

# PRESSURE TRANSDUCERS WITH AMP.

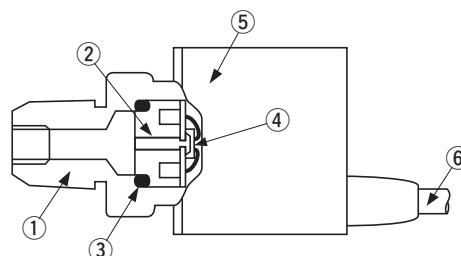
# PA-500



## FEATURES

- High output gain by built-in hybrid electronic amp.
- Built-in temperature compensation function (0 ~ 50 °C)
- Pressure medium compatible with both liquid and gas pressures (Gauge)

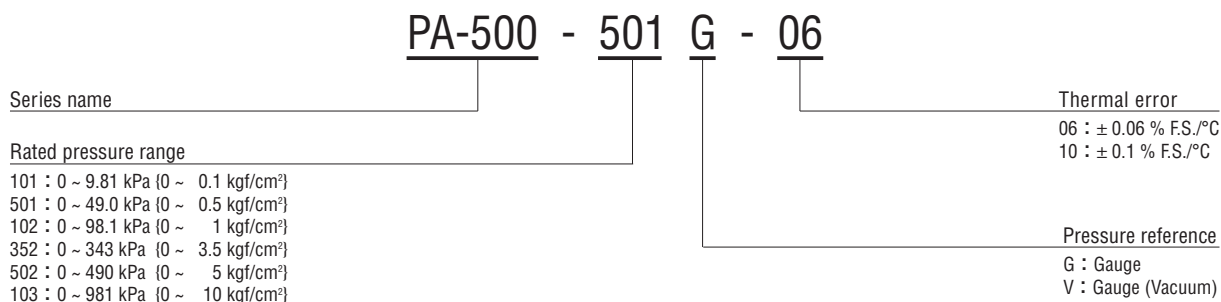
## INTERNAL STRUCTURE (Gauge type)



Part name	Material
① Fitting	Brass + Nickel-plated ※1
② Glass stand seat	Borosilicated glass
③ "O" ring	Fluoro-rubber
④ Sensor chip	Silicone
⑤ Housing	Aluminum
⑥ Cable	Vinyl chloride resin

※1 SUS 304 for 102V

## MODEL NUMBER DESIGNATION



## LIST OF MODEL NUMBERS

Pressure reference	Gauge							
	kPa (kgf/cm <sup>2</sup> ) Rated pressure range	0 ~ 9.81 {0 ~ 0.1}	0 ~ 49.0 {0 ~ 0.5}	0 ~ 98.1 {0 ~ 1}	0 ~ 343 {0 ~ 3.5}	0 ~ 490 {0 ~ 5}	0 ~ 981 {0 ~ 10}	0 ~ -98.1 {0 ~ -1}
± 0.06 % F.S./°C		PA-500 -501G-06	PA-500 -102G-06	PA-500 -352G-06	PA-500 -502G-06	PA-500 -103G-06	PA-500 -102V-06	
± 0.1 % F.S./°C	PA-500 -101G-10	PA-500 -501G-10	PA-500 -102G-10	PA-500 -352G-10	PA-500 -502G-10	PA-500 -103G-10	PA-500 -102V-10	

☐ : Not available

※Verify the above model numbers when placing orders.

# PA-500

## 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 12 V DC.

Item		Model number	PA-500						
			101G	501G	102G	352G	502G	103G	102V
General specifications	Pressure reference		Gauge						Gauge(Vacuum)
	Rated pressure range	kPa {kgf/cm <sup>2</sup> }	9.81 {0.1}	49.0 {0.5}	98.1 {1}	343 {3.5}	490 {5}	981 {10}	-98.1 {-1}
	Maximum pressure	kPa {kgf/cm <sup>2</sup> }	19.6 {0.2}	98.1 {1}	196 {2}	686 {7}	981 {10}	1961 {20}	196 {2}
	Break-down pressure	kPa {kgf/cm <sup>2</sup> }	49.0 {0.5}	245 {2.5}	490 {5}	1030 {10.5}	1471 {15}	2941 {30}	490 {5}
	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		Non-corrosive gases / Non-corrosive liquids						
	Insulation resistance	MΩ minimum	100 (500 V DC)						
	Dielectric strength		500 V AC, 60 s (Leakage current 1 mA maximum)						
	Pressure port		R 1/4 (PT 1/4)						G 1/4 (PF 1/4)
	Net weight	g	Approx. 85						
Power	Supply voltage	V DC	12 ~ 24 ± 10 %						
	Ripple content	maximum	10 % (P-P)						
	Consumption current	maximum	20 mA						
Analog output	Output voltage	V	1 ~ 5						
	Zero voltage	V	1 ± 0.04 (at 25 °C)						
	Span voltage	V	4 ± 0.04 (at 25 °C)						
	Output current	mA maximum	1 (Load resistance: 5 kΩ minimum)						
	Linearity/Hysteresis	%F.S.	± 0.5	± 0.3		± 0.5			
	Thermal error 0 ~ 50 °C (Reference temp.: 25 °C)	ZERO %F.S./°C	± 0.1	± 0.06/0.1					
		SPAN %F.S./°C	± 0.1	± 0.06/0.1					
	Supply voltage effect	V maximum	± 0.1						
Response	ms	Approx. 1							

# PA-500

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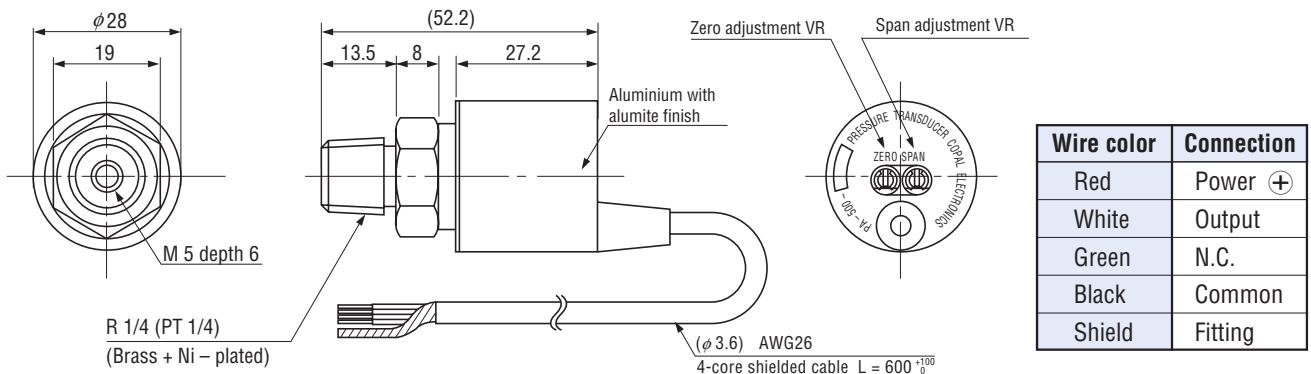
### ENVIRONMENTAL CHARACTERISTICS

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> , 3 directions for 2 hours each	Zero voltage/Span voltage: ± 1 %F.S. maximum each
Shock	981 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 hrs.	

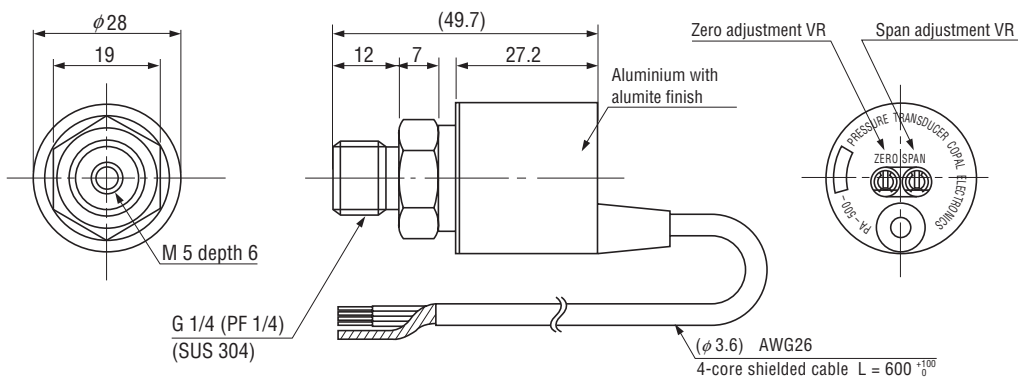
### OUTLINE DIMENSIONS

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

#### PA-500-XXXG



#### PA-500-XXXV



### INTERNAL ELECTRICAL SCHEMATICS

