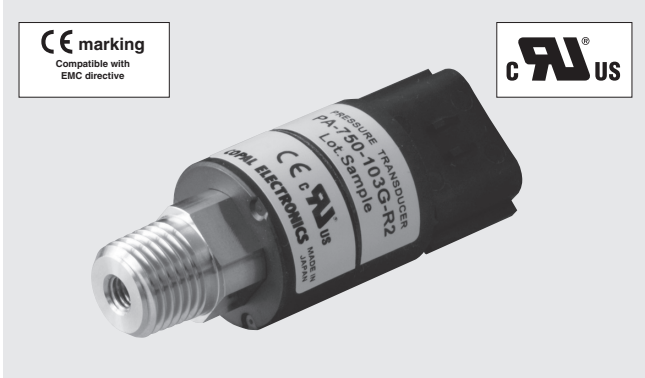


PRESSURE TRANSDUCERS WITH AMP.

PA-750



INTERNAL STRUCTURE
PA-750 (R 1/4)

The diagram shows a cross-section of the transducer. Part 1 is the fitting, part 2 is the housing, and part 3 is the stainless steel diaphragm. The internal components are shown in a cutaway view to reveal the sensing mechanism.

| 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

PA-750 - 102 R - R2 - 1

| | | | |
|---|---|--|--|
| <p>Series name</p> <p>Pressure referencez</p> <p>G : Gauge</p> <p>V : Gauge(Vacuum)</p> <p>R : Compound</p> <p>A : Absolute</p> | <p>Rated pressure range</p> <p>102 : 0 ~ 100 kPa</p> <p>352 : 0 ~ 350 kPa</p> <p>103 : 0 ~ 1 MPa</p> <p>353 : 0 ~ 3.5 MPa</p> <p>102 : 0 ~ - 100 kPa</p> <p>102 : - 100 ~ 100 kPa</p> <p>302 : - 100 ~ 300 kPa</p> <p>102 : 0 ~ 100 kPa abs</p> | <p>Fitting</p> <p>R1 : R 1/8 with M 5 female screw</p> <p>R2 : R 1/4 with M 5 female screw</p> | <p>Cable</p> <p>Blank : 1.5m cable</p> <p>1 : Not attached</p> |
|---|---|--|--|

※ 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 Rated pressure range | 0 ~ 100 | 0 ~ 350 | 0 ~ 1000 | 0 ~ 3500 | 0 ~ - 100 | - 100 ~ 100 | - 100 ~ 300 |
| R1 | Attached | PA-750- ↻ 102G-R1 | PA-750- ↻ 352G-R1 | PA-750- 103G-R1 | PA-750- 353G-R1 | PA-750- ↻ 102V-R1 | PA-750- 102R-R1 | PA-750- 302R-R1 | PA-750- 102A-R1 |
| | Not attached | PA-750- ↻ 102G-R1-1 | PA-750- ↻ 352G-R1-1 | PA-750- 103G-R1-1 | PA-750- 353G-R1-1 | PA-750- ↻ 102V-R1-1 | PA-750- 102R-R1-1 | PA-750- 302R-R1-1 | PA-750- 102A-R1-1 |
| R2 | Attached | PA-750- ↻ 102G-R2 | PA-750- ↻ 352G-R2 | PA-750- 103G-R2 | PA-750- 353G-R2 | PA-750- ↻ 102V-R2 | PA-750- 102R-R2 | PA-750- 302R-R2 | PA-750- 102A-R2 |
| | Not attached | PA-750- ↻ 102G-R2-1 | PA-750- ↻ 352G-R2-1 | PA-750- 103G-R2-1 | PA-750- 353G-R2-1 | PA-750- ↻ 102V-R2-1 | PA-750- 102R-R2-1 | PA-750- 302R-R2-1 | PA-750- 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 SUS316L and SUS304 | | | | | | | |
| | Insulation resistance | MΩ 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 maximum | 1 (負荷抵抗 5 kΩ 以上 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 (From horizontal position to vertical position) | %F.S. | ± 0.3 | ± 0.1 | ± 0.05 | ± 0.3 | ± 0.1 | ± 0.3 | | |

ENVIRONMENTAL CHARACTERISTICS

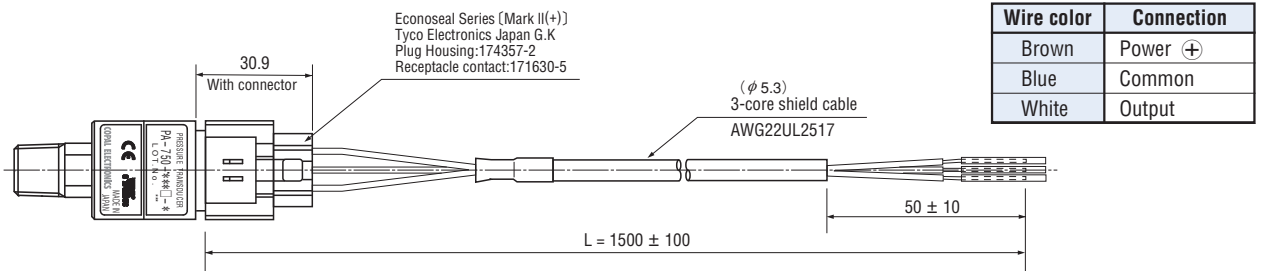
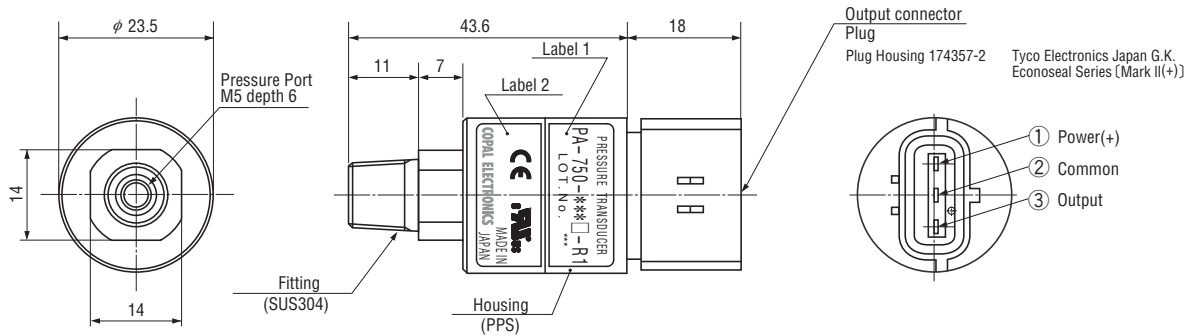
| Test item | Test conditions (At 25 ± 5 °C) | Permissible change |
|---------------------|--|---|
| Vibration | 10 ~ 500 Hz, 1.5 mm maximum/98.1 m/s ² , 3 directions for 2 hours each | Analog output (Zero voltage, Span voltage) : ± 1 %F.S. maximum each |
| Shock | 490 m/s ² 3 directions for 3 times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

PA-750 PRESSURE TRANSDUCERS WITH AMP.

OUTLINE DIMENSIONS

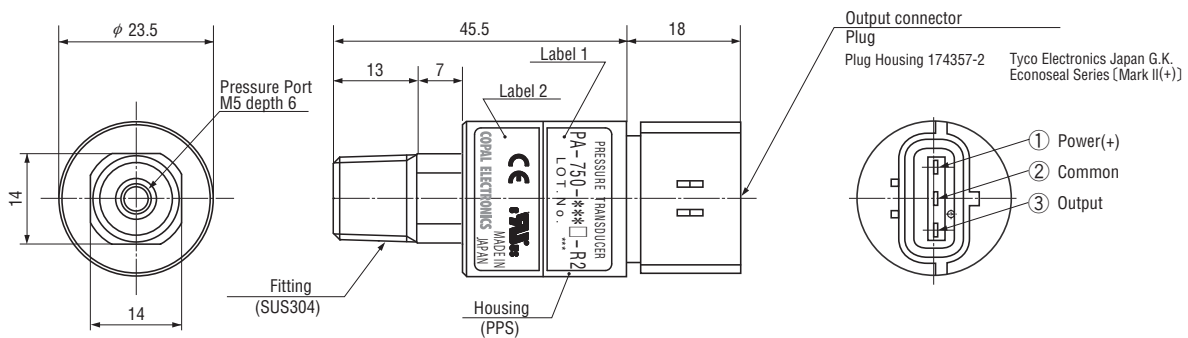
Unless otherwise specified, tolerance : ± 0.5 (Unit: mm)

Configurations of joint R1 (R1/8) type



| Wire color | Connection |
|------------|----------------|
| Brown | Power \oplus |
| Blue | Common |
| White | Output |

Configurations of joint R2 (R1/4) type



INTERNAL ELECTRICAL SCHEMATICS

