

# CNE Series

## Sensor connector

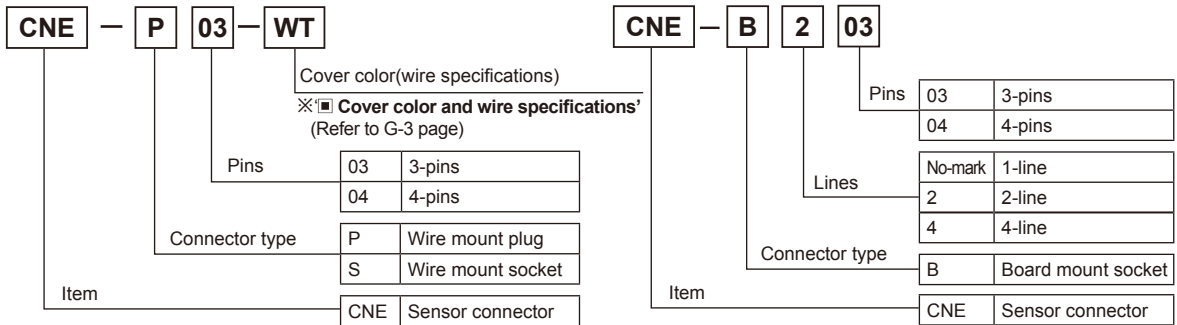
NEW

### ■ Features

- **Wire mount plug/socket**
  - Compact and highly reliable of pressure welding connector
  - Enables to connect wires as wire mount plug/socket
  - Different 9 colors of cover by wire diameter
  - Visible wiring status with translucent cover
- **Board mount socket**
  - Enables to insert 4EA, 2EA, or 1EA wire mount plugs
  - Contact placed in mold against electric shock and short-circuit
  - Mountable on board closely
- **Commons**
  - Significantly reduces connection time and effort
  - Wide products range for various wires
  - Compact and high density installation with 2 mm of contact pitch
  - Compliance with e-CON
  - Max. 3 A of current capacity by a pin



### ■ Ordering information



### ■ Specifications

| Type                 | Wire mount plug  | Wire mount socket   | Board mount socket                                     |
|----------------------|--|---|--|
| Model                | <b>CNE-P</b> □□  | <b>CNE-S</b> □□   | <b>CNE-B</b> □□  |
| Applica-<br>tion     | Connector  | Board mount socket/Wire mount socket  | Wire mount plug  |
|                      | Cable  | AWG30 to 20(Ø0.6 to Ø2.0)   |  |
|                      | PCB  | —<br>Fender plated-through hole,<br>Hole dia.: 1.0mm,<br>PCB thickness : 1.0 to 2.2mm |  |
| Rated voltage        | Max. 250VAC/DC   |   |  |
| Rated current        | Max. 3.0A  |   |  |
| Temperature          | -20 to 85°C(applying 1A), -20 to 75°C(applying 2A), -20 to 60°C(applying 3A) |   |  |
| Humidity             | 40 to 80%RH  |   |  |
| Terminal retention   | 1.4kgf min.  |   |  |
| Pressure strength    | • AWG30 : 0.5kgf min.      • AWG24 : 0.8kgf min.      • AWG20 : 1.0kgf min.  |   |  |
| Extraction           | 0.49N(50gf)/pin min.   |   |  |
| Insertion            | 1.96N(200gf)/pin max.  |   |  |
| Dielectric strength  | 1,000VAC for 1min.(between terminals)  |   |  |
| Insulated resistance | Min. 1,000MΩ(between terminals)  |   |  |
| Contact resistance   | Max. 0.05Ω (short-current : 1mA, max. open voltage : 20mV)                   |   |  |
| Material             | Body : PCABS(UL94V-0), Terminal : C5210(Gold 0.2μm),<br>Case : PC(UL94-V0)   |   | Body : PCABS(UL94-V0),<br>Terminal : C5210(Gold 0.2μm) |

# Sensor Connector

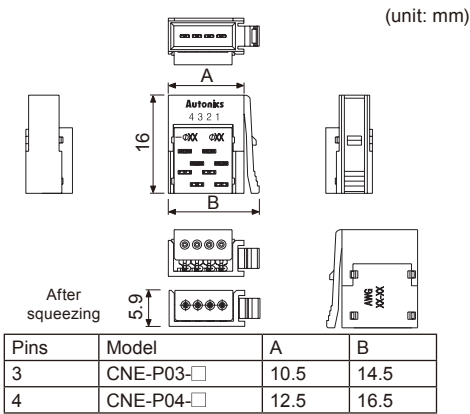
## ■ Cover color and wire specifications

| Cover color      | 3-pin      | 4-pin      | Applied wire specifications                 |                    |
|------------------|------------|------------|---|--------------------|
|                  |            |            | Normal cross section area(mm <sup>2</sup> ) | Cover diameter(mm) |
| Transparent(WT)  | CNE-□03-WT | CNE-□04-WT | 0.05 to 0.08<br>(AWG30 to 28)               | ∅0.6 to 0.8        |
| Yellow-Green(YG) | CNE-□03-YG | CNE-□04-YG |   | ∅0.8 to 1.0        |
| Violet(VT)       | CNE-□03-VT | CNE-□04-VT |   | ∅1.0 to 1.2        |
| Red(RE)          | CNE-□03-RE | CNE-□04-RE | 0.13 to 0.21<br>(AWG26 to 24)               | ∅0.8 to 1.0        |
| Yellow(YW)       | CNE-□03-YW | CNE-□04-YW |   | ∅1.0 to 1.2        |
| Orange(OG)       | CNE-□03-OG | CNE-□04-OG | 0.32 to 0.5<br>(AWG22 to 20)                | ∅1.2 to 1.6        |
| Green(GN)        | CNE-□03-GN | CNE-□04-GN |   | ∅1.0 to 1.2        |
| Blue(BL)         | CNE-□03-BL | CNE-□04-BL |   | ∅1.2 to 1.6        |
| Gray(GY)         | CNE-□03-GY | CNE-□04-GY |   | ∅1.6 to 2.0        |

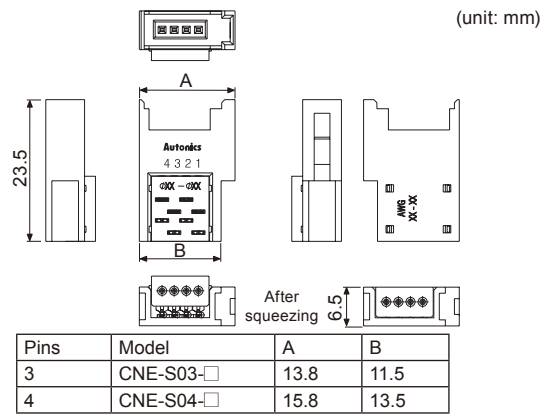
※ □ : P(Wire mount plug), S(Wire mount socket)

## ■ Dimensions

### ◎ Wire mount plug

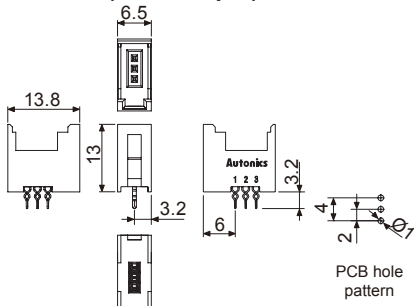


### ◎ Wire mount socket

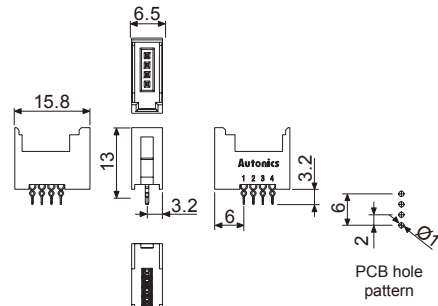


### ◎ Board mount socket

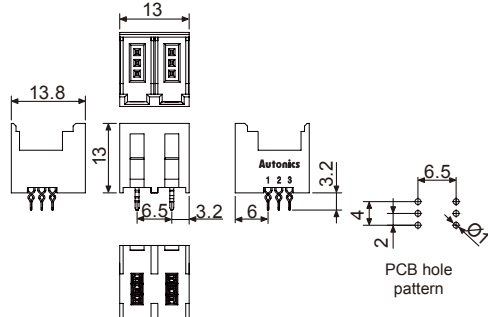
#### ● CNE-B03(1-line×3-pin)



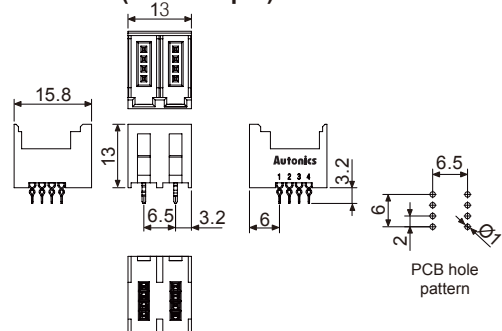
#### ● CNE-B04(1-line×4-pin)



#### ● CNE-B203(2-line×3-pin)



#### ● CNE-B204(2-line×4-pin)



(A) Photo electric sensor

(B) Fiber optic sensor

(C) Door/Area sensor

(D) Proximity sensor

(E) Pressure sensor

(F) Rotary encoder

(G) Connector/Socket

(H) Temp. controller

(I) SSR/ Power controller

(J) Counter

(K) Timer

(L) Panel meter

(M) Tacho/ Speed/ Pulse meter

(N) Display unit

(O) Sensor controller

(P) Switching mode power supply

(Q) Stepper motor& Driver&Controller

(R) Graphic/ Logic panel

(S) Field network device

(T) Software

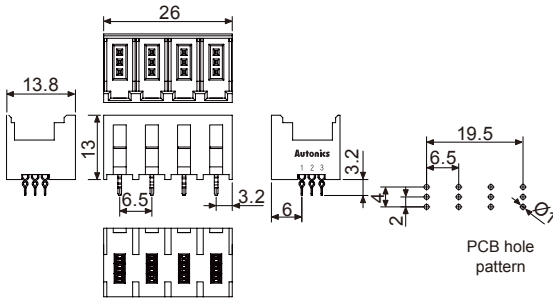
(U) Other

# CNE Series

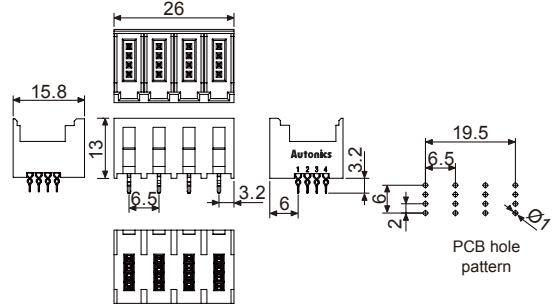
## ◎ Board mount socket

(unit: mm)

### ● CNE-B403(4-line×3-pin)



### ● CNE-B404(4-line×4-pin)



## ■ How to press sensor connector

### 1) Select connector.

- Check the wire specifications (conductor section, cover diameter).
- Select the proper color of sensor connector(model) by referring to the below table.

| Cover color      | Wire mount plug | Wire mount socket | Applied wire specifications                  |                    |
|------------------|-----------------|-------------------|--|--------------------|
|                  |                 |                   | Nominal cross section area(mm <sup>2</sup> ) | Cover diameter(mm) |
| Transparent(WT)  | CNE-P□-WT       | CNE-S□-WT         | 0.05 to 0.08<br>(AWG30 to 28)                | Ø0.6 to 0.8        |
| Yellow-Green(YG) | CNE-P□-YG       | CNE-S□-YG         |  | Ø0.8 to 1.0        |
| Violet(VT)       | CNE-P□-VT       | CNE-S□-VT         |  | Ø1.0 to 1.2        |
| Red(RE)          | CNE-P□-RE       | CNE-S□-RE         | 0.13 to 0.21<br>(AWG26 to 24)                | Ø0.8 to 1.0        |
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| Orange(OG)       | CNE-P□-OG       | CNE-S□-OG         | 0.32 to 0.5<br>(AWG22 to 20)                 | Ø1.2 to 1.6        |
| Green(GN)        | CNE-P□-GN       | CNE-S□-GN         |  | Ø1.0 to 1.2        |
| Blue(BL)         | CNE-P□-BL       | CNE-S□-BL         | 0.32 to 0.5<br>(AWG22 to 20)                 | Ø1.2 to 1.6        |
| Gray(GY)         | CNE-P□-GY       | CNE-S□-GY         |  | Ø1.6 to 2.0        |

※□: Number of pins (03: 3-pin, 04: 4-pin)

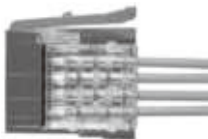
※The proper sensor connector may be different by conductor of wire.

※Cover diameter of applied wire at connector (at translucent part) and AWG number of body backside are marked.



### 2) Insert wires.

- Check the pin number and insert wires at the insertion part of the cover.
- Check the wires are inserted at the end of cover.



### 3) Squeeze the connector.

- Insert the cover to the body with tools (press fitting pliers, etc).
- ※Squeeze it with tools at the side direction as below figure.



### 4) Check the cover.

- Check the cover which has gaps and is even with the cover.



Wrong (1)

Wrong (2)

Not enough cover insertion.

Not enough cover insertion.

※Press the part of arrows again.