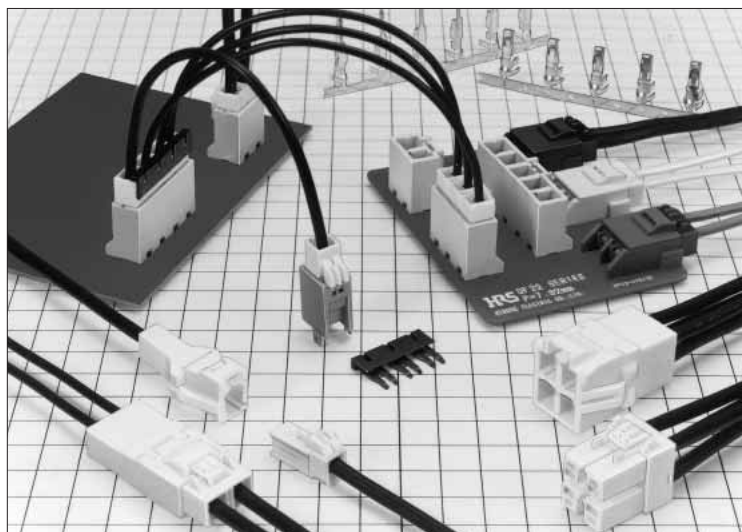


## 7.92 mm Contact Pitch, High-Current Connectors for Internal Power Supplies (UL, C-UL and TÜV Listed)

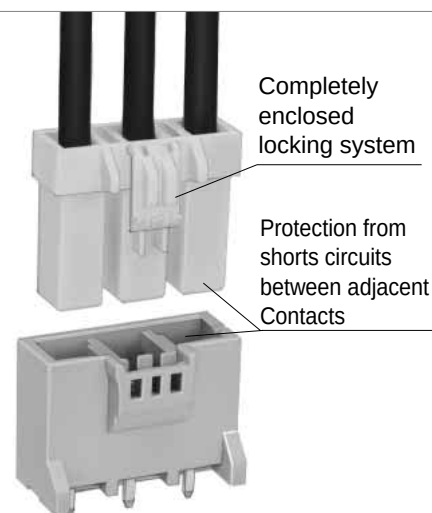
### DF22 Series



#### ■ Features

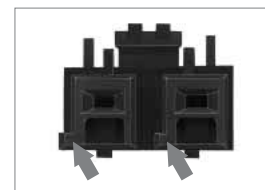
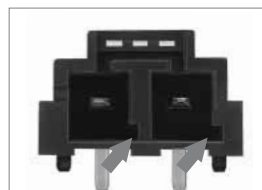
- 1. 30 A maximum current**  
Single position connector can carry current of 30 A with #10 AWG conductor. Please refer to Table #1 for current ratings for multi-position connectors using other conductor sizes.
- 2. Complete Locking Function**  
Reliable interior lock protects mated connectors from accidental disconnection.
- 3. Prevention of Incorrect Connections**  
To prevent incorrect connection when using multiple connectors having the same Number of contacts, 3 product types having different mating configurations are available.
- 4. Molded-in contact retention tabs**  
Handling of terminated contacts during the crimping is easier and avoids entangling of wires, since there are no protruding metal tabs.
- 5. Prevention of incorrect board placement**  
Built-in posts assure correct connector placement and orientation on the board.
- 6. Supports encapsulation**  
Connectors can be encapsulated up to 10 mm without affecting the performance.
- 7. Prevention of Short Circuits Between Adjacent Contacts**  
Each Contact is completely surrounded by the insulator housing electrically isolating it from adjacent contacts.
- 8. Increased Retention Force of Crimped Contacts and confirmation of complete contact insertion**  
Separate contact retainers are provided for applications where extreme pull-out forces may be applied against the wire or when a visual confirmation of the full contact insertion is required.
- 9. Full Line of Crimp Socket Contacts**  
Realizing the market needs for multitude of different applications, Hirose has developed several variants of crimp socket contacts and housings. Continuous development is adding different variations. Contact your nearest Hirose Electric representative for latest developments.
- 10. In-line Connections**  
Connectors can be ordered for in-line cable connections. In addition, assemblies can be placed next to each other allowing 4 position total (2 × 2) in a small space.
- 11. Listed by UL, C-UL, and TÜV.**

#### Complete Locking Function

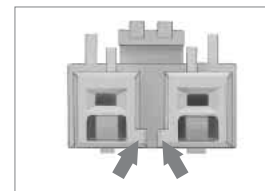


#### Prevention of Incorrect Connections

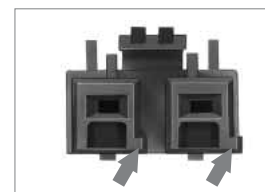
##### ● R Type (Guide key: right side, Color: black)



##### ● Standard Type (Guide key: inside, Color: natural)



##### ● L Type (Guide key: left side, Color: red)



\*The photographs on the left show header (the board dip side), the photographs on the right show the socket (cable side).

\*The guide key position is indicated in position facing the mating surface of the header.

■Product Specifications

| Ratings | Current<br>rating | Number of contacts | AWG10 | AWG12 | AWG14 | AWG16 | Operating temperature range |                              | -35℃ to 85℃ (Note 1) |
|---------|-------------------|--------------------|-------|-------|-------|-------|-----------------------------|------------------------------|----------------------|
|         |                   | 1                  | 30A   | 25A   | 20A   | 15A   | Operating humidity range    |                              | 20% to 80%           |
|         |                   | 2                  | 25A   | 20A   | 18A   | 15A   | Storage temperature range   |                              | -10℃ to 60℃ (Note 2) |
|         |                   | 3                  | 25A   | 20A   | 18A   | 15A   |                             |                              |                      |
|         |                   | 4                  | 22A   | 18A   | 15A   | 13A   |                             |                              |                      |
|         |                   | 5                  | 22A   | 18A   | 15A   | 13A   | UL/C-UL/TÜV                 | File No. and Recognition No. |                      |
|         | Voltage<br>rating | Specification      |       |       | AC/DC | 1000V | UL                          | : E52653                     |                      |
|         |                   | UL/C-UL            |       |       | AC/DC | 600V  | C-UL                        | : E52653                     |                      |
|         |                   | TÜV                |       |       | AC/DC | 600V  | TÜV                         | : R9950703                   |                      |

| Item                                        | Specification                                               | Condition                                                                                                    |
|---------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| 1. Contact resistance                       | Contact resistance(Initial value): 5 m ohms max.            | 20mV max., 1mA                                                                                               |
| 2. Insulator resistance                     | 1000 M ohms min.                                            | 1000 V DC                                                                                                    |
| 3. Withstanding voltage                     | No flashover or Insulator breakdown                         | 2500 V AC for 1 minute                                                                                       |
| 4. Insertion-Extraction force (per contact) | 0.3N min., 5N max.                                          | Measured with a steel pin of 1.6 x 0.8 ± 0.002 thickness                                                     |
| 5. Durability (mating/unmating)             | Contact resistance of 10 m ohms max.                        | 30 cycles                                                                                                    |
| 6. Vibration                                | No electrical discontinuity of 1 μs. min.                   | Frequency 10 to 55 Hz, single amplitude of 0.75 mm, 3 axis, duration of 2 hours                              |
| 7. Shock                                    | No electrical discontinuity of 1 μs. min.                   | Acceleration of 490 m/s², 11 ms duration, sine half-wave waveform, 3 cycles in each of the 3 axis.           |
| 8. Humidity                                 | Contact resistance 10 m ohms max.                           | Temperature 40℃ ± 2℃, 90% to 95% RH, 96 hours                                                                |
| 9. Temperature cycle                        | Contact resistance of 10 m ohms max.                        | (-55℃: 30 minutes→5 to 35℃: 5 minutes→85℃: 30 minutes→5 to 35℃: 5 minutes) for 5 cycles                      |
| 10. Resistance to Soldering heat            | No deformation of the insulator parts affecting performance | Flow solder temperature 250℃, for 10 seconds<br>Manual soldering: Soldering iron temperature 300℃, 3 seconds |

Note 1: Current rating of header is 30A (1 pos.) and 25A (2 to 5 pos.)  
Note 2: Includes temperature rise caused by the current flow.  
Note 3: The term "storage" refers to products stored for long period of time prior to mounting and use. Operating Temperature Range and Humidity range covers non- conducting condition of installed connectors in storage, shipment or during transportation.  
Note 4: 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

| Product        | Part      | Material                       | Finish                      | Remarks |
|----------------|-----------|--------------------------------|-----------------------------|---------|
| Sockets        | Insulator | Polyamide                      | Color: Natural white (Note) | UL94V-0 |
| Crimp contacts | Contacts  | High conductivity copper alloy | Tin-lead plated             | —       |
| Headers        | Insulator | Polyamide (Glass reinforced)   | Color: Natural beige (Note) | UL94V-0 |
|                | Contacts  | High conductivity copper alloy | Tin-copper plated           | —       |

Note : Standard Color, colors of the differing coupling forms are black for DF22R and red for DF22L.

■Ordering Information

●Socket, Header

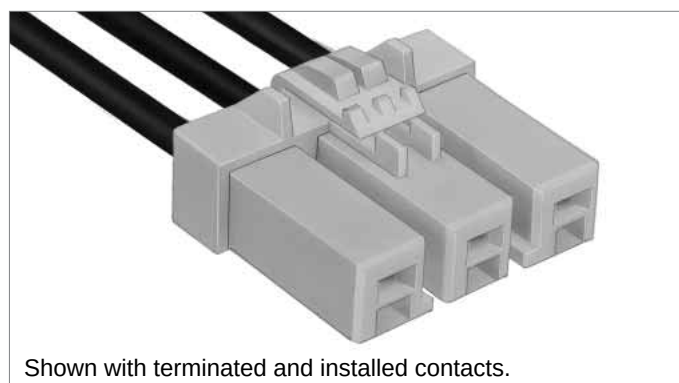
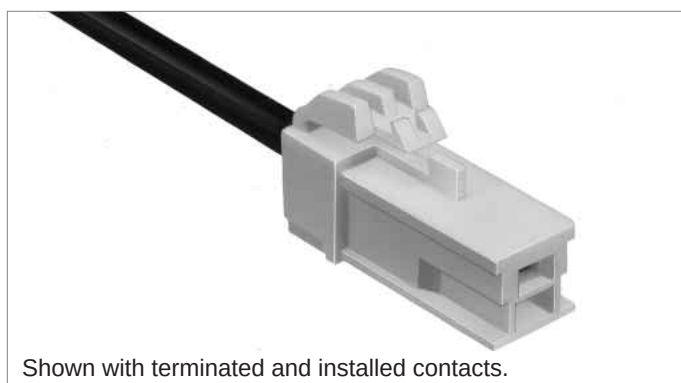
●Contacts

DF22 B L - 2 S - 7.92 C  
① ② ③ ④ ⑤ ⑥ ⑦

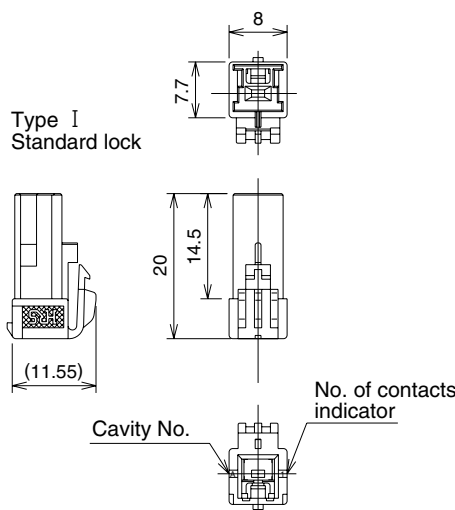
DF22 A - 1416 SCF  
① ⑧ ⑨ ⑩

|                                                                                                                                                                                                                                       |                                                                                                                                                 |                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| ① Series name: DF22                                                                                                                                                                                                                   | ④ Number of contacts : 1 to 5                                                                                                                   | ⑧ Applicable Cable<br>Blank : UL1430<br>A : UL1015                                                                                                  |
| ② Form Type<br>Sockets<br>Blank : Standard height, standard lock (Type I)<br>B : Long type, standard lock (Type III)<br>C : Long type, ergonomic lock (Type IV)<br>In-line Plugs<br>Blank : With panel stop<br>A : Without panel stop | ⑤ Connector type<br>S : Socket<br>DS : Double-row socket<br>P : Header<br>EP : In-line plug<br>DEP : Double-row in-line plug<br>RS/P : Retainer |                                                                                                                                                     |
|                                                                                                                                                                                                                                       | ⑥ Contact pitch : 7.92 mm                                                                                                                       | ⑨ Applicable Conductor<br>1416 : AWG 14 to AWG 16<br>1012 : AWG 10 to AWG 12                                                                        |
| ③ Guide key type<br>Blank : Inside (Color: natural)<br>R : Right side (Color: black)<br>L : Left side (Color: red)                                                                                                                    | ⑦ Type of housing<br>C : Crimp housing<br>DSA : Straight header<br>DS : Right-angle header<br>No letter : Retainer                              | ⑩ Packaging<br>SCF : Socket contacts / Reel<br>SC : Socket contacts / Bag<br>PCF : In-line plug contacts / Reel<br>PC : In-line plug contacts / Bag |
|                                                                                                                                                                                                                                       |                                                                                                                                                 |                                                                                                                                                     |

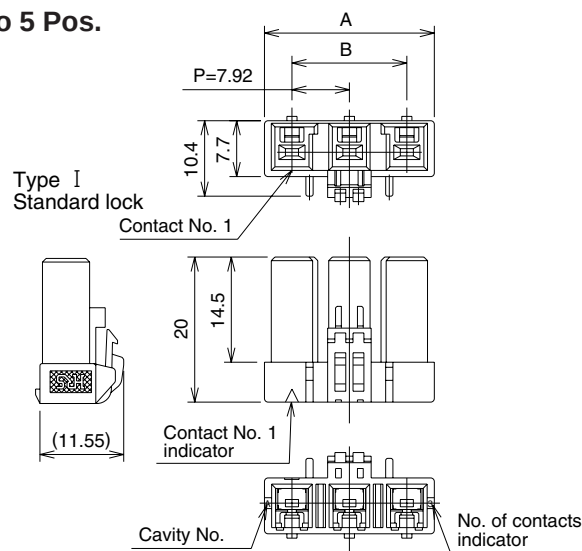
## ■ Crimp Sockets (Standard Type)



### 1 Pos.



### 2 to 5 Pos.



## ■ Type I

### Height: Standard type, Standard lock

Note: The part number and CL No. have changed to accommodate the product form change of the 2 to 5 pos. types.

### Standard Type (Guide Key: Inside, Color: White)

| Part Number       | CL No.        | Number of contacts | A     | B     |
|-------------------|---------------|--------------------|-------|-------|
| DF22-1S-7.92C(28) | 680-1012-2-28 | 1                  | 8.00  | —     |
| DF22-2S-7.92C(28) | 680-1004-4-28 | 2                  | 15.50 | 7.92  |
| DF22-3S-7.92C(28) | 680-1005-7-28 | 3                  | 23.42 | 15.84 |
| DF22-4S-7.92C(28) | 680-1006-0-28 | 4                  | 31.34 | 23.76 |
| DF22-5S-7.92C(28) | 680-1007-2-28 | 5                  | 39.26 | 31.68 |

### R Type (Guide Key: Right Side, Color: Black)

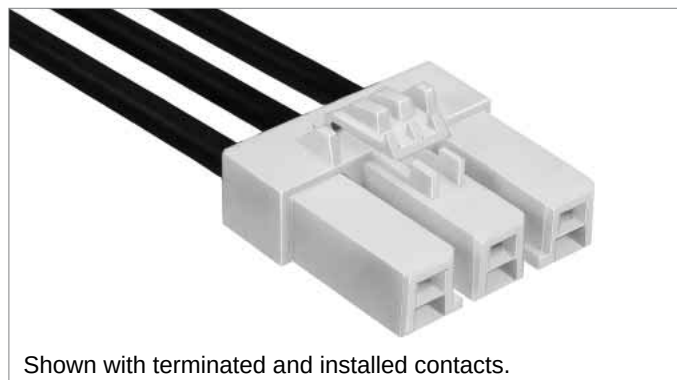
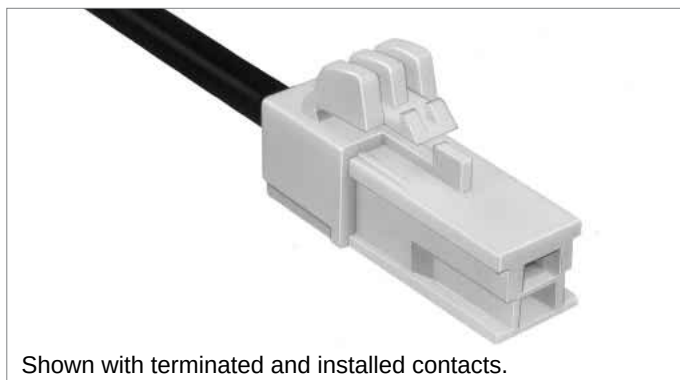
| Part Number        | CL No.        | Number of contacts | A     | B     |
|--------------------|---------------|--------------------|-------|-------|
| DF22R-1S-7.92C(28) | 680-1026-7-28 | 1                  | 8.00  | —     |
| DF22R-2S-7.92C(28) | 680-1027-0-28 | 2                  | 15.50 | 7.92  |
| DF22R-3S-7.92C(28) | 680-1028-2-28 | 3                  | 23.42 | 15.84 |
| DF22R-4S-7.92C(28) | 680-1029-5-28 | 4                  | 31.34 | 23.76 |
| DF22R-5S-7.92C(28) | 680-1030-4-28 | 5                  | 39.26 | 31.68 |

### L Type (Guide Key: Left Side, Color: Red)

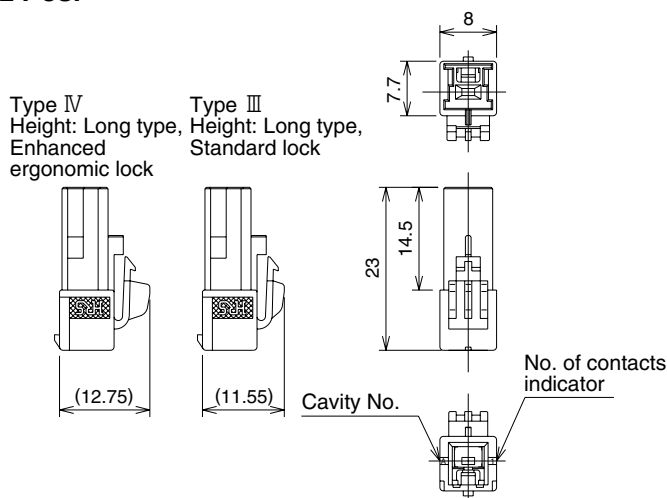
| Part Number        | CL No.        | Number of contacts | A     | B     |
|--------------------|---------------|--------------------|-------|-------|
| DF22L-1S-7.92C(28) | 680-1031-7-28 | 1                  | 8.00  | —     |
| DF22L-2S-7.92C(28) | 680-1032-0-28 | 2                  | 15.50 | 7.92  |
| DF22L-3S-7.92C(28) | 680-1033-2-28 | 3                  | 23.42 | 15.84 |
| DF22L-4S-7.92C(28) | 680-1034-5-28 | 4                  | 31.34 | 23.76 |
| DF22L-5S-7.92C(28) | 680-1035-8-28 | 5                  | 39.26 | 31.68 |

Note: Bag packaging (100 pieces/bag). Order by number of bags.

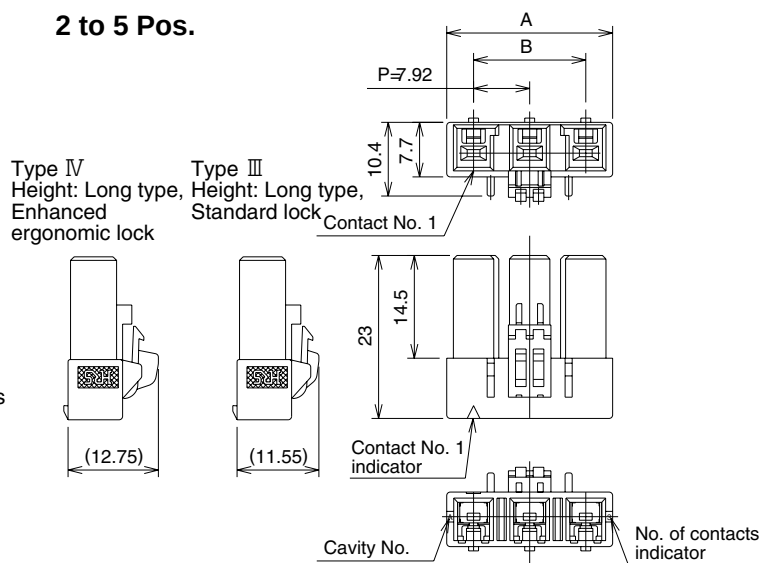
## ■ Crimp Sockets (Height, Long Type)



### 1 Pos.



### 2 to 5 Pos.



### ■ Type III

Height: Long type, Standard lock

Standard Type (Guide Key: Inside, Color: White)

| Part Number    | CL No.     | Number of contacts | A     | B     |
|----------------|------------|--------------------|-------|-------|
| DF22B-2S-7.92C | 680-1097-5 | 2                  | 15.50 | 7.92  |
| DF22B-3S-7.92C | 680-1098-8 | 3                  | 23.42 | 15.84 |
| DF22B-4S-7.92C | 680-1099-0 | 4                  | 31.34 | 23.76 |
| DF22B-5S-7.92C | 680-1100-8 | 5                  | 39.26 | 31.68 |

Note: Bag packaging (100 pieces/bag). Order by number of bags.

### ■ Type IV

Height: Long type, Enhanced ergonomic lock

Standard Type (Guide Key: Inside, Color: White)

| Part Number    | CL No.     | Number of contacts | A     | B     |
|----------------|------------|--------------------|-------|-------|
| DF22C-1S-7.92C | 680-1101-0 | 1                  | 8.00  | —     |
| DF22C-2S-7.92C | 680-1102-3 | 2                  | 15.50 | 7.92  |
| DF22C-3S-7.92C | 680-1103-6 | 3                  | 23.42 | 15.84 |
| DF22C-4S-7.92C | 680-1104-9 | 4                  | 31.34 | 23.76 |

R Type (Guide Key: Right Side, Color: Black)

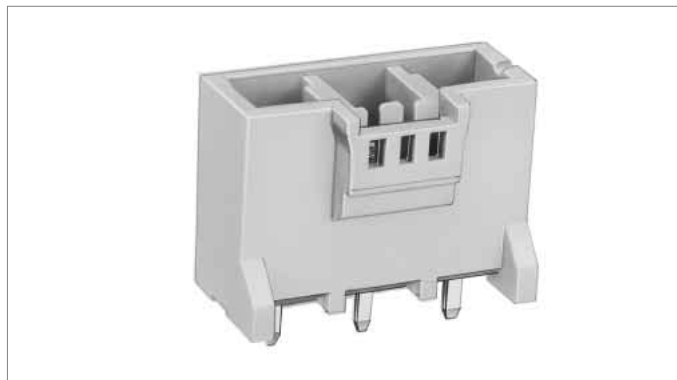
| Part Number     | CL No.     | Number of contacts | A     | B     |
|-----------------|------------|--------------------|-------|-------|
| DF22CR-3S-7.92C | 680-1130-9 | 3                  | 23.42 | 15.84 |

L Type (Guide Key: Left Side, Color: Red)

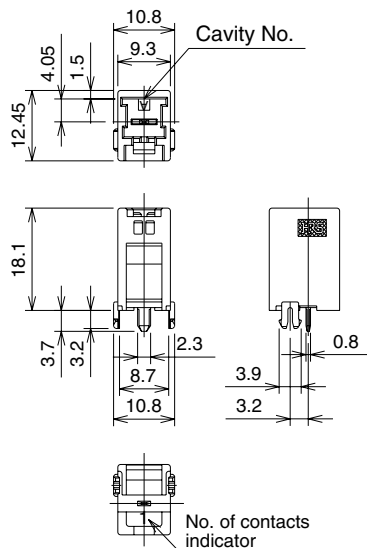
| Part Number     | CL No.     | Number of contacts | A     | B     |
|-----------------|------------|--------------------|-------|-------|
| DF22CL-1S-7.92C | 680-1133-7 | 1                  | 8.00  | —     |
| DF22CL-3S-7.92C | 680-1135-2 | 3                  | 23.42 | 15.84 |

Note: Bag packaging (100 pieces/bag). Order by number of bags.

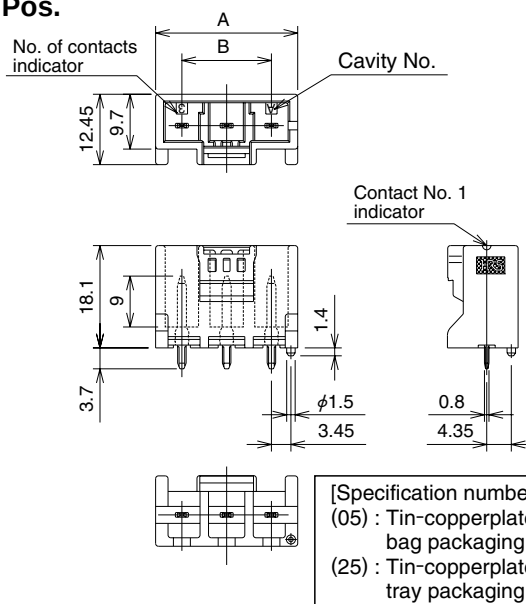
## ■Straight header



### 1 Pos.



### 2 to 5 Pos.



### Standard Type (Guide Key: Inside, Color: Natural Beige)

| Part Number         | CL No.         | Number of contacts | A     | B     | Bag Packaging | Tray Packaging |
|---------------------|----------------|--------------------|-------|-------|---------------|----------------|
| DF22-1P-7.92DSA(**) | 680-1013-5-**- | 1                  | 10.08 | —     | —             | ✓              |
| DF22-2P-7.92DSA(**) | 680-1014-8-**- | 2                  | 17.22 | 7.92  | ✓             | —              |
| DF22-3P-7.92DSA(**) | 680-1015-0-**- | 3                  | 25.14 | 15.84 | ✓             | —              |
| DF22-4P-7.92DSA(**) | 680-1016-3-**- | 4                  | 33.06 | 23.76 | ✓             | —              |
| DF22-5P-7.92DSA(**) | 680-1017-6-**- | 5                  | 40.98 | 31.68 | ✓             | —              |

### R Type (Guide Key: Right Side, Color: Black)

| Part Number          | CL No.         | Number of contacts | A     | B     | Bag Packaging | Tray Packaging |
|----------------------|----------------|--------------------|-------|-------|---------------|----------------|
| DF22R-1P-7.92DSA(**) | 680-1036-0-**- | 1                  | 10.08 | —     | —             | ✓              |
| DF22R-2P-7.92DSA(**) | 680-1037-3-**- | 2                  | 17.22 | 7.92  | ✓             | —              |
| DF22R-3P-7.92DSA(**) | 680-1038-6-**- | 3                  | 25.14 | 15.84 | ✓             | —              |
| DF22R-4P-7.92DSA(**) | 680-1039-9-**- | 4                  | 33.06 | 23.76 | ✓             | —              |
| DF22R-5P-7.92DSA(**) | 680-1040-8-**- | 5                  | 40.98 | 31.68 | ✓             | —              |

### L Type (Guide Key: Left Side, Color: Red)

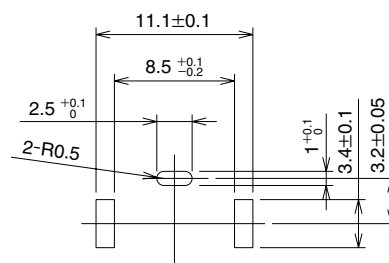
| Part Number          | CL No.         | Number of contacts | A     | B     | Bag Packaging | Tray Packaging |
|----------------------|----------------|--------------------|-------|-------|---------------|----------------|
| DF22L-1P-7.92DSA(**) | 680-1041-0-**- | 1                  | 10.08 | —     | —             | ✓              |
| DF22L-2P-7.92DSA(**) | 680-1042-3-**- | 2                  | 17.22 | 7.92  | ✓             | —              |
| DF22L-3P-7.92DSA(**) | 680-1043-6-**- | 3                  | 25.14 | 15.84 | ✓             | —              |
| DF22L-4P-7.92DSA(**) | 680-1044-9-**- | 4                  | 33.06 | 23.76 | ✓             | —              |
| DF22L-5P-7.92DSA(**) | 680-1045-1-**- | 5                  | 40.98 | 31.68 | ✓             | —              |

Note 1: Bag packaging (100 pieces/bag). Order by number of bags.

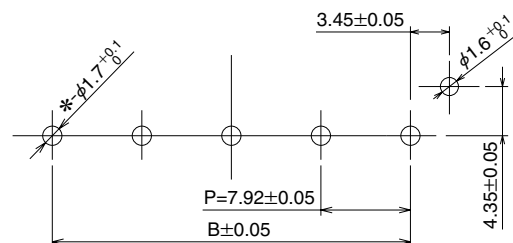
Note 2: Tray packaging (150 pieces/tray). Order by number of 150.

## ■PCB mounting pattern (Board thickness: $1.6 \pm 0.1$ )

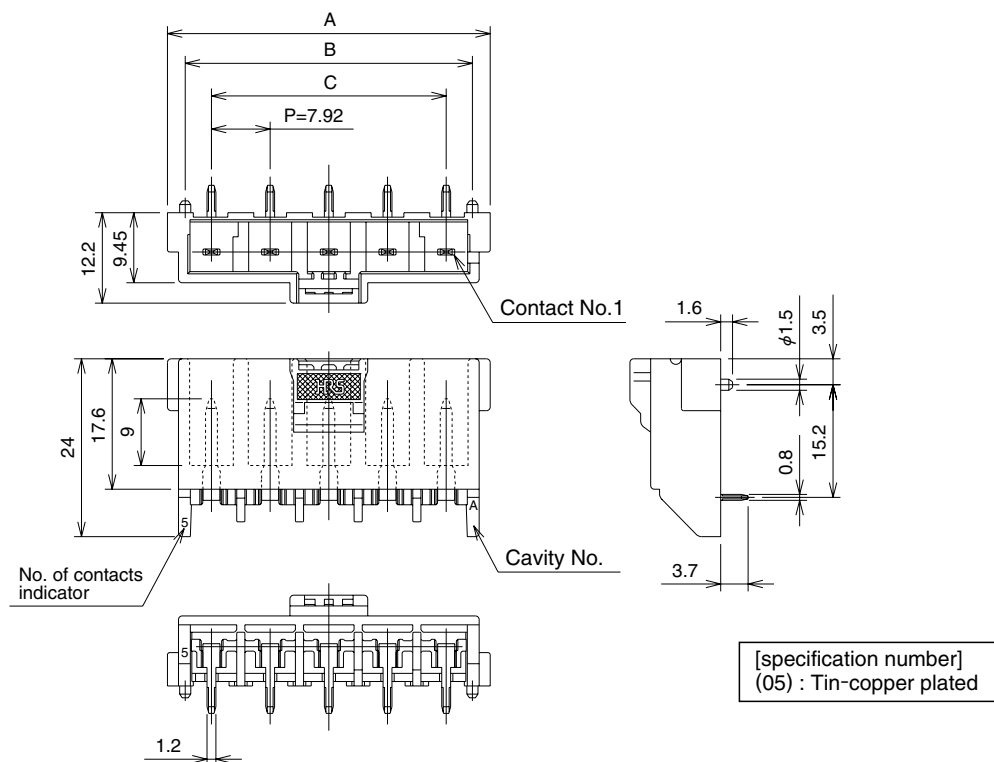
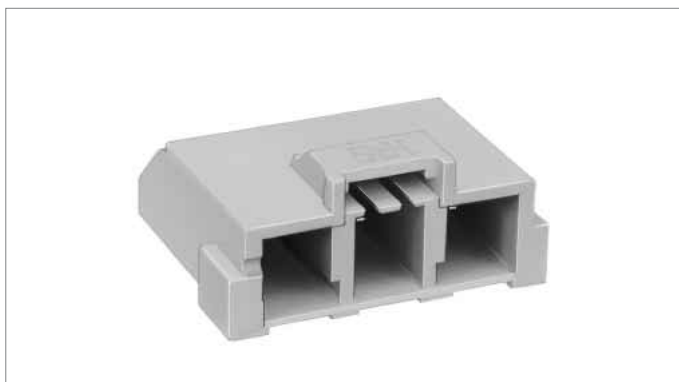
### 1 Pos.



### 2 to 5 Pos.



## ■ Right angle header



### Standard Type (Guide Key: Inside, Color: Natural Beige)

| Part Number        | CL No.        | Number of contacts | A     | B     | C     |
|--------------------|---------------|--------------------|-------|-------|-------|
| DF22-2P-7.92DS(05) | 680-1008-5-05 | 2                  | 19.80 | 15.00 | 7.92  |
| DF22-3P-7.92DS(05) | 680-1009-8-05 | 3                  | 27.72 | 22.92 | 15.84 |
| DF22-4P-7.92DS(05) | 680-1010-7-05 | 4                  | 35.64 | 30.84 | 23.76 |
| DF22-5P-7.92DS(05) | 680-1011-0-05 | 5                  | 43.56 | 38.76 | 31.68 |

### R Type (Guide Key: Right Side, Color: Black)

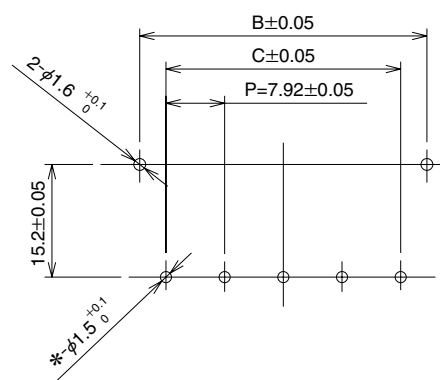
| Part Number         | CL No.        | Number of contacts | A     | B     | C     |
|---------------------|---------------|--------------------|-------|-------|-------|
| DF22R-2P-7.92DS(05) | 680-1018-9-05 | 2                  | 19.80 | 15.00 | 7.92  |
| DF22R-3P-7.92DS(05) | 680-1019-1-05 | 3                  | 27.72 | 22.92 | 15.84 |
| DF22R-4P-7.92DS(05) | 680-1020-0-05 | 4                  | 35.64 | 30.84 | 23.76 |
| DF22R-5P-7.92DS(05) | 680-1021-3-05 | 5                  | 43.56 | 38.76 | 31.68 |

### L Type (Guide Key: Left Side, Color: Red)

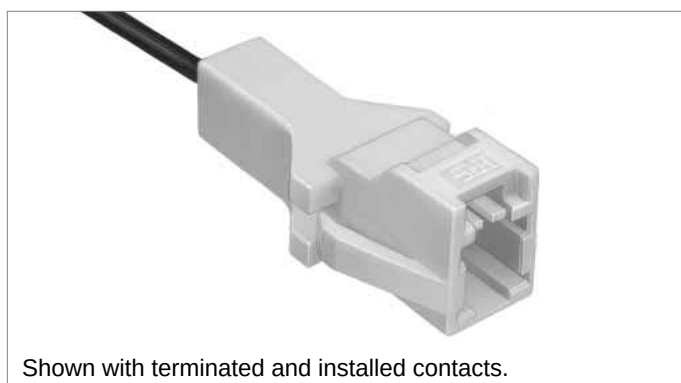
| Part Number         | CL No.        | Number of contacts | A     | B     | C     |
|---------------------|---------------|--------------------|-------|-------|-------|
| DF22L-2P-7.92DS(05) | 680-1022-6-05 | 2                  | 19.80 | 15.00 | 7.92  |
| DF22L-3P-7.92DS(05) | 680-1023-9-05 | 3                  | 27.72 | 22.92 | 15.84 |
| DF22L-4P-7.92DS(05) | 680-1024-1-05 | 4                  | 35.64 | 30.84 | 23.76 |
| DF22L-5P-7.92DS(05) | 680-1025-4-05 | 5                  | 43.56 | 38.76 | 31.68 |

Note: Bag packaging (100 pieces/bag). Order by number of bags.

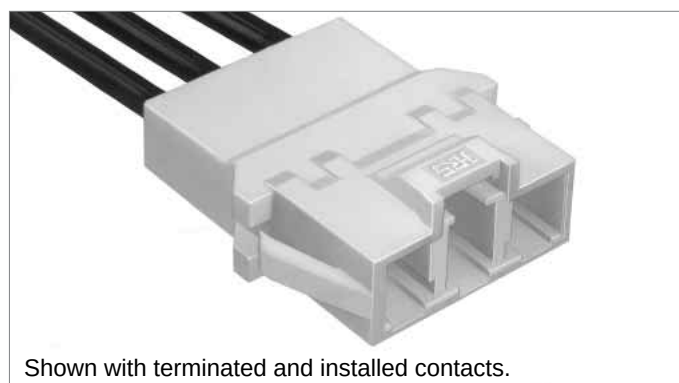
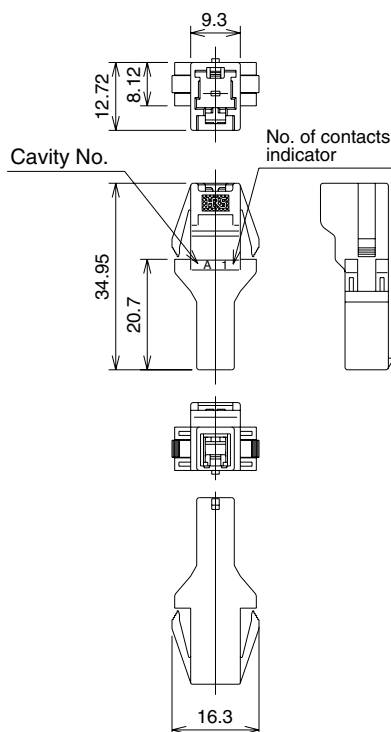
## ■ PCB mounting pattern (Board thickness: 1.6±0.1)



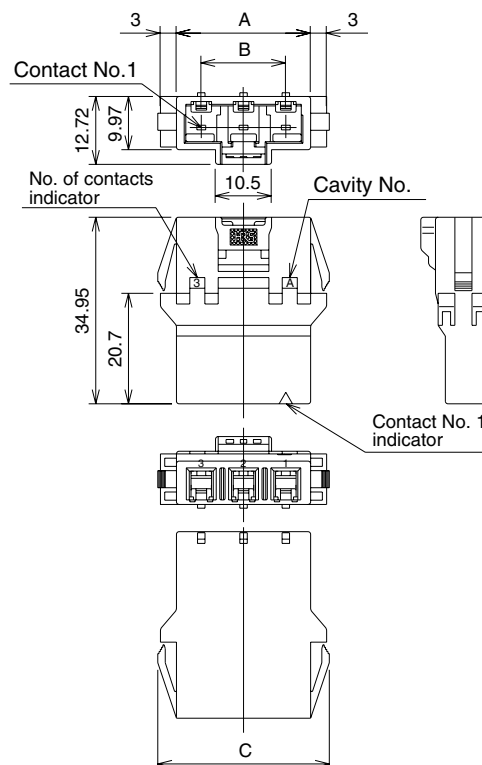
## ■ In-line plug (Panel lock type)



**1 Pos.**



**2, 3 Pos.**



### Standard Type (Guide Key: Inside, Color: White)

| Part Number    | CL No.     | Number of contacts | A     | B     | C     |
|----------------|------------|--------------------|-------|-------|-------|
| DF22-1EP-7.92C | 680-1048-0 | 1                  | 9.30  | —     | 16.30 |
| DF22-2EP-7.92C | 680-1049-2 | 2                  | 17.22 | 7.92  | 24.22 |
| DF22-3EP-7.92C | 680-1050-1 | 3                  | 25.14 | 15.84 | 32.14 |

### R Type (Guide Key: Right Side, Color: Black)

| Part Number     | CL No.     | Number of contacts | A     | B     | C     |
|-----------------|------------|--------------------|-------|-------|-------|
| DF22R-2EP-7.92C | 680-1059-6 | 2                  | 17.22 | 7.92  | 24.22 |
| DF22R-3EP-7.92C | 680-1060-5 | 3                  | 25.14 | 15.84 | 32.14 |

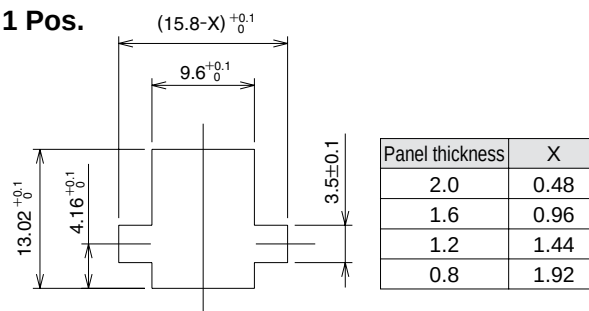
### L Type (Guide Key: Left Side, Color: Red)

| Part Number     | CL No.     | Number of contacts | A     | B    | C     |
|-----------------|------------|--------------------|-------|------|-------|
| DF22L-1EP-7.92C | 680-1063-3 | 1                  | 9.30  | —    | 16.30 |
| DF22L-2EP-7.92C | 680-1064-6 | 2                  | 17.22 | 7.92 | 24.22 |

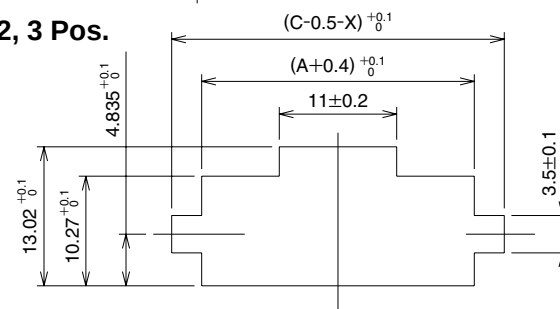
Note: Bag packaging (100 pieces/bag). Order by number of bags.

## ■ Panel Cutout

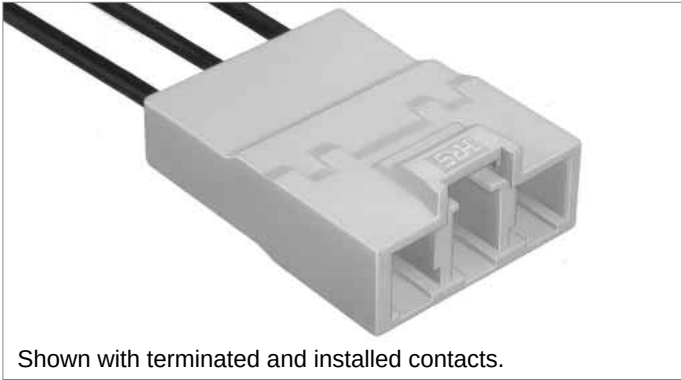
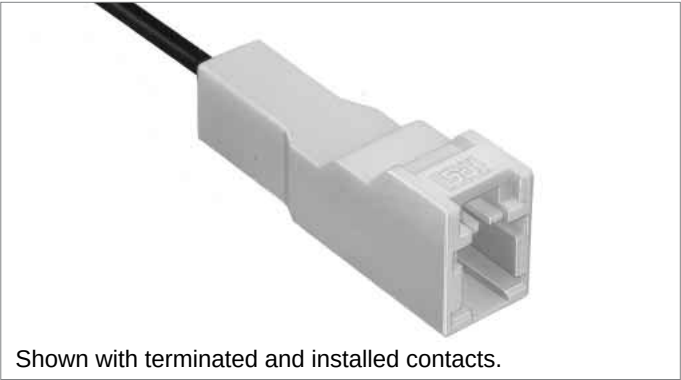
**1 Pos.**



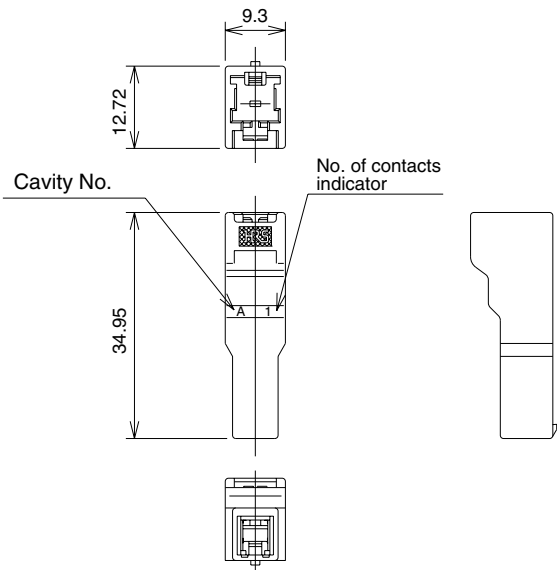
**2, 3 Pos.**



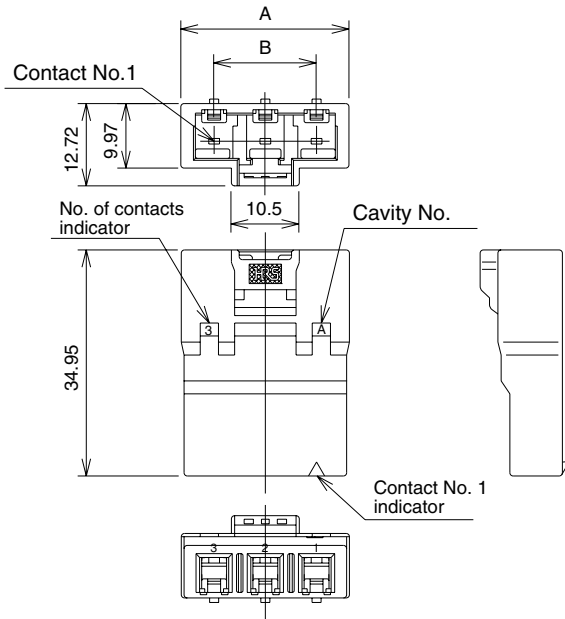
■In-line Plug



1 Pos.



2, 3 Pos.



Standard Type (Guide Key: Inside, Color: Natural Beige)

| Part Number     | CL No.     | Number of contacts | A     | B     |
|-----------------|------------|--------------------|-------|-------|
| DF22A-1EP-7.92C | 680-1053-0 | 1                  | 9.30  | —     |
| DF22A-2EP-7.92C | 680-1054-2 | 2                  | 18.00 | 7.92  |
| DF22A-3EP-7.92C | 680-1055-5 | 3                  | 26.00 | 15.84 |

R Type (Guide Key: Right Side, Color: Black)

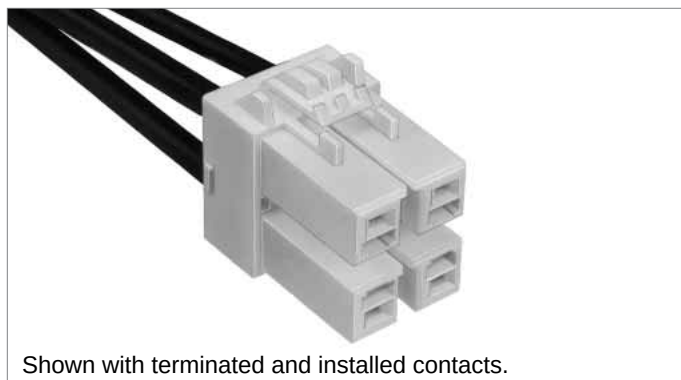
| Part Number      | CL No.     | Number of contacts | A     | B     |
|------------------|------------|--------------------|-------|-------|
| DF22AR-2EP-7.92C | 680-1069-0 | 2                  | 18.00 | 7.92  |
| DF22AR-3EP-7.92C | 680-1070-9 | 3                  | 26.00 | 15.84 |

L Type (Guide Key: Left Side, Color: Red)

| Part Number      | CL No.     | Number of contacts | A     | B    |
|------------------|------------|--------------------|-------|------|
| DF22AL-2EP-7.92C | 680-1074-0 | 2                  | 18.00 | 7.92 |

Note: Bag packaging (100 pieces/bag). Order by number of bags.

## ■In-line Double-row socket



### Standard Type (Guide Key: Inside, Color: White)

| Part Number     | CL No.     | Number of contacts | Lock type     |
|-----------------|------------|--------------------|---------------|
| DF22B-4DS-7.92C | 680-1142-8 | 4                  | Standard lock |

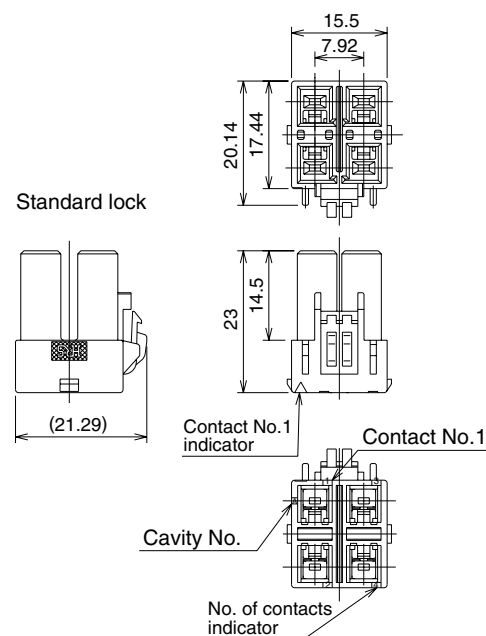
### R Type (Guide Key: Right Side, Color: Black)

| Part Number      | CL No.     | Number of contacts | Lock type     |
|------------------|------------|--------------------|---------------|
| DF22BR-4DS-7.92C | 680-1156-2 | 4                  | Standard lock |

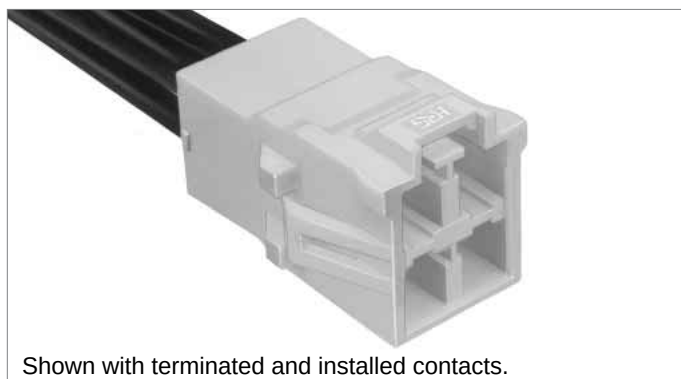
### L Type (Guide Key: Left Side, Color: Red)

| Part Number      | CL No.     | Number of contacts | Lock type     |
|------------------|------------|--------------------|---------------|
| DF22BL-4DS-7.92C | 680-1161-2 | 4                  | Standard lock |

Note: Bag packaging (100 pieces/bag). Order by number of bags.



## ■In-line Double-row Plug



### Standard Type (Guide Key: Inside, Color: White)

| Part Number      | CL No.     | Number of contacts | Connector type       |
|------------------|------------|--------------------|----------------------|
| DF22-4DEP-7.92C  | 680-1051-4 | 4                  | With snap-in tabs    |
| DF22A-4DEP-7.92C | 680-1056-8 | 4                  | Without snap-in tabs |

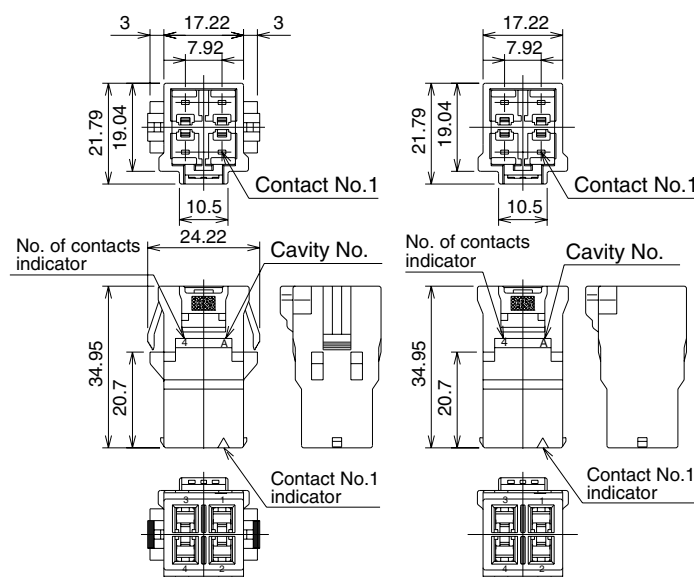
### R Type (Guide Key: Right Side, Color: Black)

| Part Number       | CL No.     | Number of contacts | Connector type       |
|-------------------|------------|--------------------|----------------------|
| DF22R-4DEP-7.92C  | 680-1170-3 | 4                  | With snap-in tabs    |
| DF22AR-4DEP-7.92C | 680-1184-8 | 4                  | Without snap-in tabs |

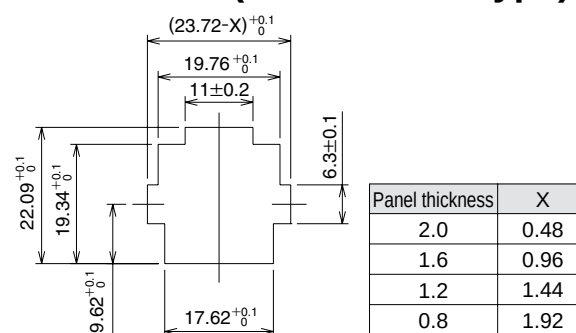
### L Type (Guide Key: Left Side, Color: Red)

| Part Number       | CL No.     | Number of contacts | Connector type       |
|-------------------|------------|--------------------|----------------------|
| DF22L-4DEP-7.92C  | 680-1175-7 | 4                  | With snap-in tabs    |
| DF22AL-4DEP-7.92C | 680-1189-1 | 4                  | Without snap-in tabs |

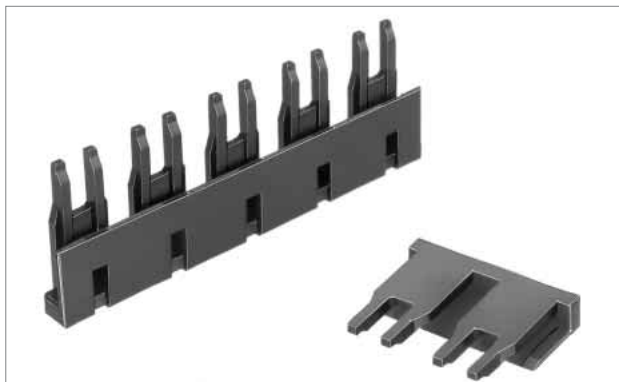
Note: Bag packaging (100 pieces/bag). Order by number of bags.



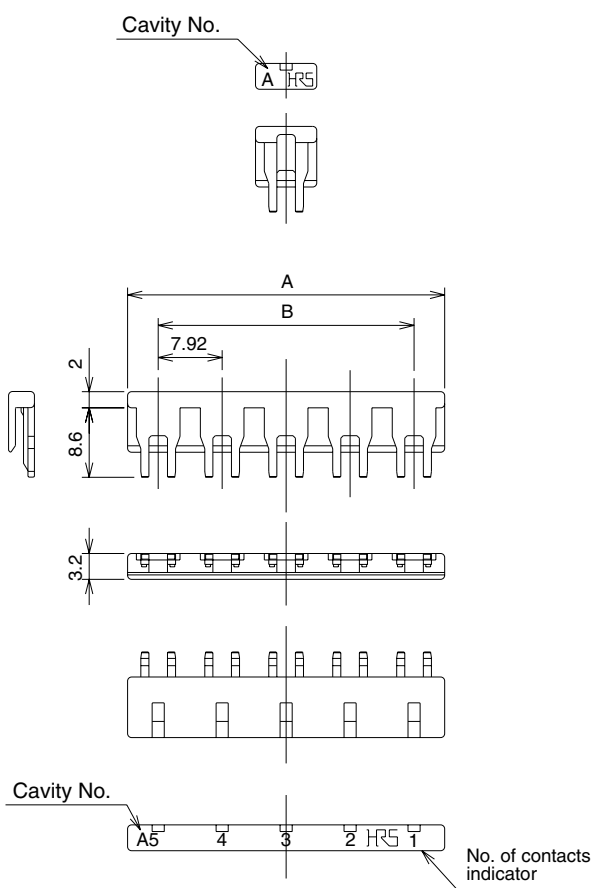
## ■Panel Cutout (Panel mount type)



## ■ Retainer



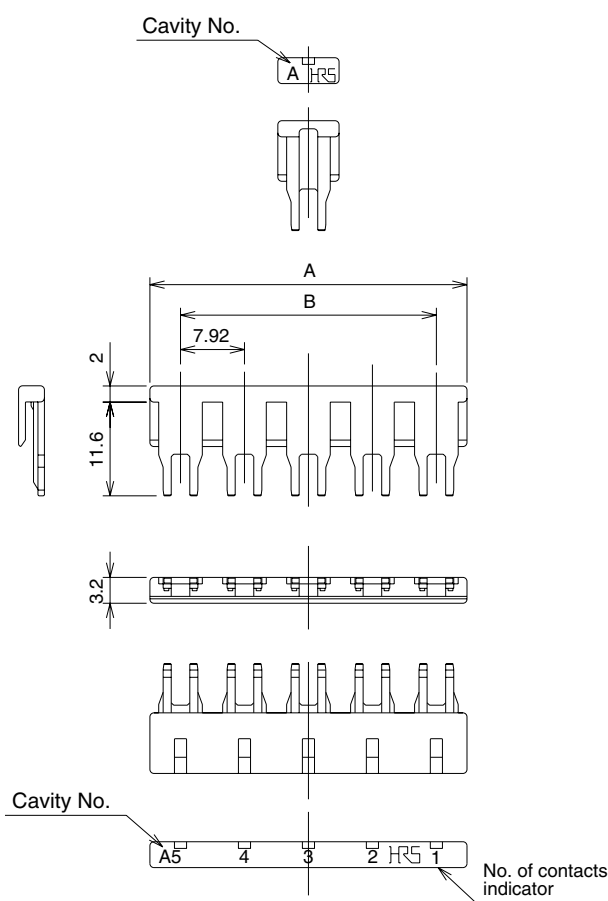
**For Standard height, standard lock (Type I)**



| Part Number       | CL No.                                                                                       | Number of contacts | A     | B     |
|-------------------|----------------------------------------------------------------------------------------------|--------------------|-------|-------|
| DF22-2RS/P-7.92   | 680-1209-7                                                                                   | 2                  | 15.50 | 7.92  |
| DF22-3RS/P-7.92   | 680-1210-6                                                                                   | 3                  | 23.42 | 15.84 |
| DF22-4RS/P-7.92   | 680-1211-9                                                                                   | 4                  | 31.34 | 23.76 |
| DF22-5RS/P-7.92   | 680-1212-1                                                                                   | 5                  | 39.26 | 31.68 |
| Applicable Socket | DF22-*S-7.92C For Standard height, standard lock (Type I)<br>* indicates number of contacts. |                    |       |       |

Note: Bag packaging (100 pieces/bag). Order by number of bags.

**For Long type, standard lock (Type III)  
Long type, enhanced ergonomic lock (Type IV)**

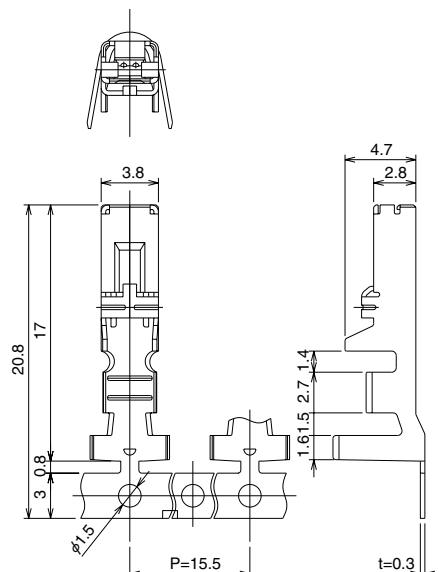


| Part Number        | CL No.                                                                                                                                                                                        | Number of contacts | A     | B     |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------|-------|
| DF22B/C-2RS/P-7.92 | 680-1200-2                                                                                                                                                                                    | 2                  | 15.50 | 7.92  |
| DF22B/C-3RS/P-7.92 | 680-1201-5                                                                                                                                                                                    | 3                  | 23.42 | 15.84 |
| DF22B/C-4RS/P-7.92 | 680-1202-8                                                                                                                                                                                    | 4                  | 31.34 | 23.76 |
| DF22B/C-5RS/P-7.92 | 680-1203-0                                                                                                                                                                                    | 5                  | 39.26 | 31.68 |
| Applicable Socket  | DF22B-*S-7.92C For Long type, standard lock (Type III)<br>DF22C-*S-7.92C Long type, enhanced ergonomic lock (Type IV)<br>DF22-*EP-7.92C<br>DF22A-*EP-7.92C<br>* indicates number of contacts. |                    |       |       |

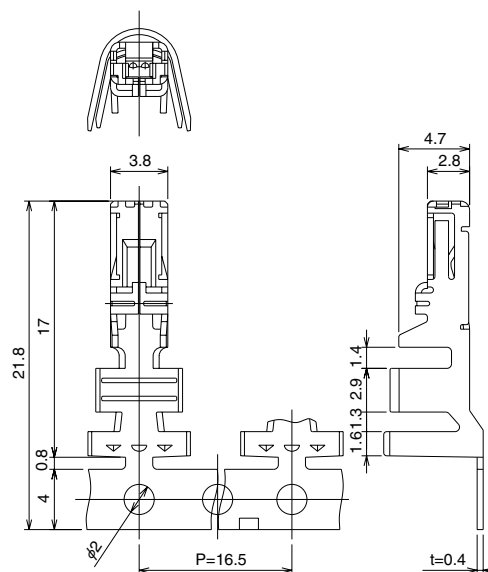
Note: Bag packaging (100 pieces/bag). Order by number of bags.

## ■Crimp Contact for socket

For AWG# 14 to 16



For AWG# 10 to 12



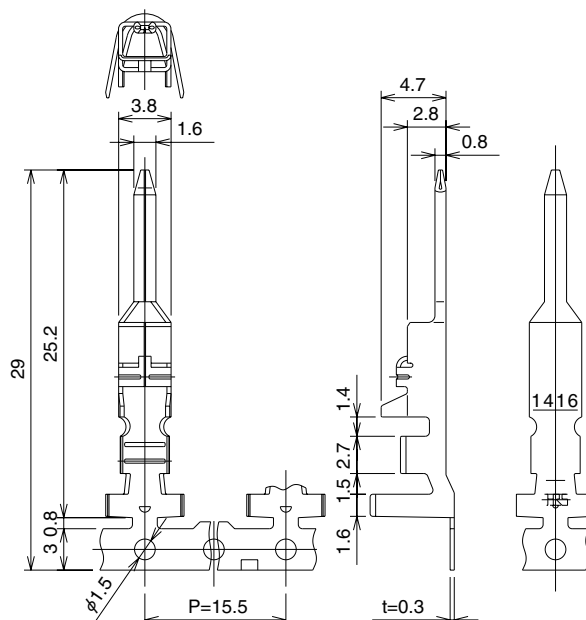
| Part Number   | CL No.     | Applicable cable |                 |           |                         | Packaging | Quantity |
|---------------|------------|------------------|-----------------|-----------|-------------------------|-----------|----------|
|               |            | UL style         | Jacket diameter | Wire size | Stranded wire conductor |           |          |
| DF22-1416SCF  | 680-1000-3 | 1430             | 2.4 to 3.0      | AWG#16    | 26/0.254                | Reel      | 2,500    |
| DF22-1416SC   | 680-1001-6 |                  |                 |           |                         | Bag       | 100      |
| DF22A-1416SCF | 680-1002-9 | 1015             | 3.0 to 3.8      | AWG#14    | 41/0.26                 | Reel      | 2,000    |
| DF22A-1416SC  | 680-1003-1 |                  |                 |           |                         | Bag       | 100      |
| DF22A-1012SCF | 680-1089-7 |                  | 3.6 to 4.9      | AWG#12    | 65/0.26                 | Reel      | 2,000    |
| DF22A-1012SC  | 680-1090-6 |                  |                 |           |                         | Bag       | 100      |

Note 1: Applicable wire with tin plated solid soft conductor.

Note 2: When using other than the recommended wire, contact your nearest Hirose representative.

Note 3: Strip length: 3.5 to 4.5mm

## ■Crimp Contact for In-line Plug



| Part Number   | CL No.     | Applicable cable |                 |           |                         | Packaging | Quantity |
|---------------|------------|------------------|-----------------|-----------|-------------------------|-----------|----------|
|               |            | UL style         | Jacket diameter | Wire size | Stranded wire conductor |           |          |
| DF22-1416PCF  | 680-1078-0 | 1430             | 2.4 to 3.0      | AWG#16    | 26/0.254                | Reel      | 2,500    |
| DF22-1416PC   | 680-1080-2 |                  |                 |           |                         | Bag       | 100      |
| DF22A-1416PCF | 680-1079-3 | 1015             | 3.0 to 3.8      | AWG#14    | 41/0.26                 | Reel      | 2,000    |
| DF22A-1416PC  | 680-1081-5 |                  |                 |           |                         | Bag       | 100      |

Note 1: Applicable wire with tin plated solid soft conductor.

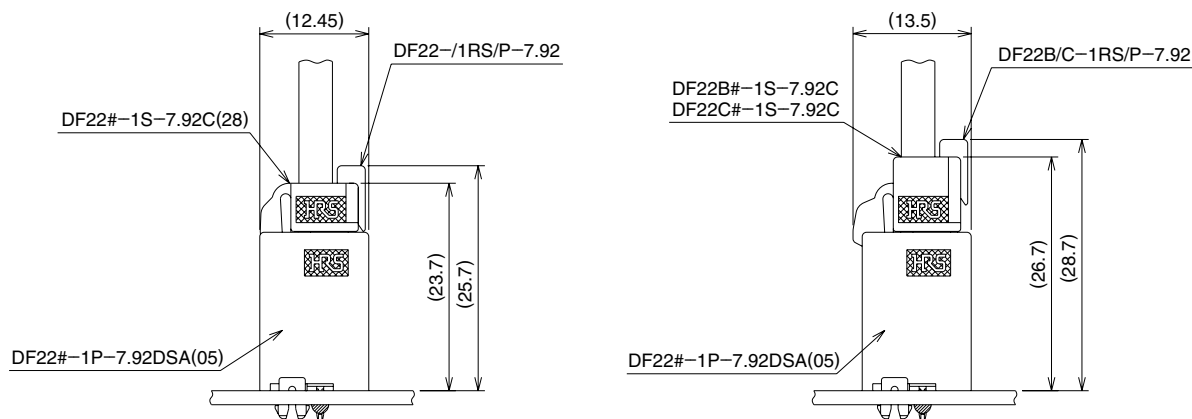
Note 2: When using other than the recommended wire, contact your nearest Hirose representative.

Note 3: Strip length: 3.5 to 4.5mm

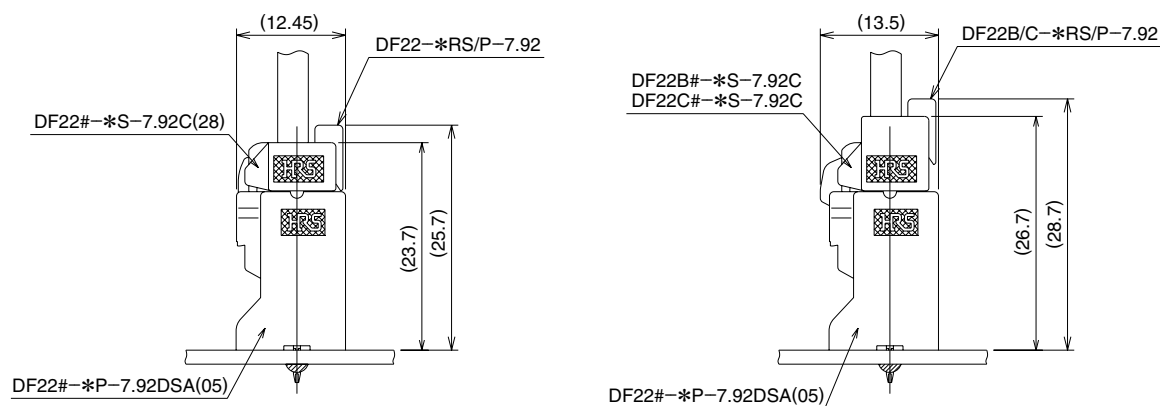
## ■ Mating Dimensions

### ● Socket to Straight Header Connection

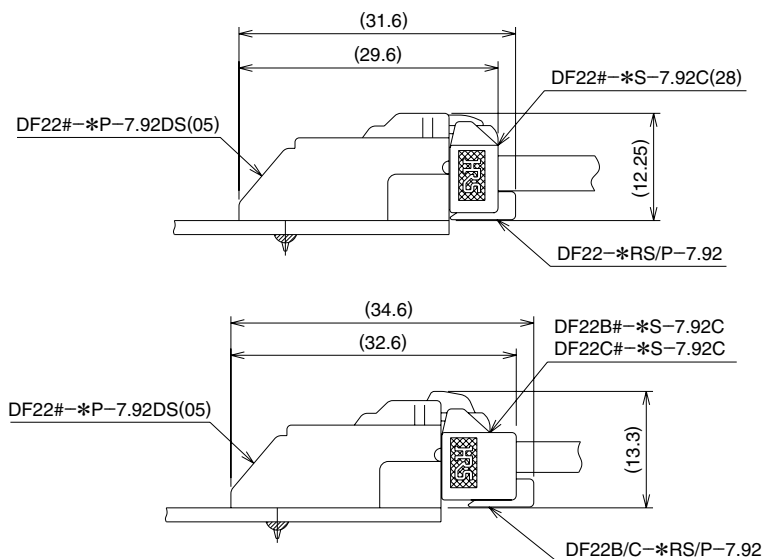
1 Pos.



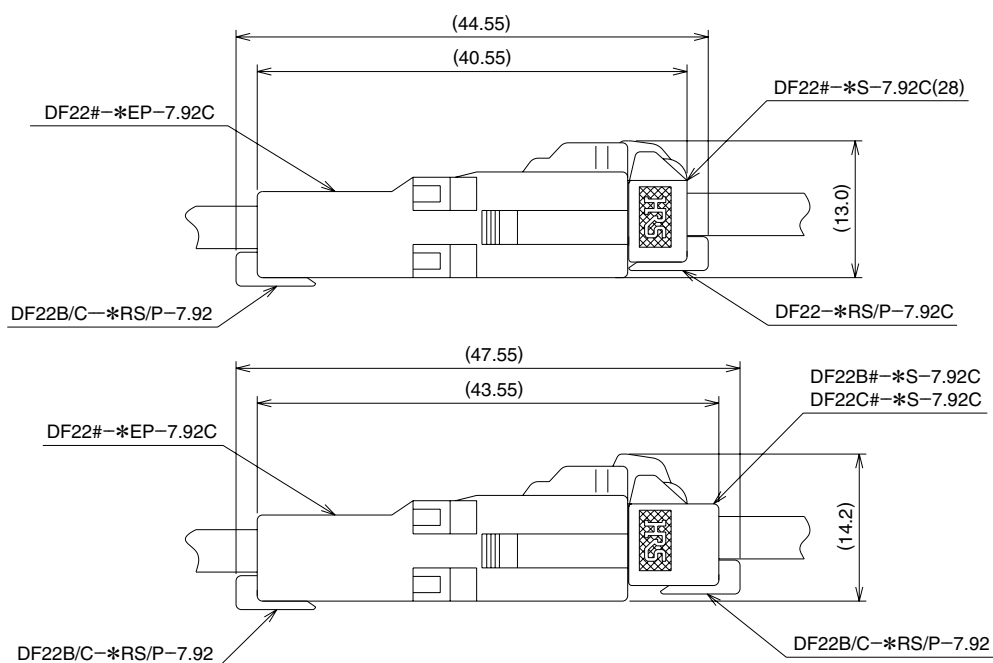
2 to 5 Pos.



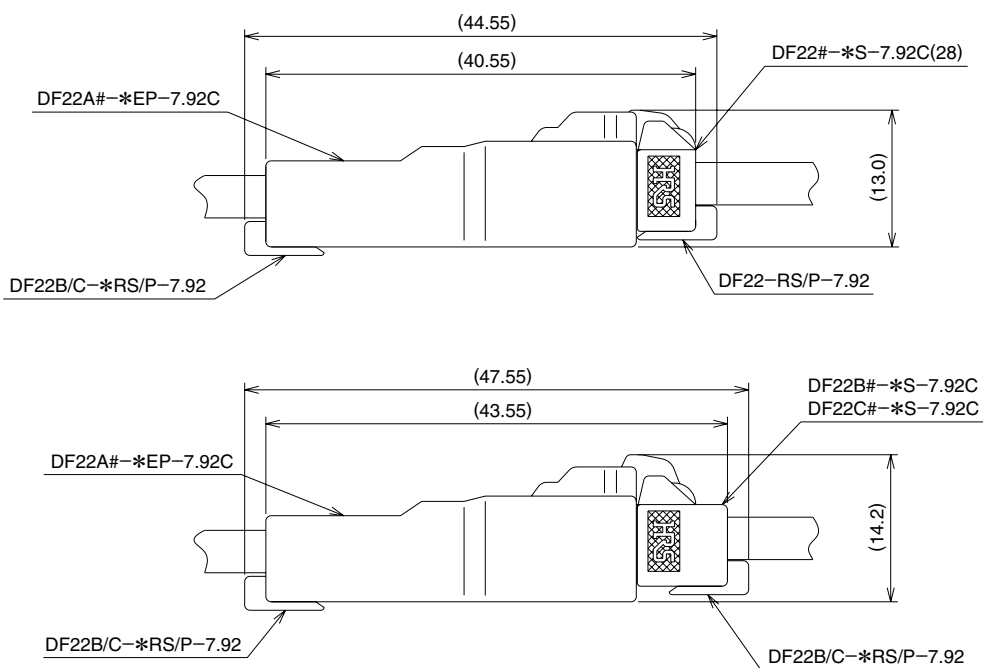
### ● Socket to Right angle Header Connection



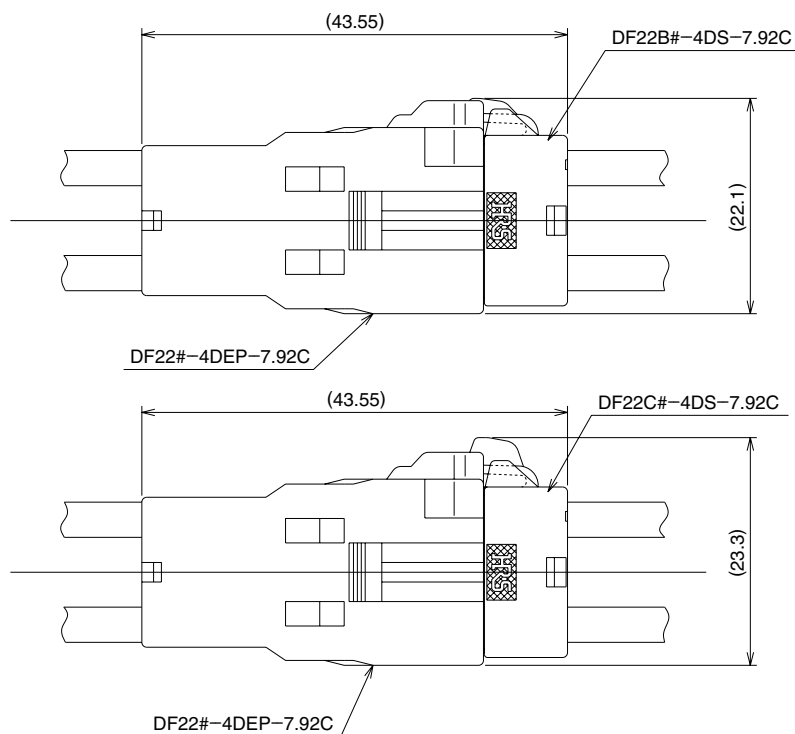
## ●Socket to In-line Plug (Panel mount type) Connection



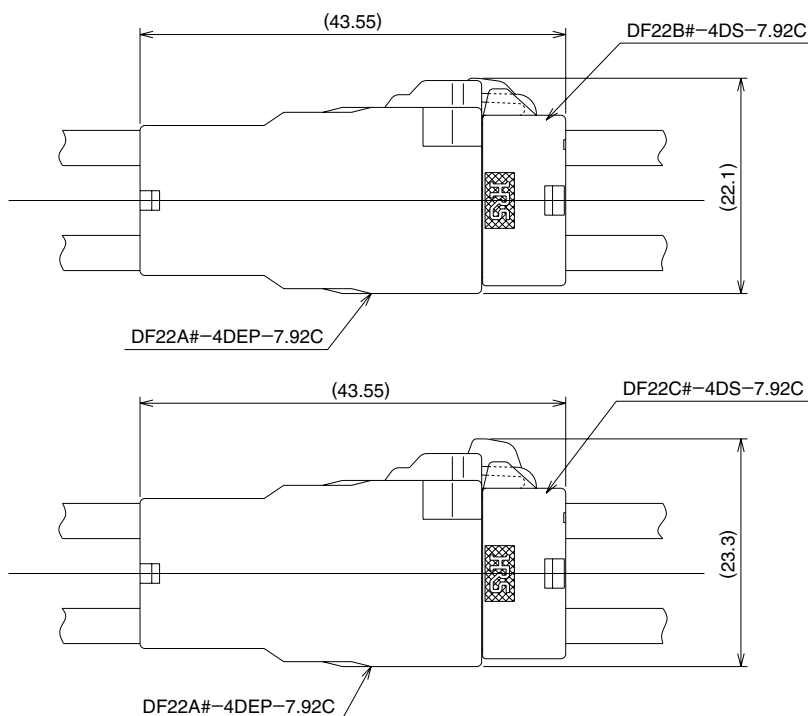
## ●Socket to In-line Plug Connection



### ● In-line Double-row socket to In-line Double-row Plug (Panel mount type) Connection



### ● In-line Double-row socket to In-line Double-row Plug Connection



## ■Tools

| Type      | Item                                                                                | Part Number       | CL No.     | Applicable Contacts    |
|-----------|-------------------------------------------------------------------------------------|-------------------|------------|------------------------|
| Automatic | Press unit                                                                          | CM-105            | 901-0005-4 | DF22/DF22A-1416SCF/PCF |
|           | Applicators are used in automatic crimping machines manufactured by Hirose Electric | AP105-DF22-1416   | 901-4576-7 | DF22-1416SCF/PCF       |
|           |                                                                                     | AP105-DF22A-1416  | 901-4578-2 | DF22A-1416SCF/PCF      |
|           | Applicators are used in automatic crimping machines manufactured by other companies | AP109A-DF22-1416  | 901-4579-5 | DF22-1416SCF/PCF       |
|           |                                                                                     | AP109A-DF22A-1416 | 901-4580-4 | DF22A-1416SCF/PCF      |
|           |                                                                                     | AP109A-DF22A-1012 | 901-4582-0 | DF22A-1012SCF          |
| Manual    | Crimp tools                                                                         | HT104/DF22-1416   | 550-0285-0 | DF22-1416SC/PC         |
|           |                                                                                     | HT104/DF22A-1416  | 550-0286-2 | DF22A-1416SC/PC        |
|           |                                                                                     | HT103/DF22A-1012  | 550-0288-8 | DF22A-1012SC           |

Note 1: When crimping contact DF22A-1012SCF use a press with 3.5 ton min.

Note 2: AP109A type applicators cannot be used with the CM-105 press.

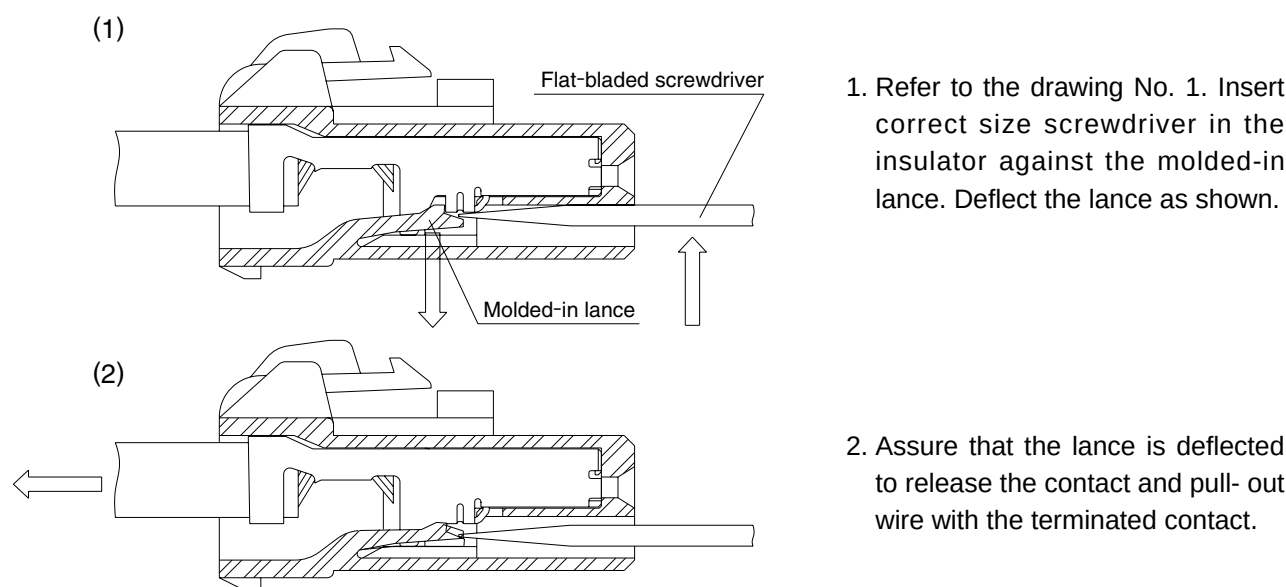
## ■Contact Extraction

■ Contact extraction tool: Flat-bladed screwdriver, 1.4 mm blade width

■ Intended crimp Contacts: DF22-1416SC(F), DF22A-1416SC(F), DF22A-1012SC(F), DF22-1416PC(F), and DF22A-1416PC(F)

■ Work Method

### Housing Cross-Sectional Diagram



## ■Precautions

● Make sure that the lock is fully depressed before un-mating the connectors.

● Use correct size of the wires. Do NOT forcefully twist or deform wires, as this may affect the crimped contact connection.

## ■Current Ratings

The current rating listed in the catalog indicates the allowable current per contact. However, in applications requiring current transmission through all the contacts, about one-third of the listed rating should be applied. When the current rating for the connector is 3 A, and the allowable current of the conductor being used is 1 A, then rating of 1 A will be used for the entire assembly.

The connectors should not be mating / unmating when the electrical current is being applied.

Hot swap should not be performed.

## ■Usage Environment

Please contact us about use in equipment that is subjected to repetitive high temperature and low temperature environmental conditions.



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<http://www.hirose-connectors.com>

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