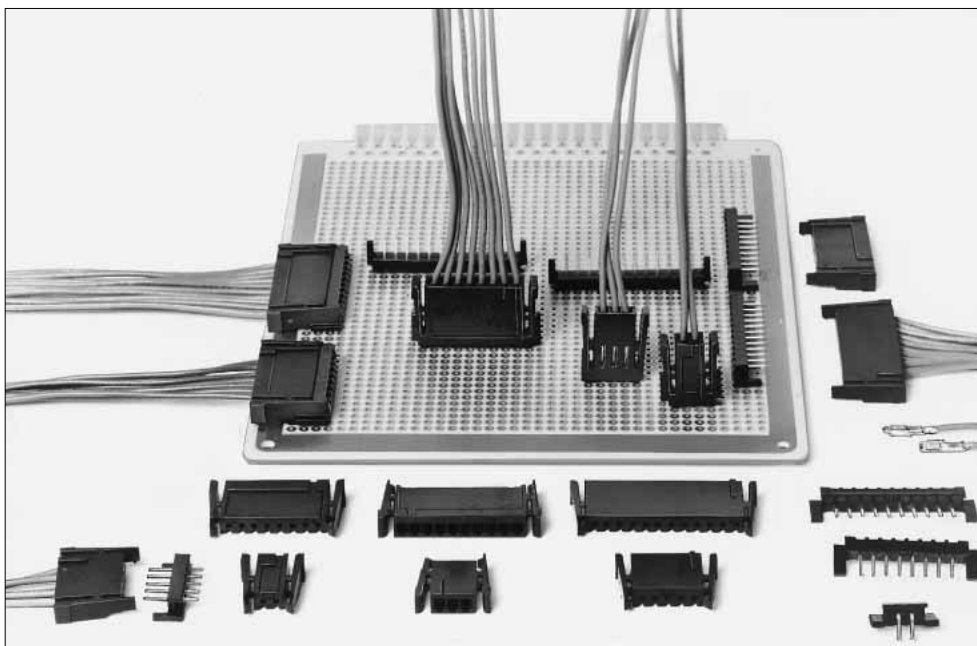


# 2.5mm Pitch Connector for Discrete Wire Connection

## HNC Series



### ■ Features

#### 1. Full Lock Mechanism

The connector is equipped with the full lock mechanism so as not be removed, unless locks are reset on both sides. This mechanism is activated effectively to prevent extraction by cable hooking or other causes.

#### 2. Thin Type Connector

Mounting height when the connector is used at the right angle : **4.8mm**

#### 3. Mechanism to Prevent Mis-insertion

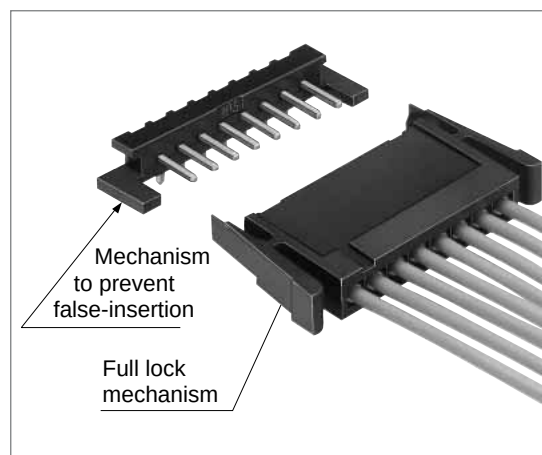
This thin type connector is equipped with the mechanism to prevent mis-insertion.

#### 4. Tin Plating and Gold Plating Variation

Two kinds of tin plating and gold plating types are available, and can be chosen according to application. The tin plating is also set to a light operating touch.

### ■ Applications

Various business equipment, financial terminals



## HNC Series 2.5mm Pitch Connector for Discrete Wire Connection

### Product Specifications

|        |                           |                                                                           |                                                                                                |
|--------|---------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Rating | Current rating<br>(Note1) | AWG 22 : 3A<br>AWG 24 : 3A<br>AWG 26 : 2A<br>AWG 28 : 1A<br>AWG 30 : 0.5A | Operating Temperature Range : -25 to +85°C (Note2)<br>Operating Moisture Range : 40 to 80%     |
|        | Voltage rating            | 250V AC                                                                   | Storage Temperature Range : -10 to +60°C (Note3)<br>Storage Moisture Range : 40 to 70% (Note3) |

| Item                             | Specification                                                            | Condition                                                                                        |
|----------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 1. Insulation Resistance         | 1000M ohms min.                                                          | 500V DC                                                                                          |
| 2. Withstanding voltage          | No flashover or insulation breakdown.                                    | 1000V AC/1 minute                                                                                |
| 3. Contact Resistance            | 10m ohms Max                                                             | 1A                                                                                               |
| 4. Insertor/Extraction Force     | 0.4N (40gf) min., 4.4N (450gf) max.                                      | Measure at the square steel pin of 0.635±0.002mm                                                 |
| 5. Vibration                     | No electrical discontinuity of 1μs or more                               | Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours in each of the 3 directions.        |
| 6. Humidity (Steady state)       | Contact resistance: 10m ohms max. Insulation resistance: 1000M ohms min. | 96 hours at temperature of 40±2°C and humidity of 90% to 95%                                     |
| 7. Temperature Cycle             | Contact resistance: 10m ohms max. Insulation resistance: 1000M ohms min. | (-25°C: 30 minutes → 5 to 35°C: 10 minutes<br>85°C: 30 minutes → 5 to 35°C: 10 minutes) 5 cycles |
| 8. Durability (Mating/un-mating) | Contact resistance: 20m ohms max.                                        | Tin plating : 30 cycles<br>Gold plating : 50 cycles                                              |
| 9. Resistance to Soldering heat  | No deformation of components affecting performance.                      | Flow: 250°C for 5 seconds                                                                        |
|                                  |                                                                          | Manual soldering: 300°C for 2 seconds                                                            |

Note 1: The rated current will be changed according to cable sizes for use. The header rating only t is 3A.

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.

### Material

| Product         | Part      | Material        | Finish                    | Remarks |
|-----------------|-----------|-----------------|---------------------------|---------|
| Crimping Socket | Insulator | Polyamide       | Black                     | UL94V-2 |
| Contact         | Contact   | Phosphor Bronze | Tin plated or gold plated | —       |
| Pin Header      | Insulator | Polyamide       | Black                     | UL94V-2 |
|                 | Contact   | Brass           | Tin plated or gold plated | —       |

### Ordering Information

#### ●Crimping Plug

**HNC 2 - 2.5 P - \* DSL**

① ② ③ ④ ⑤ ⑥

|                                                  |                                                                                |
|--------------------------------------------------|--------------------------------------------------------------------------------|
| ① Series Name : HNC                              | ⑤ Number of Contacts : 2 to 8,10,12,15                                         |
| ② Series No. : 2, 1                              | ⑥ Contact Type<br>None : Crimping socket<br>DS : Straight<br>DSL : Right angle |
| ③ Contact Pitch : 2.5mm                          |                                                                                |
| ④ Connector Type<br>S : Socket<br>P : Pin Header |                                                                                |

#### ●Contact

**HNC - 2.5S - C - A**

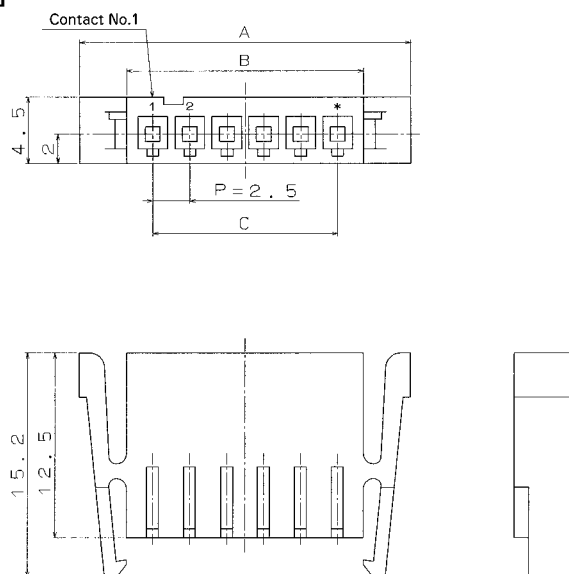
① ② ③

|                                         |                                                               |
|-----------------------------------------|---------------------------------------------------------------|
| ① Type: 2.5mm pitch socket              | ③ Applicable cable size<br>A : AWG22 to 26<br>B : AWG26 to 30 |
| ② Packaging Type<br>C : Reel<br>D : Bag |                                                               |
|                                         |                                                               |

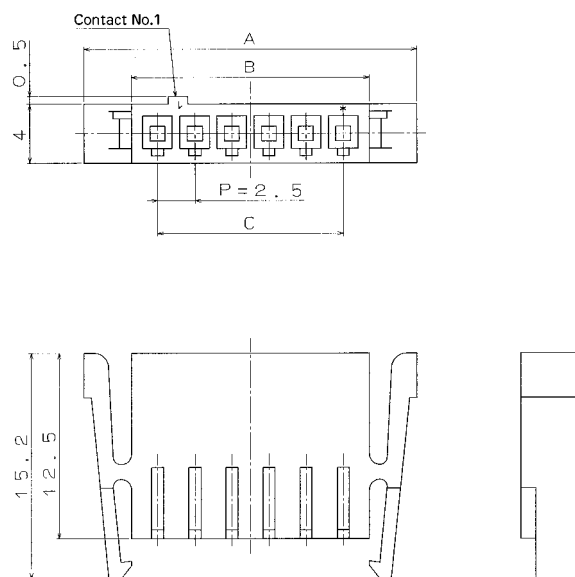
## ■Crimping Socket



[Figure 1]



[Figure 2]



Unit: mm

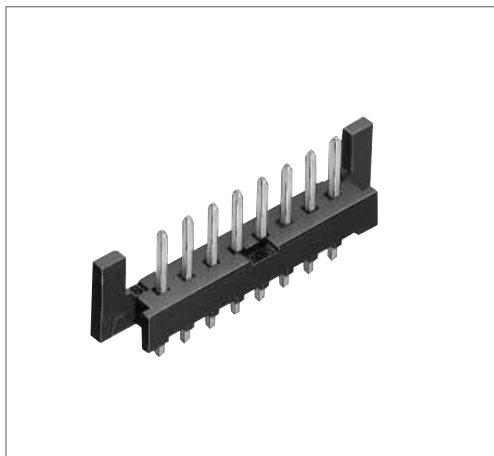
| Part Number  | CL No.     | Number of Contacts | A    | B    | C    | Dimensions | RoHS |
|--------------|------------|--------------------|------|------|------|------------|------|
| HNC2-2.5S- 2 | 218-0011-1 | 2                  | 12.4 | 6    | 2.5  | Figure 1   | Yes  |
| HNC2-2.5S- 3 | 218-0022-8 | 3                  | 14.9 | 8.5  | 5    |            |      |
| HNC2-2.5S- 4 | 218-0039-0 | 4                  | 17.4 | 11   | 7.5  |            |      |
| HNC2-2.5S- 5 | 218-0027-1 | 5                  | 19.9 | 13.5 | 10   |            |      |
| HNC2-2.5S- 6 | 218-0042-5 | 6                  | 22.4 | 16   | 12.5 |            |      |
| HNC2-2.5S- 7 | 218-0030-6 | 7                  | 24.9 | 18.5 | 15   |            |      |
| HNC2-2.5S- 8 | 218-0014-0 | 8                  | 27.4 | 21   | 17.5 |            |      |
| HNC2-2.5S-10 | 218-0017-8 | 10                 | 32.4 | 26   | 22.5 |            |      |
| HNC1-2.5S-12 | 218-0008-7 | 12                 | 37   | 31   | 27.5 | Figure 2   |      |
| HNC2-2.5S-15 | 218-0045-3 | 15                 | 44.9 | 38.5 | 35   | Figure 1   |      |

Note1: Please order a quantity multiplied by 100 pcs. (Not per bag, but per pcs.)

Note2: The series name of 12 contacts connector is HNC1, and partially will be changed in the style.

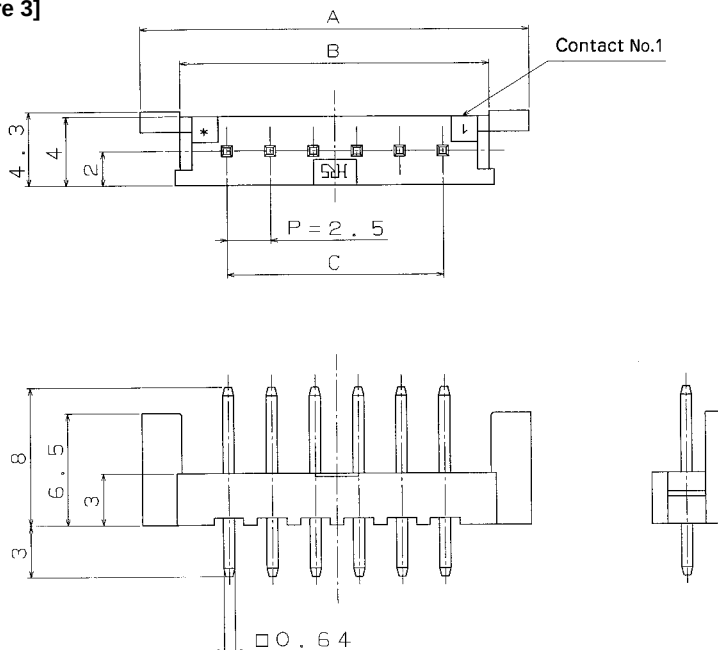
## HNC Series 2.5mm Pitch Connector for Discrete Wire Connection

### ■Straight Pin Header

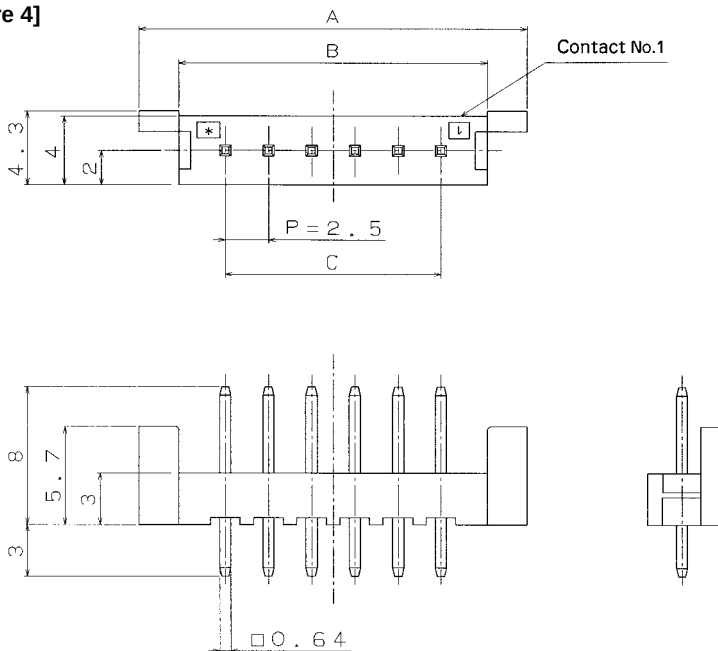


●Board Through-hole Diameter:  $\phi 1.1^{+0.1}_0$

[Figure 3]



[Figure 4]



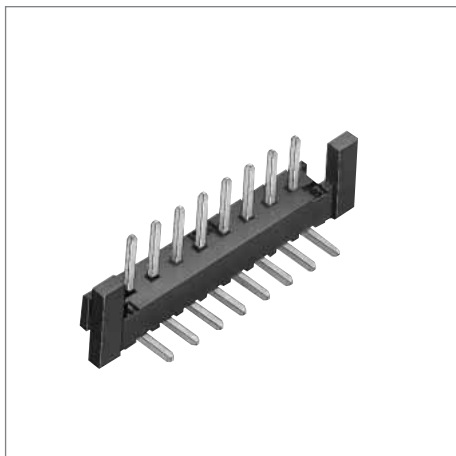
Unit: mm

| Part Number        | CL No.         | Number of Contacts | A    | B    | C    | Specific No. |              | Dimensions | RoHS |
|--------------------|----------------|--------------------|------|------|------|--------------|--------------|------------|------|
|                    |                |                    |      |      |      | Tin plating  | Gold plating |            |      |
| HNC2-2.5P- 2DS(**) | 218-0012-4-**- | 2                  | 12.5 | 7.8  | 2.5  | 55           | 02           | Figure 3   | Yes  |
| HNC2-2.5P- 3DS(**) | 218-0023-0-**- | 3                  | 15   | 10.4 | 5    | 55           | 02           |            |      |
| HNC2-2.5P- 4DS(**) | 218-0040-0-**- | 4                  | 17.5 | 12.9 | 7.5  | 55           | 01           |            |      |
| HNC2-2.5P- 5DS(**) | 218-0028-4-**- | 5                  | 20   | 15.4 | 10   | 55           | 02           |            |      |
| HNC2-2.5P- 6DS(**) | 218-0043-8-**- | 6                  | 22.5 | 17.9 | 12.5 | 55           | 01           |            |      |
| HNC2-2.5P- 7DS(**) | 218-0031-9-**- | 7                  | 25   | 20.4 | 15   | 55           | 02           |            |      |
| HNC2-2.5P- 8DS(**) | 218-0015-2-**- | 8                  | 27.5 | 22.8 | 17.5 | 55           | 02           |            |      |
| HNC2-2.5P-10DS(**) | 218-0018-0-**- | 10                 | 32.5 | 27.8 | 22.5 | 55           | 02           | Figure 4   |      |
| HNC1-2.5P-12DS(**) | 218-0009-0-**- | 12                 | 35.5 | 32.8 | 27.5 | 55           | 02           |            |      |
| HNC2-2.5P-15DS(**) | 218-0046-6-**- | 15                 | 45   | 40.4 | 35   | 55           | 01           | Figure 3   |      |

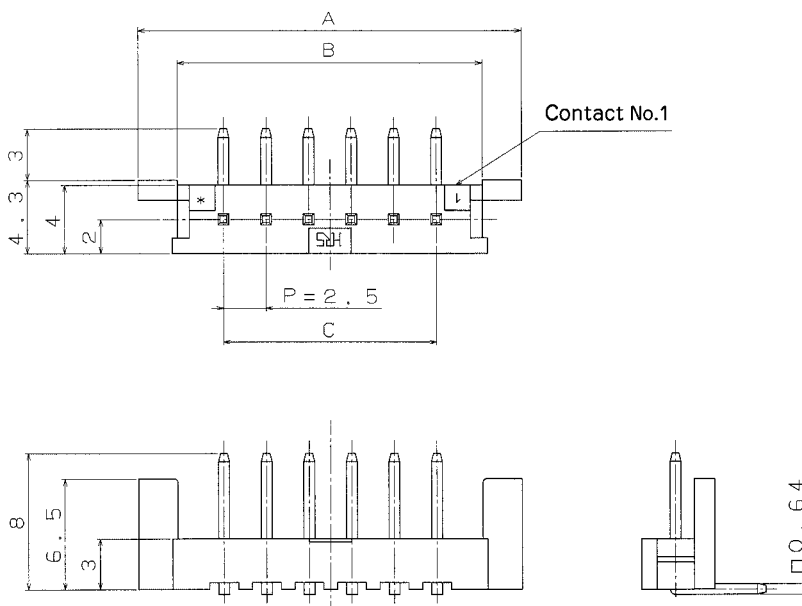
Note1: Please order a quantity multiplied by 100 pcs. (Not per bag, but per piece)

Note2: The series name of the 12 contacts connector is HNC1 and the style will be partially changed.

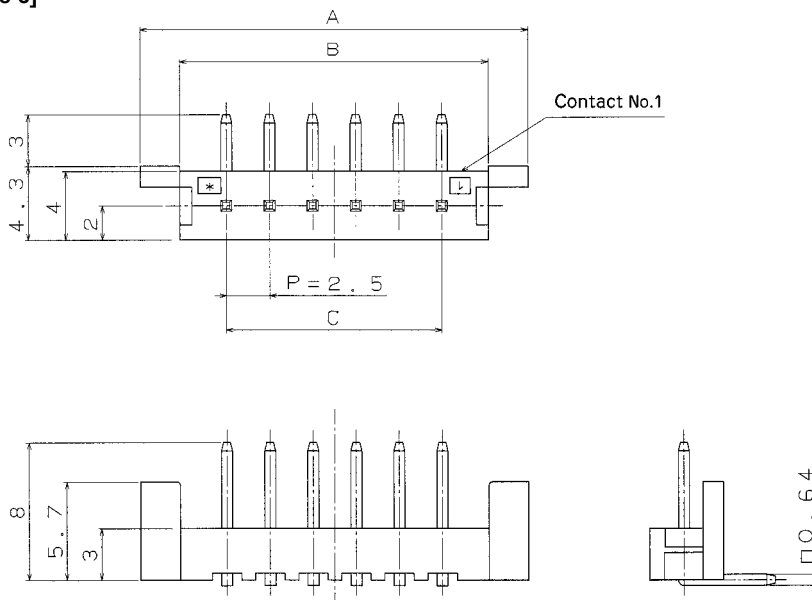
## Right Angle Pin Header [Figure 5]



●Board Through-hole Diameter:  $\phi 1.1^{+0.1}_0$



[Figure 6]



Unit: mm

| Part Number         | CL No.         | Number of Contacts | A    | B    | C    | Specific No. |              | Dimensions | RoHS |
|---------------------|----------------|--------------------|------|------|------|--------------|--------------|------------|------|
|                     |                |                    |      |      |      | Tin plating  | Gold plating |            |      |
| HNC2-2.5P- 2DSL(**) | 218-0013-7-**- | 2                  | 12.5 | 7.8  | 2.5  | 55           | 02           | Figure 5   | Yes  |
| HNC2-2.5P- 3DSL(**) | 218-0024-3-**- | 3                  | 15   | 10.4 | 5    | 55           | 02           |            |      |
| HNC2-2.5P- 4DSL(**) | 218-0041-2-**- | 4                  | 17.5 | 12.9 | 7.5  | 55           | 01           |            |      |
| HNC2-2.5P- 5DSL(**) | 218-0029-7-**- | 5                  | 20   | 15.4 | 10   | 55           | 02           |            |      |
| HNC2-2.5P- 6DSL(**) | 218-0044-0-**- | 6                  | 22.5 | 17.9 | 12.5 | 55           | 01           |            |      |
| HNC2-2.5P- 7DSL(**) | 218-0032-1-**- | 7                  | 25   | 20.4 | 15   | 55           | 02           |            |      |
| HNC2-2.5P- 8DSL(**) | 218-0016-5-**- | 8                  | 27.5 | 22.8 | 17.5 | 55           | 02           |            |      |
| HNC2-2.5P-10DSL(**) | 218-0019-3-**- | 10                 | 32.5 | 27.8 | 22.5 | 55           | 02           |            |      |
| HNC1-2.5P-12DSL(**) | 218-0010-9-**- | 12                 | 35.5 | 32.8 | 27.5 | 55           | 02           | Figure 6   |      |
| HNC2-2.5P-15DSL(**) | 218-0047-9-**- | 15                 | 45   | 40.4 | 35   | 55           | 01           | Figure 5   |      |

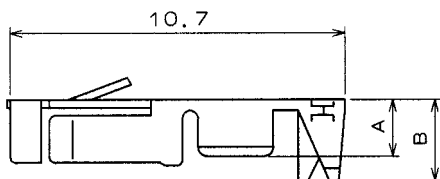
Note1: Please order a quantity multiplied by 100 pcs. (Not per bag, but per piece)

Note2: The series name of the 12 contacts connector is HNC1 and the style will be partially changed.

## HNC Series 2.5mm Pitch Connector for Discrete Wire Connection

### ■Crimping Contact for Socket

#### ●Applicable Cable (Tin Plated Annealing Copper Wire)



| Conductor Size (Contact wire construction) | Jacket Diameter |
|--------------------------------------------|-----------------|
| AWG 22 (17pieces/0.16mm)                   | φ1.35 to φ1.7mm |
| AWG 24 (11pieces/0.16mm)                   |                 |
| AWG 26 ( 7pieces/0.16mm)                   |                 |
| AWG 28 ( 7pieces/0.127mm)                  | φ1.0 to φ1.35mm |
| AWG 30 ( 7pieces/0.1mm)                    |                 |

#### ●Recommended Cable

UL1061, UL1007

#### ●Strip Length

2.8 to 3.3mm

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

Unit: mm

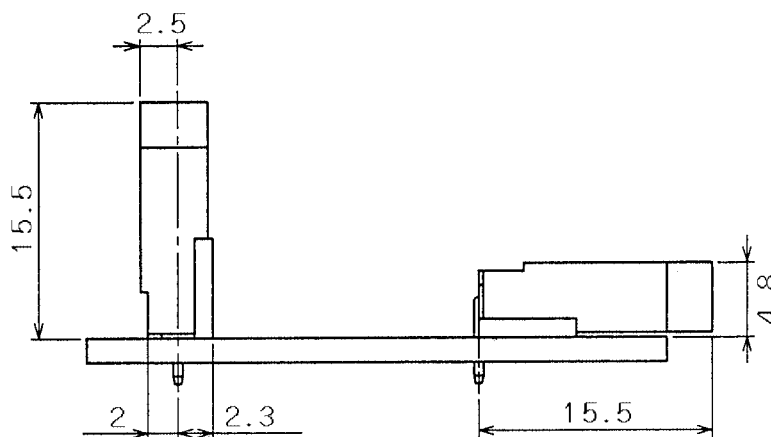
| Part Number      | CL No.         | Conductor Size | Jacket Diameter | A   | B   | Packaging Type | Quantity | Specific No. |              | RoHS |
|------------------|----------------|----------------|-----------------|-----|-----|----------------|----------|--------------|--------------|------|
|                  |                |                |                 |     |     |                |          | Tin plating  | Gold plating |      |
| HNC-2.5S-D-A(**) | 218-0037-5-**- | AWG 22 to 26   | φ1.35 to 1.7mm  | 1.8 | 2.6 | Bag            | 100      | 15           | 02           | Yes  |
| HNC-2.5S-C-A(**) | 218-0021-5-**- |                |                 | 1.8 | 2.6 | Reel           | 10,000   |              |              |      |
| HNC-2.5S-D-B(**) | 218-0038-8-**- | AWG 26 to 30   | φ1.0 to 1.35mm  | 1.5 | 1.7 | Bag            | 100      |              |              |      |
| HNC-2.5S-C-B(**) | 218-0020-2-**- |                |                 | 1.5 | 1.7 | Reel           | 10,000   |              |              |      |

### ■Applicable Crimping Tool

| Type                 | Part Number | CL No.     | Applicable Contact                |
|----------------------|-------------|------------|-----------------------------------|
| Applicator           | AP105-HNC   | 901-4502-0 | HNC-2.5S-C-A(**)/HNC-2.5S-C-B(**) |
| Press Main Unit      | CM105       | 901-0005-4 |                                   |
| Manual Crimping Tool | TC-HNC-B    | 250-0005-7 | HNC-2.5S-D-B(**)                  |
|                      | TC-HNC-A    | 250-0006-0 | HNC-2.5S-D-A(**)                  |
| Extraction Tool      | DF1-C-PO    | 550-0177-7 | HNC-2.5S-C-A/HNC-2.5S-C-B(**)     |

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

### ■Application Pattern



## ◆Precautions

|                                    |                                                                  |
|------------------------------------|------------------------------------------------------------------|
| 1. Recommended Soldering Condition | Flow: 250℃ for 5 seconds<br>Manual soldering: 300℃ for 2 seconds |
| 2. Cleaning Condition              | Refer to Nylon Connector Use Hand book.                          |
| 3. Connection Condition            | Refer to Nylon Connector Use Hand book.                          |