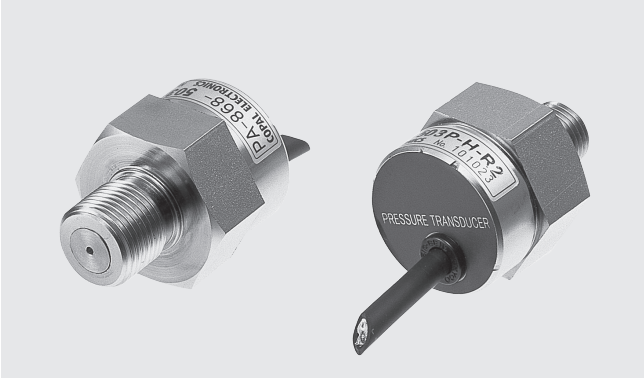


PRESSURE TRANSDUCERS WITH AMP.

PA-860/PA-868



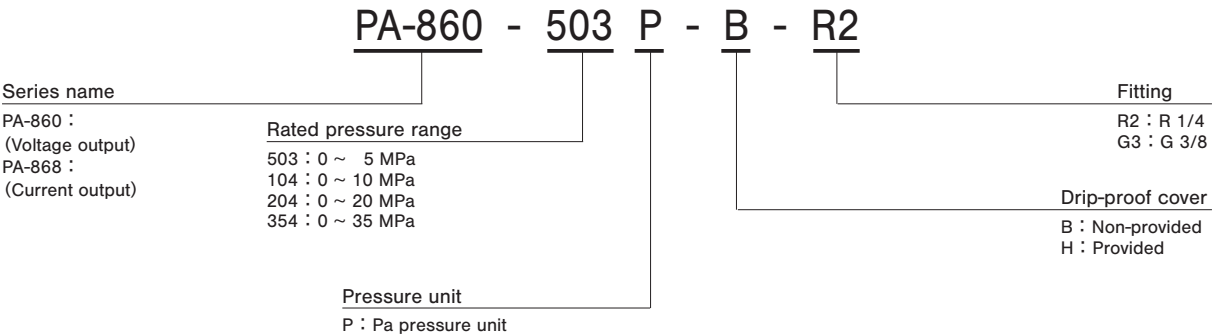
FEATURES

- 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



※ 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 / 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 ± 5 °C and excitation voltage of 12 V DC.

Item		Model number	PA-860				PA-868			
			503P	104P	204P	354P	503P	104P	204P	354P
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 ※3 (At power voltage 24 V)			
	Response	ms maximum	20							

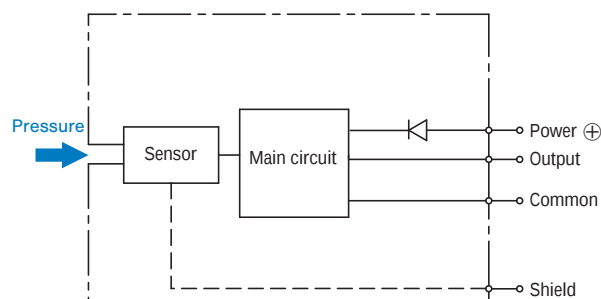
※3 : Maximum load resistance $RL(\text{Max.}) = (V_{\text{opr}} - 10.8) / 0.026$ V_{opr} = power supply voltage to be used.

ENVIRONMENTAL CHARACTERISTICS

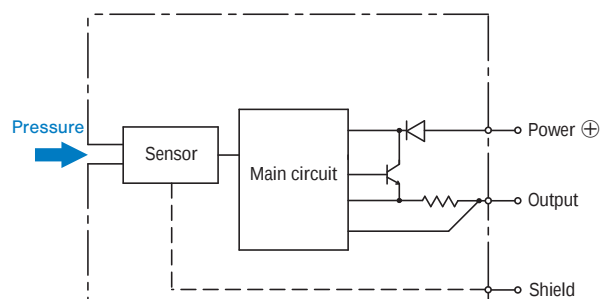
Test item	Test conditions (At 25 ± 5 °C)	Permissible change
Vibration	10 ~ 500 Hz, 1.5 mm maximum/98.1 m/s ² , 3 directions for 2 hours each	Zero voltage/current, Span voltage/current: $\pm 3\%$ F.S. maximum each
Shock	490 m/s ² 3 directions for 3 times each	
Pressure cycling	0 ~ Rated pressure 10 ⁶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

INTERNAL ELECTRICAL SCHEMATICS

PA-860



PA-868



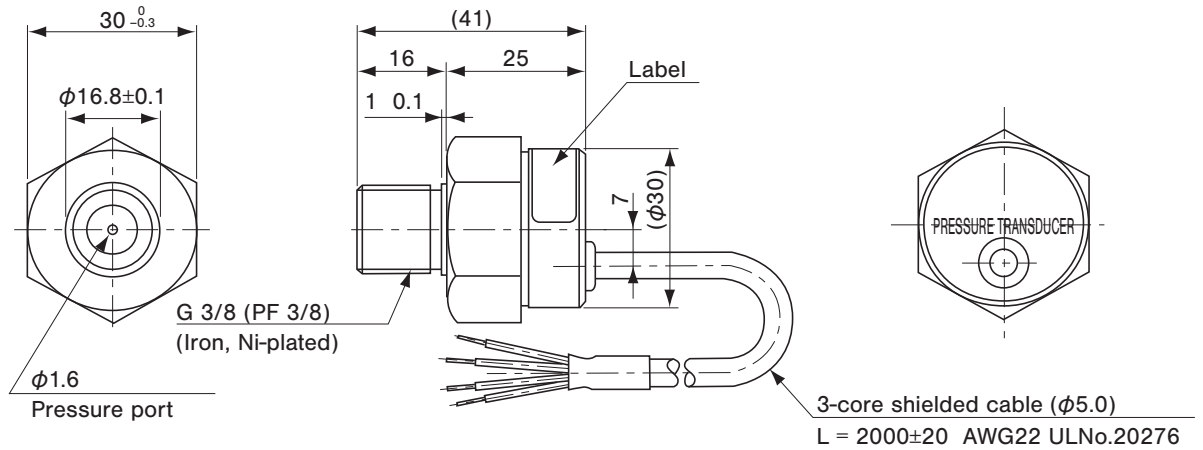
PA-860/PA-868

PRESSURE TRANSDUCERS WITH AMP.

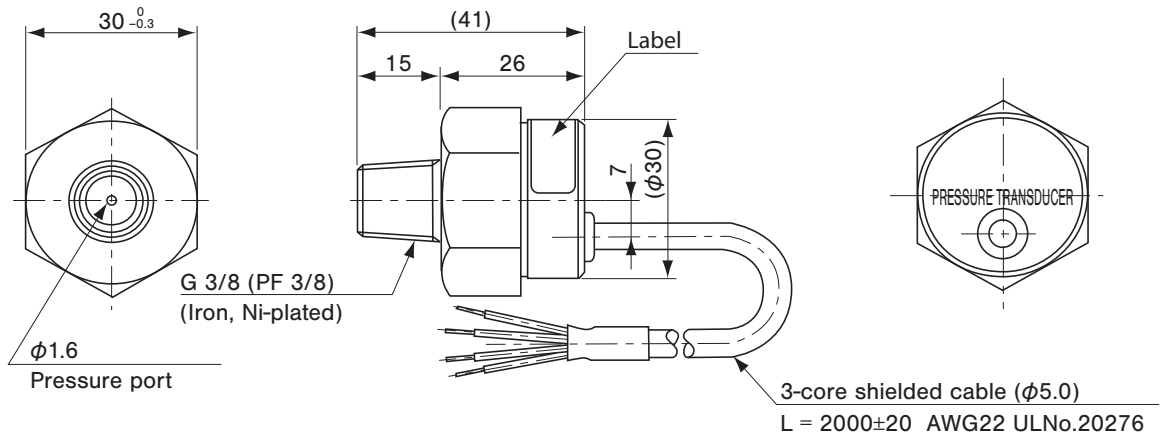
OUTLINE DIMENSIONS

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

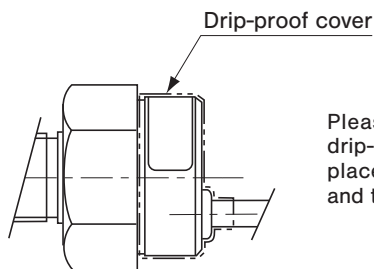
Configurations of joint G3 (G 3/8) type



Configurations of joint R2 (R 1/4) type



Drip-proof cover type



Please make sure that the drip-proof cover is properly placed over the main body and the cable.

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Nidec:

[PA-860-104P-B-G3](#) [PA-860-104P-B-R2](#) [PA-860-104P-H-G3](#) [PA-860-104P-H-R2](#) [PA-860-204P-B-G3](#) [PA-868-503P-B-R2](#) [PA-868-503P-H-G3](#) [PA-868-503P-H-R2](#) [PA-868-204P-H-R2](#) [PA-868-354P-B-G3](#) [PA-868-354P-B-R2](#) [PA-868-354P-H-G3](#) [PA-868-354P-H-R2](#) [PA-868-503P-B-G3](#) [PA-868-104P-B-R2](#) [PA-868-104P-H-G3](#) [PA-868-104P-H-R2](#) [PA-868-204P-B-G3](#) [PA-868-204P-B-R2](#) [PA-868-204P-H-G3](#) [PA-860-354P-H-R2](#) [PA-860-503P-B-G3](#) [PA-860-503P-B-R2](#) [PA-860-503P-H-G3](#) [PA-860-503P-H-R2](#) [PA-868-104P-B-G3](#) [PA-860-204P-B-R2](#) [PA-860-204P-H-G3](#) [PA-860-204P-H-R2](#) [PA-860-354P-B-G3](#) [PA-860-354P-B-R2](#) [PA-860-354P-H-G3](#)