

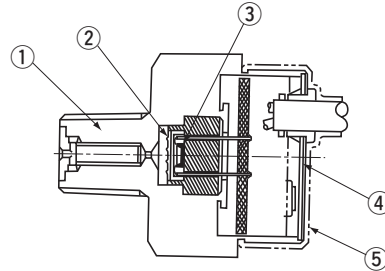
PRESSURE TRANSDUCERS WITH AMP. PA-860/PA-868



FEATURES

- Resistant against surge pressure
- SUS 316L welded stainless steel diaphragm
- Built-in amplifier circuit
- Voltage or current output modes are available

INTERNAL STRUCTURE PA-860/PA-868 (G 3/8)



Part name		Material
①	Fitting	Iron, Ni-plated
②	Stainless steel diaphragm	SUS 316L
③	Sensor chip	Silicone
④	Back cover	SUS 303
⑤	Drip-proof cover	Silicone rubber

MODEL NUMBER DESIGNATION

PA-860 - 503 P - B - R2		
Series name		Fitting
PA-860 : (Voltage output)		R2 : R 1/4
PA-868 : (Current output)		G3 : G 3/8
	Rated pressure range	Drip-proof cover
	503 : 0 ~ 5 MPa	B : Non-provided
	104 : 0 ~ 10 MPa	H : Provided
	204 : 0 ~ 20 MPa	
	354 : 0 ~ 35 MPa	
	Pressure unit	
	P : Pa pressure unit	

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

PA-860/PA-868

PRESSURE TRANSDUCERS WITH AMP.

LIST OF MODEL NUMBERS

Output	Fitting	Pressure reference	Gauge			
		Drip-proof cover \ MPa Rated pressure range	0 ~ 5	0 ~ 10	0 ~ 20	0 ~ 35
Voltage output	R2 (R 1/4)	Non-provided	PA-860-503P-B-R2	PA-860-104P-B-R2	PA-860-204P-B-R2	PA-860-354P-B-R2
		Provided	PA-860-503P-H-R2	PA-860-104P-H-R2	PA-860-204P-H-R2	PA-860-354P-H-R2
	G3 (G 3/8)	Non-provided	PA-860-503P-B-G3	PA-860-104P-B-G3	PA-860-204P-B-G3	PA-860-354P-B-G3
		Provided	PA-860-503P-H-G3	PA-860-104P-H-G3	PA-860-204P-H-G3	PA-860-354P-H-G3
Current output	R2 (R1/4)	Non-provided	PA-868-503P-B-R2	PA-868-104P-B-R2	PA-868-204P-B-R2	PA-868-354P-B-R2
		Provided	PA-868-503P-H-R2	PA-868-104P-H-R2	PA-868-204P-H-R2	PA-868-354P-H-R2
	G3 (G 3/8)	Non-provided	PA-868-503P-B-G3	PA-868-104P-B-G3	PA-868-204P-B-G3	PA-868-354P-B-G3
		Provided	PA-868-503P-H-G3	PA-868-104P-H-G3	PA-868-204P-H-G3	PA-868-354P-H-G3

※ 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 12 V DC.

Item		Model number	PA-860				PA-868			
			503P	104P	204P	354P	503P	104P	204P	354P
General specifications	Pressure reference		Gauge ※1							
	Rated pressure range	MPa	5	10	20	35	5	10	20	35
	Maximum pressure	MPa	10	20	40	52.5	10	20	40	52.5
	Operating temp. range	°C	- 10 ~ 75							
	Compensated temp. range	°C	0 ~ 50							
	Operating humidity	%RH	35 ~ 85 (No condensation)							
	Storage temp.	°C	- 20 ~ 90 (Atmospheric pressure, humidity 65 %RH maximum)							
	Pressure medium ※2		Hydraulic oil							
	Insulation resistance	MΩ minimum	100 (500 V DC)							
	Dielectric strength		350 V AC, 60 s (Leakage current 0.5 mA maximum)							
	Pressure port		R 1/4、G 3/8							
	Net weight	g	Approx. 170							
	Protection grade		Without drip-proof cover : IP54, With drip-proof cover : IP65							

※1 : The transducer measures gauge pressure using an absolute pressure sensing element.

※2 : Hydraulic oil is used as a measurement medium at the time of delivery inspection.

PA-860/PA-868

PRESSURE TRANSDUCERS WITH AMP.

STANDARD SPECIFICATIONS

● Unless otherwise specified, the specs are defined at an ambient temperature of $25 \pm 5^\circ\text{C}$ and excitation voltage of 12 V DC.

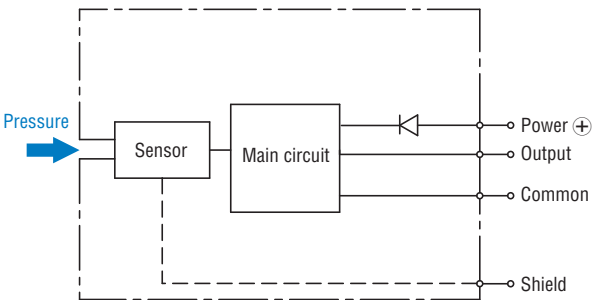
Item		Model number	PA-860				PA-868			
			503P	104P	204P	354P	503P	104P	204P	354P
電源 Power	Supply voltage V DC		12 ~ 24 ± 10 %							
	Consumption current maximum		10 mA				————			
Analog output	Output voltage/current DC		1 ~ 5 V				4 ~ 20 mA			
	Zero voltage/current		1 ± 0.05 V				4 ± 0.1 mA			
	Span voltage/current		4 ± 0.05 V				16 ± 0.1 mA			
	Linearity/Hysteresis %F.S.		± 0.5							
	Thermal error	ZERO %F.S./°C	± 0.05							
		SPAN %F.S./°C	± 0.05							
	Load resistance		10 kΩ minimum				500 Ω maximum (At power voltage 24 V)			
	Response ms maximum		20							

ENVIRONMENTAL CHARACTERISTICS

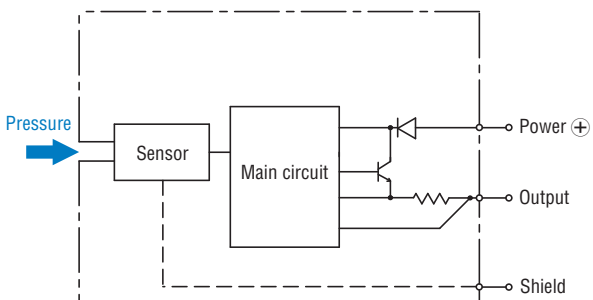
Test item	Test conditions (At $25 \pm 5^\circ\text{C}$)	Permissible change
Vibration	10 ~ 500 Hz, 1.5 mm maximum/98.1 m/s ² , 3 directions for 2 hours each	Zero voltage/current, Span voltage/current: ± 3 %F.S. maximum each
Shock	490 m/s ² 3 directions for 3 times each	
Pressure cycling	10 ⁶ cycles 0 ~ Rated pressure	
Moisture resistance	40 $^\circ\text{C}$, 90 ~ 95 %RH, 240 hrs.	

INTERNAL ELECTRICAL SCHEMATICS

● PA-860



● PA-868



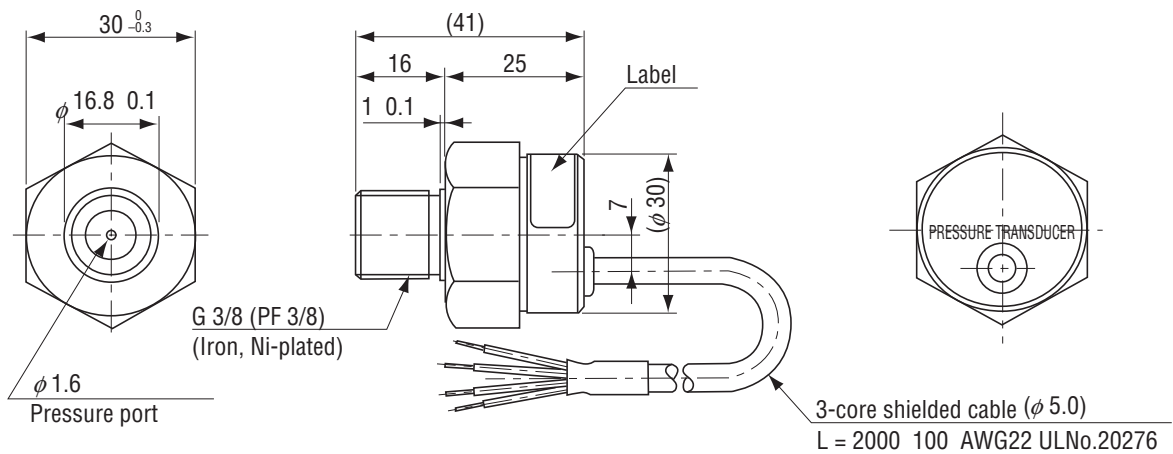
PA-860/PA-868

PRESSURE TRANSDUCERS WITH AMP.

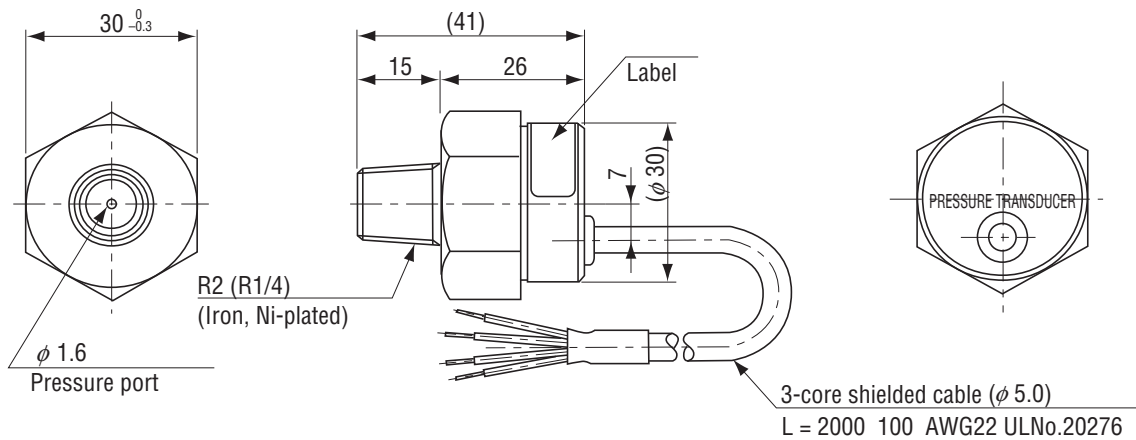
OUTLINE DIMENSIONS

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

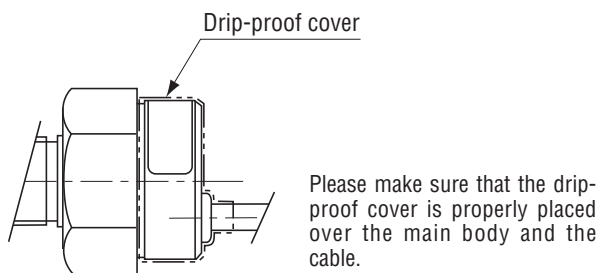
Configurations of joint G3 (G 3/8) type



Configurations of joint R2 (R 1/4) type



Drip-proof cover type



PA-860

Wire color	Connection
Red	Power $\oplus$
Black	Common
White	Output
Gray	Fitting

PA-868

Wire color	Connection
Red	Power $\oplus$
Black	N.C.
White	Output
Gray	Fitting