

DF62W Series

# Water Resistant, Slim In-line Connector for Internal Wiring



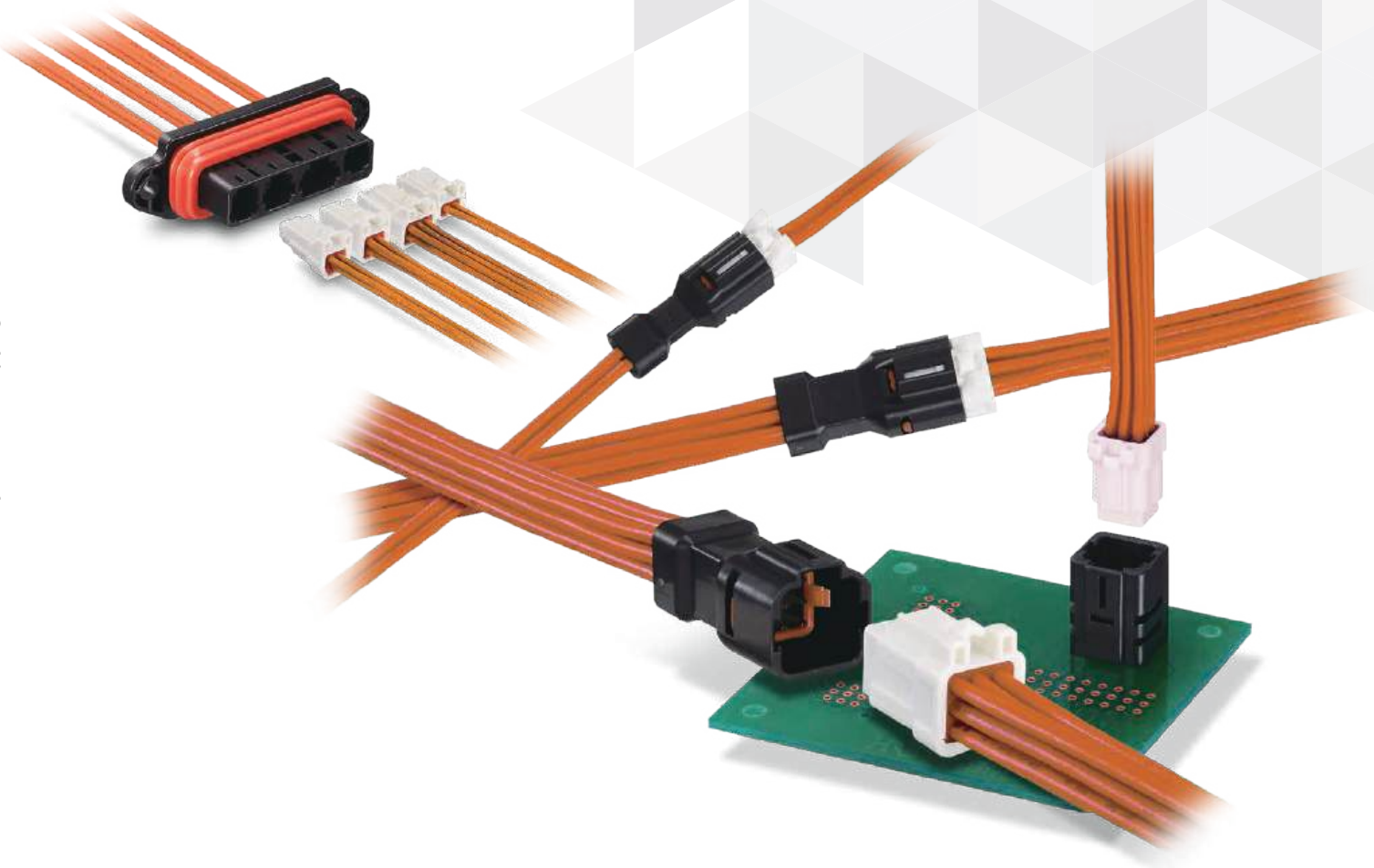
Positive-Lock



Waterproof



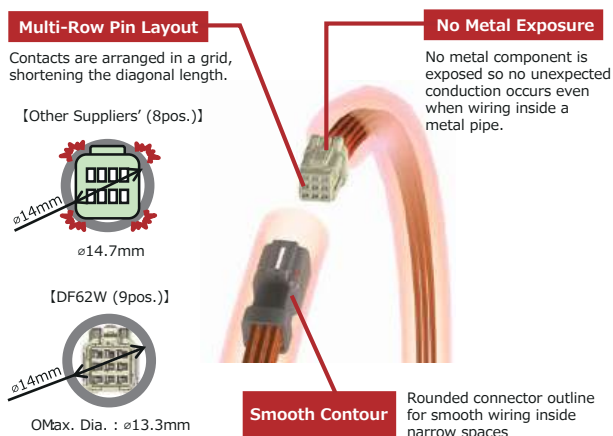
Slim In-Line



## Features

### 1. The slim, sleek design and smooth contour combine to complete connections in tight spaces.

These connectors were designed to take full advantage of small/ narrow spaces. The contacts are arranged in a grid pattern which shortens the diagonal distances and the body was slimmed down by creating smooth outer surfaces. This design helps to save precious space and makes these connectors virtually tangle free. There is no visible or exposed metal which eliminates the possibility of electrical arcing between the connector and the inside of a metal conduit.



### 2. Secure Lock Mechanism

The friction lock emits a clear tactile click upon lock completion. The design prevents incomplete mating and connector disconnection. The socket lock can be visually checked through the plug window after mating.



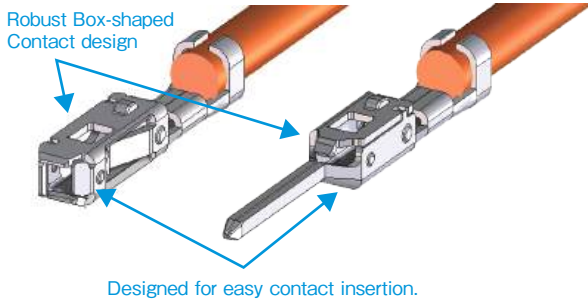
### 3. Reliable Contact Design

Two-point contact design that maintains contact reliability.

## 4. Robust Contact Design

The unique design protects the contacts and lance areas. It prevents any bending or deformity that might occur during mating, assembly or transportation.

(Waterproof type (DF62W))



## 5. Multiple Variations Available

Several product variation are available so designers can choose the one most suited to their application. Compatible with a wide range of cable sizes and available in in-line and pin header types.

## 6. Applicator Sharing

DF62W is compatible with the DF11, DF59 and DF62 Series applicators by exchanging the parts.

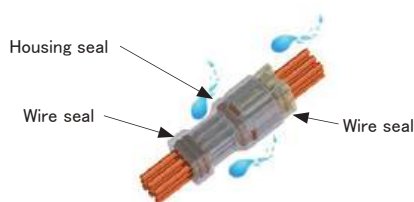
Note 1: DF62W requires a dedicated die and hand tool.

Note 2: Some products are not compatible. Please contact Hirose for additional details.

## 7. Condensation Prevention

IP67 level water-resistance in mated condition.

IP67 waterproof equivalent under specific conditions. Please contact a Hirose representative for detailed specifications and conditions.

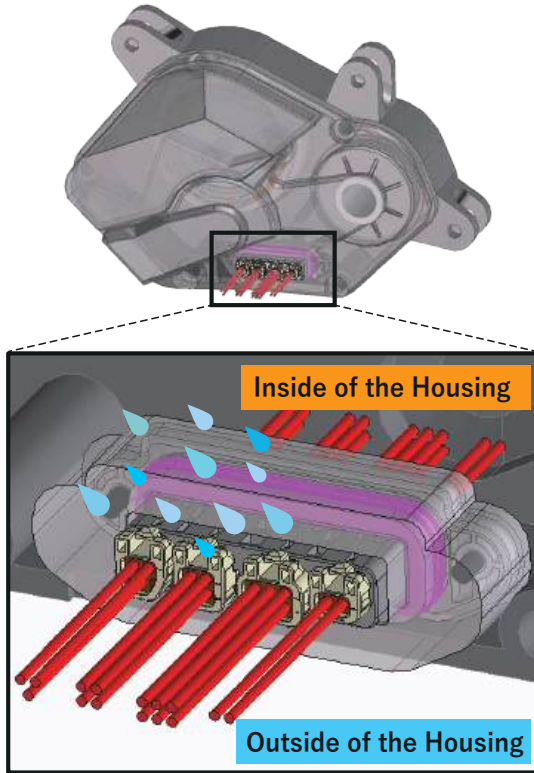


## 8. Panel Waterproof Type

A panel waterproof type combining 2, 3, 4, and 6pos. is also available. IP67 level waterproofing prevents water immersion from outside the housing.

Note: The inside of the housing is not waterproof.

[Example] E-Bike Drive Unit



# Product Specifications

|                          |            |          |        |          |        |                                    |               |
|--------------------------|------------|----------|--------|----------|--------|------------------------------------|---------------|
| Rated Current<br>(Note1) | No of Pos. | 20 AWG   | 22 AWG | 24 AWG   | 26 AWG | Operating Temperature (Note 2)     | -40 to +105°C |
|                          | 2          | 5A/pin   | 4A/pin | 3.5A/pin | 3A/pin | Storage Temperature Range (Note 4) | -10 to +60°C  |
|                          | 3          | 3.5A/pin | 3A/pin | 2A/pin   | 1A/pin | Operating Humidity Range (Note 3)  | 20 to 80%     |
|                          | 4          | 3.5A/pin | 3A/pin | 2A/pin   | 1A/pin | Storage Humidity Range (Note 4)    | 40 to 70%     |
|                          | 6          | 3.5A/pin | 3A/pin | 2A/pin   | 1A/pin |                                    |               |
|                          | 9          | 3.5A/pin | 3A/pin | 2A/pin   | 1A/pin |                                    |               |
| Rated Voltage            | 250V AC/DC |          |        |          |        |                                    |               |

|    |               |             |                                |              |
|----|---------------|-------------|--------------------------------|--------------|
| UL | Rated Voltage | 29.9V AC/DC | Operating Temperature (Note 2) | -40 to +75°C |
|----|---------------|-------------|--------------------------------|--------------|

|      |               |             |                                |              |
|------|---------------|-------------|--------------------------------|--------------|
| C-UL | Rated Voltage | 29.9V AC/DC | Operating Temperature (Note 2) | -40 to +75°C |
|------|---------------|-------------|--------------------------------|--------------|

UL, C-UL File Name  
 UL: E52653  
 C-UL: E52653

| Items                  | Specifications                                                        | Conditions                                                                                                      |
|------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Insulation Resistance  | 1000M Ω Min.                                                          | 500V DC                                                                                                         |
| Withstanding Voltage   | No flashover or insulation breakdown                                  | 650V AC for 1 min.                                                                                              |
| Contact Resistance     | 30m Ω Max.                                                            | 20mV Max., 1mA (DC or 1000Hz)                                                                                   |
| Vibration Resistance   | No electrical discontinuity of 1 μ s.                                 | 10 cycles in each of three directions at frequency 10 to 55Hz, half amplitude 0.75mm                            |
| Shock Resistance       | No electrical discontinuity of 1 μ s.                                 | Accelerated velocity: 490 m/s <sup>2</sup> for 11ms, half-sine wave in 3 directions, 3 times for each direction |
| Humidity Resistance    | Contact Resistance: 30m Ω Max.<br>Insulation Resistance: 1000M Ω Min. | 96 hours at temperature of +40 ± 2°C and humidity of 90 to 95%                                                  |
| Temperature Cycles     | Contact Resistance: 30m Ω Max.<br>Insulation Resistance: 1000M Ω Min. | -55°C : 30 minutes → 5 to 35°C : 2 to 3 minutes → 85°C : 30 minutes → 5 to 35°C : 2 to 3 minutes, 5 cycles      |
| Mating Durability      | Contact Resistance: 30m Ω Max.                                        | Tin plating: 30 times<br>Gold plating: 50 times                                                                 |
| Solder Heat Resistance | No deformation in appearance or significant damage to contacts.       | Flow: 260°C , 10sec.<br>Hand soldering: temperature of soldering iron at 300°C for 3sec.                        |

Note 1: This is the maximum current rating while all pins are powered or used as all power lines.  
 When isolating power lines into multiple circuits, current ratings may go above the stated current ratings. Please consult Hirose for details before doing this.  
 Note 2: The connector should be completely dry (no condensation present)  
 Note 3: Information contained in this catalog represents general requirements for this Series.  
 Contact us for the drawings and specifications for a specific part number shown.  
 Note 4: Applicable to unused items in packed condition.  
 Note 5: The panel waterproof type is not UL/C-UL certified.

Materials / Finish

| Item                 | Component     | Material           | Finish                      | UL Flame Retardant Grade | RoHS2 |
|----------------------|---------------|--------------------|-----------------------------|--------------------------|-------|
| Socket Crimp Contact | Contact       | Phosphorous Bronze | Gold Plating or Tin Plating | -                        | Yes   |
| Plug Crimp Contact   |               |                    |                             | -                        |       |
| Crimp Socket         | Insulator     | PBT                | White                       | UL94V-0                  |       |
| Crimp Plug           |               |                    | Black                       |                          |       |
| Crimp Socket         | Seal          | Silicone Rubber    | Bengala or Gray             | -                        |       |
| Crimp Plug           |               |                    |                             |                          |       |
| Header               | Insulator     | PBT                | Black                       | UL94V-0                  |       |
|                      | Contact       | Copper Alloy       | Gold Plating or Tin Plating | -                        |       |
|                      | Retention Tab | Brass              | Tin Plating                 | -                        |       |
|                      | Seal          | Silicone Rubber    | Bengala                     | -                        |       |

## 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.

Note : The waterproof type (DF62W Series) and non-waterproof type (DF62 Series) are not intermateable.

### ●Connector (In-line)

**DF62W** # - # **S** - **2.2** **C**

① ② ③ ④ ⑤ ⑥

|               |                                                                      |                    |                               |
|---------------|----------------------------------------------------------------------|--------------------|-------------------------------|
| ① Series Name | DF62W                                                                | ④ Connector Type   | S: Socket<br>EP: In-line Plug |
| ② Shape Type  | None: Regular Type<br>C: Thin Cable Type<br>P: Panel Waterproof Type | ⑤ Contact Pitch    | 2.2mm                         |
|               |                                                                      | ⑥ Termination Type | C: Crimp Housing              |
| ③ No. of Pos. | 2, 3, 4, 6, 9                                                        |                    |                               |

### ●Connector (DIP)

**DF62WZ** - # **P** - **2.2** **DSA** (**##**)

① ② ③ ④ ⑤ ⑥

|                  |                 |                    |                                     |
|------------------|-----------------|--------------------|-------------------------------------|
| ① Series Name    | DF62W or DF62WZ | ④ Contact Pitch    | 2.2mm                               |
| ② No. of Pos.    | 3, 6, 9         | ⑤ Termination Type | DSA: Straight Pin Header            |
| ③ Connector Type | P: Pin Header   | ⑥ Plating Type     | 20: Tin Plating<br>50: Gold Plating |

### ●Waterproof Pin

**DF62W** - **WP**

① ②

|               |       |         |                    |
|---------------|-------|---------|--------------------|
| ① Series Name | DF62W | ② Usage | WP: Waterproof Pin |
|---------------|-------|---------|--------------------|

### ●Contact

**DF62W** - **EP** **2226** **PCF** **A**

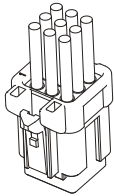
① ② ③ ④ ⑤

|                           |                                        |                                    |                                                                                                                                        |
|---------------------------|----------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| ① Series Name             | DF62W                                  | ④ Contact Type /<br>Packaging Type | SCF: Socket Crimp Contact, Reel<br>SC: Socket Crimp Contact, Pieces<br>PCF: Plug Crimp Contact, Reel<br>PC: Plug Crimp Contact, Pieces |
| ② Terminal Type           | EP: In-line Plug                       |                                    |                                                                                                                                        |
| ③ Applicable Wire<br>Size | 2022: 20 - 22 AWG<br>2226: 22 - 26 AWG | ⑤ Plating Type                     | A: Gold Plating<br>None: Tin Plating                                                                                                   |

# Connector Mating Combinations Diagram

| Crimp Socket (Note)                                                     | Socket Crimp Contact                     |
|-------------------------------------------------------------------------|------------------------------------------|
| DF62W-#S-2.2C<br>(Standard type)<br>DF62WC-#S-2.2C<br>(Thin cable type) | DF62W-2022SC(F)(A)<br>DF62W-2226SC(F)(A) |

Note) When using without the crimp contact inserted, fill the contact hole of socket and plug with the DF62W-WP waterproof pin.



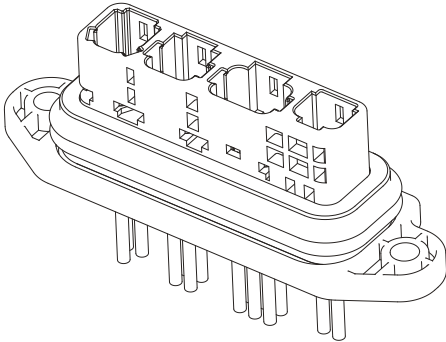
| Crimp Plug (Note)                                                         | Plug Crimp Contact                           |
|---------------------------------------------------------------------------|----------------------------------------------|
| DF62W-#EP-2.2C<br>(Standard type)<br>DF62WC-#EP-2.2C<br>(Thin cable type) | DF62W-EP2022PC(F)(A)<br>DF62W-EP2226PC(F)(A) |

Note) When using without the crimp contact inserted, fill the contact hole of socket and plug with the DF62W-WP waterproof pin.

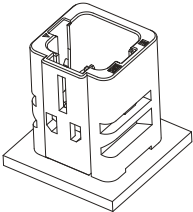


| Crimp Plug (Panel Waterproof Type) | Plug Crimp Contact   |
|------------------------------------|----------------------|
| DF62WP-3/4/6/2EP-2.2C              | DF62W-EP2022PC(F)(A) |
|                                    | DF62W-EP2226PC(F)(A) |

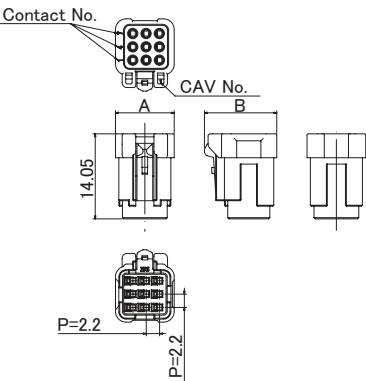
Note : The compatible sockets are 2,3,4, and 6pos.



| Straight Pin Header    |
|------------------------|
| DF62W(Z)-#P-2.2DSA(##) |



Crimp Socket

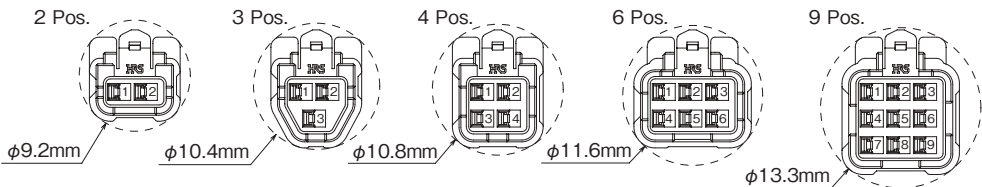


9pos. shown as an example.

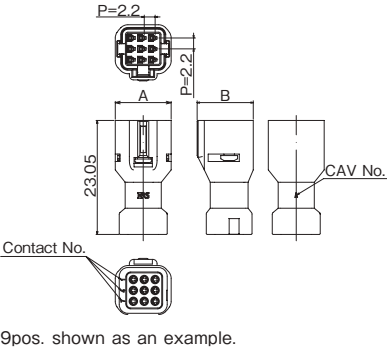
Unit : mm

| Part No.       | HRS No.          | No. of Pos. | A   | B     | Applicable Jacket Outer Diameter | Purchase Unit  |
|----------------|------------------|-------------|-----|-------|----------------------------------|----------------|
| DF62W-2S-2.2C  | CL0544-1002-7-00 | 2           | 7.5 | 7.55  | ϕ 1.4 to 1.6mm                   | 100pcs per bag |
| DF62W-3S-2.2C  | CL0544-1004-2-00 | 3           |     | 9.75  |                                  |                |
| DF62W-4S-2.2C  | CL0544-1006-8-00 | 4           |     |       |                                  |                |
| DF62W-6S-2.2C  | CL0544-1008-3-00 | 6           | 9.7 | 11.95 |                                  |                |
| DF62W-9S-2.2C  | CL0544-1010-5-00 | 9           |     |       |                                  |                |
| DF62WC-2S-2.2C | CL0544-1046-0-00 | 2           | 7.5 | 7.55  | ϕ 0.98 to 1.2mm                  | 100pcs per bag |
| DF62WC-3S-2.2C | CL0544-1054-0-00 | 3           |     | 9.75  |                                  |                |
| DF62WC-4S-2.2C | CL0544-1051-0-00 | 4           |     |       |                                  |                |
| DF62WC-6S-2.2C | CL0544-1057-0-00 | 6           | 9.7 | 11.95 |                                  |                |
| DF62WC-9S-2.2C | CL0544-1032-0-00 | 9           |     |       |                                  |                |

■ Position Number Pin Configuration (Shown from the Mating Side)



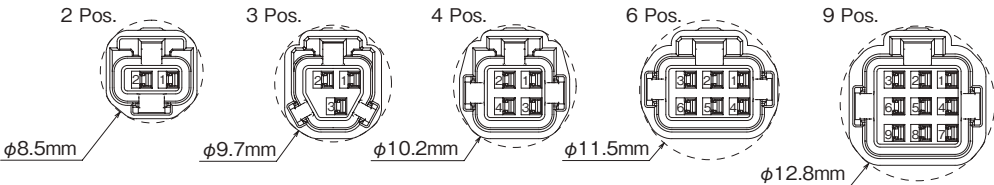
Crimp Plug



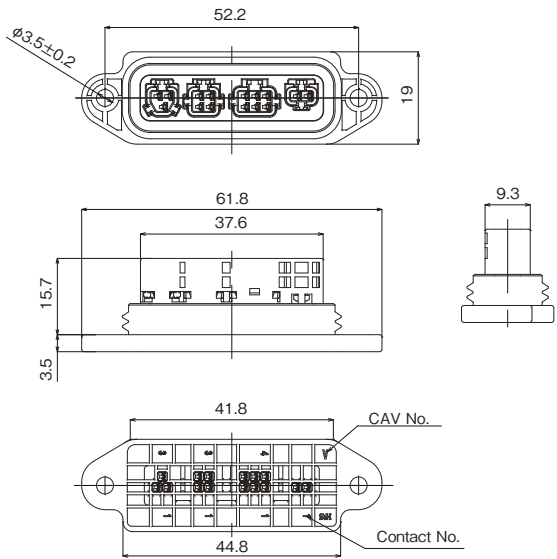
Unit : mm

| Part No.        | HRS No.          | No. of Pos. | A    | B     | Applicable Jacket Outer Diameter | Purchase Unit  |
|-----------------|------------------|-------------|------|-------|----------------------------------|----------------|
| DF62W-2EP-2.2C  | CL0544-1003-0-00 | 2           | 7.5  | 6.7   | ϕ 1.4 to 1.6mm                   | 100pcs per bag |
| DF62W-3EP-2.2C  | CL0544-1005-5-00 | 3           | 8.0  | 9.15  |                                  |                |
| DF62W-4EP-2.2C  | CL0544-1007-0-00 | 4           | 9.1  |       |                                  |                |
| DF62W-6EP-2.2C  | CL0544-1009-6-00 | 6           | 11.3 |       |                                  |                |
| DF62W-9EP-2.2C  | CL0544-1011-8-00 | 9           |      | 11.35 |                                  |                |
| DF62WC-2EP-2.2C | CL0544-1047-0-00 | 2           | 7.5  | 6.7   | ϕ 0.98 to 1.2mm                  |                |
| DF62WC-3EP-2.2C | CL0544-1053-0-00 | 3           | 8.0  | 9.15  |                                  |                |
| DF62WC-4EP-2.2C | CL0544-1052-0-00 | 4           | 9.1  |       |                                  |                |
| DF62WC-6EP-2.2C | CL0544-1058-0-00 | 6           | 11.3 |       |                                  |                |
| DF62WC-9EP-2.2C | CL0544-1037-0-00 | 9           |      | 11.35 |                                  |                |

Position Number Pin Configuration (Shown from the Mating Side)

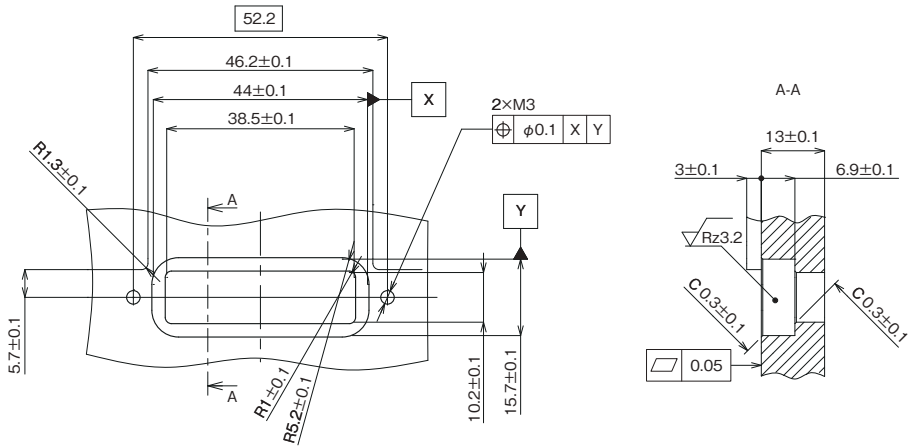


Crimp Plug (Panel Waterproof Type)



Based on the above diagram, the number of positions for each mating port is as follows from left to right : 3, 4, 6 and 2pos.

■ Panel Cut-Out Dimensions

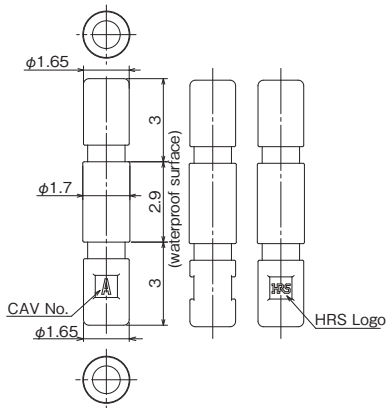


Unit : mm

| Part No.              | HRS No.          | No. of Pos. | Applicable Jacket Outer Diameter            | Purchase Unit  |
|-----------------------|------------------|-------------|---------------------------------------------|----------------|
| DF62WP-3/4/6/2EP-2.2C | CL0544-1056-0-00 | 2/3/4/6     | $\phi$ 0.98 to 1.2mm<br>$\phi$ 1.4 to 1.6mm | 24pcs per tray |

Note: The panel waterproof type is not UL/C-UL certified.

Waterproof Pin

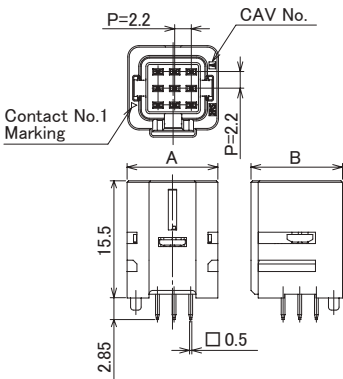


Unit : mm

| Part No. | HRS No.          | Purchase Unit  |
|----------|------------------|----------------|
| DF62W-WP | CL0544-1014-6-00 | 100pcs per bag |

Note 1 : When using without the crimp contact inserted, fill the contact hole of socket and plug with a waterproof pin.  
Note 2 : Not compatible with the panel waterproof type.

Straight Pin Header



9pos. shown as an example.

Unit : mm

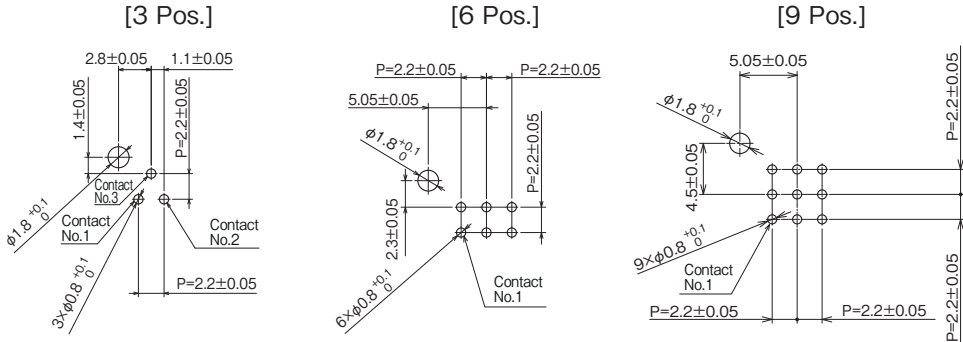
| Part No.             | HRS No.          | No. of Pos. | A   | B    | Tin Plating | Gold Plating | Purchase Unit   |
|----------------------|------------------|-------------|-----|------|-------------|--------------|-----------------|
| DF62W-3P-2.2DSA(##)  | CL0544-1021-0-## | 3           | 8.7 | 9.5  | Yes         | -            | 256pcs per tray |
| DF62WZ-6P-2.2DSA(##) | CL0544-1059-0-## | 6           | 12  | 9.9  | Yes         | -            | 240pcs per tray |
| DF62WZ-9P-2.2DSA(##) | CL0544-1050-0-## | 9           | 12  | 12.1 | Yes         | Yes          | 200pcs per tray |

【Specification No. (##),-##】

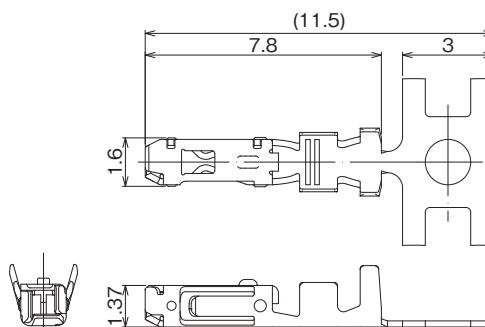
(20) : Tin plating

(50) : Gold plating

■ Recommended PCB Layout (Recommended Thickness t=1.6mm)



## Socket Crimp Contact



### ● Reel Contact, Applicable Tool : Applicator

| Part No.                        | HRS No.                              | Finish                    | Applicable Wire (Tin Plated Annealed Copper) (Note) |          |                         |                                              |                     | Compatible Connector | Purchase Unit         |                      |                |
|---------------------------------|--------------------------------------|---------------------------|-----------------------------------------------------|----------|-------------------------|----------------------------------------------|---------------------|----------------------|-----------------------|----------------------|----------------|
|                                 |                                      |                           | UL                                                  | AWG      | Stranded Wire Structure | Calculated Cross-section                     | Jacket Diameter     |                      |                       |                      |                |
| DF62W-2022SCF<br>DF62W-2022SCFA | CL0544-1015-9-00<br>CL0544-1027-0-00 | Tin Plated<br>Gold Plated | 3443                                                | 20       | 7/0.32mm                | 0.563mm <sup>2</sup>                         | ϕ 1.4 to<br>ϕ 1.6mm | DF62W-#S-2.2C        | 15,000pcs<br>per reel |                      |                |
|                                 |                                      |                           | 1007                                                | 22       | 17/0.16mm               | 0.342mm <sup>2</sup>                         |                     |                      |                       |                      |                |
| DF62W-2226SCF<br>DF62W-2226SCFA | CL0544-1000-1-00<br>CL0544-1025-0-00 | Tin Plated<br>Gold Plated | 1007                                                | 22       | 17/0.16mm<br>11/0.16mm  | 0.342mm <sup>2</sup><br>0.221mm <sup>2</sup> |                     |                      |                       |                      |                |
|                                 |                                      |                           | 1430                                                | 24<br>26 | 11/0.16mm<br>7/0.16mm   | 0.221mm <sup>2</sup><br>0.141mm <sup>2</sup> |                     |                      |                       |                      |                |
|                                 |                                      |                           | 1061                                                | 24<br>26 | 11/0.16mm<br>7/0.16mm   | 0.221mm <sup>2</sup><br>0.141mm <sup>2</sup> |                     |                      |                       | ϕ 0.98 to<br>ϕ 1.2mm | DF62WC-#S-2.2C |
|                                 |                                      |                           |                                                     |          |                         |                                              |                     |                      |                       |                      |                |

Note 1 : For applicable cable other than those listed above, refer to Crimp Condition Table. Crimp Condition Table is available from Part No. link.

(If you are using a cable that is not listed in Crimp Condition Table, please contact a Hirose sales representative.)

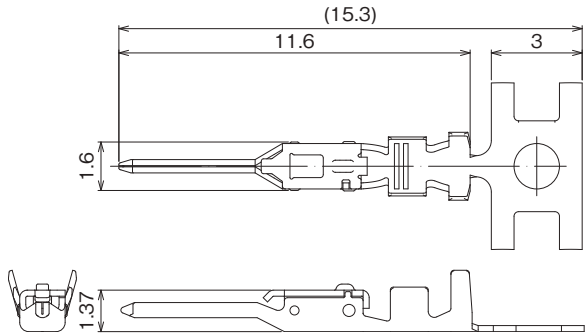
Note 2 : There are cases in which use of a flexible wire (thin, stranded conductor or soft jacket material) may make insertion to socket difficult. Please contact a Hirose representative for more information.

### ● Loose Piece, Applicable Tool : Hand Crimping Tool

| Part No.                      | HRS No.                              | Finish                    | Applicable Wire (Tin Plated Annealed Copper) (Note) |     |                         |                                              |                      | Compatible Connector | Purchase Unit     |  |  |
|-------------------------------|--------------------------------------|---------------------------|-----------------------------------------------------|-----|-------------------------|----------------------------------------------|----------------------|----------------------|-------------------|--|--|
|                               |                                      |                           | UL                                                  | AWG | Stranded Wire Structure | Calculated Cross-section                     | Jacket Diameter      |                      |                   |  |  |
| DF62W-2022SC<br>DF62W-2022SCA | CL0544-1017-4-00<br>CL0544-1045-0-00 | Tin Plated<br>Gold Plated | 3443                                                | 20  | 7/0.32mm                | 0.563mm <sup>2</sup>                         | ϕ 1.53mm             | DF62W-#S-2.2C        | 100pcs<br>per pac |  |  |
|                               |                                      |                           | 1007                                                | 22  | 17/0.16mm               | 0.342mm <sup>2</sup>                         | ϕ 1.58mm             |                      |                   |  |  |
| DF62W-2226SC<br>DF62W-2226SCA | CL0544-1012-0-00<br>CL0544-1044-0-00 | Tin Plated<br>Gold Plated | 1007                                                | 22  | 17/0.16mm<br>11/0.16mm  | 0.342mm <sup>2</sup><br>0.221mm <sup>2</sup> | ϕ 1.58mm<br>ϕ 1.42mm |                      |                   |  |  |
|                               |                                      |                           | 1430                                                | 26  | 7/0.16mm                | 0.141mm <sup>2</sup>                         | ϕ 1.48mm             |                      |                   |  |  |

Note : The applicable cables include only those listed above.

Plug Crimp Contact



● Reel Contact, Applicable Tool : Applicator

| Part No.                            | HRS No.                              | Finish                    | Applicable Wire (Tin Plated Annealed Copper) (Note 1) |          |                         |                                              |                      | Compatible Connector                     | Purchase Unit         |                      |                                          |
|-------------------------------------|--------------------------------------|---------------------------|-------------------------------------------------------|----------|-------------------------|----------------------------------------------|----------------------|------------------------------------------|-----------------------|----------------------|------------------------------------------|
|                                     |                                      |                           | UL                                                    | AWG      | Stranded Wire Structure | Calculated Cross-section                     | Jacket Diameter      |                                          |                       |                      |                                          |
| DF62W-EP2022PCF<br>DF62W-EP2022PCFA | CL0544-1016-1-00<br>CL0544-1028-0-00 | Tin Plated<br>Gold Plated | 3443                                                  | 20       | 7/0.32mm                | 0.563mm <sup>2</sup>                         | ϕ 1.4 to<br>ϕ 1.6mm  | DF62W-#EP-2.2C<br>DF62WP-3/4/6/2EP-2.2C  | 15,000pcs<br>per reel |                      |                                          |
|                                     |                                      |                           | 1007                                                  | 22       | 17/0.16mm               | 0.342mm <sup>2</sup>                         |                      |                                          |                       |                      |                                          |
| DF62W-EP2226PCF<br>DF62W-EP2226PCFA | CL0544-1001-4-00<br>CL0544-1026-0-00 | Tin Plated<br>Gold Plated | 1007                                                  | 22<br>24 | 17/0.16mm<br>11/0.16mm  | 0.342mm <sup>2</sup><br>0.221mm <sup>2</sup> |                      |                                          |                       | ϕ 0.98 to<br>ϕ 1.2mm | DF62WC-#EP-2.2C<br>DF62WP-3/4/6/2EP-2.2C |
|                                     |                                      |                           | 1430                                                  | 24<br>26 | 11/0.16mm<br>7/0.16mm   | 0.221mm <sup>2</sup><br>0.141mm <sup>2</sup> |                      |                                          |                       |                      |                                          |
|                                     |                                      |                           | 1061                                                  | 24       | 11/0.16mm               | 0.221mm <sup>2</sup>                         | ϕ 0.98 to<br>ϕ 1.2mm | DF62WC-#EP-2.2C<br>DF62WP-3/4/6/2EP-2.2C |                       |                      |                                          |
|                                     |                                      |                           |                                                       | 26       | 7/0.16mm                | 0.141mm <sup>2</sup>                         |                      |                                          |                       |                      |                                          |

Note 1 : For applicable cable other than those listed above, refer to Crimp Condition Table. Crimp Condition Table is available from Part No. link.  
(If you are using a cable that is not listed in Crimp Condition Table, please contact a Hirose sales representative.)  
Note 2 : There are cases in which use of a flexible wire (thin, stranded conductor or soft jacket material) may make insertion to socket difficult. Please contact a Hirose representative for more information.

● Loose Piece, Applicable Tool : Hand Crimping Tool

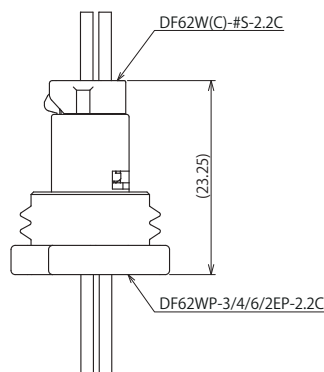
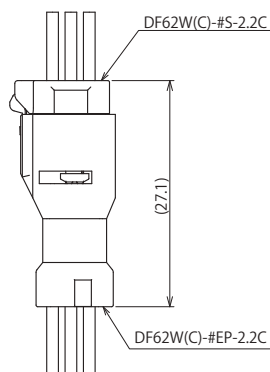
| Part No.                          | HRS No.                              | Finish                    | Applicable Wire (Tin Plated Annealed Copper) (Note) |     |                         |                          |                 | Compatible Connector                    | Purchase Unit      |
|-----------------------------------|--------------------------------------|---------------------------|-----------------------------------------------------|-----|-------------------------|--------------------------|-----------------|-----------------------------------------|--------------------|
|                                   |                                      |                           | UL                                                  | AWG | Stranded Wire Structure | Calculated Cross-section | Jacket Diameter |                                         |                    |
| DF62W-EP2022PC<br>DF62W-EP2022PCA | CL0544-1018-7-00<br>CL0544-1043-0-00 | Tin Plated<br>Gold Plated | 3443                                                | 20  | 7/0.32mm                | 0.563mm <sup>2</sup>     | φ 1.53mm        | DF62W-#EP-2.2C<br>DF62WP-3/4/6/2EP-2.2C | 100pcs<br>per pack |
|                                   |                                      |                           | 1007                                                | 22  | 17/0.16mm               | 0.342mm <sup>2</sup>     | φ 1.58mm        |                                         |                    |
| DF62W-EP2226PC<br>DF62W-EP2226PCA | CL0544-1013-3-00<br>CL0544-1042-0-00 | Tin Plated<br>Gold Plated | 1007                                                | 22  | 17/0.16mm               | 0.342mm <sup>2</sup>     | φ 1.58mm        |                                         |                    |
|                                   |                                      |                           |                                                     | 24  | 11/0.16mm               | 0.221mm <sup>2</sup>     | φ 1.42mm        |                                         |                    |
|                                   |                                      |                           | 1430                                                | 26  | 7/0.16mm                | 0.141mm <sup>2</sup>     | φ 1.48mm        |                                         |                    |

Note : The applicable cables include only those listed above.

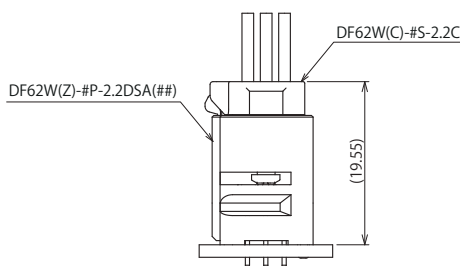
## Mated Dimensions

### ● Wire-to-Wire Connection

#### 【Panel Waterproof Type】



### ● Wire-to-Board Connection (Straight Pin Header)



## Applicable Crimping Tools

| Tool            | Part No.                  | HRS No.          | Applicable Contact                                                                       |
|-----------------|---------------------------|------------------|------------------------------------------------------------------------------------------|
| Applicator      | AP105-DF62W-2022          | CL0901-4500-0-00 | DF62W-2022SCF(A)                                                                         |
|                 | EHS899800H-UP (Note 2)    | -                | DF62W-EP2022PCF(A)                                                                       |
|                 | AP105-DF62W-2226          | CL0901-4637-0-00 | DF62W-2226SCF(A)                                                                         |
|                 | EHS888400H-UP (Note 2)    | -                | DF62W-EP2226PCF(A)                                                                       |
| Press Body      | CM-105C                   | CL0901-0001-0-00 | -                                                                                        |
| Hand Tool       | HT802/DF62W-2022 (Note 4) | CL0550-0431-0-00 | DF62W-2022SC(A)<br>DF62W-EP2022PC(A)                                                     |
|                 | HT802/DF62W-2226 (Note 5) | CL0550-0416-6-00 | DF62W-2226SC(A)<br>DF62W-EP2226PC(A)                                                     |
| Extraction Tool | DF62W/RE-MD               | CL0902-4666-4-00 | DF62W-2022SC(F)(A)<br>DF62W-EP2022PC(F)(A)<br>DF62W-2226SC(F)(A)<br>DF62W-EP2226PC(F)(A) |

Note 1 : Issues with non-Hirose specified tools are outside the scope of warranty.

Note 2 : Applicator manufactured by JAPAN AUTOMATIC MACHINE(J.A.M.).

Please contact J.A.M. via the URL below regarding inquiries on the applicator or crimp defects.

(URL : <http://www.jam-net.co.jp>)

Note 3 : Please conduct crimping work according to the "Crimping Quality Standard" and "Crimping Condition Table".

Note 4 : The compatible wire is limited to UL3443 (20 AWG) or UL1007 (22 AWG).

Note 5 : The compatible wire is limited to UL1007 (22 to 24 AWG) or UL1430 (24 to 26 AWG).

Note 6 : When using non-Hirose specified tools,

please consult with a Hirose sales representative regarding requests for the tool die drawing.

## Crimping

### ■ Items Required Prior to Starting

The work-related documents listed below are required before starting harness assembly.

(The ● mark indicates a required document.)

When the documents shown below are not available, ask a Hirose sales personnel to provide them.

| Document Title                                       | Description                                                    | Automatic Crimping Machine | Hand Crimping Tool | Remarks                                                   |
|------------------------------------------------------|----------------------------------------------------------------|----------------------------|--------------------|-----------------------------------------------------------|
| (1) Main Unit of Crimping Machine Instruction Manual | Explanation of main press machine unit                         | ●                          | -                  | Bundled with the purchase of the main press machine unit. |
| (2) Applicator Spare Parts Identification            | Explanation for Applicator installation                        | ●                          | -                  | Bundled with the purchase of applicator.                  |
| (3) Crimp Conditions                                 | Standard values of :<br>Crimp height, tensile strength         | ●                          | -                  |                                                           |
| (4) Crimp Quality Standards                          | Various standards for crimping conditions                      | ●                          | -                  |                                                           |
| (5) Operating Instructions for Hand Tool             | Inspection items of :<br>Crimp height, tensile strength, other | -                          | ●                  | Bundled with the purchase of hand tool.                   |
| (6) DF62W Series Cable Assembly                      | Cable assembly procedure                                       | ●                          | ●                  | Please refer to our website.                              |

### ■ Tools

Use tools designated by Hirose when crimping.

- Crimping performed using tools other than those specified is outside the scope of warranty.
- The operating instructions manual is available for the crimping machine and the applicator. Be sure to carefully read the operating instructions manual before implementing the work.

### ■ Applicable Electric Wires

Refer to Crimp Condition Table when using cables other than applicable wire. Crimp Condition Table is available from Part No. link.

(If you are using a cable that is not listed in Crimp Condition Table, please contact a Hirose sales representative.)

[Precautions]

- Electric wires that are suitable for crimping connectors are tin-plated stranded soft copper wire.
- Avoid crimping solid wires, wires with polyester threads or tin-coated wires.
- Avoid crimping two electric wires together.
- The crimp height setting value (Note) may vary between tin-plated and gold-plated contacts even if the same electric wires are used.
- The crimp height setting value (Note) may vary depending on the difference in the core wire configuration even if the computed cross-sectional area is the same.

Note : The crimp height is an important item that determines crimping quality. We execute crimping tests for each electric wire to ensure the optimal value for the crimp height with high precision, thereby ensuring optimal setup values.

## Precautions

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.Cleaning Conditions   | Please refer to the "Wire-to-Board Connector Guide ".<br>Cleaning with IPA is allowed. (Other cleaning agents are not recommended due to the fact that it may change the push/pull feeling. Please contact us when you use other cleaning agents.)                                                                                                                                                                                                                                                                                                                               |
| 2.Important Notes       | <ol style="list-style-type: none"> <li>1. Caution is required for mating and un-mating the connector without it being mounting on a PCB. Doing so can damage or deform the contacts.</li> <li>2. During hand soldering, do not apply excess amounts of flux which can migrate onto the connector.</li> <li>3. This product may have a slight differences in color depending on the production lot. This difference does not have any influence on the performance.</li> <li>4. Black spots may appear on the mold resin but this does not affect the product quality.</li> </ol> |
| 3.Handling Instructions | <p>Please refer to the materials listed below on our company website when handling this product.</p> <ul style="list-style-type: none"> <li>■ Product Guidelines (Board-to-Wire Connector Guidelines)</li> <li>■ Product Guidelines (Mating/Unmating Operation Instruction Manual)</li> <li>■ Cable Assembly Instruction</li> <li>■ Crimp Quality Standard</li> </ul>                                                                                                                                                                                                            |

## 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.

**HIROSE**

**HIROSE ELECTRIC CO.,LTD.**

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<https://www.hirose.com>

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