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# PRESSURE TRANSDUCERS WITH AMP.

# PA-750



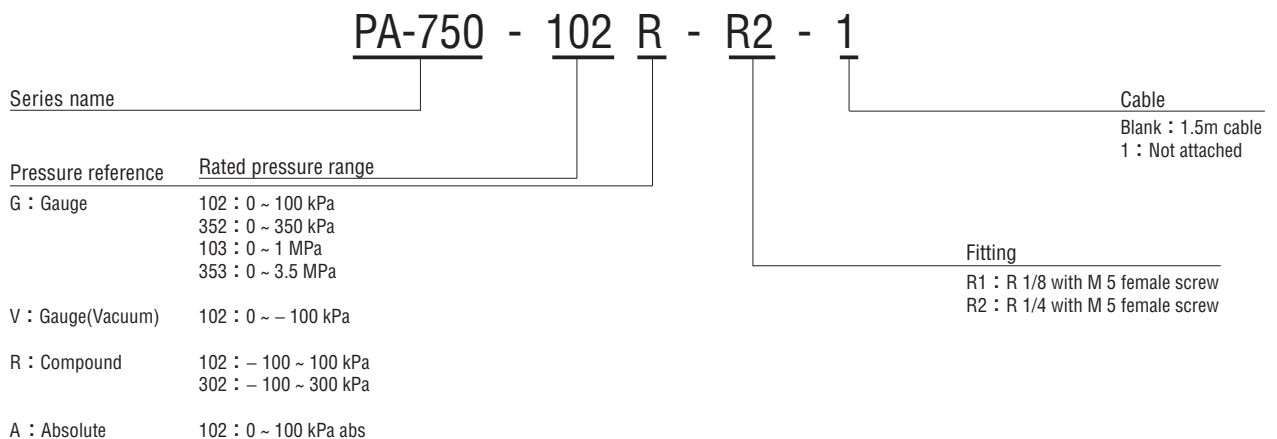
**INTERNAL STRUCTURE**  
PA-750 (R 1/4)

| Part name |                           | Material |
|-----------|---------------------------|----------|
| ①         | Fitting                   | SUS 304  |
| ②         | Housing                   | PPS      |
| ③         | Stainless steel diaphragm | SUS 316L |

## FEATURES

- High corrosion resistance and drip-proof construction  
Pressure port attachment made of SUS 316L  
Proven IP65 grade gauge body (IP65 in accordance with IEC)
- Cable connector connection
- Built-in temperature compensation function (0 ~ 50°C)
- Absolute pressure type and compound pressure type which can control negative to positive pressure with only a single pressure gauge are all in line
- Voltage output mode

## MODEL NUMBER DESIGNATION



※Please refer to the LIST OF MODEL NUMBERS when placing orders.

# PA-750

## PRESSURE TRANSDUCERS WITH AMP.

### LIST OF MODEL NUMBERS

| Fitting | Pressure reference |                             | Gauge                  |                      |                      |                        |                      |                      | Absolute             |
|---------|--------------------|-----------------------------|------------------------|----------------------|----------------------|------------------------|----------------------|----------------------|----------------------|
|         | Cable              | kPa<br>Rated pressure range | 0 ~ 100                | 0 ~ 350              | 0 ~ 1000             | 0 ~ 3500               | 0 ~ - 100            | - 100 ~ 100          | - 100 ~ 300          |
| R1      | Attached           | PA-750-<br>↻ 102G-R1        | PA-750-<br>↻ 352G-R1   | PA-750-<br>103G-R1   | PA-750-<br>353G-R1   | PA-750-<br>↻ 102V-R1   | PA-750-<br>102R-R1   | PA-750-<br>302R-R1   | PA-750-<br>102A-R1   |
|         | Not attached       | PA-750-<br>↻ 102G-R1-1      | PA-750-<br>↻ 352G-R1-1 | PA-750-<br>103G-R1-1 | PA-750-<br>353G-R1-1 | PA-750-<br>↻ 102V-R1-1 | PA-750-<br>102R-R1-1 | PA-750-<br>302R-R1-1 | PA-750-<br>102A-R1-1 |
| R2      | Attached           | PA-750-<br>↻ 102G-R2        | PA-750-<br>↻ 352G-R2   | PA-750-<br>103G-R2   | PA-750-<br>353G-R2   | PA-750-<br>↻ 102V-R2   | PA-750-<br>102R-R2   | PA-750-<br>302R-R2   | PA-750-<br>102A-R2   |
|         | Not attached       | PA-750-<br>↻ 102G-R2-1      | PA-750-<br>↻ 352G-R2-1 | PA-750-<br>103G-R2-1 | PA-750-<br>353G-R2-1 | PA-750-<br>↻ 102V-R2-1 | PA-750-<br>102R-R2-1 | PA-750-<br>302R-R2-1 | PA-750-<br>102A-R2-1 |

※Verify the above model numbers when placing orders.  
The products marked ↻ are manufactured upon receipt of order basis.

### STANDARD SPECIFICATIONS

● Unless otherwise specified, the specs are defined at an ambient temperature of 25±5 °C and excitation voltage of 12 V DC.

| Item                   | Model number            | PA-750        |  |      |      |      |       |             |             |           |
|------------------------|-------------------------|---------------|--|------|------|------|-------|-------------|-------------|-----------|
|                        |                         | 102G          | 352G   | 103G | 353G | 102V | 102R  | 302R        | 102A        |           |
| General specifications | Pressure reference      | Gauge         |  |      |      |      |       |             |             | Absolute  |
|                        | Rated pressure range    | kPa           | 100  | 350  | 1000 | 3500 | - 100 | - 100 ~ 100 | - 100 ~ 300 | 100 (abs) |
|                        | Maximum pressure        | kPa           | 200  | 700  | 2000 | 5000 | 200   | 200         | 600         | 200 (abs) |
|                        | Break-down pressure     | kPa           | 300  | 1050 | 3000 | 7000 | 300   | 300         | 900         | 300 (abs) |
|                        | Operating temp. range   | °C            | - 20 ~ 80  |      |      |      |       |             |             |           |
|                        | Compensated temp. range | °C            | 0 ~ 50   |      |      |      |       |             |             |           |
|                        | Operating humidity      | %RH           | 35 ~ 85 (No condensation)                                  |      |      |      |       |             |             |           |
|                        | Storage temp.           | °C            | - 20 ~ 80 (Atmospheric pressure, humidity 65 %RH maximum)  |      |      |      |       |             |             |           |
|                        | Pressure medium         |               | Corrosive gases/liquids compatible with SUS 316L or SUS304 |      |      |      |       |             |             |           |
|                        | Insulation resistance   | MΩ<br>minimum | 100 (500 V DC)   |      |      |      |       |             |             |           |
|                        | Dielectric strength     |               | 500 V AC, 60 s (Leakage current 1 mA maximum)              |      |      |      |       |             |             |           |
|                        | Sealed liquid           |               | Silicone oil   |      |      |      |       |             |             |           |
|                        | Pressure port           |               | R 1/8, R 1/4   |      |      |      |       |             |             |           |
|                        | Net weight              | g             | R2 : Approx. 50  |      |      |      |       |             |             |           |
| Drip-proof structure   |                         | IP65          |  |      |      |      |       |             |             |           |

# PA-750

## PRESSURE TRANSDUCERS WITH AMP.

| Item  |                      | Model number  | PA-750                            |        |      |       |          |          |          |
|---|----------------------|---------------|-----------------------------------|--------|------|-------|----------|----------|----------|
|   |                      |               | 102G                              | 352G   | 103G | 353G  | 102V     | 102R     | 302R     |
| Power   | Supply voltage       | V DC          | 10.8 ~ 30                         |        |      |       |          |          |          |
|   | Consumption current  | maximum       | 10 mA                             |        |      |       |          |          |          |
| Analog output   | Output voltage       | V             | 1 ~ 5                             |        |      |       |          |          |          |
|   | Zero voltage         | V             | 1 ± 0.04                          |        |      |       | 3 ± 0.04 | 2 ± 0.04 | 1 ± 0.04 |
|   | Span voltage         | V             | 4 ± 0.04                          |        |      |       |          |          |          |
|   | Output current       | mA<br>maximum | 1 (Load resistance 5 kΩ minimum)  |        |      |       |          |          |          |
|   | Linearity/Hysteresis | %F.S.         | ± 0.3                             |        |      |       |          |          |          |
|   | Thermal error        | ZERO %F.S./°C | ± 0.05                            |        |      |       |          |          |          |
|   |                      | SPAN %F.S./°C | ± 0.05                            |        |      |       |          |          |          |
|   | Response             | ms            | Approx. 2                         |        |      |       |          |          |          |
|   | resolving power      |               | Approx. 0.004V (Approx. 0.1%F.S.) |        |      |       |          |          |          |
| Gravitational effect<br>(From horizontal position to vertical position) | %F.S.                | ± 0.3         | ± 0.1                             | ± 0.05 |      | ± 0.3 | ± 0.1    | ± 0.3    |          |

## ENVIRONMENTAL CHARACTERISTICS

| Test item           | Test conditions (At 25 ± 5 °C)   | Permissible change  |
|---------------------|--|---|
| Vibration           | 10 ~ 500 Hz, 1.5 mm maximum/98.1 m/s <sup>2</sup> ,<br>3 directions for 2 hours each | Analog output<br>(Zero voltage, Span voltage)<br>: ± 1 %F.S. maximum each |
| Shock               | 490 m/s <sup>2</sup><br>3 directions for 3 times each                                |   |
| Pressure cycling    | 0 ~ Rated pressure/Rated pressure range, 10 <sup>6</sup> cycles                      |   |
| Moisture resistance | 40 °C, 90 ~ 95 %RH, 240 hrs.   |   |



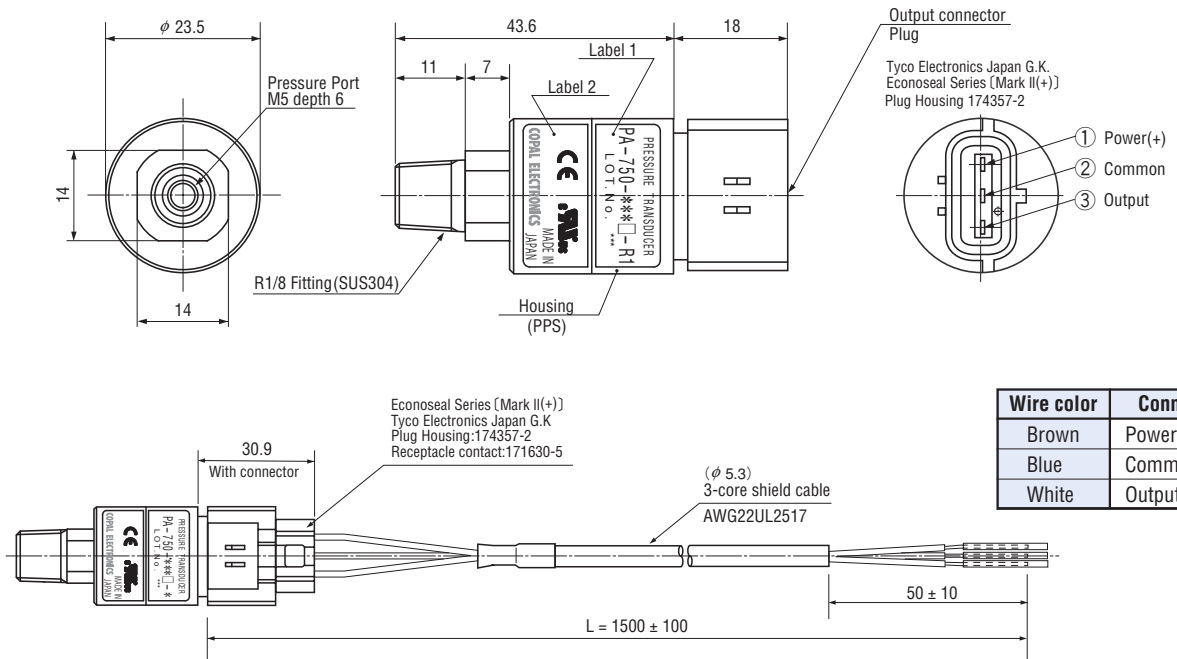
# PA-750

## PRESSURE TRANSDUCERS WITH AMP.

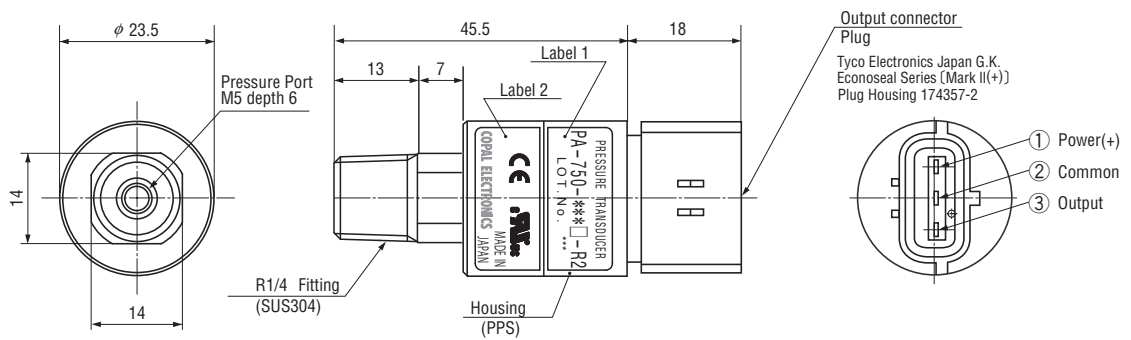
### OUTLINE DIMENSIONS

Unless otherwise specified, tolerance : ± 0.5 (Unit: mm)

#### Configurations of joint R1 (R1/8) type



#### Configurations of joint R2 (R1/4) type



### INTERNAL ELECTRICAL SCHEMATICS

