

# PRESSURE TRANSDUCERS WITH AMP.

# PA-20



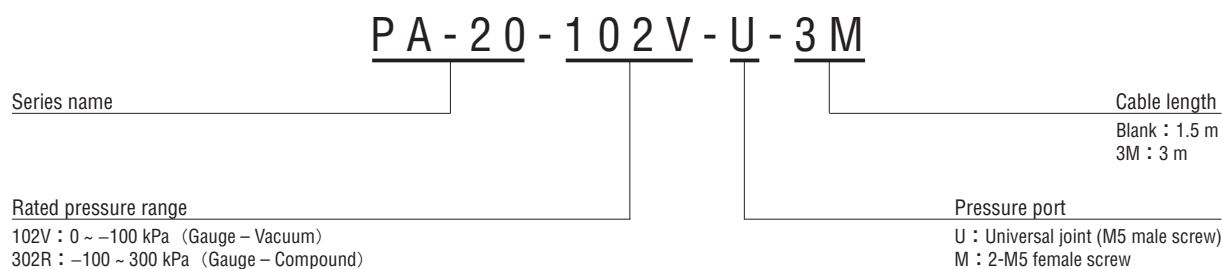
## FEATURES

- 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



## 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.

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### STANDARD SPECIFICATIONS

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

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	°C	-10 ~ 60	
	Compensated temp. range	°C	0 ~ 50	
	Operating humidity	%RH	35 ~ 85 (No condensation)	
	Storage temp.	°C	-20 ~ 70	
	Pressure medium		Non-corrosive gases	
	Insulation resistance	MΩ minimum	100	
	Dielectric strength		500 V AC, 60 s	
	Net weight (Without cable)	g	Approx. 5 (PA-20- * * * * -U)    Approx. 8 (PA-20- * * * * -M)	
Power	Supply voltage	V DC	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 (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.	
EMC	EMI : EN55011: 2007, A2 : 2007 Group 1, class B EMS : EN61326-1 : 2006/EN61326-2-3 : 2006 Table 2	Analog output ± 5 %F.S. maximum during test

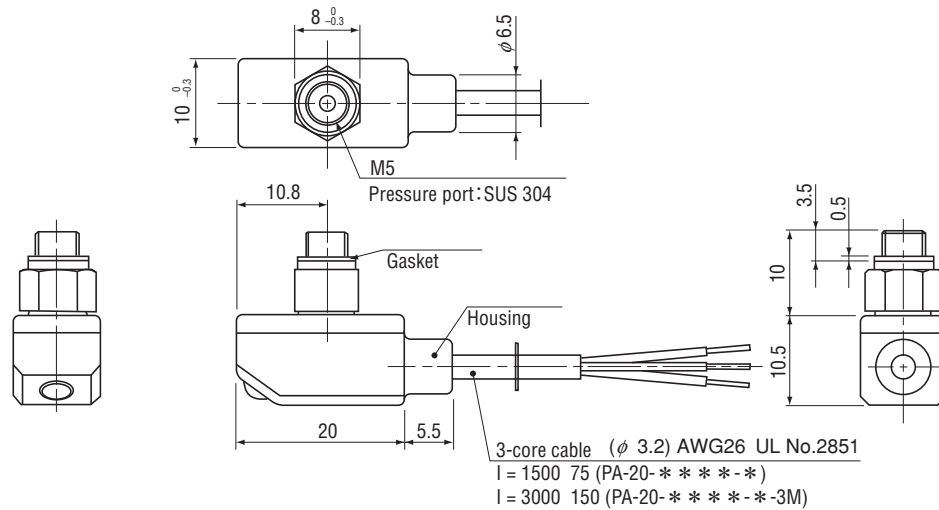
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## PRESSURE TRANSDUCERS WITH AMP.

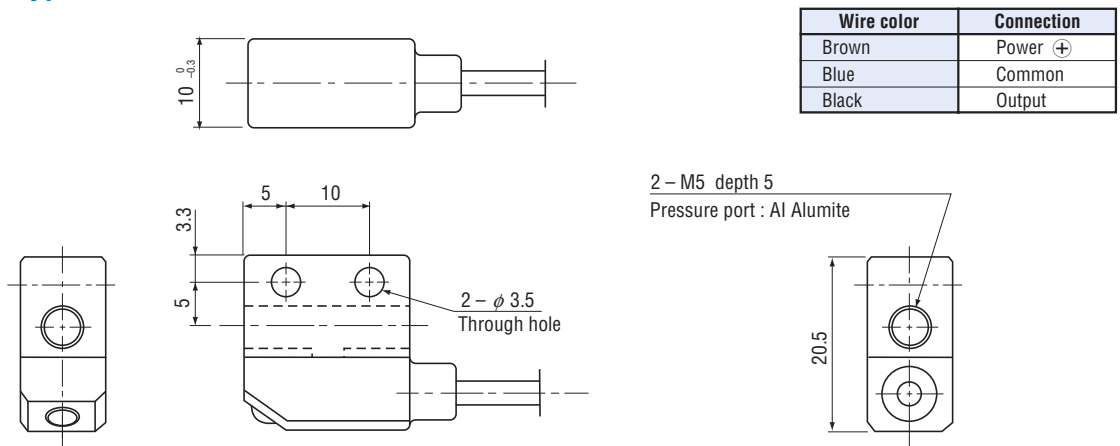
### OUTLINE DIMENSIONS

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

#### Universal joint type

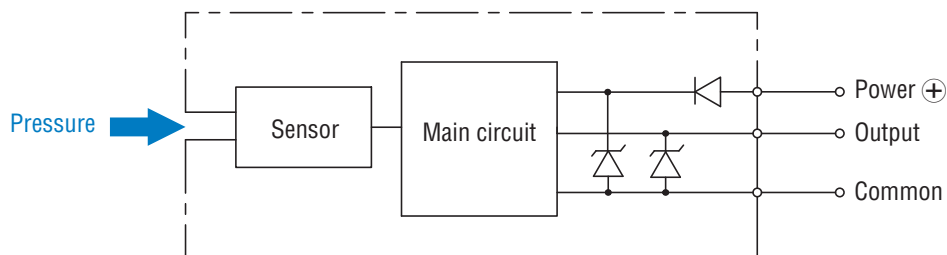


#### M5 female screw type



Wire color	Connection
Brown	Power $\oplus$
Blue	Common
Black	Output

### INTERNAL ELECTRICAL SCHEMATICS



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