

PRESSURE TRANSDUCERS WITH AMP.

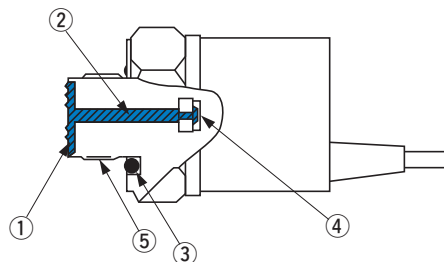
PA-800



FEATURES

- High corrosion resistance by double diaphragm structure
- Built-in amplifier circuit
- Built-in temperature compensation function (0 ~ 50 °C)
- Voltage output mode

INTERNAL STRUCTURE PA-800



Part name		Material
①	Stainless steel diaphragm	SUS 316L
②	Sealed liquid	Silicone oil
③	"O" ring	Fluoro-rubber
④	Sensor chip	Silicone
⑤	Fitting	SUS 316

MODEL NUMBER DESIGNATION

PA-800		- 102	G	- 05	
Series name		Rated pressure range		Thermal error	
		102 : 0 ~ 98.1 kPa {0 ~ 1 kgf/cm ² }		05 : 0.05 % F.S./°C	
		352 : 0 ~ 343 kPa {0 ~ 3.5 kgf/cm ² }		10 : 0.1 % F.S./°C	
		103 : 0 ~ 981 kPa {0 ~ 10 kgf/cm ² }		Pressure reference	
				G : Gauge	
				V : Gauge (Vacuum)	

LIST OF MODEL NUMBERS

Output	Pressure reference		Gauge			
	Thermal error	kPa {kgf/cm ² } Rated pressure range	0 ~ 98.1 {0 ~ 1}	0 ~ 343 {0 ~ 3.5}	0 ~ 981 {0 ~ 10}	0 ~ - 98.1 {0 ~ - 1}
Voltage output	± 0.05 % F.S./°C		PA-800-102G-05	PA-800-352G-05	PA-800-103G-05	PA-800-102V-05
	± 0.1 % F.S./°C		PA-800-102G-10	PA-800-352G-10	PA-800-103G-10	PA-800-102V-10

※ Verify the above model numbers when placing orders.

PA-800

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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 12 V DC.

Item		Model number	PA-800			
			102G	102V	352G	103G
General specifications	Pressure reference		Gauge			
	Rated pressure range kPa {kgf/cm²}		98.1 {1}	− 98.1 {−1}	343 {3.5}	981 {10}
	Maximum pressure kPa {kgf/cm²}		196 {2}		686 {7}	1961 {20}
	Break-down pressure kPa {kgf/cm²}		294 {3}		1030 {10.5}	2942 {30}
	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 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		G 3/8 (PF 3/8) ※ 1			
	Net weight g		Approx. 125			
	Power	Supply voltage V DC		12 ~ 24 ± 10 %		
Ripple content maximum		10 % (P-P)				
Consumption current mA maximum		20				
Analog output	Output voltage V DC		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.		± 0.3	± 0.5		
	Thermal error 0 ~ 50 °C (Reference temp.: 25 °C)		ZERO %F.S./°C		± 0.05/± 0.1	
			SPAN %F.S./°C		± 0.05/± 0.1	
	Supply voltage effect V maximum		± 0.1			
	Response ms		Approx. 2			
	Gravitational effect %F.S. (From vertical position to horizontal position) max.		Approx. 0.5		Approx. 0.15	Approx. 0.05

※ 1 An "O" ring is provided. (P18)

PA-800

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ENVIRONMENTAL CHARACTERISTICS

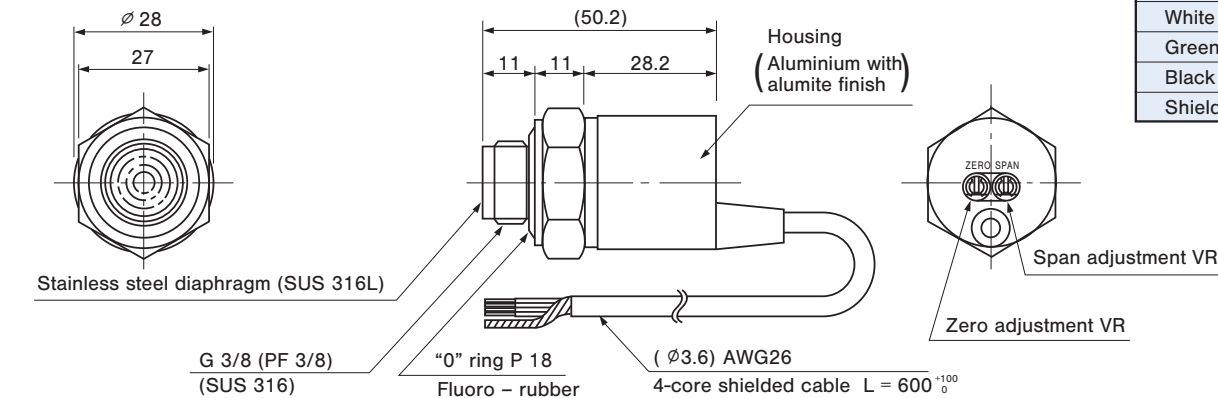
Test item	Test conditions (At 25 ± 5 °C)	Permissible change
Vibration	10 ~ 500 Hz, 1.5 mm maximum/98.1 m/s², 3 directions for 2 hours each	Zero voltage, Span voltage: ± 1 %F.S. maximum each
Shock	981 m/s², 3 directions for 3 times each	
Pressure cycling	0 ~ Rated pressure, 10 ⁶ cycles	
Moisture resistance	40 °C, 90 ~ 95 %RH, 240 hrs.	

OUTLINE DIMENSIONS

● PA-800
Gauge type

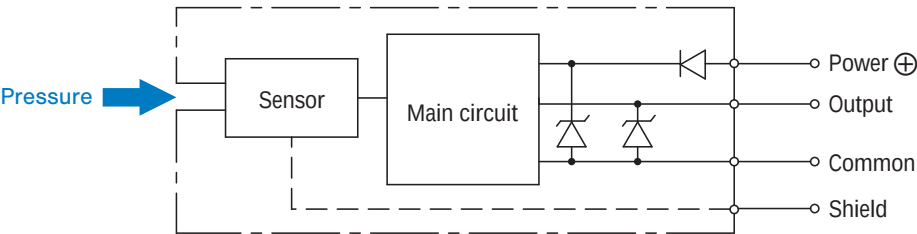
Unless otherwise specified, tolerance : ± 0.5 (Unit: mm)

PA-800	
Wire color	Connection
Red	Power ⊕
White	Output
Green	N.C.
Black	Common
Shield	Fitting



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

INTERNAL ELECTRICAL SCHEMATICS



Mouser Electronics

Authorized Distributor

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Nidec:

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