

## DF63 Series

# 15A 3.96mm pitch Wire-to-Board Connectors for Internal Power Supply (UL, C-UL and TÜV Listed)



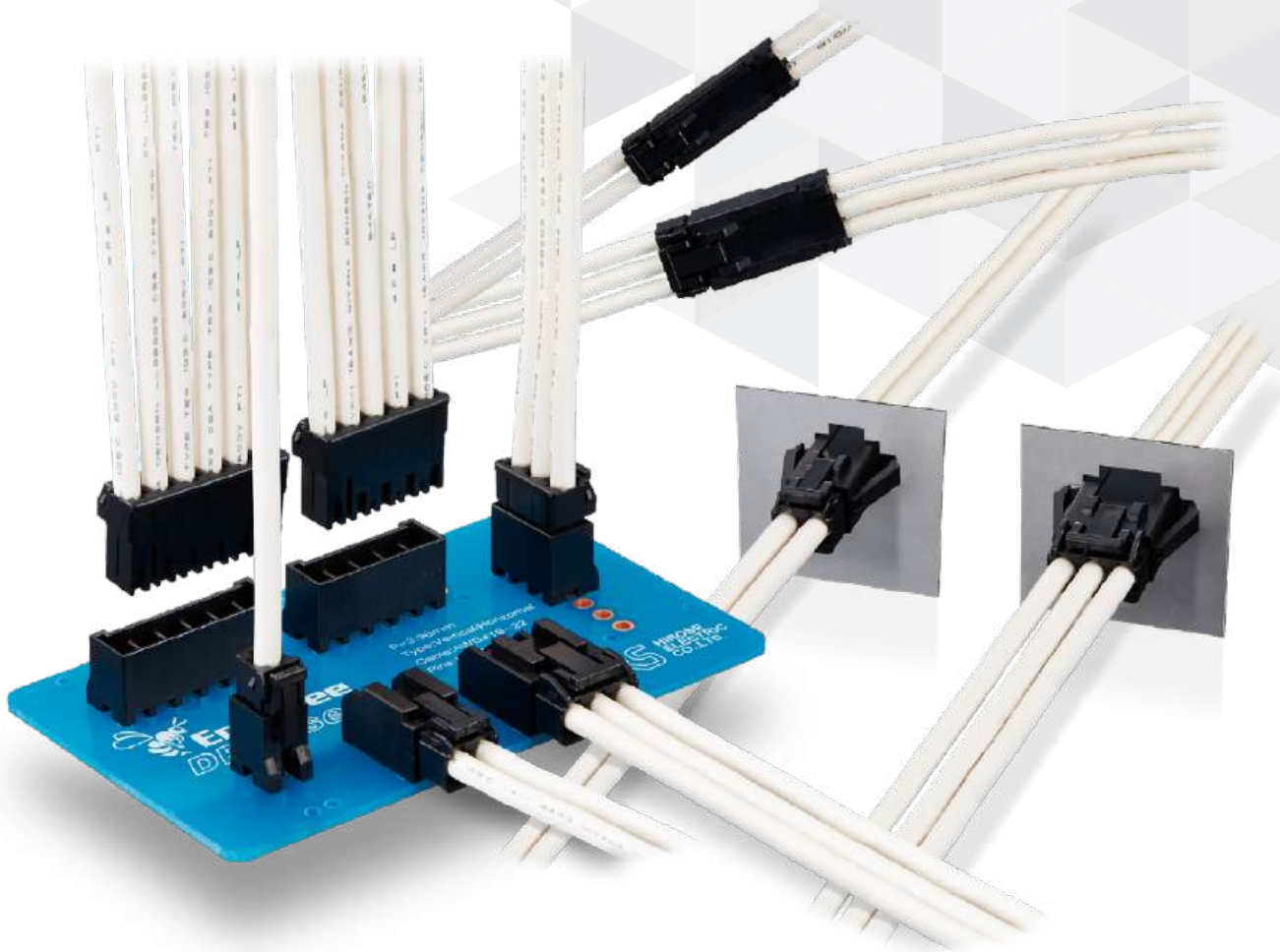
Power Supply



Positive-Lock



Compact



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Product page  
<https://www.hirose.com/product/en/products/DF63/>



Special features page  
<https://www.hirose.com/product/en/pr/enerbee/>

May. 2025

# Features

## 1. Rated for up to 15A

DF63 has the capacity to handle a Max. of 15A when using 16 AWG wire. (Please refer to the chart for the rated current in other pin counts.)

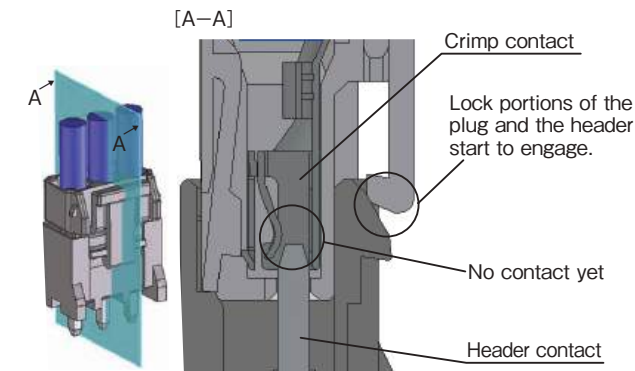
\* Supports 7.92mm pitch

Also supports 7.92mm pitch with 2 or 3 pos. without pins.

The product will be available upon request. Please contact Hirose representative.

## 2. Secure mating and clear tactile click

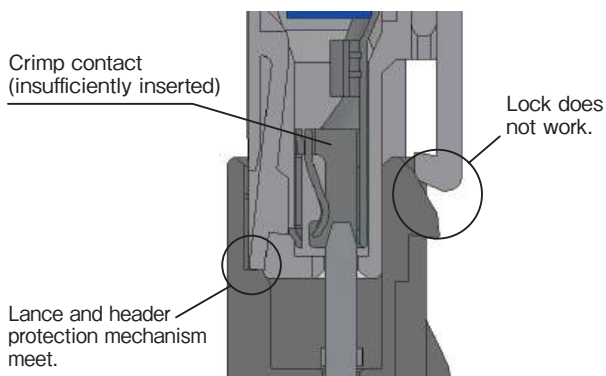
The locking mechanism delivers a clear and tactile click, which prevents incomplete mating and reduces burden on workers for improved work efficiency.



Lock structure

## 3. Prevents incomplete insertion of the crimp contact

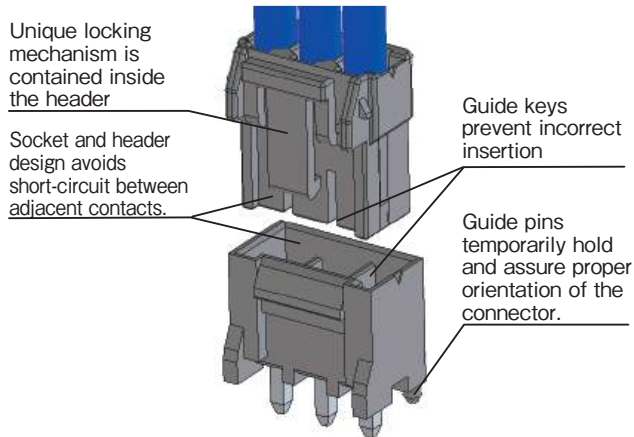
A structure to prevent incomplete insertion of the crimp contacts is provided.



Prevention of insufficient insertion of the crimp contact

## 4. Reverse mounting prevention to PCB

The pin header is equipped with a guide post to prevent reverse insertion on the PCB.



## 5. Short-circuit prevention

The wall structure between the contacts helps to isolate the contacts and prevents short circuits between contacts.

## 6. Molded lance design

The lance is actually part of the housing instead of being a part of the terminal. This prevents tangled wires during assembly.

## 7. Suitable for potting

Capable of being potted, up to 5mm.

## 8. Solder crack prevention

Glass-reinforced resin is used on the pin header to prevent solder cracks due to thermal contraction.

## Product Specifications

|               |                     |        |        |        |        |                                    |               |
|---------------|---------------------|--------|--------|--------|--------|------------------------------------|---------------|
| Rated Current | No of Pos.          | 16 AWG | 18 AWG | 20 AWG | 22 AWG | Operating Temperature (Note 2)     | -55 to +105°C |
|               | 1                   | 15A    | 13A    | 11A    | 9A     | Storage Temperature Range (Note 3) | -10 to +60°C  |
|               | 2                   | 14A    | 12A    | 10A    | 8A     | Operating Humidity Range (Note 4)  | 20 to 80%     |
|               | 3                   | 12A    | 10A    | 8A     | 7A     | Storage Humidity Range (Note 3)    | 40 to 70%     |
|               | 4                   | 10A    | 8A     | 7A     | 6A     |                                    |               |
|               | 5                   | 10A    | 8A     | 7A     | 6A     |                                    |               |
|               | 6                   | 10A    | 8A     | 7A     | 6A     |                                    |               |
|               | 2<br>(7.92mm Pitch) | 15A    | 13A    | 11A    | 9A     |                                    |               |
|               | 3<br>(7.92mm Pitch) | 12A    | 11A    | 9A     | 8A     |                                    |               |
| Rated Voltage | 630V AC/DC          |        |        |        |        |                                    |               |

|                |      |            |
|----------------|------|------------|
| Voltage Rating | UL   | 600V AC/DC |
|                | C-UL | 600V AC/DC |
|                | TÜV  | 300V AC/DC |

UL/TÜV File No. and Recognition No.

UL: E52653

C-UL: E52653

TÜV: R50318850

| Item                   | Specifications   | Conditions   |
|------------------------|--|--|
| Insulation Resistance  | No less than 1,000M $\Omega$   | Measured at 500V DC  |
| Withstand Voltage      | No flashover or breakdown  | 1,500V AC is applied for 1 min.  |
| Contact Resistance     | No more than 10m $\Omega$  | Measured at 1mA and no higher than 20mV  |
| Vibration Resistance   | No electrical discontinuity of 1 $\mu$ s or greater  | Frequency 10 to 55 Hz, half amplitude 0.75 mm, 10 times in each of the 3 directions  |
| Shock Resistance       | No electrical discontinuity of 1 $\mu$ s or greater  | Accelerated velocity: 490 m/s <sup>2</sup> for 11ms, half-sine wave in 3 directions, 3 times for each direction  |
| Moisture-resistance    | Contact resistance: no more than 20m $\Omega$<br>Insulation resistance: no less than 500M $\Omega$   | Temperature: 40 $\pm$ 2°C, humidity: 90 to 95%, left as it is for 96 hours   |
| Temperature Cycles     | Contact resistance: no more than 20m $\Omega$<br>Insulation resistance: no less than 1,000M $\Omega$ | -55°C : 30 minutes $\rightarrow$ +85°C : 30 minutes<br>5 cycles  |
| Mating Durability      | Contact resistance: no more than 20m $\Omega$  | Tin Plated: 30 mating cycles<br>Gold Plated: 50 mating cycles  |
| Solder Heat Resistance | The resin parts should withstand the temperature and resist melting.                                 | Straight Header<br>Flow: 260°C, 5 sec<br>Hand soldering: temperature of soldering iron at 290°C for 3 seconds<br><br>Right Angle Header<br>Flow: 260°C, 10 sec<br>Hand soldering: temperature of soldering iron at 300°C for 3 seconds |

Note 1: This is the maximum current rating while all pins are powered or used as all power lines.

Note 2: Includes temperature rise caused by current flow.

Note 3: Applicable to unused product packaging.

Note 4: Use without condensation on parts.

Note 5: Information contained in this catalog represents general requirements for this Series. Contact us for the drawings and specifications for a specific part number shown.

## Materials / Finish

| Component     | Part      | Material               | Finish                    | UL Specification |
|---------------|-----------|------------------------|---------------------------|------------------|
| Header        | Insulator | PBT (glass-reinforced) | Black                     | UL94V-0          |
|               | Contact   | Brass                  | Tin plated or Gold plated | -                |
| Crimp socket  | Insulator | PBT (glass-reinforced) | Black                     | UL94V-0          |
| In-line plug  |           |                        |                           |                  |
| Crimp contact | Contact   | Copper alloy           | Tin plated or 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.

### ■ Connector

#### **DF63 # - # P - 3.96 DSA**

① ② ③ ④ ⑤ ⑥

### ■ Crimp contact

#### **DF63 # - 1618 SCF**

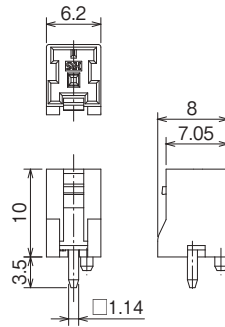
① ② ⑦ ⑧

|                  |  |                        |  |
|------------------|--|------------------------|--|
| ① Series name    | DF63   | ⑤ Contact Pitch        | 3.96mm<br>7.92mm   |
| ② Form Type      | Header<br>Blank or M: Black<br>Sockets<br>Blank: Black<br>In-line Plugs<br>Blank: Panel Lock Type<br>A: Without Panel Lock<br>Socket contacts<br>A: Standard<br>In-Line plug contacts<br>Blank: Standard | ⑥ Type of housing      | DSA: Straight header<br>DS: Right angle header<br>C: Crimp housing   |
| ③ No. of Pos.    | 1,2,3,4,5,6  | ⑦ Applicable Conductor | 1618: 16-18 AWG<br>2022: 20-22 AWG   |
| ④ Connector type | P: Pin Header<br>S: Crimp socket<br>EP: In-line plug   | ⑧ Packaging            | SCF: Socket contacts/Reel/Tin plated<br>SCFA: Socket contacts/Reel/Gold plated<br>SC: Socket contacts/Pack/Tin plated<br>SCA: Socket contacts/Pack/Gold plated<br>PCF: In-line plug contacts/Reel/Tin plated<br>PCFA: In-line plug contacts/Reel/Gold plated<br>PC: In-line plug contacts/Pack/Tin plated<br>PCA: In-line plug contacts/Pack/Gold plated |

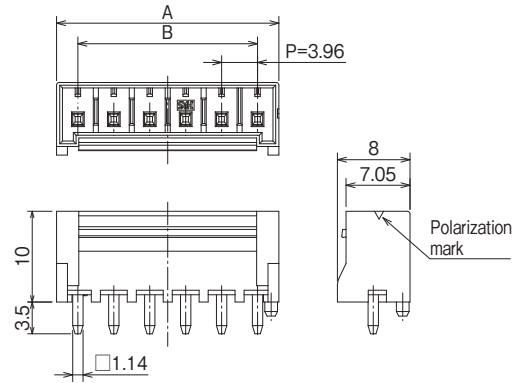
## Straight Header



[ 1 pos.]



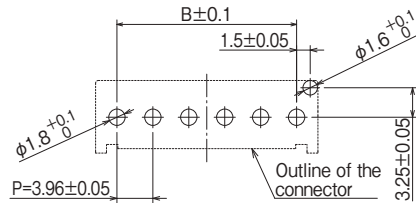
[ 2 to 6 pos.]



\*Diagram of standard type.

● Recommended PCB Layout (Board thickness: 1.6±0.1)

[ 1 to 6 pos.]



### Standard Type (Guide post: Left Side, Color: Black)

Unit : mm

| Part No.             | HRS No.          | No. of Pos. | A     | B     | Tin plated (##): (00) | Gold plated (##): (01) | Purchase Unit  |
|----------------------|------------------|-------------|-------|-------|-----------------------|------------------------|----------------|
| DF63M-1P-3.96DSA(##) | CL0680-0566-0-## | 1           | 6.20  | -     | ○                     | -                      | 100pcs per bag |
| DF63M-2P-3.96DSA(##) | CL0680-0567-0-## | 2           | 8.66  | 3.96  | ○                     | -                      |                |
| DF63M-3P-3.96DSA(##) | CL0680-0568-0-## | 3           | 12.62 | 7.92  | ○                     | ○                      |                |
| DF63M-4P-3.96DSA(##) | CL0680-0569-0-## | 4           | 16.58 | 11.88 | ○                     | ○                      |                |
| DF63-5P-3.96DSA(##)  | CL0680-0506-7-## | 5           | 20.54 | 15.84 | ○                     | -                      |                |
| DF63-6P-3.96DSA(##)  | CL0680-0507-0-## | 6           | 24.50 | 19.80 | ○                     | ○                      |                |

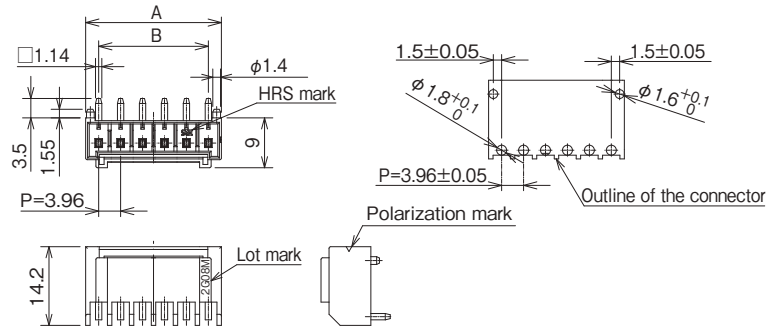
### 7.92mm pitch

Unit : mm

| Part No.             | HRS No.          | No. of Pos. | A     | B     | Tin plated (##): (00) | Gold plated (##): (01) | Purchase Unit  |
|----------------------|------------------|-------------|-------|-------|-----------------------|------------------------|----------------|
| DF63M-2P-7.92DSA(##) | CL0680-0581-0-## | 2           | 12.62 | 7.92  | ○                     | -                      | 100pcs per bag |
| DF63-3P-7.92DSA(##)  | CL0680-0537-0-## | 3           | 20.54 | 15.84 | ○                     | ○                      |                |

[Specification number(##), -##] None : Tin plated, (01) : Gold plated  
 Note : Please contact Hirose representative if you have request for (01) specification.

## Right Angle Header



## Standard Type (Color: Black)

Unit : mm

| Part No.            | HRS No.          | No. of Pos. | A     | B     | Tin plated<br>(##): (00) | Gold plated<br>(##): (01) | Purchase Unit  |
|---------------------|------------------|-------------|-------|-------|--------------------------|---------------------------|----------------|
| DF63M-1P-3.96DS(##) | CL0680-0570-0-## | 1           | 6.20  | -     | ○                        | -                         | 100pcs per bag |
| DF63M-2P-3.96DS(##) | CL0680-0571-0-## | 2           | 8.66  | 3.96  | ○                        | ○                         |                |
| DF63M-3P-3.96DS(##) | CL0680-0572-0-## | 3           | 12.62 | 7.92  | ○                        | -                         |                |
| DF63-4P-3.96DS(##)  | CL0680-0545-0-## | 4           | 16.58 | 11.88 | ○                        | -                         |                |
| DF63-5P-3.96DS(##)  | CL0680-0546-0-## | 5           | 20.54 | 15.84 | ○                        | -                         |                |
| DF63-6P-3.96DS(##)  | CL0680-0547-0-## | 6           | 24.50 | 19.80 | ○                        | -                         |                |

## 7.92mm pitch

Unit : mm

| Part No.            | HRS No.          | No. of Pos. | A     | B     | Tin plated<br>(##): (00) | Gold plated<br>(##): (01) | Purchase Unit  |
|---------------------|------------------|-------------|-------|-------|--------------------------|---------------------------|----------------|
| DF63M-2P-7.92DS(##) | CL0680-0583-0-## | 2           | 12.62 | 7.92  | ○                        | ○                         | 100pcs per bag |
| DF63-3P-7.92DS(##)  | CL0680-0559-0-## | 3           | 20.54 | 15.84 | ○                        | -                         |                |

[Specification number(##), -##] None : Tin plated, (01) : Gold plated

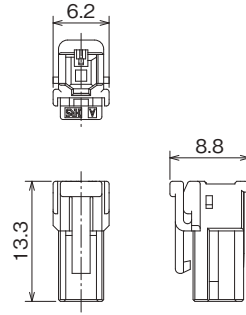
Note : Please contact Hirose representative if you have request for (01) specification.

## Crimp Socket

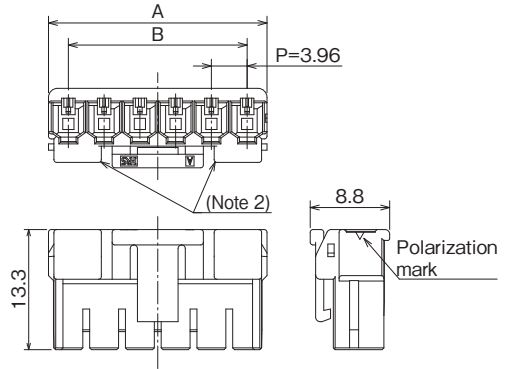


Shown with terminated and contacts installed.

[1 pos.]



[2 to 6 pos.]



## Standard Type (Color: Black)

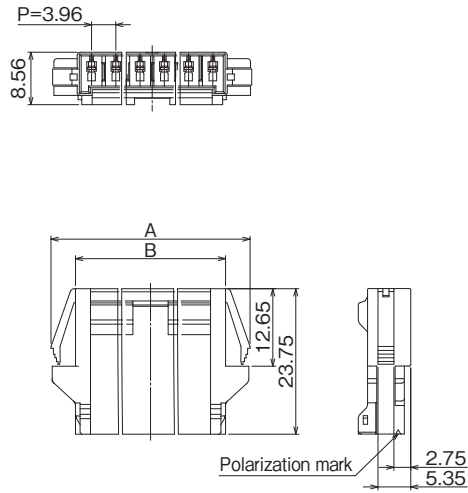
Unit : mm

| Part No.      | HRS No.          | No. of Pos. | A     | B     | Purchase Unit  |
|---------------|------------------|-------------|-------|-------|----------------|
| DF63-1S-3.96C | CL0680-0508-2-00 | 1           | 6.20  | -     | 100pcs per bag |
| DF63-2S-3.96C | CL0680-0509-5-00 | 2           | 8.36  | 3.96  |                |
| DF63-3S-3.96C | CL0680-0502-6-00 | 3           | 12.32 | 7.92  |                |
| DF63-4S-3.96C | CL0680-0510-4-00 | 4           | 16.28 | 11.88 |                |
| DF63-5S-3.96C | CL0680-0511-7-00 | 5           | 20.24 | 15.84 |                |
| DF63-6S-3.96C | CL0680-0512-0-00 | 6           | 24.20 | 19.80 |                |

## In-line Plug (Panel Lock Type)

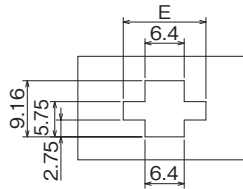


Shown with terminated and contacts installed.

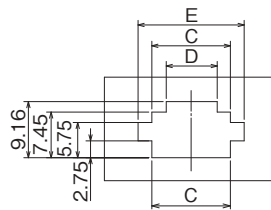


### ■ Recommended Panel Cutout

[1 pos.]



[2 to 6 pos.]



### Panel Lock Type (Color: Black)

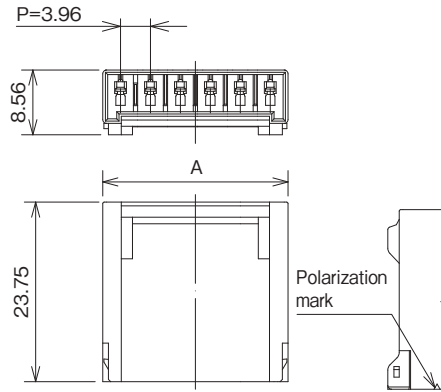
Unit : mm

| Part No.       | HRS No.          | No. of Pos. | A     | B     | C     | D     | Purchase Unit  |
|----------------|------------------|-------------|-------|-------|-------|-------|----------------|
| DF63-1EP-3.96C | CL0680-0551-0-00 | 1           | 14.20 | 6.20  | -     | -     | 100pcs per bag |
| DF63-2EP-3.96C | CL0680-0533-0-00 | 2           | 16.66 | 8.66  | 8.86  | 4.96  |                |
| DF63-3EP-3.96C | CL0680-0532-7-00 | 3           | 20.62 | 12.62 | 12.82 | 8.32  |                |
| DF63-4EP-3.96C | CL0680-0552-0-00 | 4           | 24.58 | 16.58 | 16.78 | 12.28 |                |
| DF63-5EP-3.96C | CL0680-0553-0-00 | 5           | 28.54 | 20.54 | 20.74 | 16.24 |                |
| DF63-6EP-3.96C | CL0680-0554-0-00 | 6           | 32.50 | 24.50 | 24.70 | 20.20 |                |

Unit : mm

| E | Panel thickness | No. of Pos. |       |       |       |       |       |
|---|-----------------|-------------|-------|-------|-------|-------|-------|
|   |                 | 1           | 2     | 3     | 4     | 5     | 6     |
|   | 0.5 to 0.6      | 10.30       | 12.76 | 16.72 | 20.68 | 24.64 | 28.60 |
|   | 0.7 to 1.1      | 10.80       | 13.26 | 17.22 | 21.18 | 25.14 | 29.10 |
|   | 1.2 to 1.7      | 11.30       | 13.76 | 17.72 | 21.68 | 25.64 | 29.60 |
|   | 2.0 to 2.3      | 11.80       | 14.26 | 18.22 | 22.18 | 26.14 | 30.10 |

## In-line Plug



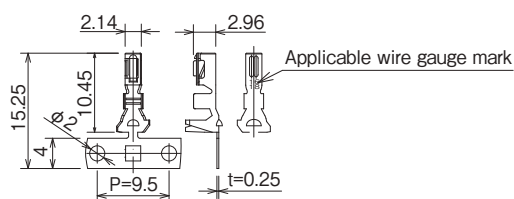
Shown with terminated and contacts installed.

### Standard Type (Color: Black)

Unit : mm

| Part No.        | HRS No.          | No. of Pos. | A     | Purchase Unit  |
|-----------------|------------------|-------------|-------|----------------|
| DF63A-1EP-3.96C | CL0680-0555-0-00 | 1           | 6.20  | 100pcs per bag |
| DF63A-2EP-3.96C | CL0680-0535-5-00 | 2           | 8.66  |                |
| DF63A-3EP-3.96C | CL0680-0534-2-00 | 3           | 12.62 |                |
| DF63A-4EP-3.96C | CL0680-0556-0-00 | 4           | 16.58 |                |
| DF63A-5EP-3.96C | CL0680-0557-0-00 | 5           | 20.54 |                |
| DF63A-6EP-3.96C | CL0680-0558-0-00 | 6           | 24.50 |                |

## Crimp Contact for Socket



## Reel Contact (4,000pcs per reel) \*Applicable tool: Applicator

| Part No.       | HRS No.          | Finish      | Applicable Wire (Tin Plated Annealed Copper) (Note 1) |           |                         |                          |                 | RoHS |
|----------------|------------------|-------------|---|-----------|-------------------------|--------------------------|-----------------|------|
|                |                  |             | UL  | Wire Size | Stranded Wire Structure | Calculated Cross-section | Jacket Diameter |      |
| DF63A-1618SCF  | CL0680-0573-0-00 | Tin Plated  | 1007  | 16 AWG    | 26/0.254mm              | 1.317mm <sup>2</sup>     | φ 2.1 to 3.2mm  | Yes  |
|                |                  |             | 1015  | 18 AWG    | 34/0.18mm               | 0.865mm <sup>2</sup>     |                 |      |
| DF63A-1618SCFA | CL0680-0646-0-00 | Gold Plated | 1007  | 16 AWG    | 26/0.254mm              | 1.317mm <sup>2</sup>     | φ 2.1 to 3.2mm  |      |
|                |                  |             | 1015  | 18 AWG    | 34/0.18mm               | 0.865mm <sup>2</sup>     |                 |      |
| DF63A-2022SCF  | CL0680-0097-0-00 | Tin Plated  | 1007  | 20 AWG    | 21/0.18mm               | 0.534mm <sup>2</sup>     | φ 1.7 to 1.8mm  |      |
|                |                  |             |   | 22 AWG    | 17/0.16mm               | 0.342mm <sup>2</sup>     |                 |      |
| DF63A-2022SCFA | CL0680-0647-0-00 | Gold Plated | 1007  | 20 AWG    | 21/0.18mm               | 0.534mm <sup>2</sup>     | φ 1.7 to 1.8mm  |      |
|                |                  |             |   | 22 AWG    | 17/0.16mm               | 0.342mm <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.)

## Loose piece (100pcs per bag) \*Applicable tool: Hand crimping tool

| Part No.      | HRS No.          | Finish      | Applicable Wire (Tin Plated Annealed Copper) (Note 1) |           |                         |                          |                 | RoHS |
|---------------|------------------|-------------|---|-----------|-------------------------|--------------------------|-----------------|------|
|               |                  |             | UL  | Wire Size | Stranded Wire Structure | Calculated Cross-section | Jacket Diameter |      |
| DF63A-1618SC  | CL0680-0648-0-00 | Tin Plated  | 1007  | 16 AWG    | 26/0.254mm              | 1.317mm <sup>2</sup>     | 2.5mm           | Yes  |
|               |                  |             |   | 18 AWG    | 34/0.18mm               | 0.865mm <sup>2</sup>     | 2.1mm           |      |
|               |                  |             | 1015  | 16 AWG    | 26/0.254mm              | 1.317mm <sup>2</sup>     | 3.2mm           |      |
|               |                  |             |   | 18 AWG    | 34/0.18mm               | 0.865mm <sup>2</sup>     | 2.9mm           |      |
| DF63A-1618SCA | CL0680-0650-0-00 | Gold Plated | 1007  | 16 AWG    | 26/0.254mm              | 1.317mm <sup>2</sup>     | 2.5mm           |      |
|               |                  |             |   | 18 AWG    | 34/0.18mm               | 0.865mm <sup>2</sup>     | 2.1mm           |      |
|               |                  |             | 1015  | 16 AWG    | 26/0.254mm              | 1.317mm <sup>2</sup>     | 3.2mm           |      |
|               |                  |             |   | 18 AWG    | 34/0.18mm               | 0.865mm <sup>2</sup>     | 2.9mm           |      |
| DF63A-2022SC  | CL0680-0649-0-00 | Tin Plated  | 1007  | 20 AWG    | 21/0.18mm               | 0.534mm <sup>2</sup>     | 1.8mm           |      |
|               |                  |             |   | 22 AWG    | 17/0.16mm               | 0.342mm <sup>2</sup>     | 1.7mm           |      |
| DF63A-2022SCA | CL0680-0651-0-00 | Gold Plated | 1007  | 20 AWG    | 21/0.18mm               | 0.534mm <sup>2</sup>     | 1.8mm           |      |
|               |                  |             |   | 22 AWG    | 17/0.16mm               | 0.342mm <sup>2</sup>     | 1.7mm           |      |

Note 1 : When crimping using a hand crimping tool only the above wires are applicable.

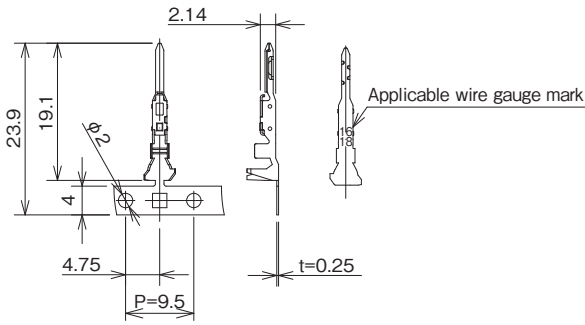
### ● Crimp Contact extraction tool

DF-C-PO(B), Flat-bladed screwdriver, 1.2mm blade width

### ● Strip length

2.9 to 3.6mm

## Crimp Contact for In-line Plug



## Reel Contact (4,000pcs per reel) \*Applicable tool: Applicator

| Part No.      | HRS No.          | Finish      | Applicable Wire (Tin Plated Annealed Copper) (Note 1) |           |                         |                          |                 | RoHS |
|---------------|------------------|-------------|---|-----------|-------------------------|--------------------------|-----------------|------|
|               |                  |             | UL  | Wire Size | Stranded Wire Structure | Calculated Cross-section | Jacket Diameter |      |
| DF63-1618PCF  | CL0680-0529-2-00 | Tin Plated  | 1007  | 16 AWG    | 26/0.254mm              | 1.317mm <sup>2</sup>     | φ2.1 to 3.2mm   | Yes  |
|               |                  |             | 1015  | 18 AWG    | 34/0.18mm               | 0.865mm <sup>2</sup>     |                 |      |
| DF63-1618PCFA | CL0680-0636-0-00 | Gold Plated | 1007  | 16 AWG    | 26/0.254mm              | 1.317mm <sup>2</sup>     | φ2.1 to 3.2mm   |      |
|               |                  |             | 1015  | 18 AWG    | 34/0.18mm               | 0.865mm <sup>2</sup>     |                 |      |
| DF63-2022PCF  | CL0680-0538-3-00 | Tin Plated  | 1007  | 20 AWG    | 21/0.18mm               | 0.534mm <sup>2</sup>     | φ1.7 to 1.8mm   |      |
|               |                  |             |   | 22 AWG    | 17/0.16mm               | 0.342mm <sup>2</sup>     |                 |      |
| DF63-2022PCFA | CL0680-0638-0-00 | Gold Plated | 1007  | 20 AWG    | 21/0.18mm               | 0.534mm <sup>2</sup>     | φ1.7 to 1.8mm   |      |
|               |                  |             |   | 22 AWG    | 17/0.16mm               | 0.342mm <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.)

## Loose piece (100pcs per bag) \*Applicable tool: Hand crimping tool

| Part No.     | HRS No.          | Finish      | Applicable Wire (Tin Plated Annealed Copper) (Note 1) |           |                         |                          |                 | RoHS |
|--------------|------------------|-------------|---|-----------|-------------------------|--------------------------|-----------------|------|
|              |                  |             | UL  | Wire Size | Stranded Wire Structure | Calculated Cross-section | Jacket Diameter |      |
| DF63-1618PC  | CL0680-0536-8-00 | Tin Plated  | 1007  | 16 AWG    | 26/0.254mm              | 1.317mm <sup>2</sup>     | 2.5mm           | Yes  |
|              |                  |             |   | 18 AWG    | 34/0.18mm               | 0.865mm <sup>2</sup>     | 2.1mm           |      |
|              |                  |             | 1015  | 16 AWG    | 26/0.254mm              | 1.317mm <sup>2</sup>     | 3.2mm           |      |
|              |                  |             |   | 18 AWG    | 34/0.18mm               | 0.865mm <sup>2</sup>     | 2.9mm           |      |
| DF63-1618PCA | CL0680-0637-0-00 | Gold Plated | 1007  | 16 AWG    | 26/0.254mm              | 1.317mm <sup>2</sup>     | 2.5mm           |      |
|              |                  |             |   | 18 AWG    | 34/0.18mm               | 0.865mm <sup>2</sup>     | 2.1mm           |      |
|              |                  |             | 1015  | 16 AWG    | 26/0.254mm              | 1.317mm <sup>2</sup>     | 3.2mm           |      |
|              |                  |             |   | 18 AWG    | 34/0.18mm               | 0.865mm <sup>2</sup>     | 2.9mm           |      |
| DF63-2022PC  | CL0680-0539-6-00 | Tin Plated  | 1007  | 20 AWG    | 21/0.18mm               | 0.534mm <sup>2</sup>     | 1.8mm           |      |
|              |                  |             |   | 22 AWG    | 17/0.16mm               | 0.342mm <sup>2</sup>     | 1.7mm           |      |
| DF63-2022PCA | CL0680-0639-0-00 | Gold Plated | 1007  | 20 AWG    | 21/0.18mm               | 0.534mm <sup>2</sup>     | 1.8mm           |      |
|              |                  |             |   | 22 AWG    | 17/0.16mm               | 0.342mm <sup>2</sup>     | 1.7mm           |      |

Note 1 : When crimping using a hand crimping tool only the above wires are applicable.

### ● Crimp Contact extraction tool

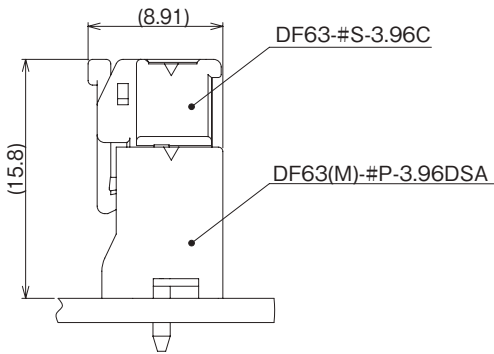
DF-C-PO(B), Flat-bladed screwdriver, 1.2mm blade width

### ● Strip length

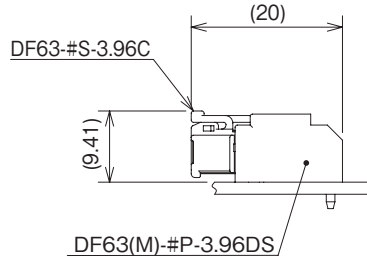
2.9 to 3.6mm

## Mated Dimensions

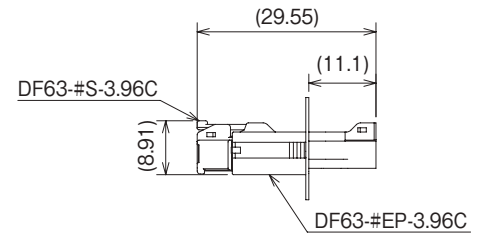
- Board-to-Wire Connection using the straight pin header



- Socket to Right Angle Header Connection



- Socket to In-line Plug Connection



## Applicable Crimping Tool

| Type              | Part No.               | HRS No.                | Wire Type          | Applicable Contacts                            |  |
|-------------------|------------------------|------------------------|--------------------|--|--|
| Applicator        | AP105-DF63-1618S-1     | CL0901-4634-1-00       | UL1007 (Note 3)    | DF63A-1618SCF<br>DF63A-1618SCFA                |  |
|                   | AP105-DF63-1618S-2     | CL0901-4635-4-00       | UL1015 (Note 3)    |  |  |
|                   | CHS893400H-UP (Note 8) | —                      | UL1015             |  |  |
|                   | Applicator             | AP105-DF63-1618-3      | CL0901-4642-0-00   | UL1007 (Note 3)                                | DF63-1618PCF<br>DF63-1618PCFA<br>DF63W-1618SCF |
|                   |                        | AP105-DF63-1618-4      | CL0901-4643-2-00   | UL1015 (Note 3)                                |  |
|                   |                        | CHS893500H-UP (Note 8) | —                  | UL1015   |  |
|                   |                        | AP105-DF63-2022-1      | CL0901-4617-0-00   | UL1007   | DF63A-2022SCF<br>DF63A-2022SCFA                |
| AP105-DF63-2022-3 |                        | CL0901-4646-0-00       | UL1007             | DF63-2022PCF<br>DF63-2022PCFA<br>DF63W-2022SCF |  |
| Hand tool         |                        | HT802/DF63-1618S-1     | CL0550-0411-2-00   | UL1007 (Note 4, 5)                             | DF63A-1618SC<br>DF63A-1618SCA                  |
|                   | HT802/DF63-1618S-2     | CL0550-0413-8-00       | UL1015 (Note 4, 6) |  |  |
|                   | HT802/DF63-1618P-1     | CL0550-0423-1-00       | UL1007 (Note 4, 5) | DF63-1618PC<br>DF63-1618PCA                    |  |
|                   | HT802/DF63-1618P-2     | CL0550-0424-4-00       | UL1015 (Note 4, 6) |  |  |
|                   | HT802/DF63-2022S-1     | CL0550-0432-0-00       | UL1007 (Note 4, 7) | DF63A-2022SC<br>DF63A-2022SCA                  |  |
|                   | HT802/DF63-2022P-1     | CL0550-0433-0-00       |                    | DF63-2022PC<br>DF63-2022PCA                    |  |

Note 1 : Please conduct crimping work according to the "Crimp Quality Standard" and "Crimp Condition".

Note 2 : Any problems that occur from using tools other than those specified by Hirose, are not covered by warranty.

Note 3 : Applicator dies can be switched to crimp the other wire size and type. The additional dies are sold separately.

Note 4 : Hand tool dies cannot be switched.

Note 5 : The compatible wire is limited to UL1007, 16 to 18 AWG

Note 6 : The compatible wire is limited to UL1015, 16 to 18 AWG

Note 7 : The compatible wire is limited to UL1007, 20 to 22 AWG

Note 8 : Applicator manufactured by JAPAN AUTOMATIC MACHINE (J.A.M.). Please access to HP of J.A.M., if you make inquiries about the applicator or crimp defect. (URL : <http://www.jam-net.co.jp>)

## Contact Extraction

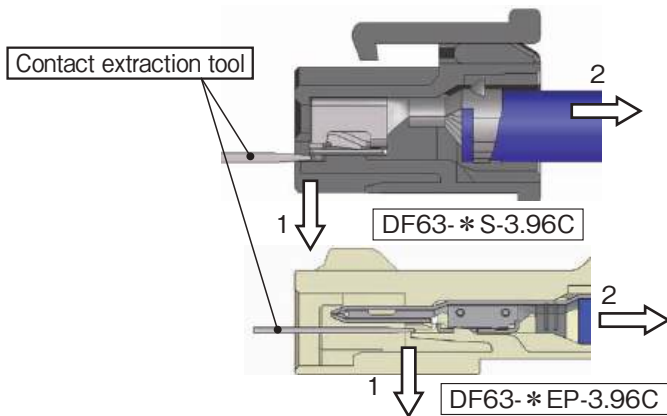
Contact extraction tool : Flat-bladed screwdriver. 1.2mm blade width or DF-C-PO(B)

Intended crimp Contacts : DF63A-1618SC(F)(A), DF63A-2022SC(F)(A), DF63-1618PC(F)(A), DF63-2022PC(F)(A)

### ● Work Method

1. Refer to the drawing No.1. Insert correct size contact extraction tool in the insulator against the molded-in lance. Deflect the lance as shown.
2. Assure that the lance is deflected to release the contact and pull-out wire with the terminated contact.

### Housing Cross Sectional Diagram



\* Using crimping socket after repair could induce decrease of lance strength, use new socket to avoid such failures.

**⚠ Caution** There are parts on the crimp contact that can cause injuries, please use caution when unmating the contacts.

## Precautions for use

1. The connector could be damaged if it is pulled out forcibly. When it is hard to pull out, push it in slightly first and then depress the lock and un-mate.
2. When thick, short sections of wire are used, the connector could be deformed due to the force of the wires' position. Route cables in such a way that they do not twist when being installed.
3. Make sure to turn off the power when mating or un-mating the connector.
4. Please do not touch any area around the contact part with your hand when the power is on; it could be very dangerous.
5. Please refer to the materials listed below on our company website when handling this product.
  - Product Guidelines (Board-to-Wire Connector Guidelines)
  - Product Guidelines (Mating/Unmating Operation Instruction Manual)
  - Cable Assembly Instruction
  - Crimp Condition
  - Crimp Quality Standard
6. The color of the plastic molding may differ slightly depending on product lot and future storage conditions but this does not affect the product performance.
7. Black spots may appear on the mold resin but this does not affect the product quality.

## Rated values

- Please avoid using the connectors above the ratings. Also, do not insert or pull out energized or "live" wires.
- "Live wire insertion" refers to insertion while electricity is running.

## Operating environment

- Please contact us if you are designing this connector into environmental conditions where high and low temperatures are repeated.

## 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



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