

# Miniature Waterproof Plastic Connectors

## HR30 Series



Mated dimensions

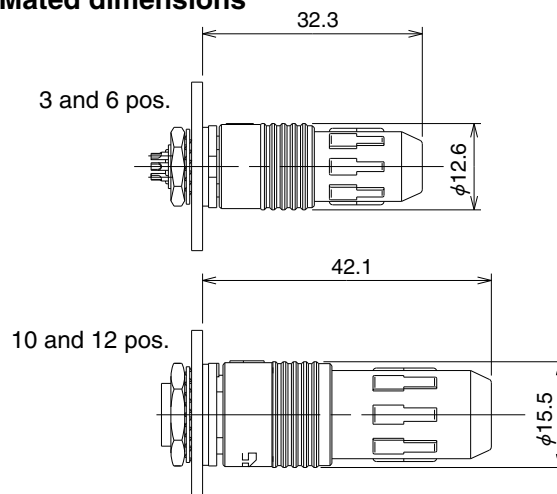


Fig.1

## ■ Features

### 1. Small-size with low profile

3, 6 contacts : Maximum outer diameter  $\phi 12.6\text{mm}$   
Mated length 32.3mm (from the panel surface)

10, 12 contacts : Maximum outer diameter  $\phi 15.5\text{mm}$   
Mated length 42.1mm (from the panel surface)

These small, compact connectors offer unique features available only from Hirose.

### 2. Waterproof construction

IPX7 and IPX8 waterproof construction in the mated state  
IPX7 : Left submerged in water at a depth of 1m for 30 minutes  
IPX8 : Left submerged in water at a depth of 2m for 14 days

### 3. Push/pull lock

Waterproof connectors feature an easy to operate push/pull locks developed with our exclusive technology.

### 4. Light weight

3 and 6 contacts : 6g (plug + receptacle)  
10 and 12 contacts : 9g (plug + receptacle)

### 5. Clamp structure

Our proprietary clamping method allows clamping the cable by simply tightening the cord ring.

### 6. Easy mating operation

The plug can be securely locked while holding it in your hand while mating. (Fig.2)

### 7. Mis-insertion prevention

Mating portions are polarized to avoid improper mating and connector damage.

Lock/release operation

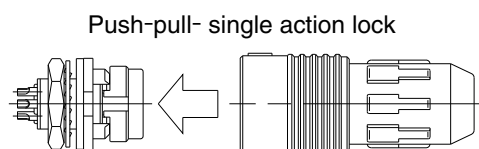


Fig.2



Fig.3

Алматы (7273)495-231  
Ангарск (3955)60-70-56  
Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Благовещенск (4162)22-76-07  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Владикавказ (8672)28-90-48  
Владимир (4922)49-43-18  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06  
Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Коломна (4966)23-41-49  
Кострома (4942)77-07-48  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Курган (3522)50-90-47  
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Ноябрьск (3496)41-32-12  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Петрозаводск (8142)55-98-37  
Псков (8112)59-10-37  
Пермь (342)205-81-47

Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Саранск (8342)22-96-24  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Сургут (3462)77-98-35  
Сыктывкар (8212)25-95-17  
Тамбов (4752)50-40-97  
Тверь (4822)63-31-35

Тольятти (8482)63-91-07  
Томск (3822)98-41-53  
Тула (4872)33-79-87  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Улан-Удэ (3012)59-97-51  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Чебоксары (8352)28-53-07  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Чита (3022)38-34-83  
Якутск (4112)23-90-97  
Ярославль (4852)69-52-93

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Киргизия +996(312)96-26-47

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## 10. High speed transmission

Supports Cat. 5e(1Gbps) high speed Ethernet

- Based on ISO TR 11801-9902 Class D3 - Conn E3(End-to-End)
- Characteristics depend on pin assignment, cable specifications and cable assembly conditions. Please check prior to use.
- Please contact a Hirose representative for questions on the recommended pin assignment.

## 11. Suited for long-term outdoor use

Sunshine weather meter test performed for 2,000 hours.

For details, please contact us for the test reports.

## ■ Product Specifications

|         |                |                                                        |                             |              |
|---------|----------------|--------------------------------------------------------|-----------------------------|--------------|
| Ratings | Current rating | 5A (3 pos.)<br>2A (6,10,12 pos.)                       | Operation Temperature Range | -25℃ to +85℃ |
|         | Voltage rating | 100V AC,140V DC(3,6 pos.)<br>30V AC,42V DC(10,12 pos.) | Storage Temperature Range   | -10℃ to +60℃ |

| Characteristic                  | Specification                                                                                                                                                              | Conditions                                                                                                                       |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 1.Contact resistance            | 5mΩ max. (3 pos.)<br>15mΩ max. (Solder type : 6, 10, and 12 pos.)<br>30mΩ max. (Through hole type: 6 and 12 pos.)                                                          | 1A DC                                                                                                                            |
| 2.Insulation resistance         | 1000MΩ min.                                                                                                                                                                | 100V DC                                                                                                                          |
| 3.Withstanding voltage          | No flashover or insulation breakdown                                                                                                                                       | 300V AC / 1minute                                                                                                                |
| 4.Vibration                     | No electrical discontinuity of 10μs or more                                                                                                                                | Frequency : 10 to 55 Hz, single amplitude of 0.75mm,<br>1 cycle= 5min, 10 cycles in each of the 3 directions.                    |
| 5.Durability (mating/un-mating) | Contact resistance 10mΩ min.(3 pos.)<br>Contact resistance 30mΩ min. (Solder type: 6, 10, and 12 pos.)<br>Contact resistance 100mΩ min. (Through hole type: 6 and 12 pos.) | 1000 cycles                                                                                                                      |
| 6.Temperature cycle             | Insulation resistance 100MΩ min.                                                                                                                                           | (-55℃ : 30 minutes → Room temperature : 10 to 15 minutes → +85℃ : 30 minutes → Room temperature : 10 to 15 minutes) for 5 cycles |
| 7.Humidity resistance           | Insulation resistance<br>10MΩ min. (when humidity high)<br>100MΩ min. (when dry)                                                                                           | 96 hours at temperature of 40℃ and humidity of 90% to 95%                                                                        |
| 8.Waterproof performance        | No water penetration inside.                                                                                                                                               | While mated with corresponding or protective cap submerged at depth of 1m for half hour.                                         |

## ■ Material / Finish

| Assembly                    | Component     | Material                                      | Finish                | Remarks |
|-----------------------------|---------------|-----------------------------------------------|-----------------------|---------|
| Plug                        | Insulator     | PPS                                           | Black                 | UL94V-0 |
|                             |               | PBT                                           | Black                 | UL94V-0 |
|                             |               | Polyacetal                                    | Natural               | ——      |
|                             | Gasket        | Silicone rubber, chloroprene rubber           | Red/Black             | ——      |
|                             | Contacts      | Brass, phosphor bronze, Copper compound metal | Gold plated           | ——      |
|                             | Spring        | Stainless steel                               | ——                    | ——      |
| Receptacles                 | Insulator     | PPS                                           | Black                 | UL94V-0 |
|                             | Gasket        | Chloroprene rubber                            | Black                 | ——      |
|                             | Contacts      | Brass, phosphor bronze, Copper compound metal | Gold plated           | ——      |
|                             | Hexagonal nut | Zinc alloy                                    | Chromate              | ——      |
|                             | Washer        | Phosphor bronze                               | Nickel plated         | ——      |
| Crimp contact (male/female) | Contacts      | Phosphor bronze                               | Selective gold plated | ——      |

■ 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.

**HR30 - 6 P A - 6 S C (\* \*)**

①                      ②    ③    ④                      ⑤    ⑥    ⑦                      ⑧

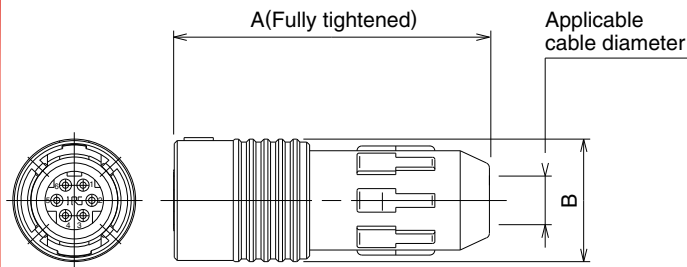
|                                                                           |                                                                                                       |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| ① Model name : HR30                                                       | ⑤ Number of Contacts : 3, 6, 10 and 12                                                                |
| ② Shell size : Outside diameter/plug mating side                          | ⑥ Contact type    S : Female contact<br>P : Male contact                                              |
| ③ Connector type : P : Plug<br>R : Receptacle<br>J : Jack                 | ⑦ Contact wiring type<br>Blank : Solder<br>C : Crimping<br>D : Through hole                           |
| ④ Variation<br>Blank : Standard<br>A : Fine wire<br>B, D : Over mold type | ⑧ Other specifications:<br>A two-digit character is added to indicate other specifications as needed. |

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■ Plugs

● Solder Type

HR30-6P-6S (31)



(Representative example)

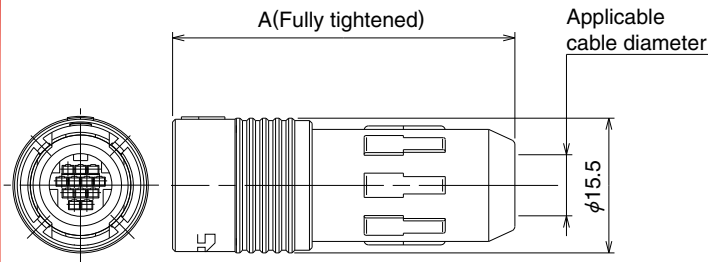
| Part No.        | HRS No.       | A    | B    | Applicable cable diameter range | Solder pot inner diameter | Weight |
|-----------------|---------------|------|------|---------------------------------|---------------------------|--------|
| HR30-6P-3S(31)  | 130-0004-1 31 | 29.8 | 12.6 | 4.2 to 5                        | 1.1 mm                    | 4g     |
| HR30-6P-6S(31)  | 130-0010-4 31 |      |      |                                 | 0.8 mm                    |        |
| HR30-6P-6P(31)  | 130-0009-5 31 | 30.3 |      | 3.5 to 4.3                      | 1.1 mm                    |        |
| HR30-6PA-3S(71) | 130-0021-0 71 | 29.8 |      |                                 | 0.8 mm                    |        |
| HR30-6PA-6S(71) | 130-0019-9 71 |      |      |                                 |                           |        |
| HR30-6PA-6P(71) | 130-0020-8 71 | 30.3 |      |                                 |                           |        |
| HR30-7P-12S(71) | 130-0027-7 71 | 39.8 | 15.5 | 6.2 to 7                        | 0.6 mm                    | 6.7g   |
| HR30-8P-12P(71) | 130-0026-4 71 |      |      |                                 |                           |        |

● Crimp Type

HR30-7P-12SC (71)



Shown with contacts installed.



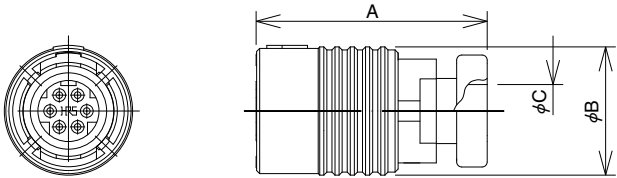
(Representative example)

| Part No.         | HRS No.       | A    | Applicable cable diameter range | Crimp contact | Weight |
|------------------|---------------|------|---------------------------------|---------------|--------|
| HR30-7P-10SC(71) | 130-0013-2 71 | 39.8 | 6.2 to 7                        | HR30-SC-211   | 6g     |
| HR30-7P-12SC(71) | 130-0014-5 71 |      |                                 |               |        |
| HR30-8P-12PC(71) | 130-0015-8 71 |      |                                 | HR30-PC-211   |        |

■ Plug for overmolds

● Solder Type

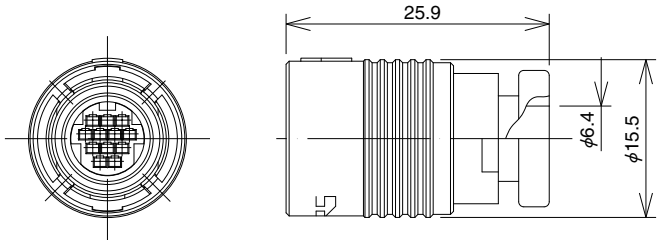
HR30-6PB-6S



| Part No.     | HRS No.    | A    | B    | C   | Solder pot inner diameter | Weight |
|--------------|------------|------|------|-----|---------------------------|--------|
| HR30-6PB-3S  | 130-0034-2 | 22.7 | 12.6 | 5.2 | 1.1 mm                    | 3.1g   |
| HR30-6PB-6S  | 130-0032-7 |      |      |     | 0.8 mm                    | 2.9g   |
| HR30-6PD-6P  | 130-0041-8 | 23.2 | 15.5 | 6.4 | 0.6 mm                    | 4.7g   |
| HR30-7PB-12S | 130-0035-5 | 25.9 |      |     |                           | 4.5g   |
| HR30-8PB-12P | 130-0030-1 |      |      |     |                           | 4.5g   |

● Crimp Type

HR30-8PB-12PC

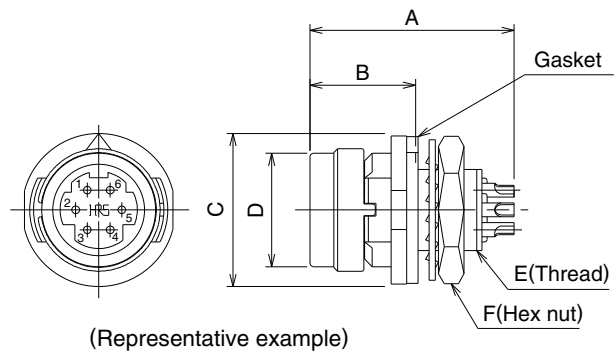
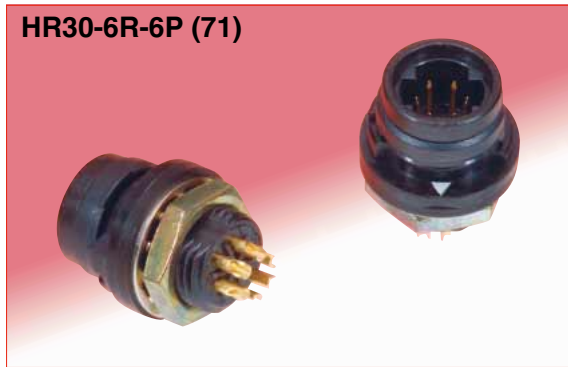


| Part No.      | HRS No.    | Crimp contact | Weight |
|---------------|------------|---------------|--------|
| HR30-7PB-10SC | 130-0036-8 | HR30-SC-211   | 4.1g   |
| HR30-7PB-12SC | 130-0033-0 |               |        |
| HR30-8PB-12PC | 130-0031-4 | HR30-PC-211   | 4.3g   |

## ■ Receptacles

### ● Solder Type

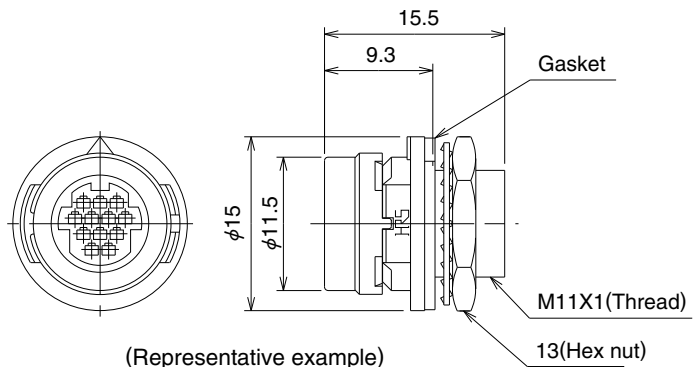
#### HR30-6R-6P (71)



| Part No.        | HRS No.       | A    | B   | C  | D    | E       | F  | Solder pot inner diameter | Weight |
|-----------------|---------------|------|-----|----|------|---------|----|---------------------------|--------|
| HR30-6R-3P(71)  | 130-1003-4 71 | 16   | 8.3 | 12 | 8.9  | M8×0.75 | 10 | 1.1mm                     | 2g     |
| HR30-6R-6P(71)  | 130-1009-0 71 |      |     |    |      |         |    | 0.8mm                     |        |
| HR30-6R-6S(71)  | 130-1008-8 71 | 18.4 | 9.3 | 15 | 11.5 | M11×1   | 13 | 0.6mm                     | 3.4g   |
| HR30-7R-12P(31) | 130-1016-6 31 | 18.6 |     |    |      |         |    |                           |        |
| HR30-8R-12S(31) | 130-1018-1 31 |      |     |    |      |         |    |                           |        |

### ● Crimp Type

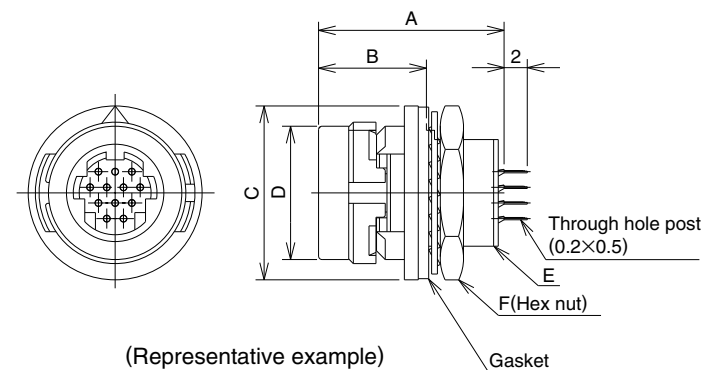
#### HR30-7R-12PC (31)



| Part No.         | HRS No.       | Crimp contact | Weight |
|------------------|---------------|---------------|--------|
| HR30-7R-10PC(31) | 130-1012-5 31 | HR30-PC-211   | 3g     |
| HR30-7R-12PC(31) | 130-1013-8 31 |               |        |
| HR30-8R-12SC(31) | 130-1014-0 31 | HR30-SC-211   |        |

### ● Through hole Type

#### HR30-8R-12SD (31)

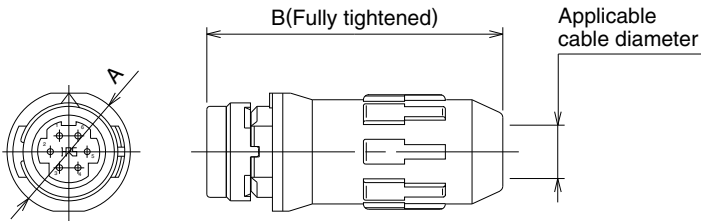


| Part No.         | HRS No.       | A    | B   | C  | D    | E       | F  | Weight |
|------------------|---------------|------|-----|----|------|---------|----|--------|
| HR30-6R-6PD(71)  | 130-1020-3 71 | 14.9 | 8.3 | 12 | 8.9  | M8×0.75 | 10 | 2g     |
| HR30-6R-6SD(71)  | 130-1021-6 71 | 15.2 |     |    |      |         |    |        |
| HR30-7R-12PD(31) | 130-1017-9 31 | 16   | 9.3 | 15 | 11.5 | M11×1   | 13 | 3.4g   |
| HR30-8R-12SD(31) | 130-1019-4 31 |      |     |    |      |         |    |        |

■ Jacks

● Solder Type

HR30-6J-6P (31)



(Representative example)

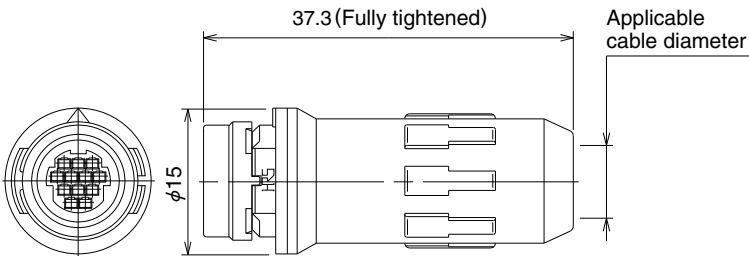
| Part No.        | HRS No.       | A  | B    | Applicable cable diameter range | Solder pot inner diameter | Weight |
|-----------------|---------------|----|------|---------------------------------|---------------------------|--------|
| HR30-6J-6P(31)  | 130-2009-6 31 | 12 | 28.8 | 4.2 to 5                        | 0.8 mm                    | 3g     |
| HR30-6JA-6P(71) | 130-2018-7 71 |    |      | 3.5 to 4.3                      |                           |        |
| HR30-7J-12P(71) | 130-2020-9 71 | 15 | 37.3 | 6.2 to 7                        | 0.6 mm                    | 5.7g   |
| HR30-8J-12S(71) | 130-2019-0 71 |    |      |                                 |                           | 5.9g   |

● Crimp Type

HR30-7J-12PC (71)



Shown with contacts installed.



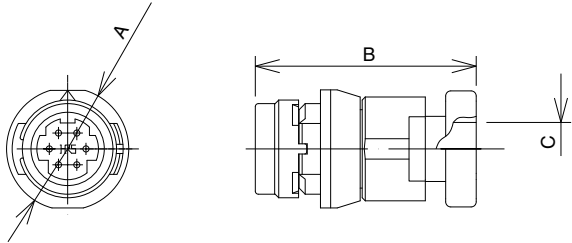
(Representative example)

| Part No.         | HRS No.       | Applicable cable diameter range | Crimp contact | Weight |
|------------------|---------------|---------------------------------|---------------|--------|
| HR30-7J-10PC(71) | 130-2015-9 71 | 6.2 to 7                        | HR30-PC-211   | 5g     |
| HR30-7J-12PC(71) | 130-2017-4 71 |                                 |               |        |
| HR30-8J-12SC(71) | 130-2016-1 71 |                                 | HR30-SC-211   |        |

■ Jack for overmolds

● Solder Type

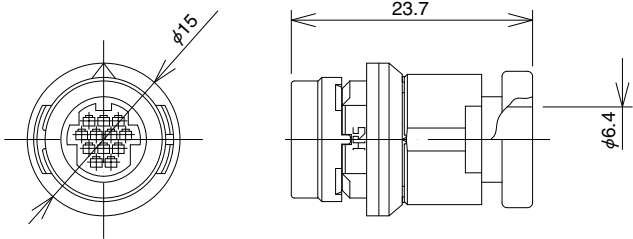
HR30-6JB-6P



| Part No.     | HRS No.    | A    | B    | C   | Solder pot inner diameter | Weight |
|--------------|------------|------|------|-----|---------------------------|--------|
| HR30-6JB-3P  | 130-2029-0 | 12.7 | 21.7 | 5.2 | 1.1mm                     | 2.3g   |
| HR30-6JB-6P  | 130-2021-1 | 12   |      |     | 0.8mm                     | 2.2g   |
| HR30-6JB-6S  | 130-2028-0 | 12.7 |      |     |                           | 2.3g   |
| HR30-7JB-12P | 130-2023-7 | 15   | 23.7 | 6.4 | 0.6mm                     | 3.6g   |
| HR30-8JB-12S | 130-2024-0 |      |      |     |                           | 4.1g   |

● Crimp Type

HR30-8JB-12SC

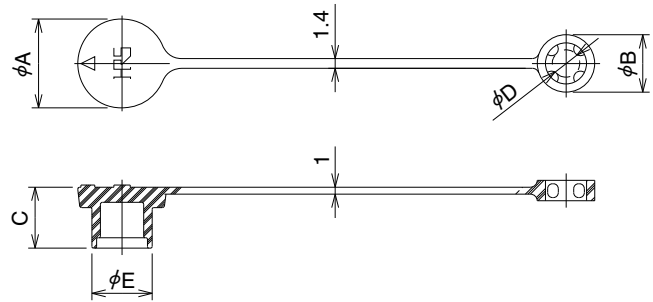


| Part No.      | HRS No.    | Crimp contact | Weight |
|---------------|------------|---------------|--------|
| HR30-7JB-10PC | 130-2025-2 | HR30-PC-211   | 3.1g   |
| HR30-7JB-12PC | 130-2022-4 |               |        |
| HR30-8JB-12SC | 130-2026-5 | HR30-SC-211   |        |

## ■ Caps

### ● For Plugs

#### HR30-6P-C (31)

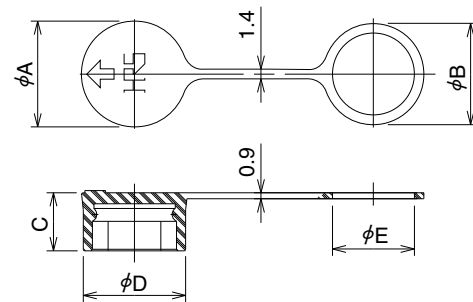


(Representative example)

| Part No.      | HRS No.       | A  | B    | C    | D | E    | Applicable cable diameter | Weight |
|---------------|---------------|----|------|------|---|------|---------------------------|--------|
| HR30-6P-C(31) | 130-3000-7 31 | 13 | 8.4  | 8.9  | 4 | 8.8  | $\phi 4.2$ to 5           | 1g     |
| HR30-7P-C(31) | 130-3004-8 31 | 16 | 10.4 | 10.5 | 6 | 11.4 | $\phi 6.2$ to 7           | 2g     |
| HR30-8P-C(31) | 130-3003-5 31 |    |      |      |   |      |                           |        |

### ● For Receptacle

#### HR30-6R-C (31)



(Representative example)

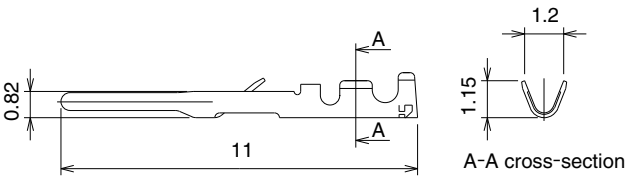
| Part No.      | HRS No.       | A    | B    | C   | D    | E    | Remarks                                                        | Weight |
|---------------|---------------|------|------|-----|------|------|----------------------------------------------------------------|--------|
| HR30-6R-C(31) | 130-3001-0 31 | 12.6 | 11.8 | 7.5 | 12.1 | 9.1  | This cap fits each size of the HR30-7R and HR30-8R receptacles | 1g     |
| HR30-7R-C(31) | 130-3002-2 31 | 15.5 | 14.8 | 8.5 | 15   | 12.1 |                                                                |        |

Note : When using these caps, do not use the gasket that is normally supplied with the receptacle.

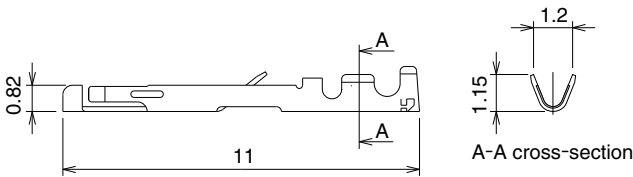
The "B" diameter end of the receptacle cap will serve as the gasket.

◆ Crimp Contacts

Male contact



Female contact



(Representative example)

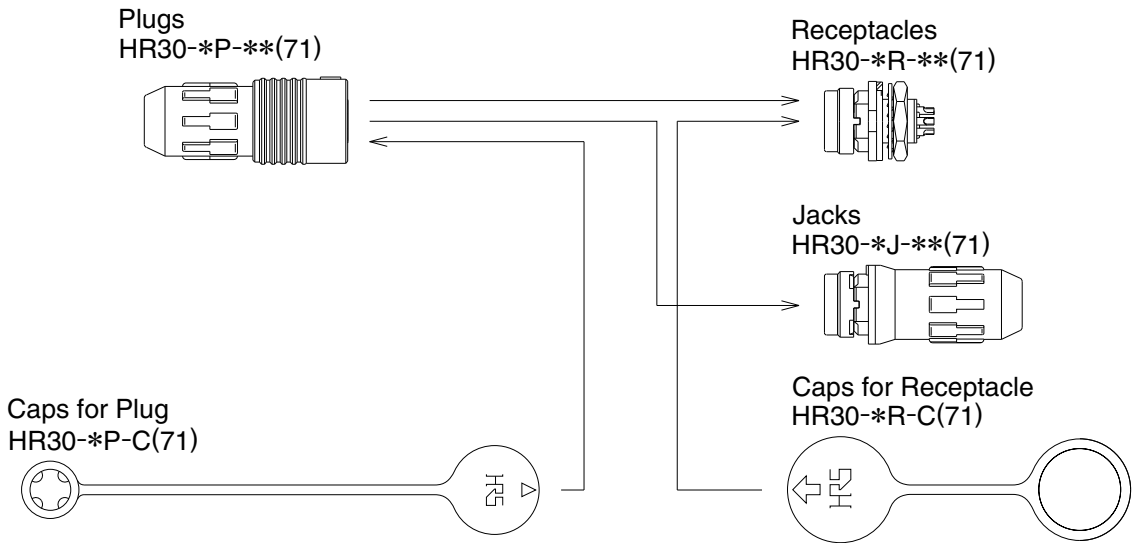
| Type          | Part No.    | HRS No.    | Packaging type | Weight      |
|---------------|-------------|------------|----------------|-------------|
| Loose contact | HR30-PC-111 | 130-0022-3 | 100pcs/pack    | 0.03g/1 pin |
| Reel contact  | HR30-PC-211 | 130-0016-0 | 10,000pcs/reel | 0.03g/1 pin |

(Representative example)

| Type          | Part No.    | HRS No.    | Packaging type | Weight      |
|---------------|-------------|------------|----------------|-------------|
| Loose contact | HR30-SC-111 | 130-0023-6 | 100pcs/pack    | 0.03g/1 pin |
| Reel contact  | HR30-SC-211 | 130-0017-3 | 10,000pcs/reel | 0.03g/1 pin |

Note : Use wire size 26 to 30 AWG with a jacket diameter of 1 mm max.

◆ Diagrams of Connectors in Combination

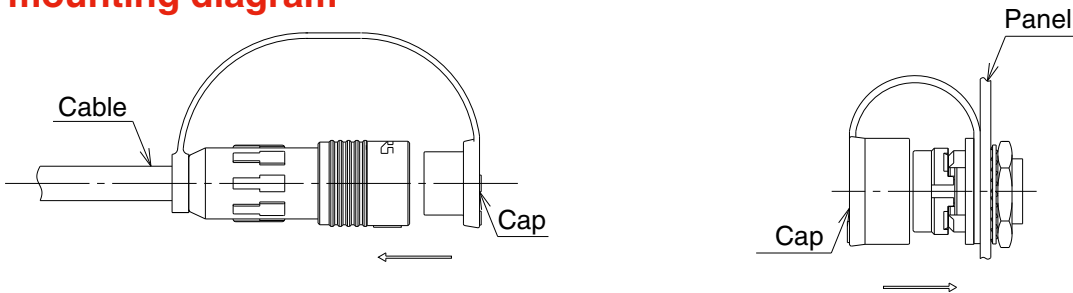


Note 1 : Please use connectors with compatible shell size and number of contacts. If you are using a male contact plug, please also use a corresponding product with a female receptacle and a jack.

Note 2 : Please install the applicable crimping contacts when using the crimping style connectors.  
(Please refer to the manual for wiring work.)

Note 3 : When using the cap on the receptacle side, do not use the gasket that is normally supplied with the receptacle. The Hirose cap has the necessary gasket as part of the cap unit.

◆ Cap mounting diagram



## ◆ Applicable Tools

### ● Cable Assembly Tools

| Part No.         | HRS No.    | Applicable Connectors |                    |                 |              |
|------------------|------------|-----------------------|--------------------|-----------------|--------------|
|                  |            | Shell size            | Connector type     | No. of contacts | Contact type |
| HR30-6P-3S-T01   | 150-0220-1 | 6                     | Plug               | 3               | Female       |
| HR30-6P-6S-T01   | 150-0214-9 |                       |                    | 6               | Female       |
| HR30-6P-6P-T01   | 150-0221-4 |                       |                    |                 | Male         |
| HR30-7P-10SC-T01 | 150-0228-3 | 7                     | Plug               | 10              | Female       |
| HR30-7P-12SC-T01 | 150-0223-0 |                       |                    | 12              | Female       |
| HR30-8P-12PC-T01 | 150-0227-0 | 8                     | Plug               | 12              | Male         |
| HR30-6R-3P-T01   | 150-0225-5 | 6                     | Receptacle<br>Jack | 3               | Male         |
| HR30-6R-6P-T01   | 150-0218-0 |                       |                    | 6               | Male         |
| HR30-6R-6S-T01   | 150-0222-7 |                       |                    |                 | Female       |
| HR30-7J-10PC-T01 | 150-0231-8 | 7                     | Receptacle<br>Jack | 10              | Male         |
| HR30-7J-12PC-T01 | 150-0230-5 |                       |                    | 12              | Male         |
| HR30-8J-12SC-T01 | 150-0226-8 | 8                     |                    |                 | Female       |

Note : Wiring for soldering or disassembly and assembly of plugs and jacks can be accomplished more efficiently when using the cable assembly tool.

### ● Tightening collar for back shell

| Part No.    | HRS No.    | Applicable Connectors |
|-------------|------------|-----------------------|
| HR30-6P-T02 | 150-0216-4 | 3 and 6 contacts      |
| HR30-8P-T02 | 150-0224-2 | 10 and 12 contacts    |

Note : The code ring tightening collar is used to tighten the cord ring to the specified torque.  
(Please refer to the manual for assembly procedures.)

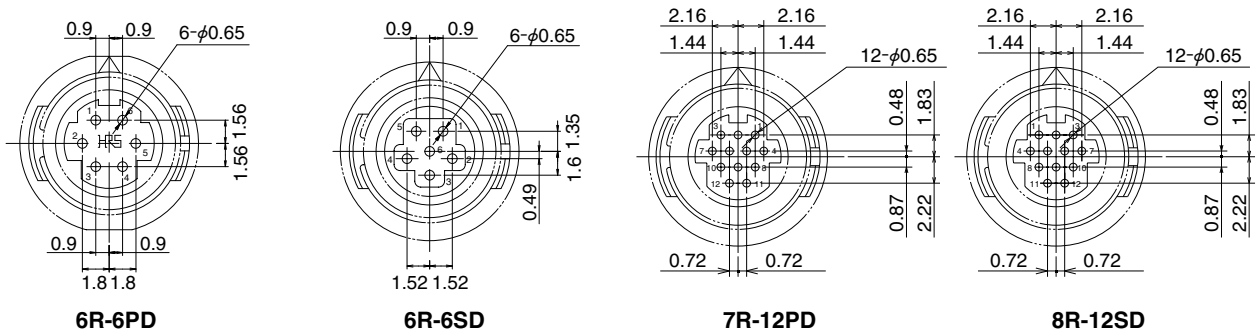


◆
 Applicable Tools

| Type            | Description                | Part No.      | HRS No.    | Applicable contact | Applicable wire |
|-----------------|----------------------------|---------------|------------|--------------------|-----------------|
| Manual          | Manual crimping tool       | HT-102/HR30-1 | 150-0229-6 | HR30-SC-111        | AWG26 to 30     |
|                 |                            |               |            | HR30-PC-111        |                 |
| Automatic       | Automatic crimping machine | CM-105C       | 901-0001-0 | —                  | —               |
|                 | Applicator                 | AP105-HR30-1  | 901-2015-9 | HR30-SC-211        | AWG26 to 30     |
|                 |                            |               |            | HR30-PC-211        |                 |
| Extraction tool | HR30-TP                    | 150-0219-2    |            | HR30-SC-111        | —               |
|                 |                            |               |            | HR30-SC-211        | —               |
|                 |                            |               |            | HR30-PC-111        | —               |
|                 |                            |               |            | HR30-PC-211        | —               |

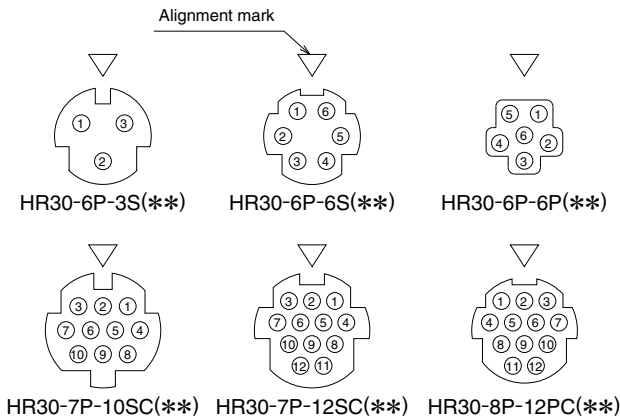


◆
 Receptacle, Board Mounting Through Hole Pattern

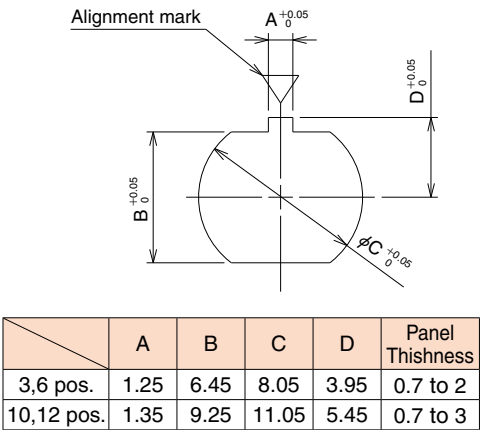


- Remark :
- 1.The receptacle through hole configuration depicts a view from the mating side of the connector.
  - 2.The above  $\triangle$  mark indicates the guide key position.
  - 3.The recommended board maximum thickness :1.2mm.
  - 4.Tolerance of +0.03mm is recommended for the plated through hole location. Tolerance of +0.02mm is recommended for the plated through hole diameter.

◆
 Contact Position Arrangement



◆
 Panel Cutout



- Remarks :
1. The contact arrangement depicts a view from the wiring side.
  2. Installation is accomplished by securing the receptacle from the back side of the panel using the supplied hexagon nut. The tightening torque of the hexagon nut should be 0.5 N·m for 3, 6 contacts, and 0.8 N·m for 10, 12 contacts.
- In addition, apply Loctite 263 and Lockprimer 7649 which are manufactured by Henkel Japan Ltd., Tokyo in order to prevent looseness.

## ◆ Assembly Procedures

Plug Assembly Sequence

The diagram illustrates the assembly sequence of a plug. Components are shown in order from left to right: Insulator/contact assembly, Push/pull locking collar, Spring, Seal bushing, Strain relief, Back shell, and Cable. Dimensions A and B are indicated for the cable preparation.

|                                  | A                                 | B          |
|----------------------------------|-----------------------------------|------------|
| Solder type : 3 and 6 Contacts.  | 2mm                               | 5.5mm max. |
| Solder type : 12 Contacts.       | 2mm                               | 10mm max.  |
| Crimp type : 10 and 12 Contacts. | 2 <sup>0</sup> <sub>-0.5</sub> mm | 15 to 20mm |

Insert the cable in the following order : 1. Back shell, 2. cord clamp, 3. gasket, 4, spring and 5. locking collar. Prepare the cable end according to the dimensions shown in Table 1.

Note : When preparing the cable, use caution not to damage the insulation and conductors of the lead wires.

The diagram shows a cross-section of the solder termination process. A block end face is shown with the insulator/contact assembly being soldered to a solder termination fixture.

### Solder type

Fix the P case block on the cable termination tool, and after preliminary soldering, solder for 3 to 4 seconds with the soldering iron at  $350\pm 10^{\circ}\text{C}$ .

Note 1 : Take care to avoid creating cold solder joints and solder joints with voids or air holes in it.

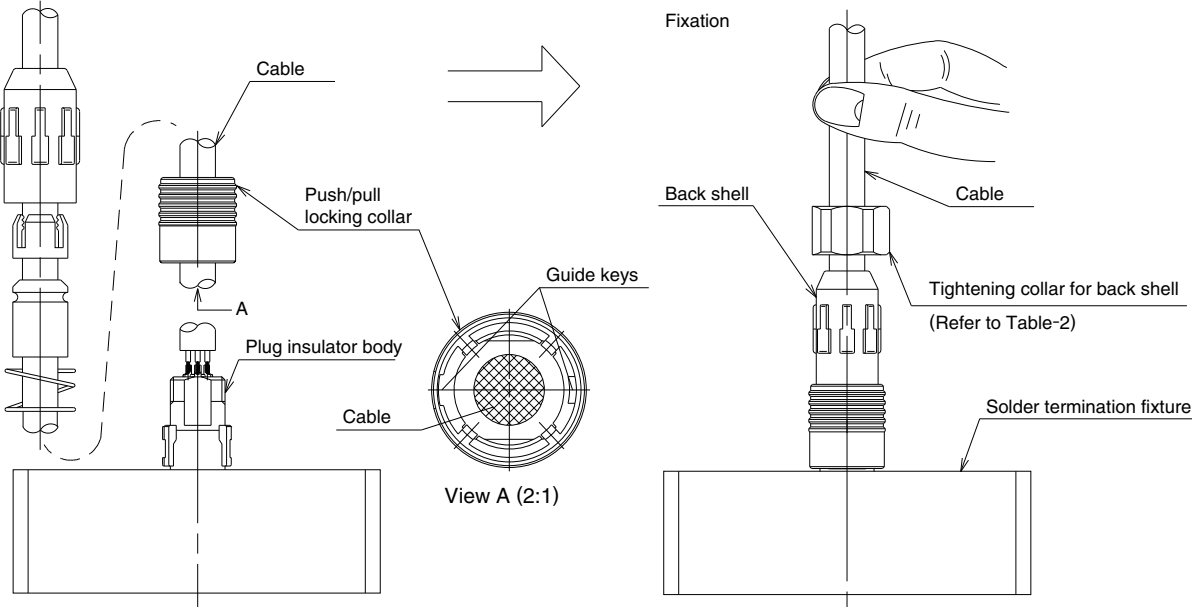
Also check to make sure the solder joint is adequately fused between the lead wires and solder cup.

Note 2 : The P case block is a precision unit. Please use caution when soldering the P case block so it does not become damaged. Any damage could result in loss of the waterproof performance.

### Crimp type

After crimping the appropriate contact to the cable lead wire, insert the terminated wire into the correct contact position on the P case block.

Note : After inserting the crimping wire/contact, slightly pull the lead wire and check if the crimping contact is properly seated into the P case block.



3

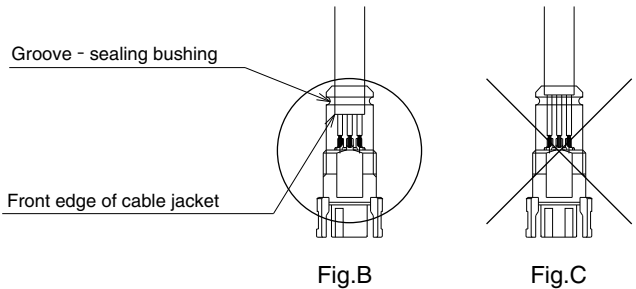


Table-2

| Connector           | Back shell tightening collar size | Torque |
|---------------------|-----------------------------------|--------|
| 3 and 6 Contacts.   | 16mm                              | 0.5N·m |
| 10 and 12 Contacts. | 18mm                              | 0.5N·m |

Insert the cable by fitting the coupling guide to the wire-connected P case block.  
Then, pass the cable through and assemble in the following order: 1. spring, gasket, 2 cord clamp, and 3. cord tube.  
Make sure when assembling it with the cord clamp and cord tube, to maintain the positional relations between the cable sheath end face and the concave area of the gasket as shown in Fig.B.  
Note : Please install the cord tube using the cord tube tightening tool with the cord ring tightening torque shown in Table-2.  
In addition, apply Loctite 263 and Lockprimer 7649 which are manufactured by Henkel Japan Ltd., Tokyo in order to prevent looseness.  
When screwing in the cord tube, use your hand to hold the cable so that the cable will not rotate or twist and apply stress to the soldered wires. However, as the cable tends to be twisted slightly (just over one rotation), we recommend that you twist it in the opposite direction in advance.

## ◆ Points to note when using Heat shrink tubing

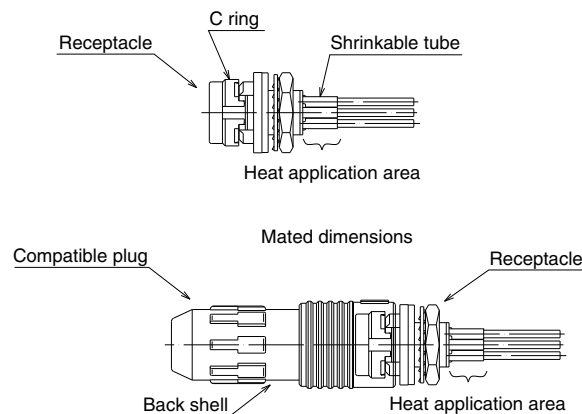
We recommend that you use shrink tubing over the solder connections in order to protect the soldered wires and to enhance insulation. However, please be careful when applying heat in this area when installing the shrink tube so excess heat does not bleed into or affect the resin parts as shown in the figure below.

If the product does become heated beyond the area shown and into the resin parts, please make sure to prevent the following.

- ① Deformation of the C ring. This could result in prevention of locking during mating.
- ② Melting of some parts.

To prevent the deformation of the C rings of the receptacles and the jack, we recommend heat to be applied after mating with a compatible plug.

Before heating, please mate the plug in the receptacle securely, then pull the back shell for checking whether it is locked properly. If it is heated with semi-fitting, C ring may be thermally deformed with shrinking condition and it may not be locked properly.

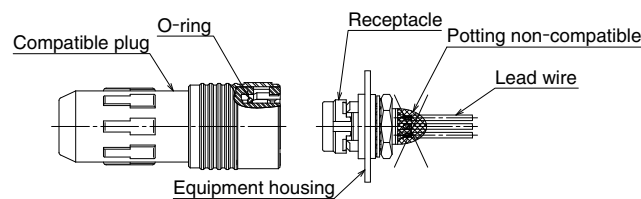


## ◆ Precautions after wiring (Solder type and Crimp type)

After wiring, do not seal the connected portion with potting, etc.

Potting may cause the O-ring to come off when the applicable plug is removed.

If the connector is used with the O-ring removed, the waterproof performance will not be satisfied.

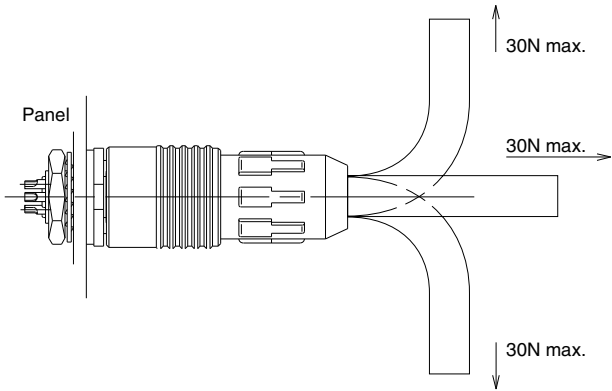


◆ General usage notes

| 1. Mating                                                                                                                                                                       | 2. Un-mating                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                 |                                                                                                                                  |
| When mounting, smooth mating will be achieved by holding plug in any are “A” and aligning the arrow of the plug with that of the receptacle, then pushing the plug straight in. | When removing the plug from its connected condition, hold the plug by push/pull locking collar (area “B”) and pull straight off. |

◆ Precautions

1. Make sure the power is off before mating or un-mating the connector.
2. When mating the connector, push it on with a force of a least 30N.  
After mating, pull slightly on the connector to check for proper mating and to ensure the connector is firmly locked to the receptacle.
3. After mating the connector, do not apply a force over 30N to the cable in the directions shown by the arrows. An excessive load can lead to connector damage.



4. To maintain the waterproof performance, cable clamping force and cable stability, please use a cable within the recommended for cable diameters.  
Because the performance will differ depending on the cable structure, make sure to check all specifications of the cable assembly before use or production.
5. Please assemble and install the connector and components with the specified tightening torque.  
If the tightening torque is too weak or too strong, loosening or breakage can occur.
6. Please contact Hirose if your application requires compliance with the Electrical Appliance and Meterial Safety Act.
7. Please note that the white label on the connector may come off due to solvents such as alcohol.

**HR34B** Series

# Push-on Bayonet Lock Small Waterproof Connectors



Push On Bayonet



Waterproof



Compact



# Features

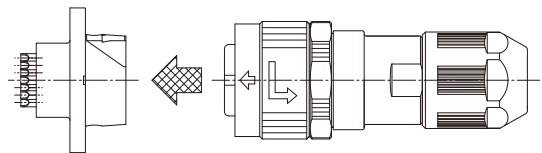
## 1. Water and Dust Protection

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.

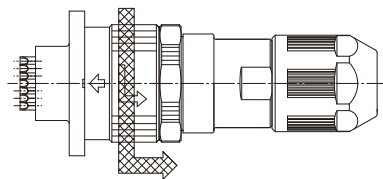
## 2. Easy and Precise Mating

- 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)

Mating : Just inserting plug until will complete mating



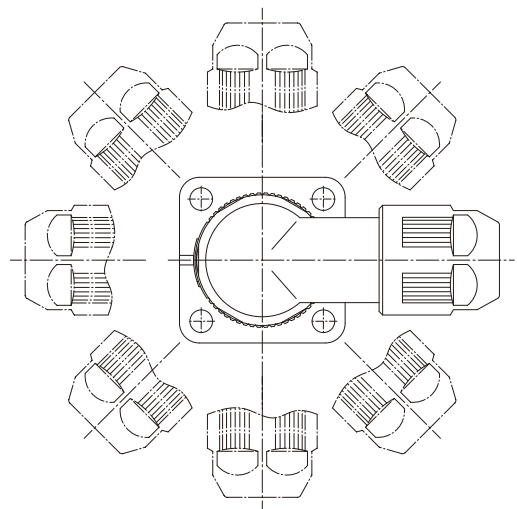
Un-mating : Rotating sleeve to unlock mating



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.

## Product Specification

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

| Item                  | Specifications                                                                                                        | Conditions                                                                                                                                                                                                 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contact Resistance    | 20m $\Omega$ Max.                                                                                                     | Measured at 1A DC                                                                                                                                                                                          |
| Insulation Resistance | 1,000M $\Omega$ Min.                                                                                                  | Measured at 500V DC                                                                                                                                                                                        |
| Withstand Voltage     | No Flashover or Breakdown                                                                                             | 10pos. : 900V AC for 1 min.<br>4pos. : 2000V AC for 1 min.                                                                                                                                                 |
| Vibration Resistance  | No electrical interruption of 10 $\mu$ s or more.                                                                     | Frequency : 10 to 500Hz/cycle, total amplitude of 0.75mm, 98m/s <sup>2</sup> each, 3 hours in 3 axis.                                                                                                      |
| Shock Resistance      | No electrical interruption of 10 $\mu$ s or more.                                                                     | Acceleration : 490m/s <sup>2</sup> , 11ms duration, 3 axis, each for 3 times.                                                                                                                              |
| Mating Durability     | Contact Resistance : 30m $\Omega$ Max.                                                                                | 500 times                                                                                                                                                                                                  |
| Temperature Cycle     | Insulation Resistance : 500M $\Omega$ Min.                                                                            | Temperature : -55 $\rightarrow$ Normal Temperature $\rightarrow$ +125 $\rightarrow$ Normal Temperature<br>Time : 30 $\rightarrow$ 2 to 3 $\rightarrow$ 30 $\rightarrow$ 2 to 3 minutes, left for 5 cycles. |
| Moisture Resistance   | Insulation resistance : 50M $\Omega$ Min.<br>(at high humidity condition)<br>500M $\Omega$ Min.<br>(at dry condition) | Temperature : 71°C, 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                                    | -                                                                |

## 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 - (##)**

① ② ③ ④ ⑤ ⑥ ⑦

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |                                                                          |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------|
| ① Series Name                                | HR34B                                                                                                                                                                                                                                                                                                                                                                                                                          | ⑤ No. of Contacts      | 4pos., 10pos.                                                            |
| ② Shell Size                                 | Diameter(mm) of the mating interface of the plug.                                                                                                                                                                                                                                                                                                                                                                              | ⑥ Contact Gender       | S : Female Contact for Soldering<br>SC : Female Contact for Crimping     |
| ③ Shell Type                                 | WP : Straight Plug<br>WLP : Right Angle Plug                                                                                                                                                                                                                                                                                                                                                                                   | ⑦ Other Specifications | Two-digit character is added to indicate other specifications as needed. |
| ④ Conduit Material and Applicable Cable Size | A : Conduit Material Metal, Applicable Cable (Reference) : ( $\phi$ 5.7 to 6.5)<br>B : Conduit Material Metal, Applicable Cable (Reference) : ( $\phi$ 6.5 to 7.3)<br>D : Conduit Material Plastic, Applicable Cable (Reference) : ( $\phi$ 5.7 to 6.5)<br>E : Conduit Material Plastic, Applicable Cable (Reference) : ( $\phi$ 6.5 to 7.3)<br>K : Conduit Material Metal, Applicable Cable (Reference) : ( $\phi$ 8.0 ~ 9.0) |                        |                                                                          |

### ■ Receptacle

#### **HR34B - 12 WR A - 10 P - (##)**

① ② ③ ④ ⑤ ⑥ ⑦

|               |                                                             |                        |                                                                          |
|---------------|-------------------------------------------------------------|------------------------|--------------------------------------------------------------------------|
| ① Series Name | HR34B                                                       | ⑤ No. of Contacts      | 4pos., 10pos.                                                            |
| ② Shell Size  | Diameter(mm) of the mating interface of the plug.           | ⑥ Contact Gender       | P : Male Contact for Soldering                                           |
| ③ Shell Type  | WR : Receptacle                                             | ⑦ Other Specifications | Two-digit character is added to indicate other specifications as needed. |
| ④ Shell Shape | A : Square Flange for 10pos.<br>B : Square Flange for 4pos. |                        |                                                                          |

### ■ Crimp Contact

#### **HR34B - SC1 - 2 1 1**

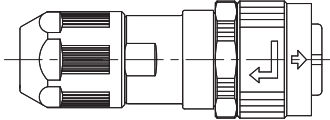
① ② ③ ④ ⑤

|                 |                                       |               |                  |
|-----------------|---------------------------------------|---------------|------------------|
| ① Series Name   | HR34B                                 | ④ Barrel Type | 1 : 20 to 25 AWG |
| ② Contact Type  | SC1 : Female Contact                  | ⑤ Plating     | 1 : Gold Plated  |
| ③ Contact Shape | 1 : Loose Contact<br>2 : Reel Contact |               |                  |

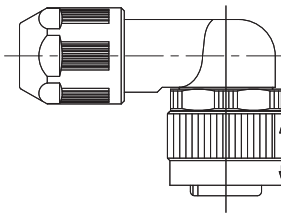
## Connector Mating Combinations

### 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

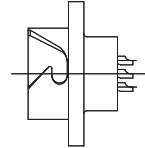


Right Angle, Soldering or Crimp Connection Type  
 HR34B-12WLPB-10S(71),10SC    HR34B-12WLPB-10S(71),10SC  
 HR34B-12WLPA-10S(71),10SC    HR34B-12WLPE-10S,10SC  
 HR34B-12WLPD-10S,10SC    HR34B-12WLPE-10S,10SC  
 HR34B-12WLPA-10S,10SC    HR34B-12WLPE-10S,10SC



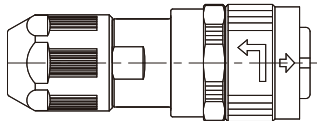
### 10 pos. Receptacle

Soldering Type  
 HR34B-12WRA-10P

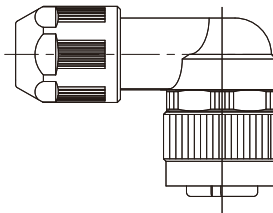


### 4pos. Plug

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



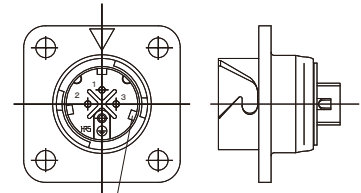
Right Angle, Soldering Type (Mating Key Position)  
 HR34B-12WLPA-4S  
 HR34B-12WLPE-4S



Standard Key Position

### 4pos. Receptacle

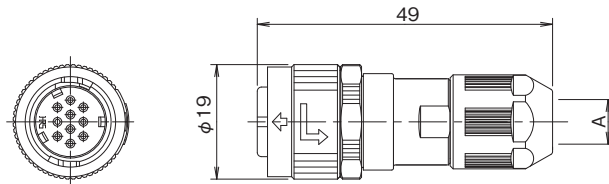
Soldering Type (Mating Key Position)  
 HR34B-12WRB-4P



Standard Key Position

## 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)                   |                       |                |
| HR34B-12WPD-4S  | CL0134-0020-3-00 | 4           | φ 7.4 | ( φ 5.7 to 6.5)                   | φ 1.7                 | 50pcs per tray |
| 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

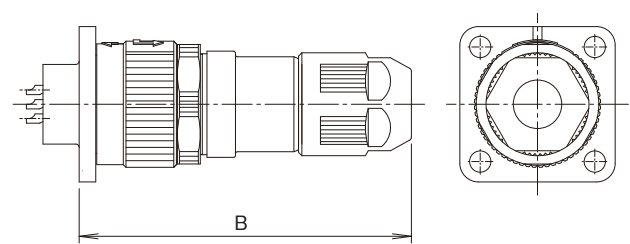
| Part No.            | HRS No.          | No. of Pos. | A     | Applicable Cable Dia. (Reference) | Solder Pot Inner Dia. | Purchase Unit  |
|---------------------|------------------|-------------|-------|-----------------------------------|-----------------------|----------------|
| HR34B-12WPA-10S(71) | 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.

Mated Condition

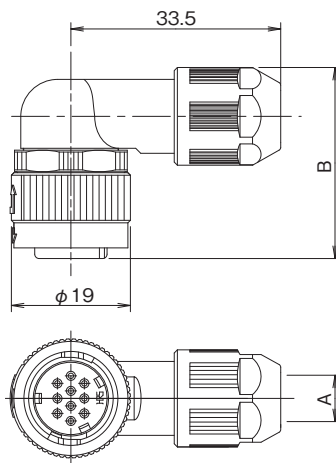


Unit : mm

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

## 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-12WLPA-10S(71) | CL0134-0008-8-71 |             | φ 8.5 |      | ( φ 6.5 to 7.3)                   |                       |                |
| HR34B-12WLPA-10S     | CL0134-0054-5-00 |             | φ 9.5 | 31.5 | ( φ 8.0 to 9.0)                   |                       |                |

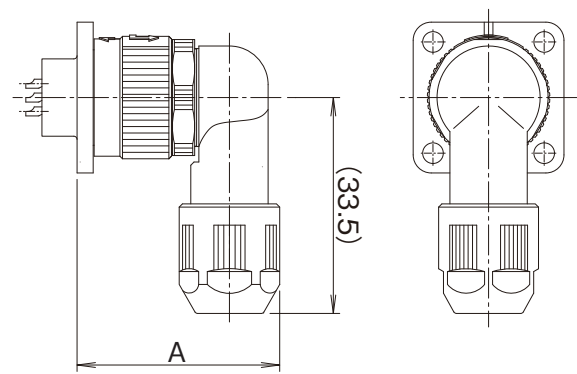
### Crimp Connection Type

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-12WLPA-10SC | CL0134-0029-8-00 |             | φ 8.5 |      | ( φ 6.5 to 7.3)                   |                |
| HR34B-12WLPA-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.

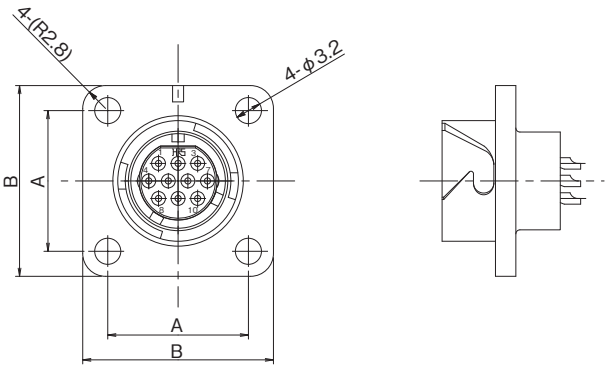
Mated Condition



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 |

# Receptacle

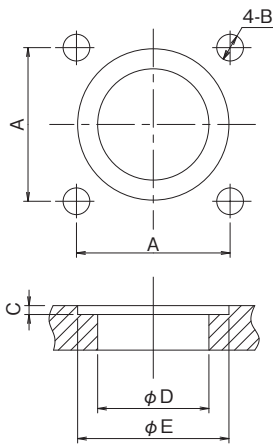


Unit : mm

| 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

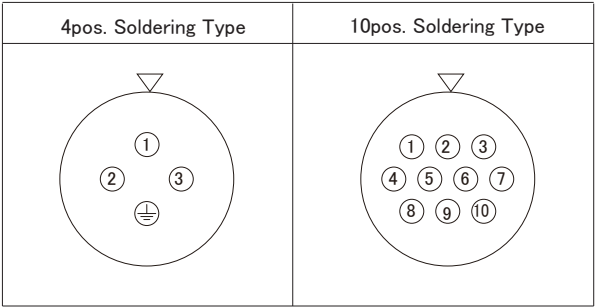


| Symbol | HR34B-12WRA-10P | HR34B-12WRB-4P |
|--------|-----------------|----------------|
| A      | 17.26 ± 0.05    | 18.26 ± 0.05   |
| B      | M3 × 0.5        |                |
| C      | 1.0 / -0.1      | 1.1 0 / -0.1   |
| D      | 12.5 +0.1 / 0   | 16.3 +0.1 / 0  |
| E      | 17 +0.1 / 0     | 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         |

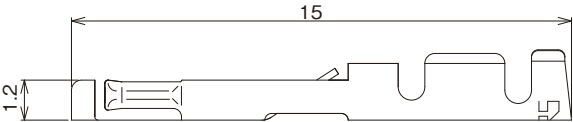
Receptacle Contact Arrangement



(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 |

## Applicable Tools

### Manual Contact Crimping Tool      Press CM-105C

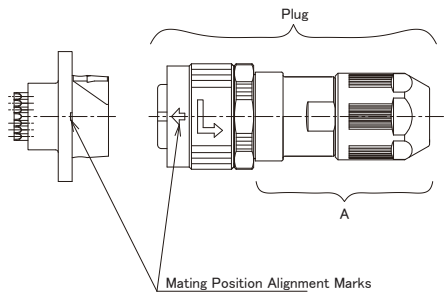
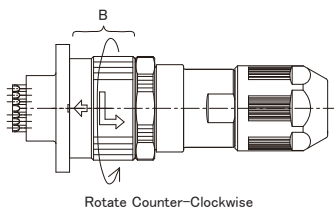


### Contact Extraction Tool



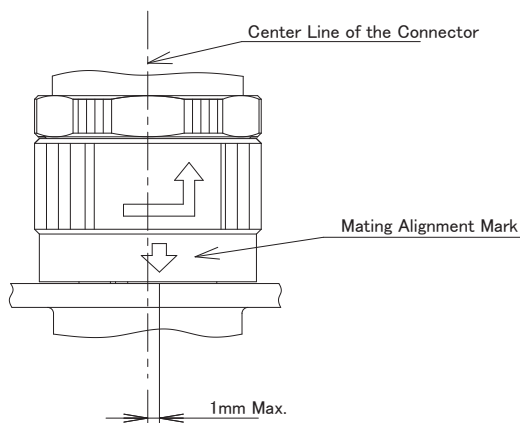
| Type                                  | Part No.      | HRS No.          | Applicable Contact             | Applicable Cable                  |
|---------------------------------------|---------------|------------------|--------------------------------|-----------------------------------|
| Automatic 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<br>20 AWG, 23 AWG, 25 AWG |
| Contact Extraction Tool               | RP6-SC-TP     | CL0150-0039-0-00 | HR34B-SC1-111<br>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.

| 1. Mating                                                                                                                                                                                                                    | 2. Un-mating                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>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.</p> |  <p>Rotate the sleeve (B) counter-clockwise to a full stop and un-mate the plug from the receptacle.</p> |

## 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.

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