

PRESSURE TRANSDUCERS WITH AMP.

PA-858



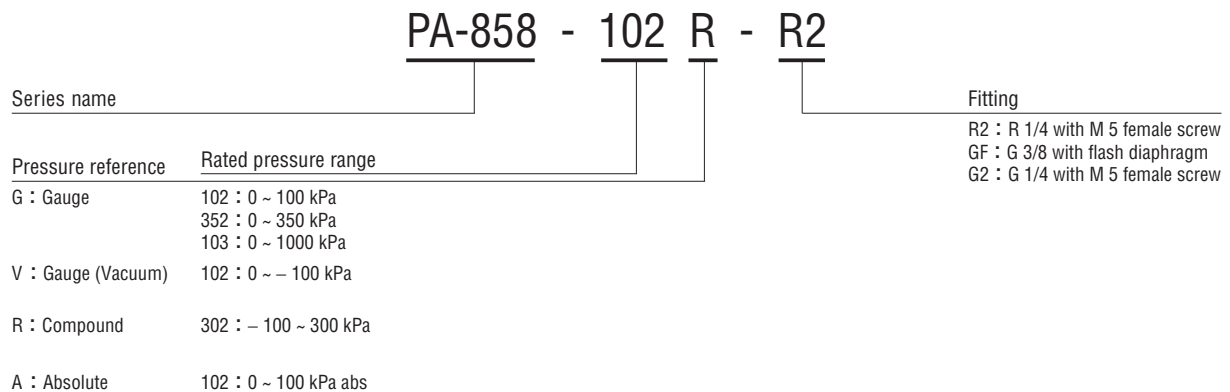
**INTERNAL STRUCTURE
PA-858 (R 1/4)**

| Part name | | Material |
|-----------|---------------------------|--|
| ① | Fitting | SUS 316L |
| ② | Housing | SUS 316L |
| ③ | Plastic cover | ABS (Acrylonitrile butadiene styrene) + PC (Polycarbonate) |
| ④ | Stainless steel diaphragm | SUS 316L |

FEATURES

- High corrosion resistance and drip-proof construction
Pressure port attachment made of SUS 316L
Proven IP-65 grade gauge body (IP-65 in accordance with IEC)
- Absolute pressure type and compound pressure type which can control negative to positive pressure with only a single pressure gauge are all in line
- Three standard types of joint are provided
R2 : R 1/4 (M 5 female screw)
GF : G 3/8 with flash diaphragm
G2 : G 1/4 (M 5 female screw)

MODEL NUMBER DESIGNATION



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

PA-858 PRESSURE TRANSDUCERS WITH AMP.

LIST OF MODEL NUMBERS

| Pressure reference | | Gauge | | | | | Absolute |
|--------------------|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Fitting | Rated pressure range kPa | 0 ~ 100 | 0 ~ 350 | 0 ~ 1000 | 0 ~ - 100 | - 100 ~ 300 | 0 ~100 |
| | R2 (R 1/4) | PA-858-102G-R2 | PA-858-352G-R2 | PA-858-103G-R2 | PA-858-102V-R2 | PA-858-302R-R2 | PA-858-102A-R2 |
| | GF (G 3/8) | PA-858-102G-GF | PA-858-352G-GF | PA-858-103G-GF | PA-858-102V-GF | PA-858-302R-GF | PA-858-102A-GF |
| | G2 (G 1/4) | PA-858-102G-G2 | PA-858-352G-G2 | PA-858-103G-G2 | PA-858-102V-G2 | PA-858-302R-G2 | PA-858-102A-G2 |

※ Verify the above model numbers when placing orders.

STANDARD SPECIFICATIONS

● Unless otherwise specified, the specs are defined at an ambient temperature of 25 ± 5 °C and excitation voltage of 24 V DC, load resistance of 250 Ω.

| Item | Model number | PA-858 | | | | | | |
|------------------------|-------------------------|---------------|---|------|------|-------|-------------|-----------|
| | | 102G | 352G | 103G | 102V | 302R | 102A | |
| General specifications | Pressure reference | Gauge | | | | | Absolute | |
| | Rated pressure range | kPa | 100 | 350 | 1000 | - 100 | - 100 ~ 300 | 100 (abs) |
| | Maximum pressure | kPa | 200 | 700 | 2000 | 200 | 600 | 200 (abs) |
| | Break-down pressure | kPa | 300 | 1050 | 3000 | 300 | 900 | 300 (abs) |
| | Operating temp. range | °C | - 20 ~ 70 | | | | | |
| | 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 | | | | | |
| | 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 1/4, G 3/8 (Flash diaphragm) , G 1/4 ※1 | | | | | |
| | Net weight | g | R2 : Approx. 165, GF : Approx. 180, G2 : Approx. 170 | | | | | |
| | Protection grade | | IP-65 | | | | | |
| Power | Supply voltage | V DC | 24 ± 10 % (Including ripple percentage) | | | | | |

※ 1 : An "O" ring provided. (G 3/8 : P18, G 1/4 : P15)

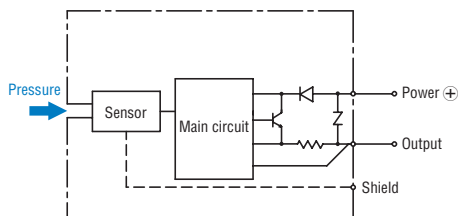
PA-858 PRESSURE TRANSDUCERS WITH AMP.

| Item | | Model number | PA-858 | | | | | | |
|---|----------------------|------------------|-----------|--------|-------|---------|-------|---------|--|
| | | | 102G | 352G | 103G | 102V | 302R | 102A | |
| Analog output | Output current | mA | 4 ~ 20 mA | | | | | | |
| | Zero current | mA (at 25 °C) | 4 ± 0.2 | | | 8 ± 0.2 | | 4 ± 0.2 | |
| | Span current | mA (at 25 °C) | 16 ± 0.2 | | | | | | |
| | Load resistance | | 0 ~ 500 Ω | | | | | | |
| | Linearity/Hysteresis | %F.S. | ± 0.5 | | | | | | |
| | Thermal error | ZERO | %F.S./°C | ± 0.06 | | | | | |
| | | SPAN | %F.S./°C | ± 0.06 | | | | | |
| | Response | ms | Approx. 2 | | | | | | |
| Gravitational effect (From horizontal position to vertical position) | %F.S. | ± 0.3 | ± 0.1 | ± 0.05 | ± 0.3 | ± 0.1 | ± 0.3 | | |

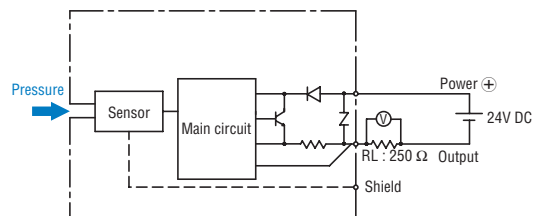
ENVIRONMENTAL CHARACTERISTICS

| 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 | Zero current, Span current: ± 1 %F.S. maximum each |
| Shock | 490 m/s ² 3 directions for 3 times each | |
| Pressure cycling | 0~Rated pressure/Rated pressure range, 10 ⁶ cycles | |
| Moisture resistance | 40 °C, 90 ~ 95 %RH, 240 hrs. | |

INTERNAL ELECTRICAL SCHEMATICS



RECOMMENDED EXTERNAL SCHEMATICS

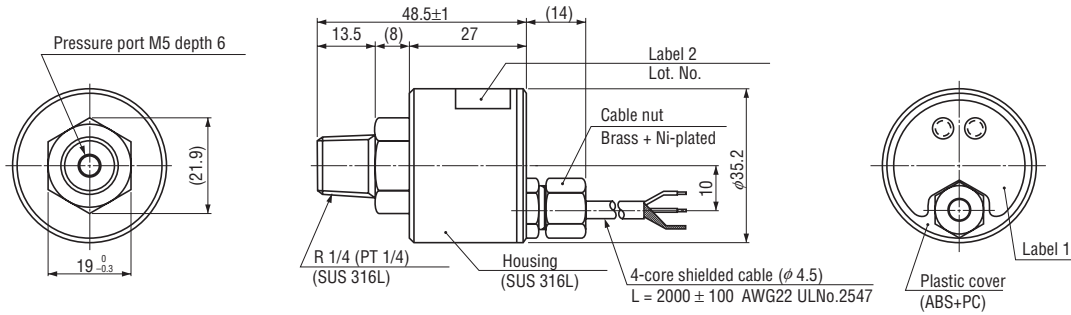


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OUTLINE DIMENSIONS

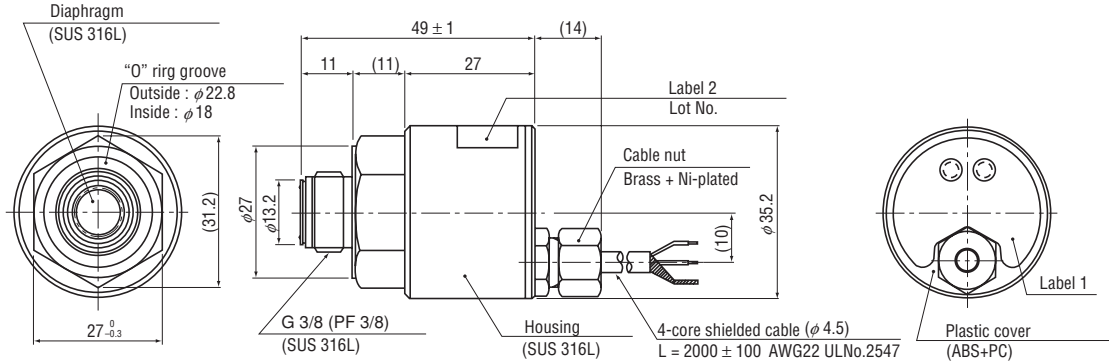
Unless otherwise specified, tolerance : ± 0.5 (Unit: mm)

Configurations of joint R2 (R1/4) type



| Wire color | Connection |
|------------|------------|
| Brown | Power ⊕ |
| White | Output |
| Black | N.C. |
| Blue | N.C. |
| Shield | Fitting |

Configurations of joint GF (G 3/8) type



⚠ Extra care should be taken with the diaphragm part. Do not touch the diaphragm directly to avoid damaging the diaphragm.

Configurations of joint G2 (G 1/4) type

