



PRESSURE TRANSDUCERS WITH AMP.

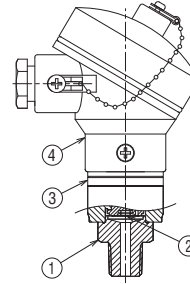
PA-840/PA-848



FEATURES

- Pressure sensors with IP67 degree of protection for outside-house applicants.
- Operation temperature up to 100 °C~ for pressure diaphragm.
- Voltage Output of 1 ~ 5 V DC with built-in amplifier (PA-840), Current output of 4 ~ 20 mA DC (PA-848).
- High reliability (SUS 316 L diaphragm, oil-filled) by using double diaphragm structure.
- The most miniaturized terminal-assembly-type pressure sensor for outside-house applicants.

INTERNAL STRUCTURE



Part name		Material
①	Fitting	SUS316L
②	Stainless steel diaphragm	SUS316L
③	Housing	SUS316L
④	Closed terminal Box	Aluminum

MODEL NUMBER DESIGNATION

PA-840 - 102 R - R2

Series name

PA-840 : Output voltage (1 ~ 5 V)

PA-848 : Output current (4 ~ 20 mA)

Rated pressure range

102R : -0.1 ~ 0.1 MPa

352R : -0.1 ~ 0.35 MPa

103G : 0 ~ 1.0 MPa

353G : 0 ~ 3.5 MPa

102A : 0 ~ 0.1 MPa abs.

Fitting

R2 : R 1/4

G2 : G 1/4

Pressure reference

G : Gauge

R : Gauge (Compound)

A : Absolute

PA-840/PA-848

PRESSURE TRANSDUCERS WITH AMP.

LIST OF MODEL NUMBERS

Series nam (Reference)	Fitting	Pressure range				
		-0.1 ~ 0.1MPa	-0.1 ~ 0.35MPa	0 ~ 1.0MPa	0 ~ 3.5MPa	0 ~ 0.1MPa abs.
PA-840 (Output voltage)	R1/4	PA-840-102R-R2	PA-840-352R-R2	PA-840-103G-R2	PA-840-353G-R2	PA-840-102A-R2
	G1/4	PA-840-102R-G2	PA-840-352R-G2	PA-840-103G-G2	PA-840-353G-G2	PA-840-102A-G2
PA-848 (Output current)	R1/4	PA-848-102R-R2	PA-848-352R-R2	PA-848-103G-R2	PA-848-353G-R2	PA-848-102A-R2
	G1/4	PA-848-102R-G2	PA-848-352R-G2	PA-848-103G-G2	PA-848-353G-G2	PA-848-102A-G2

※ Verify the above model numbers when placing orders.

STANDARD SPECIFICATIONS

Item		Model number	PA-840					PA-848						
			102R	352R	103G	353G	102A	102R	352R	103G	353G	102A		
General specifications	Pressure reference		Gauge					Absolute	Gauge					Absolute
	Rated pressure range	MPa	−0.1 ~ 0.1	−0.1 ~ 0.35	0 ~ 1.0	0 ~ 3.5	0 ~ 0.1 (abs)	−0.1 ~ 0.1	−0.1 ~ 0.35	0 ~ 1.0	0 ~ 3.5	0 ~ 0.1 (abs)		
	Maximum pressure	MPa	0.2	0.7	2	4	0.2 (abs)	0.2	0.7	2	4	0.2 (abs)		
	Break-down pressure	MPa	0.3	1.05	3	4.5	0.3 (abs)	0.3	1.05	3	4.5	0.3 (abs)		
	Operating temp. range		Ta (No freezing) : −20 ~ 80 °C / Pressure port : −20 ~ 100 °C					Ta (No freezing) : −20 ~ 70 °C / Pressure port : −20 ~ 100 °C						
	Compensated temp. range		0 ~ 50											
	Operating humidity		35 ~ 85 (No condensation)											
	Storage temp.		− 20 ~ 80											
	Pressure medium		Gas and liquid which does not corrode SUS 316L and Gas and liquid which does not corrode O-ring (Fluoro rubber) G2 Fitting											
	Pressure port		R 1/4、G 1/4											
	Net weight		Approx. 250											
	Protection grade		IP67											
Power	Operating voltage		10.8 ~ 26.4 (including ripple)					21.6 ~ 26.4 (including ripple)						
	Consumption current		20 mA					—————						
Analog output	Output voltage/current		1 ~ 5 V					4 ~ 20 mA						
	Zero voltage/current		3 ± 0.05 V	1.89 ± 0.05 V	1 ± 0.05 V	1 ± 0.05 V	1 ± 0.05 V	12 ± 0.2 mA	7.56 ± 0.2 mA	4 ± 0.2 mA	4 ± 0.2 mA	4 ± 0.2 mA		
	Span voltage/current		4 ± 0.1 V					16 ± 0.4 mA						
	Linearity/Hysteresis		± 0.5											
	Thermal error	ZERO %F.S./°C	± 0.06											
		SPAN %F.S./°C	± 0.06											
	Load resistance		—————					500						
	Response		Approx. 2											
Gravitational effect (From vertical position to horizontal position)		± 0.3	± 0.1	± 0.05		± 0.3	± 0.3	± 0.1	± 0.05		± 0.3			

PA-840/PA-848

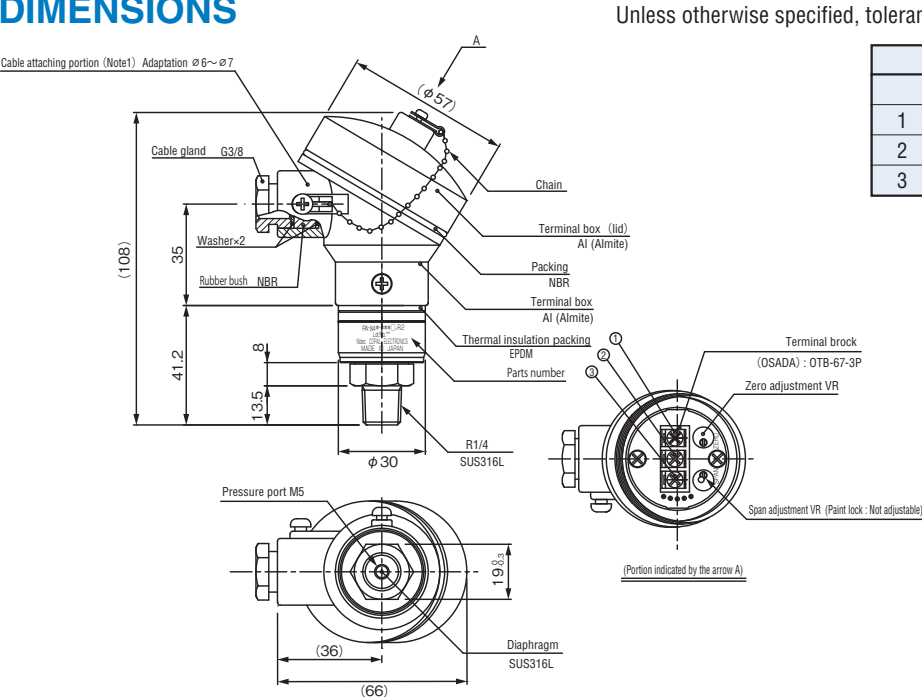
PRESSURE TRANSDUCERS WITH AMP.

ENVIRONMENTAL CHARACTERISTICS

Test item	Test conditions (At 25 ± 5 °C)	Permissible change
Vibration	10 ~ 150 Hz, 1.5 mm maximum/98.1 m/s ² , 3 directions for 2 hours each	Zero current, Span current: ± 2 %F.S. maximum each
Shock	490 m/s ² , 3 directions for 3 times each	
Pressure cycling	0 ~ Rated pressure/Rated pressure range, 10 ⁶ cycles	
Moisture resistance	40 °C, 90 ~ 95 %RH, 240 hrs.	

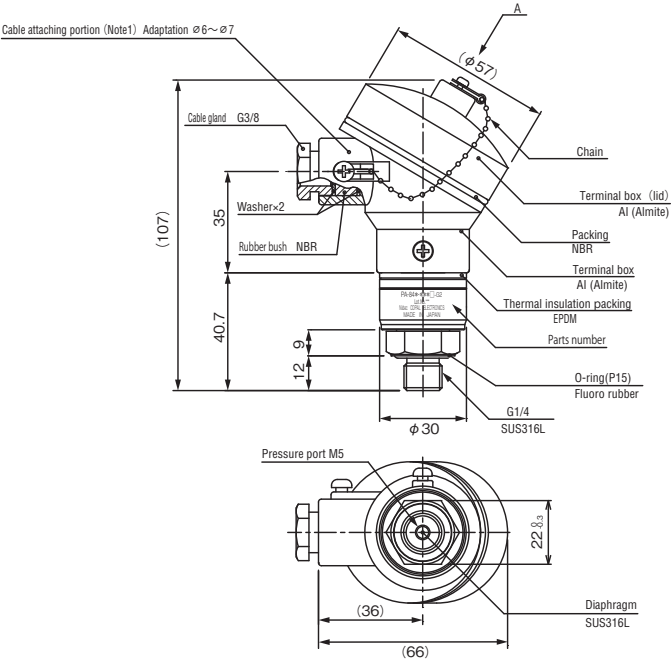
OUTLINE DIMENSIONS

●R 1/4 type



Wiring table		
	PA-840	PA-848
1	Power ⊕	Power ⊕
2	Common	N.C.
3	Output	Output

●G 1/4 type



(Note1) Tighten wiring opening with the supplied cable gland for avoiding water intrusion.
The cable and/or lid may get loose in certain usage environments and the sealing level may lower as a result.
So please use alocking or tighten regularly.

(Note2) A cable is not supplied with the product.
please purchase separately.

Mouser Electronics

Authorized Distributor

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

Nidec:

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