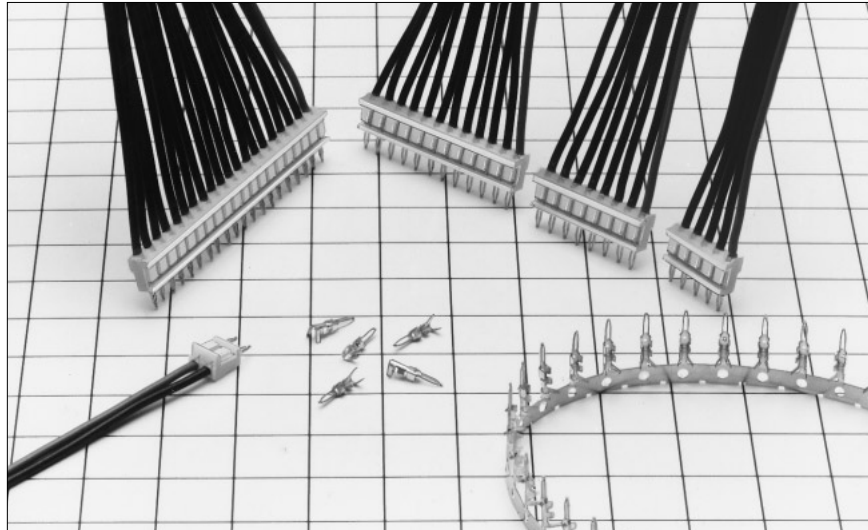


# 2.5mm Pitch Connector Directly Mounted on Board (Product Compliant to UL/CSA Standard)

## 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.

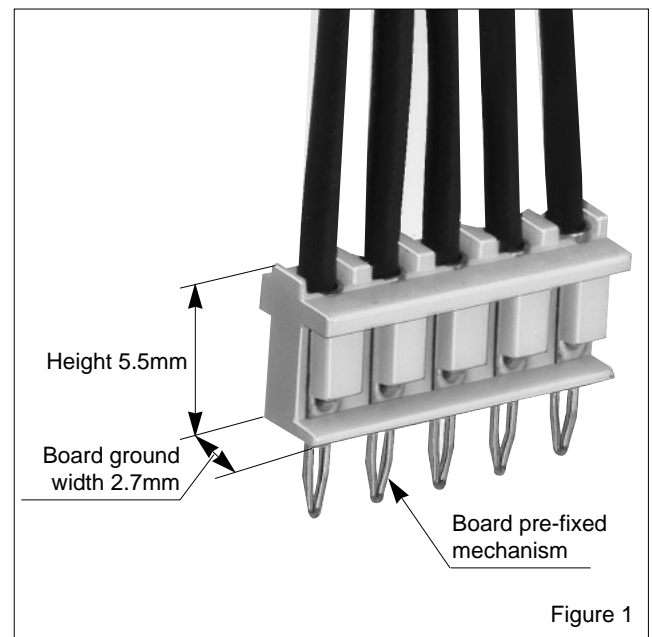


Figure 1

## ■Product Specifications

Rating	Current rating (Note1)	Cable Size	AWG 24 : 3A	Operating Temperature Range	-30 to +85°C (Note2)
			AWG 26 : 2A	Operating Moisture Range	40 to 80%
		AWG 28 : 1A	Storage Temperature Range	-10 to +60°C (Note3)	
	Voltage rating	250V AC	Storage Moisture Range	40 to 70% (Note3)	

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

■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: Includes temperature rise caused by current flow.

Note 2: 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.

## ■Material

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

## ■Ordering Information

### ●Crimping Plug

**DF2** - \* **P** - **2.5** **C**

①                    ②   ③                    ④                    ⑤

① Series Name : DF 2	④ Contact Pitch : 2.5mm
② Number of Contacts : 2 to 16, 18, 20	⑤ C : Crimping Plug
③ Connector Type P : Plug	

### ●Contact

**DF2** - **2428** - **PCF**

①                    ②

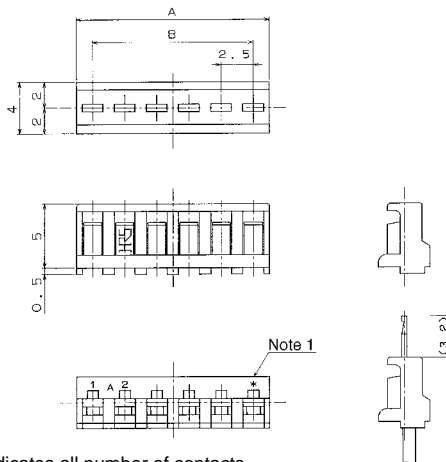
① Applicable Cable Size 2428: AWG 24 to 28	② Packaging Type PCF : Plug Contact, Reel PC : Plug Contact, Bag
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## ■Crimping Plug



Photo: Contact Inserted.

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



Note1: Contact No. indicates all number of contacts.

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

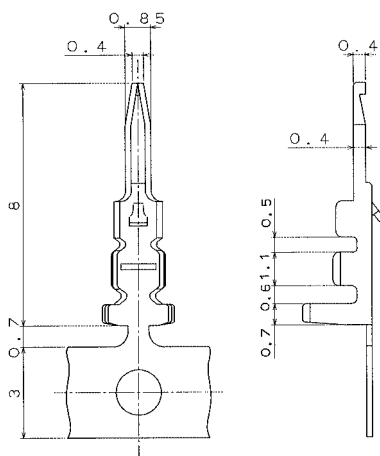
[Specific No.] -\*\* , (\*\*)  
None :100 pcs. per bag

Unit: mm

Part Number	CL No.	Number of Contacts	A	B	Part Number	CL No.	Number of Contacts	A	B
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
DF2- 6P-2.5C(**)	542-0005-7-**	6	15	12.5	DF2-15P-2.5C(**)	542-0014-8-**	15	37.5	35
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 : A packaging quantity at the specific No."None" is delivered by the bag unit . If needed, please order the product per bag.

## ■Crimping Contact



Part Number	CL No.	Packaging Type	Quantity	Finish
DF2-2428PCF	542-0020-0	Reel	1000	Tin plated
DF2-2428PC	542-0021-3	Bag	100	Tin plated

### ●Applicable Cable (Tin plating annealed copper wire)

Conductor Size (Wire construction)	Jacket Diameter
AWG #24 (11cores. /0.16mm)	$\phi 0.9$ to $\phi 1.5$ mm
AWG #26 ( 7cores. /0.16mm)	
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

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

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

## ◆Precautions

1. Recommended Soldering Condition	Flow: 250°C for 3 seconds Manual soldering: 290°C for 2 seconds ■After the soldering process, if a load is applied to the cable in the state where the connector 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.