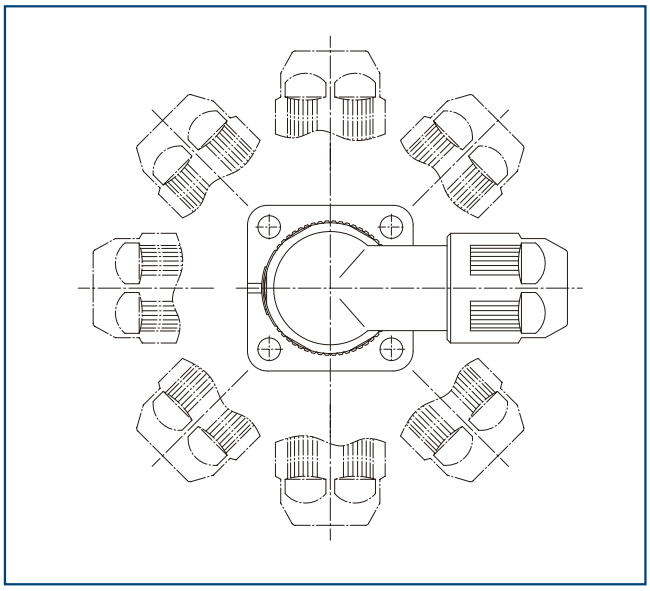
- Mating: Just inserting plug unit completes mating.
  Unmating: Rotating sleeve counterclockwise unlocks connectors.
- Marking helps align plug with receptacle when mating.
- 3 guide keys make blind mating possible. (Receptacle structure prevents plug from damaging receptacle terminals)



Push-on Bayonet Lock

3. Multi-Directional Cable Exit

Right angle plugs allow the cable to exit in 8 directions, in 45° increments.



Cable Exit Directions

4. Safty Standards

The 4-position connectors meet requirements of TÜV standard.

Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

Product Specification

Rated Current	10pos. : 3A 4pos. : 5A	Operating Temperature	-20 to +125℃
Rated Voltage	10pos. : 200V AC, 250V DC 4pos. : 200V AC, 200V DC (Pollution Degree 3) 400V AC, 400V DC (Pollution Degree 2)	Storage Temperature	-10 to +60℃

Item	Specifications	Conditions
Contact Resistance	20mΩ Max.	Measured at 1A DC
Insulation Resistance	1,000MΩ Min.	Measured at 500V DC
Withstand Voltage	No Flashover or Breakdown	10pos. : 900V AC for 1 min. 4pos. : 2000V AC for 1 min.
Vibration Resistance	No electrical interruption of 10μs or more.	Frequency : 10 to 500Hz/cycle, total amplitude of 0.75mm, 98m/s^2 each, 3 hours in 3 axis.
Shock Resistance	No electrical interruption of 10μs or more.	Acceleration : 490m/s^2, 11ms duration, 3 axis, each for 3 times.
Mating Durability	Contact Resistance : 30mΩ Max.	500 times
Temperature Cycle	Insulation Resistance : 500MΩ Min.	Temperature : -55 → Normal Temperature → +125 → Normal Temperature Time : 30 → 2 to 3 → 30 → 2 to 3 minutes, left for 5 cycles.
Moisture Resistance	Insulation resistance : 50MΩ Min. (at high humidity condition) 500MΩ Min. (at dry condition)	Temperature : 71℃ , relative humidity : 95%, left for 336 hours
Water Resistance	No water intrusion inside connector	At a water depth of 1 meters for 0.5 hours in mated condition

Materials/Finish

Part		Material	Finish / Remarks
Plug	Outer Shell	Zinc Alloy, Aluminum Alloy, and Polyamide Resin	Black Chrome Plating, Black Chromate Finish (Trivalent Chromium)
	Housing	PPS Resin	Black
	Female Contact	10pos. : Phosphor Bronze	Gold Plating
		4pos. : Copper Alloy	Silver Plating
	O-ring, Gasket	Fluororubber, Nitrile Hydride Rubber	-
Receptacle	Outer Shell	Zinc Alloy	Black Chromate Finish (Trivalent Chromium)
	Housing	PPS Resin	Black
	Female Contact	10pos. : Copper Alloy	Gold Plating
		4pos. : Brass	Silver Plating
	Ground Contact	4pos. : Brass	Silver Plating
	O-ring	Fluororubber	-

Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

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

HR34B - 12 WP A - 10 S - (##)
❶ ❷ ❸ ❹ ❺ ❻ ❼

❶ Series Name	HR34B	❺ No. of Contacts	4pos., 10pos.
❷ Shell Size	Diameter(mm) of the mating interface of the plug.	❻ Contact Gender	S : Female Contact for Soldering SC : Female Contact for Crimping
❸ Shell Type	WP : Straight Plug WLP : Right Angle Plug	❼ Other Specifications	Two-digit character is added to indicate other specifications as needed.
❹ Conduit Material and Applicable Cable Size	A : Conduit Material Metal, Applicable Cable (Reference) : (ϕ 5.7 to 6.5) B : Conduit Material Metal, Applicable Cable (Reference) : (ϕ 6.5 to 7.3) D : Conduit Material Plastic, Applicable Cable (Reference) : (ϕ 5.7 to 6.5) E : Conduit Material Plastic, Applicable Cable (Reference) : (ϕ 6.5 to 7.3) K : Conduit Material Metal, Applicable Cable (Reference) : (ϕ 8.0 ~ 9.0)		

■ Receptacle

HR34B - 12 WR A - 10 P - (##)
❶ ❷ ❸ ❹ ❺ ❻ ❼

❶ Series Name	HR34B	❺ No. of Contacts	4pos., 10pos.
❷ Shell Size	Diameter(mm) of the mating interface of the plug.	❻ Contact Gender	P : Male Contact for Soldering
❸ Shell Type	WR : Receptacle	❼ Other Specifications	Two-digit character is added to indicate other specifications as needed.
❹ Shell Shape	A : Square Flange for 10pos. B : Square Flange for 4pos.		

■ Crimp Contact

HR34B - SC1 - 2 1 1
❶ ❷ ❸ ❹ ❺

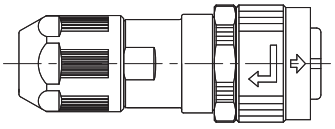
❶ Series Name	HR34B	❹ Barrel Type	1 : 20 to 25 AWG
❷ Contact Type	SC1 : Female Contact	❺ Plating	1 : Gold Plated
❸ Contact Shape	1 : Loose Contact 2 : Reel Contact		

Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

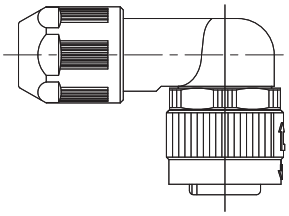
Connector Mating Combinations

10 pos. Plug

Straight, Soldering or Crimp Connection Type
HR34B-12WPA-10S(71),10SC HR34B-12WPB-10S(71),10SC
HR34B-12WPD-10S,10SC HR34B-12WPE-10S,10SC
HR34B-12WPK-10S,10SC

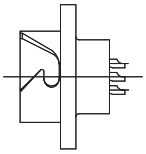


Right Angle, Soldering or Crimp Connection Type
HR34B-12WLPA-10S(71),10SC HR34B-12WLPB-10S(71),10SC
HR34B-12WLPD-10S,10SC HR34B-12WLPE-10S,10SC
HR34B-12WLPK-10S,10SC



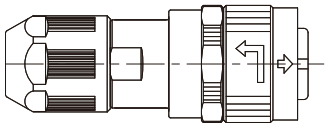
10 pos. Receptacle

Soldering Type
HR34B-12WRA-10P



4pos. Plug

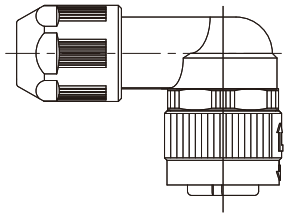
Straight, Soldering Type (Mating Key Position)
HR34B-12WPD-4S
HR34B-12WPE-4S





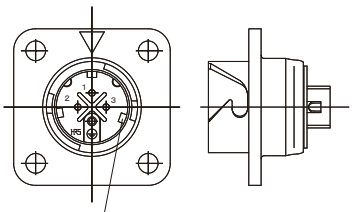
Standard Key Position

Right Angle, Soldering Type (Mating Key Position)
HR34B-12WLPD-4S
HR34B-12WLPE-4S



4pos. Receptacle

Soldering Type (Mating Key Position)
HR34B-12WRB-4P



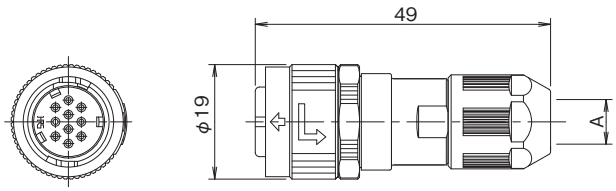
Standard Key Position

Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

Straight Plug

Standard Type (Conduit Material :Plastic)





(Example of product appearance.)

Soldering Type

Part No.	HRS No.	No. of Pos.	A	Applicable Cable Dia. (Reference)	Solder Pot Inner Dia.	Purchase Unit
HR34B-12WPD-10S	CL0134-0026-0-00	10	φ 7.4	(φ 5.7 to 6.5)	φ 1	20pcs per tray
HR34B-12WPE-10S	CL0134-0027-2-00		φ 8.5	(φ 6.5 to 7.3)		50pcs per tray
HR34B-12WPD-4S	CL0134-0020-3-00	4	φ 7.4	(φ 5.7 to 6.5)	φ 1.7	
HR34B-12WPE-4S	CL0134-0025-7-00		φ 8.5	(φ 6.5 to 7.3)		

Crimp Connection Type

Part No.	HRS No.	No. of Pos.	A	Applicable Cable Dia. (Reference)	Purchase Unit
HR34B-12WPD-10SC	CL0134-0037-6-00	10	φ 7.4	(φ 5.7 to 6.5)	50pcs per tray
HR34B-12WPE-10SC	CL0134-0038-9-00		φ 8.5	(φ 6.5 to 7.3)	

Robust Type (Conduit Material :Metal)

Soldering Type

Part No.	HRS No.	No. of Pos.	A	Applicable Cable Dia. (Reference)	Solder Pot Inner Dia.	Purchase Unit
HR34B-12WPA-10S(71)	CL0134-0004-7-71	10	φ 7.4	(φ 5.7 to 6.5)	φ 1	50pcs per tray
HR34B-12WPB-10S(71)	CL0134-0007-5-71		φ 8.5	(φ 6.5 to 7.3)		
HR34B-12WPK-10S	CL0134-0052-0-00		φ 9.5	(φ 8.0 to 9.0)		

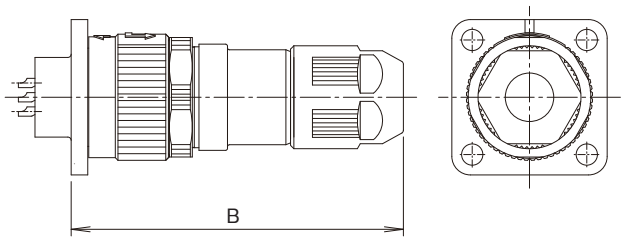
Crimp Connection Type

Part No.	HRS No.	No. of Pos.	A	Applicable Cable Dia. (Reference)	Purchase Unit
HR34B-12WPA-10SC	CL0134-0017-9-00	10	φ 7.4	(φ 5.7 to 6.5)	50pcs per tray
HR34B-12WPB-10SC	CL0134-0028-5-00		φ 8.5	(φ 6.5 to 7.3)	20pcs per tray
HR34B-12WPK-10SC	CL0134-0053-2-00		φ 9.5	(φ 8.0 to 9.0)	50pcs per tray

(Note) Depending on the cable construction, the waterproof performance and cable clamp force may differ. Please use after confirming in advance.

Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

Mated Condition



Unit : mm

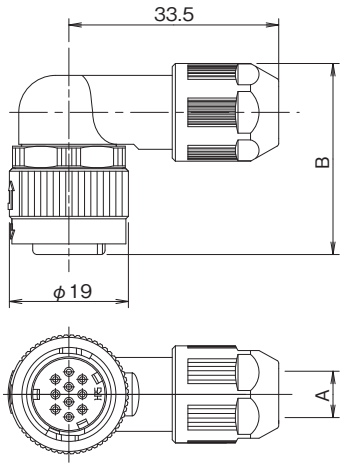
Straight Plug Mating Combination	B
10pos. Plug + Receptacle Soldering	50.1
4pos. Plug + Receptacle Soldering	49.6

Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

Right Angle Plug

Standard Type (Conduit Material : Plastic)





(Example of product appearance.)

Soldering Type

Unit : mm

Part No.	HRS No.	No. of Pos.	A	B	Applicable Cable Dia. (Reference)	Solder Pot Inner Dia.	Purchase Unit
HR34B-12WLPD-10S	CL0134-0039-1-00	10	φ 7.4	30.85	(φ 5.7 to 6.5)	φ 1	20pcs per tray
HR34B-12WLPE-10S	CL0134-0040-0-00		φ 8.5		(φ 6.5 to 7.3)		50pcs per tray
HR34B-12WLPD-4S	CL0134-0030-7-00	4	φ 7.4		(φ 5.7 to 6.5)	φ 1.7	50pcs per tray
HR34B-12WLPE-4S	CL0134-0035-0-00		φ 8.5		(φ 6.5 to 7.3)		20pcs per tray

Crimp Connection Type

Unit : mm

Part No.	HRS No.	No. of Pos.	A	B	Applicable Cable Dia. (Reference)	Purchase Unit
HR34B-12WLPD-10SC	CL0134-0041-3-00	10	φ 7.4	30.85	(φ 5.7 to 6.5)	50pcs per tray
HR34B-12WLPE-10SC	CL0134-0042-6-00		φ 8.5		(φ 6.5 to 7.3)	

Robust Type (Conduit Material :Metal)

Soldering Type

Unit : mm

Part No.	HRS No.	No. of Pos.	A	B	Applicable Cable Dia. (Reference)	Solder Pot Inner Dia.	Purchase Unit
HR34B-12WLPA-10S(71)	CL0134-0005-0-71	10	φ 7.4	30.5	(φ 5.7 to 6.5)	φ 1	50pcs per tray
HR34B-12WLPB-10S(71)	CL0134-0008-8-71		φ 8.5		(φ 6.5 to 7.3)		
HR34B-12WLPK-10S	CL0134-0054-5-00		φ 9.5	31.5	(φ 8.0 to 9.0)		

Crimp Connection Type

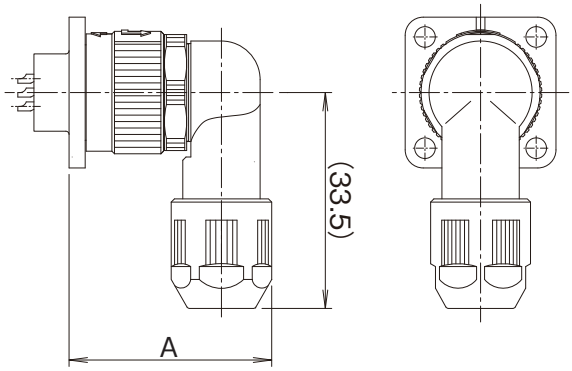
Unit : mm

Part No.	HRS No.	No. of Pos.	A	B	Applicable Cable Dia. (Reference)	Purchase Unit
HR34B-12WLPA-10SC	CL0134-0018-1-00	10	φ 7.4	30.5	(φ 5.7 to 6.5)	50pcs per tray
HR34B-12WLPB-10SC	CL0134-0029-8-00		φ 8.5		(φ 6.5 to 7.3)	
HR34B-12WLPK-10SC	CL0134-0055-8-00		φ 9.5	31.5	(φ 8.0 to 9.0)	

(Note) Depending on the cable construction, the waterproof performance and cable clamp force may differ. Please use after confirming in advance.

Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

Mated Condition



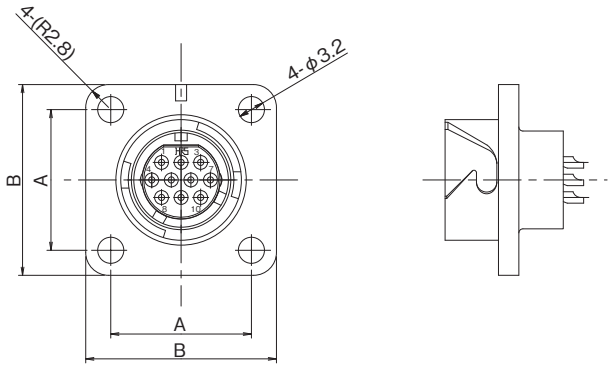
Unit : mm

Right Angle Plug Mating Combination		A
10pos. Plug Shell A,B Type.	Plug＋Receptacle Soldering	31.5
10pos. Plug Shell D,E Type.		31.8
10pos. Plug Shell K Type.		32.5
4pos. Plug＋Receptacle Soldering		31.3

Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

Receptacle



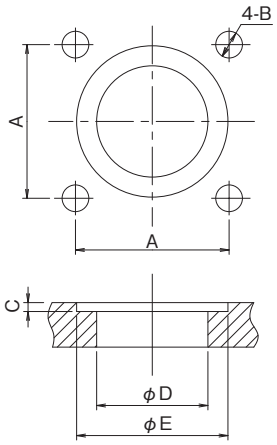


Unit : mm

Part No.	HRS No.	No. of Pos.	A	B	Solder Pot Inner Diameter	Purchase Unit
HR34B-12WRA-10P	CL0134-0016-6-00	10	17.26	23.4	φ 1	70pcs per tray
HR34B-12WRB-4P	CL0134-0021-6-00	4	18.26	25.4	φ 1.4	1pc per bag

(Note) O ring for water proof is not attached. Please find appropriate one from the market.

Receptacle Panel Mount Dimension



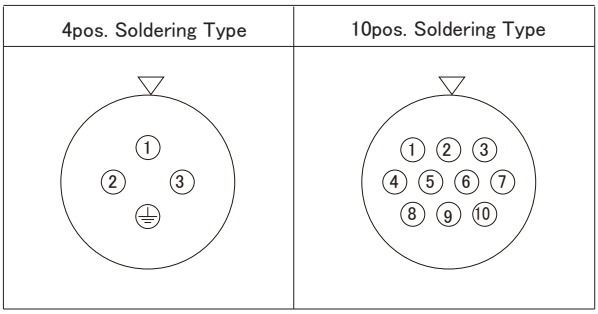
Symbol	HR34B-12WRA-10P	HR34B-12WRB-4P
A	17.26 ± 0.05	18.26 ± 0.05
B	M3 × 0.5	
C	1 0/-0.1	1.1 0/-0.1
D	12.5 +0.1/0	16.3 +0.1/0
E	17 +0.1/0	20.8 +0.1/0

Recommended O Ring Dimension

Part No.	Applicable Wire	Inner Diameter
HR34B-12WRA-10P	φ 1.5	φ 11.5
HR34B-12WRB-4P		φ 15.5

Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

Receptacle Contact Arrangement

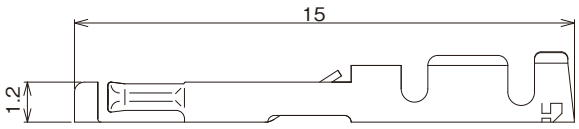


(Note 1) The contact arrangements are from the view of the receptacle connector mating face.

(Note 2) ⏚ mark is ground terminal.

Crimp Contact

Female Contact



Part No.	HRS No.	Applicable Cable	Purchase Unit
HR34B-SC1-111	CL0134-0051-7-00	20 to 25 AWG	100pcs per bag
HR34B-SC1-211	CL0134-0050-4-00		10,000pcs per reel

Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

Applicable Tools

Manual Contact Crimping Tool



Press CM-105C



Contact Extraction Tool

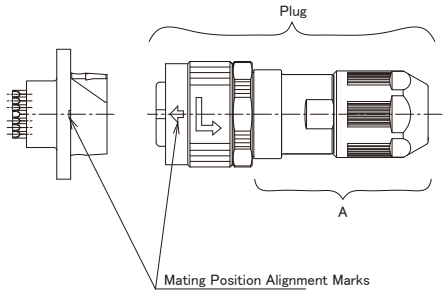
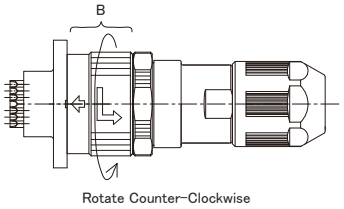


Type	Part No.	HRS No.	Applicable Contact	Applicable Cable
Automatic Crimping Machine Body	CM-105C	CL0901-0001-0-00	-	-
Automatic Crimping Machine Applicator	AP105-HR34B-1	CL0901-2051-2-00	HR34B-SC1-211	20 to 25 AWG
Manual Crimp Tool	HT304/HR34B-1	CL0150-0107-9-00	HR34B-SC1-111	UL20276 20 AWG, 23 AWG, 25 AWG
Contact Extraction Tool	RP6-SC-TP	CL0150-0039-0-00	HR34B-SC1-111 HR34B-SC1-211	-

Note 1 : Please conduct crimping work according to the "Crimping Standards" and "Crimping Conditions Table".
Note 2 : Problems with tools not specified by Hirose are outside the scope of warranty.
Note 3 : The applicable cables and applicable contacts are limited to those listed in the table. When using other than the applicable cable, please contact a Hirose representative.

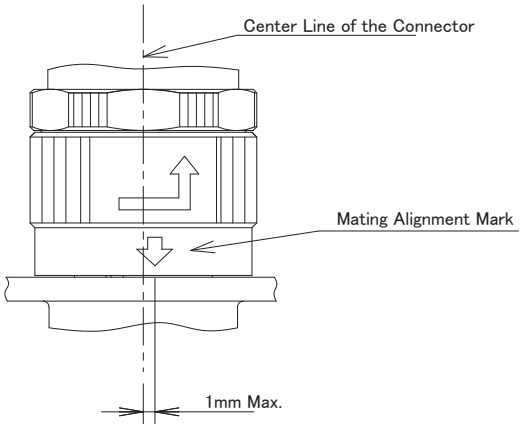
Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

Handling

1. Mating	2. Un-mating
	
Holding the plug by the outer shell (A) align the arrow on the plug with the alignment mark on the receptacle and push straight in.	Rotate the sleeve (B) counter-clockwise to a full stop and un-mate the plug from the receptacle.

Precautions

When completely mated and locked the alignment arrow on the plug must line-up with the center line of the connector (alignment mark on the receptacle).
If the alignment arrow and the center line of the connectors are not aligned (1mm max.) re-insert the plug until they are aligned.



1. When disconnecting or inserting the connector, be sure to do so after turning off the power.
2. To insert the connector, push it in until the arrow tip of the plug mating mark indicates the specified position of the diagram above (i.e., the mating mark of the receptacle).
3. Note that the display method of the mating mark will differ depending on the receptacle.
4. To maintain the waterproof quality and cable clamp force, use a cable that is within the range of the applicable cable diameter.
5. Please consult a Hirose representative for harness assembly procedure (ETAD-C0116-00).
6. Please note that the white label on the connector may come off due to solvents such as alcohol.

Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

Feb.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

While Taking into Consideration

Specifications mentioned in this catalog are reference values.
When considering to order or use this product, please confirm 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, assurance will not be given.
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.

HIROSE

HIROSE ELECTRIC CO.,LTD. 2-6-3,Nakagawa Chuoh,Tsuzuki-Ku,Yokohama-Shi 224-8540,JAPAN
https://www.hirose.com

※The contents of this catalog are current as of date of 1/2023. Contents are subject to change without notice for the purpose of improvements.
※The HRS logo and "HIROSE" are trademarks of HIROSE ELECTRIC CO., LTD.