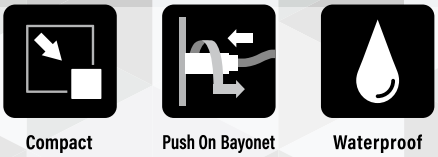
PRODUCT CATALOG

HIROSE ELECTRIC CO.,LTD.

HR22K Series

Compact, Waterproof, Push-On Bayonet Lock Connectors





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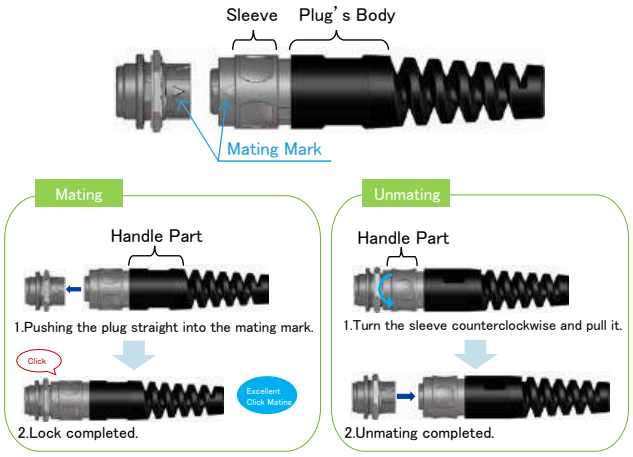
Product Page
https://www.hirose.com/en/product/series/HR22K

Apr. 2025

Features

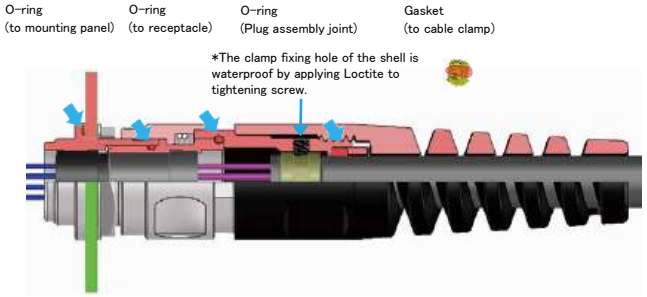
1. Unique secure & user-friendly push-on bayonet lock

- Insert: Simply push the plug in to complete the mating.
  Release: Rotate the sleeve to release the lock.
- Mating position display facilitates easy adjustment of mating position.



2. Oil-proof and waterproof design: IPX7 compliant (when mated)

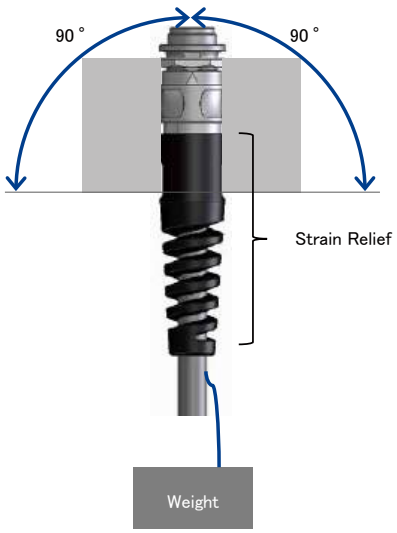
- IPX7 compliant mechanism (when mated) with excellent oil resistance.



3. Spiral type strain relief design.

- Excellent bending durability ideal for I/F connections in small spaces.
- Spiral strain relief enhances cable protection against bending.

Test Image



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Product Specifications

Rated	Rated Current	2A
	Rated Voltage	100V AC, 140V DC
	Operation Temperature	-25 to +85℃
	Storage Temperature	-10 to +60℃

Items	Specifications	Conditions
Contact Resistance	20mΩ Max.	Measured at 1A DC
Insulation Resistance	1,000MΩ Min.	Measured at 100V DC
Withstanding Voltage	No flashover and insulation breakdown	300V AC for 1 min
Vibration Resistance	No electrical interruption of 10μs or more.	Frequency: 10 to 500Hz/cycle, Half amplitude 0.75mm Acceleration 100m/s^2, 11 minutes/cycle 10 cycles each in 3 axis directions
Impact	No electrical interruption of 10μs or more.	Acceleration: 500m/s^2, Duration: 11ms, 3 times each in 3 axis directions
Mating Durability	Contact Resistance: 20mΩ Max.	100 times
Water Resistance	No water intrusion inside connector	At a water depth of 1.8 meters for 48 hours in mated condition.

Materials / Finish

Component	Material	Finish / Remarks
Outer Shell	Zinc Alloy	Nickel Plating
Insulator	PBT Resin	Black
Male Contact	Phosphorous Bronze (Crimp)	Gold Plating (Contact Part)
Female Contact	Beryllium Copper (Solder Type) Phosphorous Bronze (Crimp Type)	Gold Plating (Contact Part)
Strain Relief	PA Resin	Black
Gasket, O-ring	Hydrogenated Nitrile Rubber	Black
Washer	PA Resin	Black
Earth Contact Spring	Phosphorous Bronze	Nickel Plating

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Product Number Structure

Please utilize the below part number chart when selecting.

■ Connector

HR22K - 12 W B P - 20 S C - (##)
❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

❶ Series Name	HR22K
❷ Shell Size	ϕ 12: Shell size is the outer diameter of the mating end of the plug
❸ Special Features	W: Waterproof
❹ Lock Type	B: Bayonet Lock (Push-on)
❺ Connector Type	P: Plug R: Receptacle
❻ No. of Pos.	20pos.
❼ Contact Gender	S: Female Contact P: Male Contact
❽ Contact Assembly	C: Crimping A: Through Hole Blank: Soldering
❾ Other Specifications	Two-digit character is added to indicate other specifications as needed.

Connector Mating Combinations

Receptacle	Male Crimping Contact
HR22K-12WBR-20PC	HR22-PC1-221

Plug	Female Crimping Contact
HR22K-12WBP-20SC	HR22-SC1-221

(Under Development)

Receptacle	Female Crimping Contact
HR22K-12WBR-20SC	HR22-SC1-221
HR22K-12WBR-20SA	-

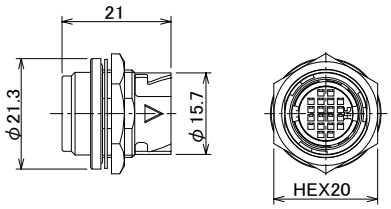
(Under Development)

Plug	Male Crimping Contact
HR22K-12WBP-20PC	HR22-PC1-221

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Receptacle





(Example of product appearance.)

Crimping

Unit : mm

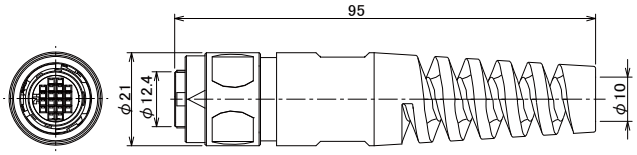
Part No.	HRS No.	RoHS	Purchase Unit
HR22K-12WBR-20PC	CL0122-1002-0-00	○	40pcs per tray
HR22K-12WBR-20SC	Under Development	○	40pcs per tray

Through Hole

Part No.	HRS No.	RoHS	Purchase Unit
HR22K-12WBR-20SA	Under Development	○	40pcs per tray

Plug





(Example of product appearance.)

Unit : mm

Part No.	HRS No.	RoHS	Purchase Unit
HR22K-12WBP-20SC	CL0122-1001-0-00	○	50pcs per tray
HR22K-12WBP-20PC	Under Development	○	50pcs per tray

Mated Dimensions

Mated Condition



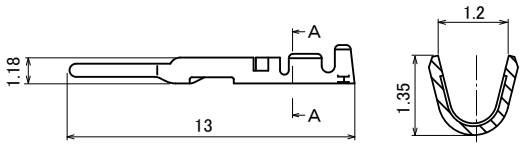
Unit: mm

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Crimp Contact

Male Contact



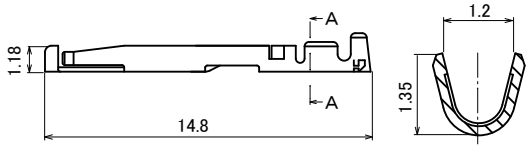


Unit : mm

Part No.	HRS No.	Applicable Cable	RoHS	Purchase Unit
HR22-PC1-221	CL0122-0094-0-00	24 to 28 AWG Jacket Dia. ϕ 1.15mm Max.	○	10,000 per reel
HR22-PC1-121	CL0122-0099-0-00	24 to 28 AWG Jacket Dia. ϕ 1.15mm Max.	○	Loose Contact 100pcs per bag

Female Contact

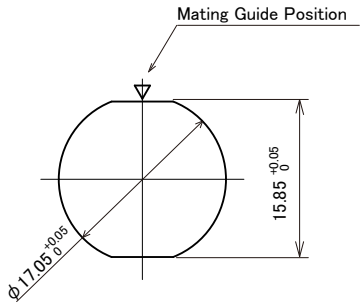




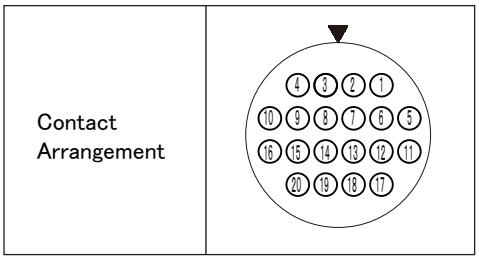
Unit : mm

Part No.	HRS No.	Applicable Cable	RoHS	Purchase Unit
HR22-SC1-221	CL0122-0095-0-00	24 to 28 AWG Jacket Dia. ϕ 1.15mm Max.	○	10,000 per reel
HR22-SC1-121	CL0122-0101-0-00	24 to 28 AWG Jacket Dia. ϕ 1.15mm Max.	○	Loose Contact 100pcs per bag

Panel Mount Dimension



(Panel Thickness: 1.0 to 3.0mm)



・In the figure above, the mark ▼ indicates the position of the main mating guide
・In the case of using a male contact, the above figure shows the arrangement viewed from the mating side.
*In the case of using a female contact (under development), the above figure shows the arrangement viewed from the cable connection side.

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Applicable Tools

Contact Extraction Tool



Press CM-105C



Cable Termination Tool



Type		Part No.	HRS No.	Applicable Contact and Connector	Applicable Cable
Manual Crimp Tool		HR22-TA2428HC	CL0150-0200-4-00	HR22-PC1-221 HR22-SC1-221	24 to 28 AWG Jacket Dia. ϕ 1.15mm Max.
Automatic Crimping Tool	Machine Body	CM-105C	CL0901-0001-0-00	-	-
	Applicator	AP105-HR22-2	CL0901-2023-7-00	HR22-PC1-221 HR22-SC1-221	24 to 28 AWG Jacket Dia. ϕ 1.15mm Max.
Cable Crimping Tool		HT106/ HR22K-10.2	CL0150-0109-0-00	-	ϕ 9.5
Extractor		RP6-SC-TP	CL0150-0039-0-00	-	-
Cable Termination Tool		HR22K-12P-T01	CL0150-0266-0-00	HR22K-12WBP-20SC	-

Note 1: Please conduct crimping work according to the Crimp Quality Standard and Crimp Conditions.
Note 2: Problems with tools other than those specified by Hirose are outside the scope of warranty.
Note 3: Applicable Cable and contacts are limited to those listed in the table.

Please refer to the Crimp Conditions for applicable cable core wire configuration.
The Crimp Conditions are available from Part No. link.
(If you are using a cable that is not listed in Crimp Condition, please contact a Hirose sales representative.)

Safety 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 to prevent electric shock.
(3) Ensure the coupling is fully locked.
(4) Cable clamp force, cable rotation force, waterproof characteristics, etc., may vary depending on the cable structure; therefore, please check before use.

- When inserting the connector, push it in until the arrow tip of the plug aligns with the specified position shown above (clamp alignment mark of receptacle).
- The Product Guidelines (Instruction Manual) are available from Part No. link.

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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.

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https://www.hirose.com

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