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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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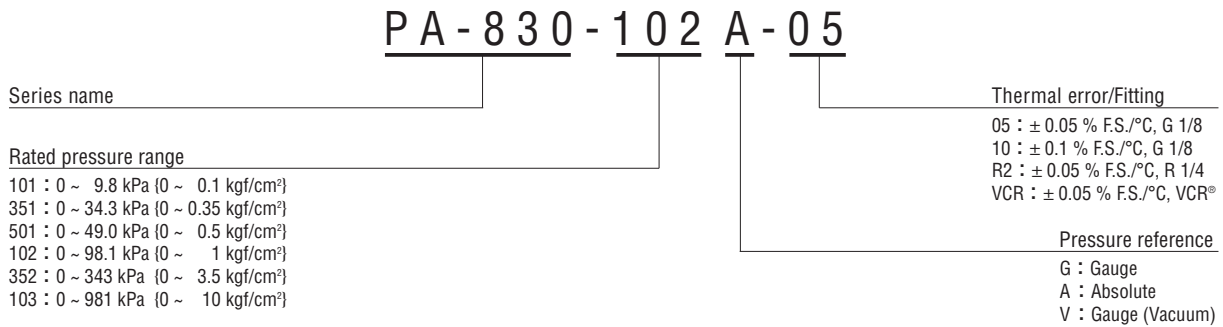
## FEATURES

- High corrosion resistance by double diaphragm structure
- Built-in amplifier circuit
- 2 types to choose from (Gauge and Absolute pressures)
- Incorporating temperature compensation function (0 ~ 50 °C)
- Voltage output mode
- Available with a \*VCR® fitting

**INTERNAL STRUCTURE**  
PA-830 (G 1/8)

Part name		Material
①	Fitting	SUS 316L
②	"O" ring(P15 or P12.5)	Fluoro-rubber
③	Housing	Aluminum
④	Compensation resistor board	Ceramic
⑤	Sealed liquid	Silicone oil

## MODEL NUMBER DESIGNATION



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

※VCR® is a registered trade name of Cajon Co. CAJON® is a registered trade name of Swagelok Co.

Note: For handling of VCR fittings, please contact a service center of Swagelok Co.

# PA-830

## PRESSURE TRANSDUCERS WITH AMP.

### LIST OF MODEL NUMBERS

Output	Pressure reference		Gauge						Absolute	
	{% F.S./°C} Thermal error	kPa {kgf/cm <sup>2</sup> } Rated pressure range	0 ~ 9.8 {0 ~ 0.1}	0 ~ 49.0 {0 ~ 0.5}	0 ~ 98.1 {0 ~ 1}	0 ~ 343 {0 ~ 3.5}	0 ~ 981 {0 ~ 10}	0 ~ -98.1 {0 ~ -1}	0 ~ 34.3 {0 ~ 0.35}	0 ~ 98.1 {0 ~ 1}
Voltage output	± 0.05	Fitting : G 1/8	/	PA-830 -501G-05	PA-830 -102G-05	PA-830 -352G-05	PA-830 -103G-05	PA-830 -102V-05	PA-830 -351A-05	PA-830 -102A-05
		Fitting : R 1/4	/	PA-830 -501G-R2	PA-830 -102G-R2	PA-830 -352G-R2	PA-830 -103G-R2	PA-830 -102V-R2	PA-830 -351A-R2	PA-830 -102A-R2
		Fitting : VCR	/	PA-830 -501G-VCR	PA-830 -102G-VCR	PA-830 -352G-VCR	PA-830 -103G-VCR	PA-830 -102V-VCR	PA-830 -351A-VCR	PA-830 -102A-VCR
	± 0.10	Fitting : G 1/8	PA-830 -101G-10	PA-830 -501G-10	PA-830 -102G-10	PA-830 -352G-10	PA-830 -103G-10	PA-830 -102V-10	PA-830 -351A-10	PA-830 -102A-10

☐: Not available

※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-830								
		101G	501G	102G	352G	103G	102V	351A	102A	
General specifications	Pressure reference	Gauge						Absolute		
	Rated pressure range	kPa {kgf/cm <sup>2</sup> }	9.8 {0.1}	49.0 {0.5}	98.1 {1}	343 {3.5}	981 {10}	-98.1 {-1}	34.3 (abs) {0.35}	98.1 (abs) {1}
	Maximum pressure	kPa {kgf/cm <sup>2</sup> }	19.6 {0.2}	98.1 {1}	196 {2}	686 {7}	1961 {20}	196 {2}	103 (abs) {1.05}	196 (abs) {2}
	Break-down pressure	kPa {kgf/cm <sup>2</sup> }	29.4 {0.3}	147 {1.5}	294 {3}	1030 {10.5}	2942 {30}	294 {3}	147 (abs) {1.5}	294 (abs) {3}
	Operating temp. range	°C	-20 ~ 70							
	Compensated temp. range	°C	0 ~ 50							
	Operating humidity	%RH	35 ~ 85 (No condensation)							
	Storage temp.	°C	-20 ~ 70 (Atmospheric pressure, humidity 65 %RH maximum)							
	Pressure medium		Corrosive gases/liquids compatible with SUS 316L ※1							
	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 1/8 (PF 1/8)、R 1/4 (PT 1/4)、1/4 VCR® ※2							
Net weight	g	Approx. 140								
Power	Supply voltage	V DC	12 ~ 24 ± 10 %							
	Ripple content	maximum	10 % (P-P)							
	Consumption current	mA maximum	20							

※1 PA-830-VCR : Also compatible with SUS316.

※2 An "O" ring is provided for only G1/8 type. (Positive pressure : P15, Negative/Absolute Pressure : P12.5)

# PA-830

## PRESSURE TRANSDUCERS WITH AMP.

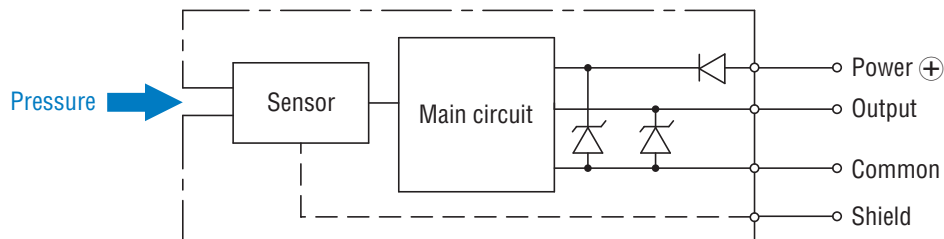
Item		Model number	PA-830						
			101G	501G	102G	352G	103G	102V	351A
Analog output	Output voltage	V DC	1 ~ 5						
	Zero voltage	V	1 ± 0.04 (at 25 °C)						
	Span voltage	V	4 ± 0.04 (at 25 °C)						
	Output current	mA maximum	1 (Load resistance 5 kΩ minimum)						
	Linearity/Hysteresis	%F.S.	± 0.5	± 0.3		± 0.5	± 0.3		± 0.5
	Thermal error 0 ~ 50 °C (Reference temp.: 25 °C)	ZERO %F.S./°C	± 0.05/± 0.1 ※3						
		SPAN %F.S./°C	± 0.05/± 0.1 ※3						
	Supply voltage effect	V maximum	± 0.1						
	Response	ms	Approx. 2						
	Gravitational effect (From vertical position to horizontal position)	%F.S. max.	Approx. 1	Approx. 0.5	Approx. 0.3	Approx. 0.1	Approx. 0.05	Approx. 0.3	Approx. 0.5

※3 The thermal error of the PA-830-101G will be ± 0.1 %F.S./°C only.

### ENVIRONMENTAL CHARACTERISTICS

Test item	Test conditions (At 25 ± 5 °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, Span voltage: ± 1 %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 °C, 90 ~ 95 %RH, 240 hrs.	

### INTERNAL ELECTRICAL SCHEMATICS

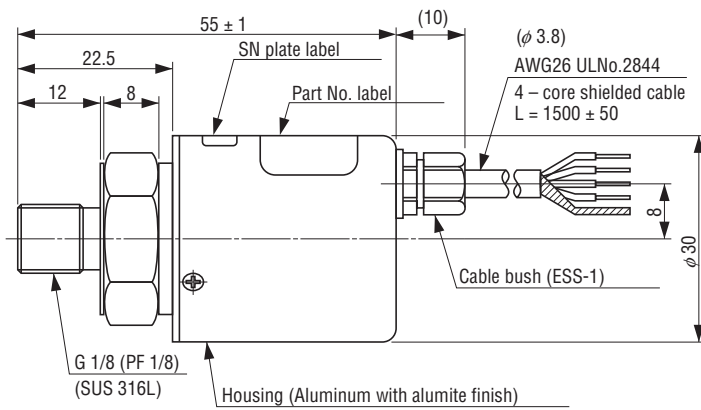
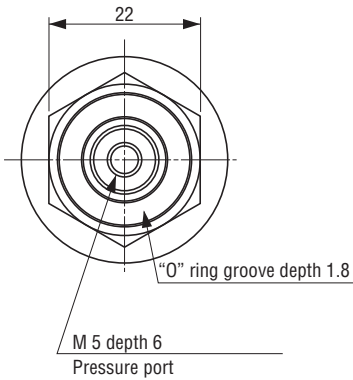


# PA-830 PRESSURE TRANSDUCERS WITH AMP.

## OUTLINE DIMENSIONS

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

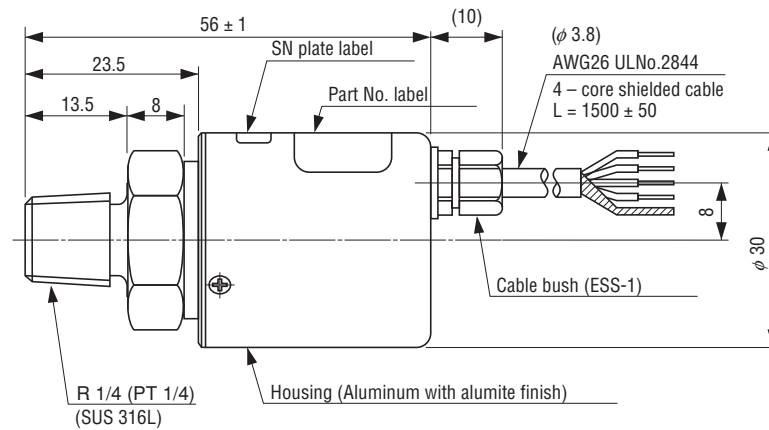
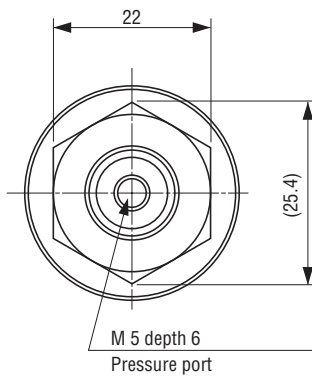
### ● G1/8 type



### PA-830

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

### ● R1/4 type



### ● VCR type

