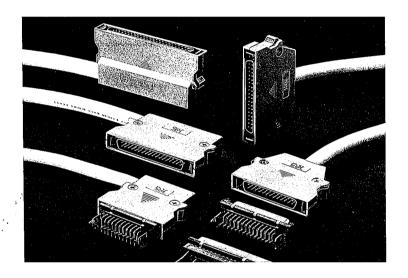
# DN SERIES-NEW D SUBMINIATURE INTERFACE CONNECTORS

### General

The DN series are compact, rectangular multi-contact connectors developed to meet the demand for smaller and slimmer electronic equipment. 2.54 mm grid contact position and Direct dip soldering on PCB enable

high density circuit designing at reduced cost. Aluminum die-cast shell and Metallic shell areshieled to prevent from Electro-Magnetic interference. 20, 26, 36 and 50 way available.



#### **Features**

- 2.54 mm grid contact position enable high density circuit designing.
- Stable quality due to the contact design based on our field-proven SM series (D sub-connector).
- 3. One-touch lock system ensures perfect operation.
- The cover case uses a thin, low-back compact design that meets the needs of high density mounting.
   It can be mounted between 17.78 millimeters (700mil) substrates.
- 5. The cover case is made of aluminum diecast to shield aginst electromagnetic waves. In a combination with a connector metal shell, the cover case is an ideal solution for noise.
- Dip soldering connectors are provided with snap clamps for temporarily fixing the connector on the PCB.
- IDC termination types are for standard 1.27 mm pitch cables, and are available for two types of cables: AWG26 and AWG28.
- Crimp contact cables from AWG26 through AWG28.
- 9. Allows you to take out the cable vertically or horizontally, as your application requires.

## **Applications**

Office Automation, Computers, Communications Equipment, Factory Automation, Home Automation and other commercial applications needing high density interconnections.

## **Specifications and Material**

| Main specifications   |                             |  |
|-----------------------|-----------------------------|--|
| Current capacity      | 3A                          |  |
| Rated voltage         | AC200V                      |  |
| Insulation resistance | 5000mΩ on higher at DC 500V |  |
| Contact resistance    | 20mΩ or less at DC 100mA    |  |
| Withstand voltage     | 1 minute AC 1000 Vrms       |  |

|           | Main materials used | l                      |
|-----------|---------------------|------------------------|
| Shell     | Aluminum dei-cash   | Silver coating         |
| Insulator | PBT *               | Black                  |
| Contacts  | Phosphor bronze     | Selective gold plating |

\* UL94V-0

## **Ordering Information**

$$\frac{DN}{1} \frac{10}{1} - \frac{26}{1} \frac{S}{1}$$
(1) (2) (3)(4)

$$\frac{DN}{\begin{vmatrix} \cdot & \cdot \\ \cdot & \cdot \end{vmatrix}} - \frac{26}{\begin{vmatrix} \cdot & \cdot \\ \cdot & \cdot \end{vmatrix}} - \frac{CVE 1}{\begin{vmatrix} \cdot & \cdot \\ \cdot & \cdot \end{vmatrix}}$$
(1) (3) (5)

$$\frac{DN}{|} \frac{50}{|} - \frac{2628}{|} \frac{PC1}{|}$$
(1) (2) (6) (7)

(1) Series Number: DN

(2) Type

10: Right Angle Dip Type

30: IDC Plug Type

50: Crimp Type

(3) No. of Pins: 20, 26, 36 and 50 way

(4) P: Plug

S: Receptacle

(5) Shell

CVE1: Angle Cable Exit Shell

CV1: Straight Cable Exit Shell

(6) Applicable Wire

2628: AWG#26 ~ AWG#28

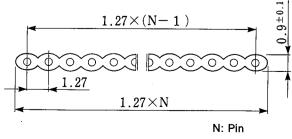
(7) Type of Contact Pin

PC1: Bulk P

**Bulk Pin Contact** 

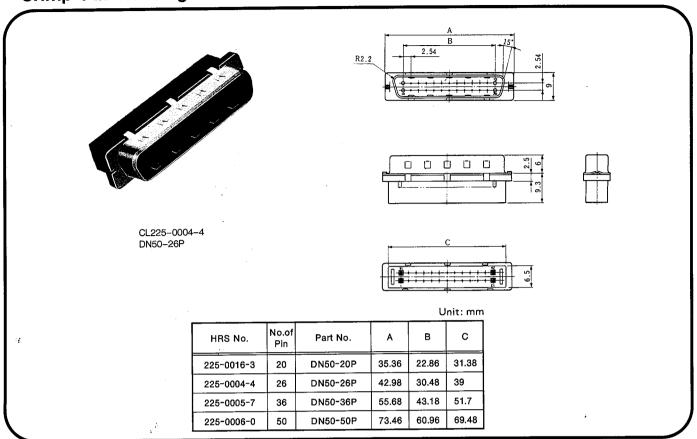
PC2: Chain Pin Contact

### Cable specifications

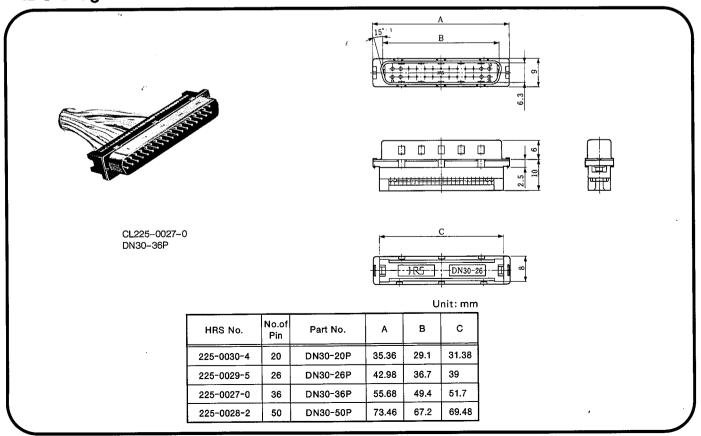


Pin: AWG # 28(7/0.127) AWG # 26(7/0.16)

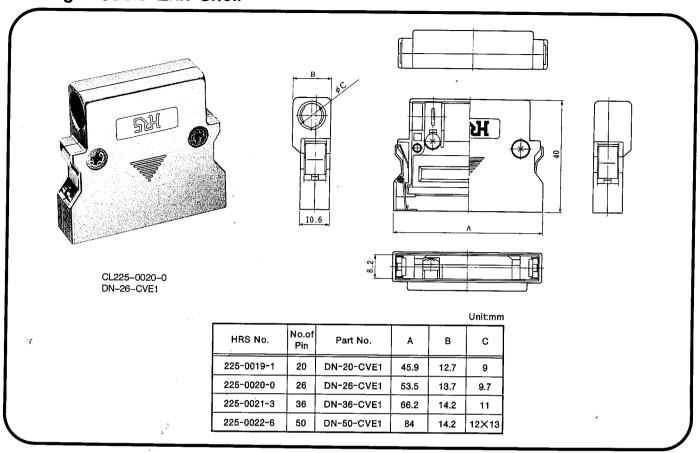
# Crimp Pin Housing



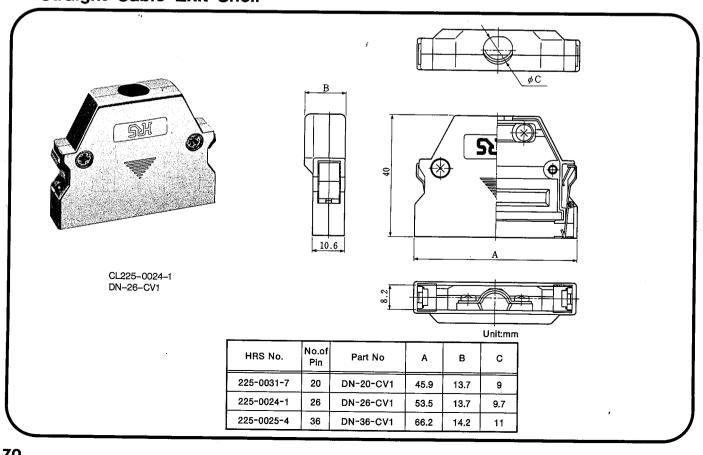
### **IDC** Plug



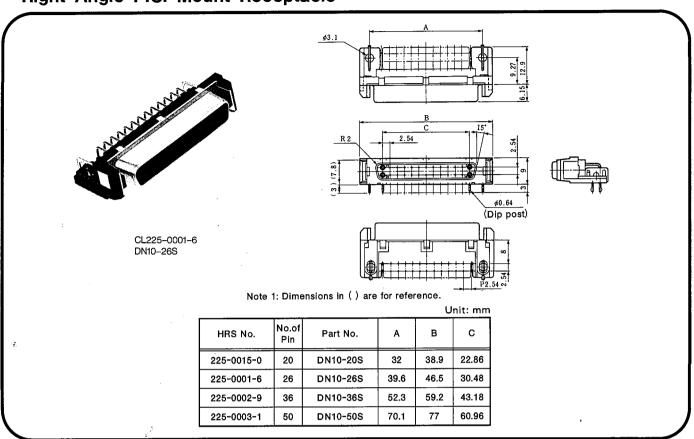
# Angle Cable Exit Shell



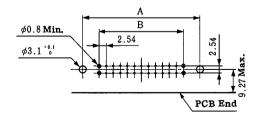
# Straight Cable Exit Shell



# Right Angle P.C. Mount Receptacle



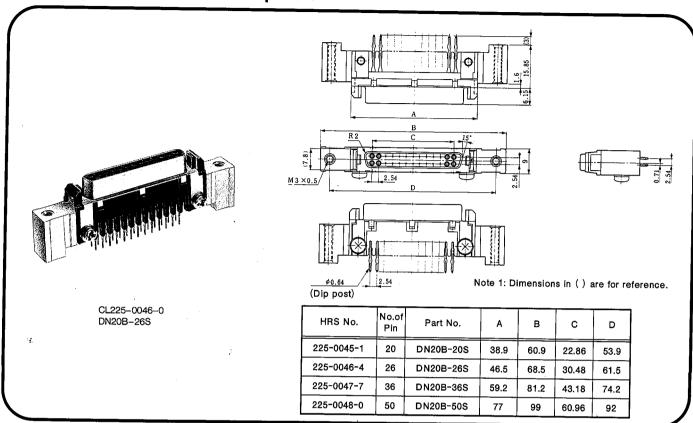
# **PCB** Layout



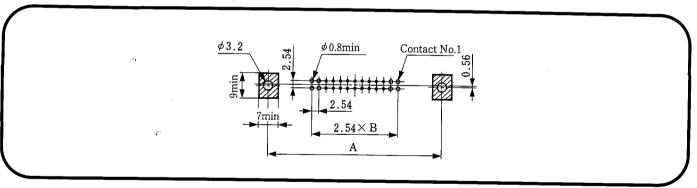
### mounting panel thickness 1.6mm

|               |       |       | L     | Jnit: mm |
|---------------|-------|-------|-------|----------|
| No. of<br>Pin | 20    | 26    | 36    | 50       |
| Α             | 32.0  | 39.6  | 52.3  | 70.1     |
| В             | 22.86 | 30.48 | 43.18 | 60.96    |

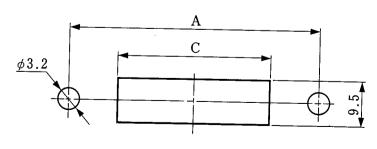
# Straight P.C. Mount Receptacle



# **PCB** Layout



## **Panel Cutout**

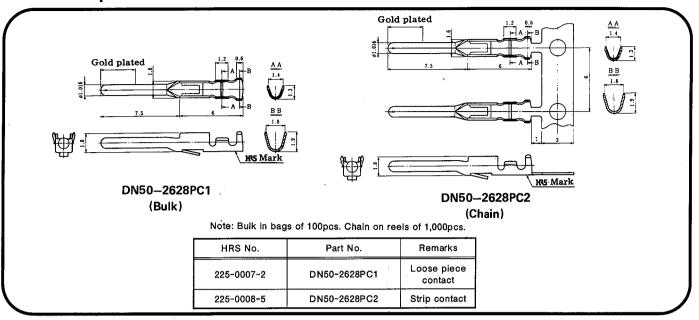


Note: 1. Use a 1.6-mm thick panel

- The substrate reference drawing shows the connector-mounting surface. The area marked with [] is to be prohibited from entering any pattern.
- The substrate and panel are related to each other, with a 0/3.2 mounting hole as the reference point.
- 4. The panel is 1.6 millimeters thick.

|              |      |    | Unit:mm |
|--------------|------|----|---------|
| No.of<br>Pin | Α    | В  | С       |
| 20           | 53.9 | 9  | 40.9    |
| 26           | 61.5 | 12 | 48.5    |
| 36           | 74.2 | 17 | 61.2    |
| 50           | 92   | 24 | 79      |

### Pin Crimp Terminal



## **Applicable Wire**

Applicable Wire: AWG No.26~AWG No.28

Outer diameter of applicable wire

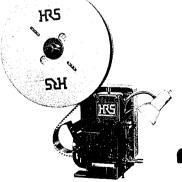
|                   |             |             |              | Uniti        |
|-------------------|-------------|-------------|--------------|--------------|
| Way               | 20          | 26          | 36           | 50           |
| Outer<br>diameter | Max.<br>9.0 | Max.<br>9.7 | Max.<br>11.0 | Max.<br>12.0 |

### **Tooling (for Crimp Plug)**

### CM-105 Crimp Machine

This machine has been carefully designed to meet the many requests for advanced crimping machines that can be used in a wider range of applications. This machine offers easy setup adjustment and applicator mounting. We are confident that the machine will find many applications as an easy-to-use semi-automatic machine for crimping strip contacts.

| POWER SOURCE | AC 100V 200W                   |
|--------------|--------------------------------|
| TOTAL WEIGHT | 75 kgs                         |
| PERFORMANCE  | 2,000 — 4,000 crimps per hour  |
| WORK/RANGE   | Adaptable to other HIROSE dies |



Semi-Auto Machine

CM-105 (CL901-0005-4) Applicator (Die) 105-DN50 (CL901-0208-1)



Hand Tool
DN50-TA2628HC
(CL250-0101-0)

## Tooling (for IDC Plug)

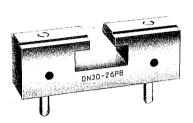


#### Pressure Block

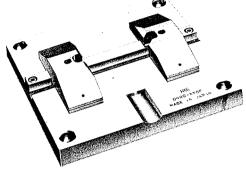
#### **Universal Guide Plate**



| HRS No.    | Part No.                                  |
|------------|---|
| 550-0082-2 | Hi-Flex termination press and accessories |



| HRS No.    | Part No.  |
|------------|-----------|
| 902-0068-0 | DN30-26PB |
| 902-0069-3 | DN30-36PB |
| 902-0143-4 | DN30-20PB |
| 902-0144-7 | DN30-50PB |



| HRS No.    | Part No.  |
|------------|-----------|
| 902-0067-8 | DN30-XXGP |

## Hi-Flex Termination Press and Accessories

### General

The Hi-Flex termination press and its accessories connect the connectors to the HIF series ribbon cables more securely and quickly.

### **Features**

- No incomplete connections. A preventive ratchettype device ensures against misconnections.
- Prevents damage to connectors during connection.
   The guide plate works as a stopper to prevent damage to connectors due to connection pressure.
- Easy to position the connector and cable. The guide plate case guide and cable stopper help positioning.
- 4. Capable of cable connection at an intermediate point when the cable stopper is removed.

