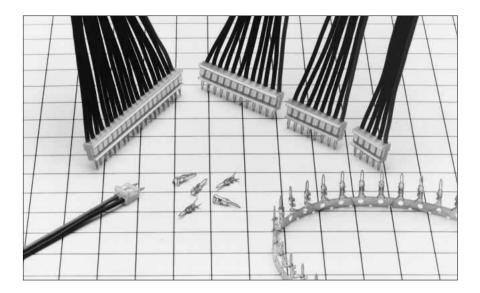
2.5mm Pitch Connector Directly Mounted on Board (Product Compliant to UL/CSA Standard)

DF2 Series



■Features

1. Header Cost Saving

Based on the harnesses product at the both ends of insertion/extraction socket and directly mounted connector, the both socket harnesses can afford to save either of two necessary headers, while functions to separate mutual boards are remained.

2. Space Saving

This connector is designed in a narrow space.

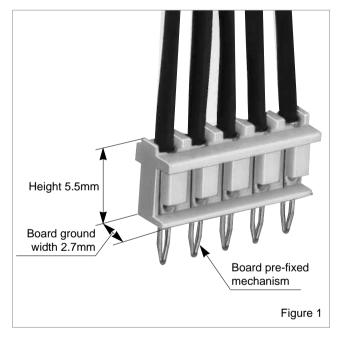
Board mounting height : **5.5mm**Width : **4.0mm**

3. Board Pre-fixed Mechanism

Since the connector is smoothly press-fitted to the board, it can be pre-fixed to the board.

■Applications

Personal computers, facsimiles, printers and other business equipment.



■Product Specifications

| Rating | Current rating (Note1) Voltage rating | AWG 24:3A | | AWG 24:3A Ope | | Operating Temperature Range | -35 to +85°C (Note2) |
|--------|--|------------|-----------|---------------------------|----------------------|-----------------------------|----------------------|
| | | Cable Size | AWG 26:2A | Operating Moisture Range | 40 to 80% | | |
| | | | AWG 28:1A | Storage Temperature Range | -10 to +60°C (Note3) | | |
| | | 250V AC | | Storage Moisture Range | 40 to 70% (Note3) | | |

| Standard Value Compliant to UL CSA Safety Standard | | | | | | |
|--|---------------|------------|-------------------|--|--|--|
| Dating | Rated Current | Wire Size | AWG 24 to 28 : 1A | | | |
| Rating | Rated Voltage | 30V AC/CSA | | | | |

■UL CSA Safety Standard File No.

UL :E52653 CSA :LR95109

| Item | Specification | Condition | |
|--|---|--|--|
| 1. Insulation Resistance | 1000M ohms min. | 500V DC | |
| 2. Withstanding voltage | No flashover or insulation breakdown. | 650V AC/1 minute | |
| 3. Resistance in Crimping Area 30m ohms Max | | 100mA | |
| 4. Vibration | No damage, cracks, or parts looseness. | Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours in each of the 3 directions. | |
| 5. Humidity (Steady state) Contact resistance: 30m ohms max.Insulation resistance: 1000M ohms min. | | 96 hours at temperature of 40°C and humidity of 90% to 95% | |
| 6. Temperature Cycle | Contact resistance: 30m ohms max:Insulation resistance: 1000M ohms min. | (-55°C: 30 minutes → 5 to 35°C: 10 minutes 85°C: 30 minutes → 5 to 35°C: 10 minutes) 5 cycles | |
| 7. Resistance to Soldering heat | No deformation of components affecting performance. | Flow: 250°C for 10 seconds Manual soldering: 300°C for 3 seconds | |

Note 1: The rated current will be changed according to cable sizes for use.

■Material

| Product | Part | Material | Finish | Remarks |
|-------------------------------|-----------|-----------|------------|---------|
| Crimping Socket | Insulator | Polyamide | White | UL94V-0 |
| Plug Crimping Contact Contact | | Brass | Tin plated | |

■Ordering Information

Crimping Plug

$$\frac{\mathsf{DF2}}{\bullet} - \frac{*}{2} \frac{\mathsf{P}}{\bullet} - \frac{2.5}{\bullet} \frac{\mathsf{C}}{\bullet}$$

| Series Name | : DF 2 | 4 Contact Pitch | : 2.5mm |
|-------------------------------|-------------------|----------------------------|---------|
| Number of Contacts | : 2 to 16, 18, 20 | 5 C : Crimping Plug | ı |
| 3 Connector Type | | | |
| P : Plug | | | |

Contact

Applicable Cable Size
 2428: AWG 24 to 28

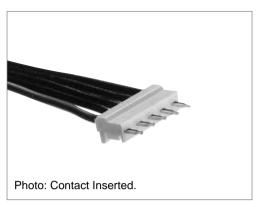
PCF: Plug Contact, Reel
PC: Plug Contact, Bag

Note 2: Includes temperature rise caused by current flow.

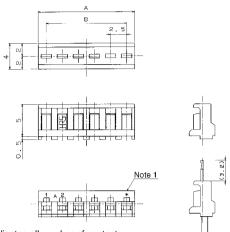
Note 3: The term "storage" refers to products stored for long period of time prior to mounting and use. Operating Temperature Range and Humidity range covers non conducting condition of installed connectors in storage, shipment or during transportation.

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.

■Crimping Plug



•Printed Board Through-hole Diameter : $\phi 0.8^{+0.1}_{0}$



Note1: Contact No. indicates all number of contacts

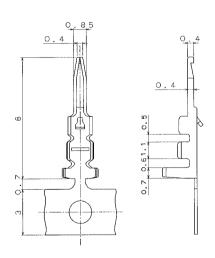
Note2: Do not clean the cable with heat nor trichloroethane. Contact insertion view

Unit: mm

| Part Number | CL No. | Number of Contacts | Α | В | RoHS | Part Number | CL No. | Number of Contacts | Α | В | RoHS |
|--------------|------------|--------------------|------|------|------|--------------|------------|--------------------|------|------|------|
| DF2- 2P-2.5C | 542-0001-6 | 2 | 5 | 2.5 | | DF2-11P-2.5C | 542-0010-7 | 11 | 27.5 | 25 | |
| DF2- 3P-2.5C | 542-0002-9 | 3 | 7.5 | 5 | | DF2-12P-2.5C | 542-0011-0 | 12 | 30 | 27.5 | |
| DF2- 4P-2.5C | 542-0003-1 | 4 | 10 | 7.5 | | DF2-13P-2.5C | 542-0012-2 | 13 | 32.5 | 30 | |
| DF2- 5P-2.5C | 542-0004-4 | 5 | 12.5 | 10 | | DF2-14P-2.5C | 542-0013-5 | 14 | 35 | 32.5 | YES |
| DF2- 6P-2.5C | 542-0005-7 | 6 | 15 | 12.5 | YES | DF2-15P-2.5C | 542-0014-8 | 15 | 37.5 | 35 | 153 |
| DF2- 7P-2.5C | 542-0006-0 | 7 | 17.5 | 15 | | DF2-16P-2.5C | 542-0015-0 | 16 | 40 | 37.5 | |
| DF2- 8P-2.5C | 542-0007-2 | 8 | 20 | 17.5 | | DF2-18P-2.5C | 542-0017-6 | 18 | 45 | 42.5 | |
| DF2- 9P-2.5C | 542-0008-5 | 9 | 22.5 | 20.5 | | DF2-20P-2.5C | 542-0019-1 | 20 | 50 | 47.5 | |
| DF2-10P-2.5C | 542-0009-8 | 10 | 25 | 22.5 | | | | | | | |

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

■Crimping Contact



| Part Number | CL No. | Packaging Type | Quantity | Finish | RoHS |
|-----------------|------------|----------------|----------|------------|------|
| DF2-2428PCF(05) | 542-0020-0 | Reel | 10000 | Tin plated | VEC |
| DF2-2428PC(05) | 542-0021-3 | Bag | 100 | Tin plated | YES |

Applicable Cable (Tin plating annealed copper wire)

| Conductor Size (Wire construction) | Jacket Diameter |
|------------------------------------|-----------------|
| AWG #24 (11cores. /0.16mm) | |
| AWG #26 (7cores. /0.16mm) | φ0.9 to φ1.5mm |
| AWG #28 (7cores. /0.127mm) | |

Note: If other cables are used instead of the applicable cable, contact Hirose sales department.

Recommended Cable

UL1061, UL1007

Strip Length

1.6 to 2.1mm

◆Applicable Crimping Tool

| Туре | Part Number | CL No. | Applicable Contact |
|----------------------|-----------------|------------|--------------------|
| Applicator | AP105-DF2-2428P | 901-4506-1 | DF2-2428PCF(05) |
| Main press unit | CM-105 | 901-0005-4 | |
| Manual Crimping Tool | DF2-TA2428HC | 550-0172-3 | DF2-2428PC(05) |
| Extraction Tool | DF-C-PO(A) | 550-0170-8 | DF2-2428PCF(05) |

Note: If any trouble has occurred due to other tools, which are not designated by Hirose, Hirose won't guarantee any products.

The product information in this catalog is for reference only. Please request the Engineering Drawing for the most current and accurate design information.

All non-RoHS products have been discontinued, or will be dispetiveless. Please Plea

● Precautions

| 1. Recommended Soldering Condition | Flow: 250°C for 3 seconds | | | |
|------------------------------------|---|--|--|--|
| | Manual soldering: 290℃ for 2 seconds | | | |
| | After the soldering process, if a load is applied to the cable in the state where the conne | | | |
| | and the cable contains heat, the cable jacket holding members are apt to be loosened. | | | |
| | Therefore, the post-soldering process should be carried out after the connector temperature | | | |
| | returns to the room temperature. | | | |
| 2. Cleaning Condition | Refer to Nylon Connector Use Hand book. | | | |
| | Don't use such a solvent as trichloroethane which degrades the cable jacket. | | | |
| | In addition, avoid heat cleaning with such a solvent. | | | |
| 3. Connection Condition | Refer to Nylon Connector Use Hand book. | | | |
| 4. Precations | Slight discoloration on the insulating materials will not affect form, fit or function of the connectors. | | | |
| | Refer to "Nylon Connector Use Handbook". | | | |