

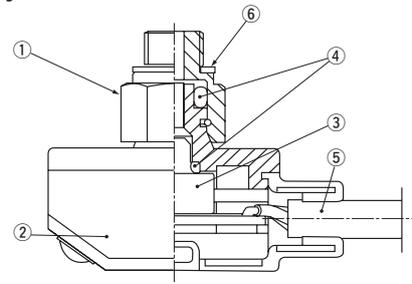
# PRESSURE TRANSDUCERS WITH AMP. PA-20



## FEATURES

- Ultra-small size pressure transducer with Amp.
- 2 types of pressure ports are available
- Meet EMC standards

## INTERNAL STRUCTURE (Universal joint)



| Part name       | Material                     |
|-----------------|------------------------------|
| ① Pressure Port | SUS 304                      |
| ② Housing       | PC (Polycarbonate)           |
| ③ Sensor module | PPS (Polyphenylene sulphide) |
| ④ "O" ring      | Fluoro-rubber                |
| ⑤ Cable         | Vynyl chloride               |
| ⑥ Gasket        | POM (Polyoxymethylene)       |

## MODEL NUMBER DESIGNATION

**PA-20-102V-U-3M**

Series name

Rated pressure range

102V : 0 ~ -100 kPa (Gauge - Vacuum)  
302R : -100 ~ 300 kPa (Gauge - Compound)

Cable length

Blank : 1.5 m  
3M : 3 m

Pressure port

U : Universal joint (M5 male screw)  
M : 2-M5 female screw

## LIST OF MODEL NUMBERS

| Pressure port     | Cable length | Rated pressure range [kPa] |                 |
|-------------------|--------------|----------------------------|-----------------|
|                   |              | 0 ~ - 100                  | - 100 ~ 300     |
| Universal joint   | 1.5 m        | PA-20-102V-U               | PA-20-302R-U    |
|                   | 3 m          | PA-20-102V-U-3M            | PA-20-302R-U-3M |
| 2-M5 female screw | 1.5 m        | PA-20-102V-M               | PA-20-302R-M    |
|                   | 3 m          | PA-20-102V-M-3M            | PA-20-302R-M-3M |

※ Verify the above model numbers when placing orders.

# PA-20

## PRESSURE TRANSDUCERS WITH AMP.

### STANDARD SPECIFICATIONS

● Unless otherwise specified, the specs are defined at an ambient temperature of 25±5 °C and excitation voltage of 24 VDC.

| Item                   |   | Model number | PA-20  |            |
|------------------------|---|--------------|--|------------|
|                        |   |              | 102V   | 302R       |
| General specifications | Pressure reference                        |              | Gauge  |            |
|                        | Rated pressure range                      | kPa          | 0 ~ -100   | -100 ~ 300 |
|                        | Maximum pressure                          | kPa          | 200  | 600        |
|                        | Operating temp. range                     |              | -10 ~ 60   |            |
|                        | Compensated temp. range                   |              | 0 ~ 50   |            |
|                        | Operating humidity                        |              | 35 ~ 85 (No condensation)                                      |            |
|                        | Storage temp.                             |              | -20 ~ 70   |            |
|                        | Pressure medium                           |              | Non-corrosive gases  |            |
|                        | Insulation resistance                     | MΩ minimum   | 100  |            |
|                        | Dielectric strength                       |              | 500 VAC, 60 s  |            |
|                        | Net weight (Without cable)                |              | Approx. 5 (PA-20- * * * * -U)    Approx. 8 (PA-20- * * * * -M) |            |
| Power                  | Supply voltage                            | VDC          | 10.8~30 (Including ripple percentage)                          |            |
|                        | Consumption current                       | mA maximum   | 20   |            |
| Analog output          | Output voltage                            | V            | 1 ~ 5  |            |
|                        | Output current                            | mA maximum   | 1 (Load resistance : 5 kΩ minimum)                             |            |
|                        | Linearity/Hysteresis                      |              | %F.S. ± 0.5  |            |
|                        | Thermal error<br>(Reference temp.: 25 °C) | ZERO %F.S.   | ± 2  |            |
|                        |   | SPAN %F.S.   | ± 2  |            |
| Response               | ms  | Approx. 1    |  |            |

### ENVIRONMENTAL CHARACTERISTICS

| Test item           | Test conditions                                       | permissible change                           |
|---------------------|---|--|
| Vibration           | 10 ~ 55 Hz, 1.5 mm, 3 directions for 2 hours each     | Analog output : ± 2 %F.S. maximum after test |
| Shock               | 1000 m/s <sup>2</sup> , 3 directions for 3 times each |  |
| Pressure cycling    | 0 ~ Rated pressure, 10 <sup>6</sup> cycles            |  |
| Moisture resistance | 40 °C, 90 ~ 95 %RH, 240 h.                            |  |

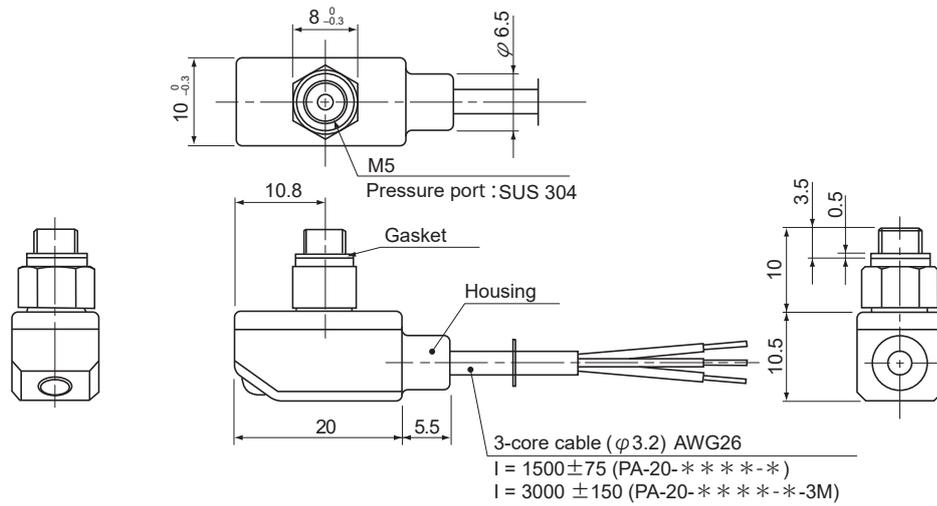
# PA-20

## PRESSURE TRANSDUCERS WITH AMP.

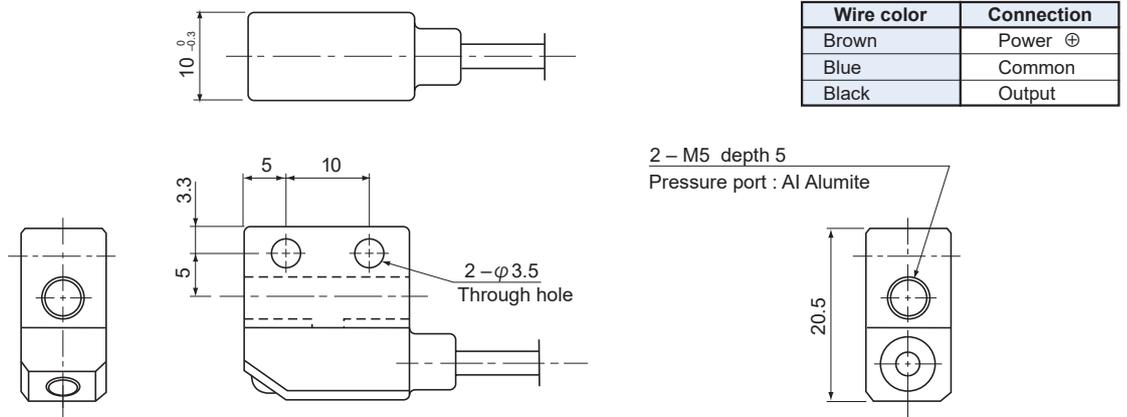
### OUTLINE DIMENSIONS

Unless otherwise specified, tolerance :  $\pm 0.5$  (Unit: mm)

#### ● Universal joint type



#### ● M5 female screw type



### INTERNAL ELECTRICAL SCHEMATICS

