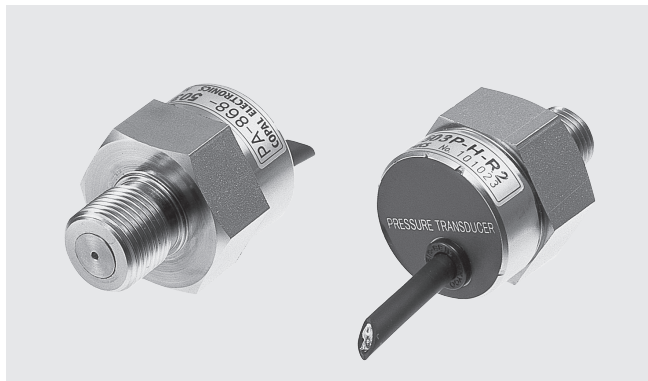


PRESSURE TRANSDUCERS WITH AMP.

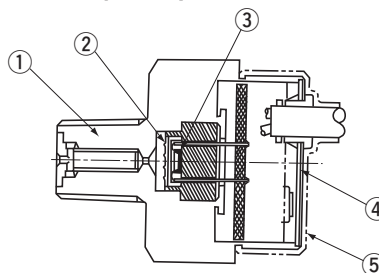
# PA-860/PA-868



## FEATURES

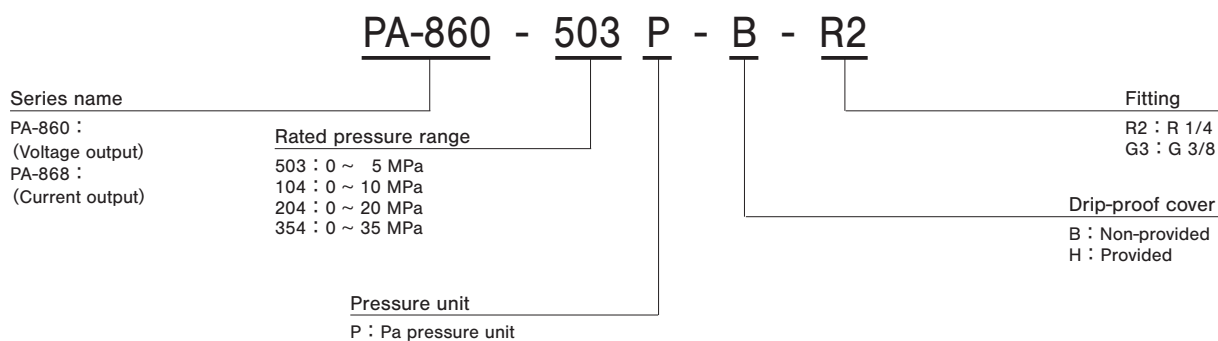
- Resistant against surge pressure
- SUS 316L welded stainless steel diaphragm
- Built-in amplifier circuit
- Voltage or current output modes are available

### 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 (R 1/4)	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  $25 \pm 5$  °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  $25 \pm 5 \text{ }^\circ\text{C}$  and excitation voltage of 12 V DC.

Item		Model number	PA-860				PA-868				
			503P	104P	204P	354P	503P	104P	204P	354P	
Power	Supply voltage	V DC	12 ~ 24 $\pm$ 10 %								
	Consumption current	maximum	10 mA				—				
Analog output	Output voltage/current	DC	1 ~ 5 V				4 ~ 20 mA				
	Zero voltage/current		1 $\pm$ 0.05 V				4 $\pm$ 0.1 mA				
	Span voltage/current		4 $\pm$ 0.05 V				16 $\pm$ 0.1 mA				
	Linearity/Hysteresis	%F.S.	$\pm$ 0.5								
	Thermal error	ZERO	%F.S./ $^\circ\text{C}$	$\pm$ 0.05							
		SPAN	%F.S./ $^\circ\text{C}$	$\pm$ 0.05							
	Load resistance			10 k $\Omega$ minimum				500 $\Omega$ maximum ※3 (At power voltage 24 V)			
	Response	ms maximum		20							

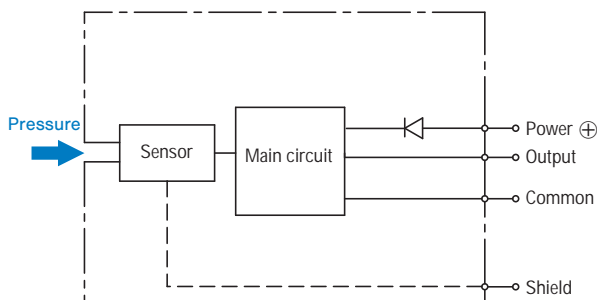
※3 : Maximum load resistance  $RL(\text{Max.}) = (\text{Vopr}-10.8)/0.026 \text{ Vopr}$  = power supply voltage to be used.

### ENVIRONMENTAL CHARACTERISTICS

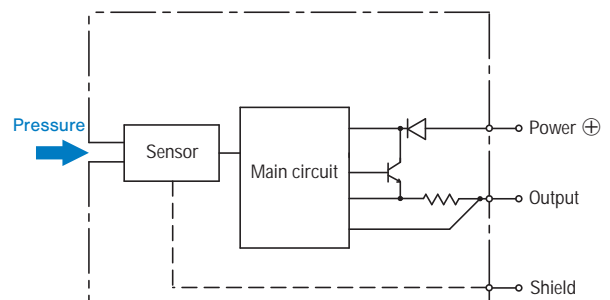
Test item	Test conditions (At $25 \pm 5 \text{ }^\circ\text{C}$ )	Permissible change
Vibration	10 ~ 500 Hz, 1.5 mm maximum/98.1 m/s <sup>2</sup> , 3 directions for 2 hours each	Zero voltage/current, Span voltage/current: $\pm$ 3 %F.S. maximum each
Shock	490 m/s <sup>2</sup> 3 directions for 3 times each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

### INTERNAL ELECTRICAL SCHEMATICS

#### ● PA-860



#### ● PA-868



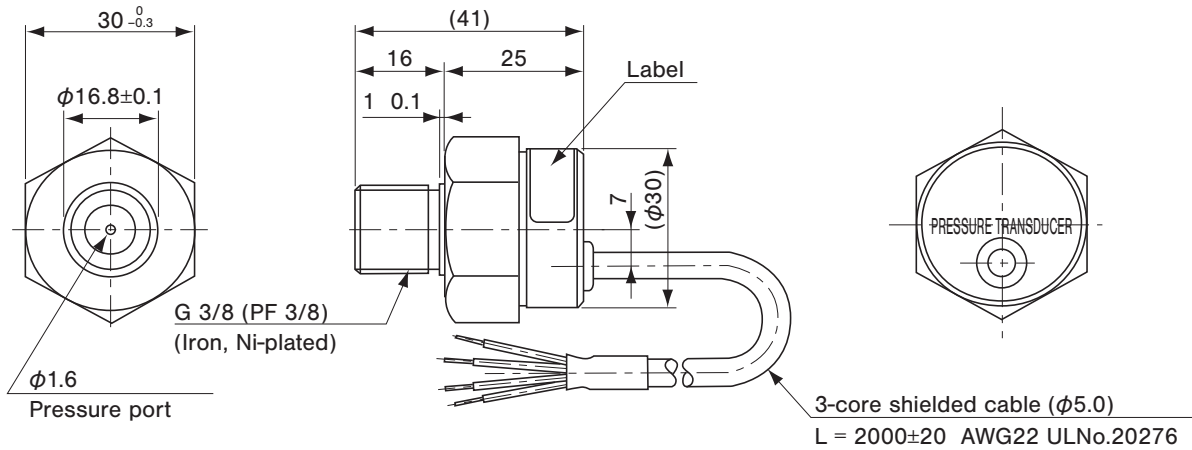
# PA-860/PA-868

## PRESSURE TRANSDUCERS WITH AMP.

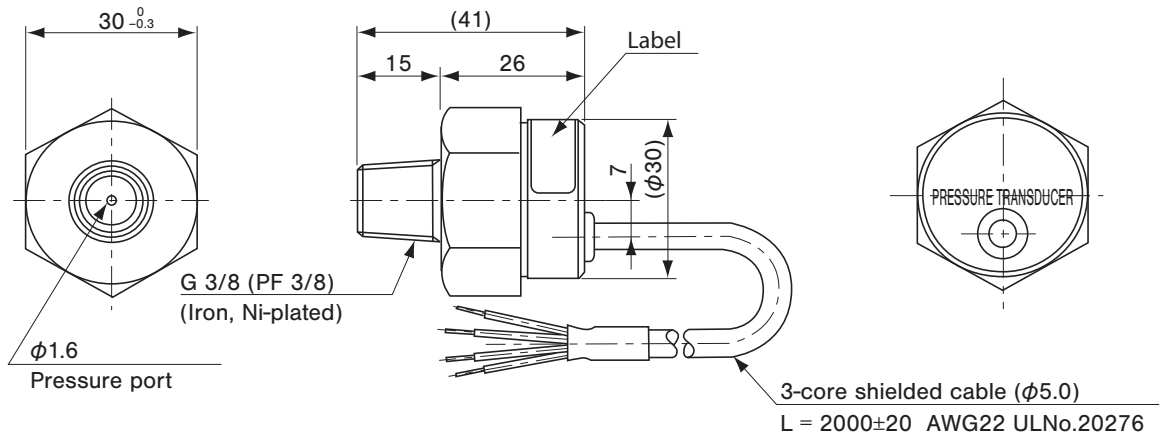
### OUTLINE DIMENSIONS

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

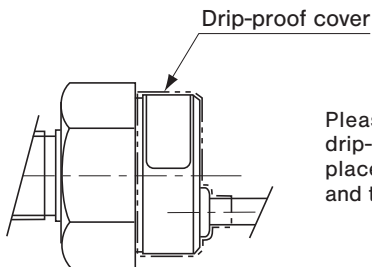
#### Configurations of joint G3 (G 3/8) type



#### 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 ⊕
Black	Common
White	Output
Gray	Fitting

#### PA-868

Wire color	Connection
Red	Power ⊕
Black	N.C.
White	Output
Gray	Fitting