

PRESSURE TRANSDUCERS WITH AMP.

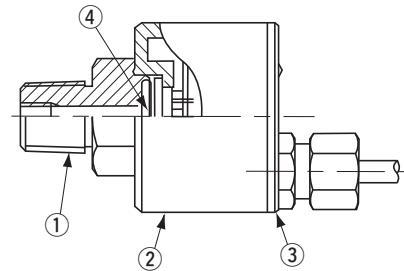
PA-858



FEATURES

- High corrosion resistance and drip-proof construction
Pressure port attachment made of SUS 316L
Proven IP65 grade gauge body (IP65 in accordance with IEC)
- Absolute pressure type and compound pressure type
which can control negative to positive pressure with only
a single pressure gauge are all in line
- Three standard types of joint are provided
R2 : R 1/4 (M 5 female screw)
GF : G 3/8 with flash diaphragm
G2 : G 1/4 (M 5 female screw)

INTERNAL STRUCTURE PA-858 (R 1/4)



Part name		Material
①	Fitting	SUS 316L
②	Housing	SUS 316L
③	Plastic cover	ABS (Acrylonitrile butadiene styrene) + PC (Polycarbonate)
④	Stainless steel diaphragm	SUS 316L

MODEL NUMBER DESIGNATION

		PA-858	-	102	R	-	R2		
Series name								Fitting	
Pressure reference	Rated pressure range								
G : Gauge	102 : 0 ~ 100 kPa 352 : 0 ~ 350 kPa 103 : 0 ~ 1000 kPa								R2 : R 1/4 with M 5 female screw GF : G 3/8 with flash diaphragm G2 : G 1/4 with M 5 female screw
V : Gauge (Vacuum)	102 : 0 ~ - 100 kPa								
R : Compound	302 : - 100 ~ 300 kPa								
A : Absolute	102 : 0 ~ 100 kPa abs								

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

PA-858

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LIST OF MODEL NUMBERS

Pressure reference		Gauge					Absolute
Fitting	kPa Rated pressure range	0 ~ 100	0 ~ 350	0 ~ 1000	0 ~ - 100	- 100 ~ 300	0 ~ 100
R2 (R 1/4)		PA-858-102G-R2	PA-858-352G-R2	PA-858-103G-R2	PA-858-102V-R2	PA-858-302R-R2	PA-858-102A-R2
GF (G 3/8)		PA-858-102G-GF	PA-858-352G-GF	PA-858-103G-GF	PA-858-102V-GF	PA-858-302R-GF	PA-858-102A-GF
G2 (G 1/4)		PA-858-102G-G2	PA-858-352G-G2	PA-858-103G-G2	PA-858-102V-G2	PA-858-302R-G2	PA-858-102A-G2

※ 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 24 V DC, load resistance of 250 Ω.

Item		Model number	PA-858					
			102G	352G	103G	102V	302R	102A
General specifications	Pressure reference		Gauge					Absolute
	Rated pressure range	kPa	100	350	1000	– 100	– 100 ~ 300	100 (abs)
	Maximum pressure	kPa	200	700	2000	200	600	200 (abs)
	Break-down pressure	kPa	300	1050	3000	300	900	300 (abs)
	Operating temp. range	°C	– 20 ~ 70					
	Compensated temp. range	°C	0 ~ 50					
	Operating humidity	%RH	35 ~ 85 (No condensation)					
	Storage temp.	°C	– 20 ~ 80 (Atmospheric pressure, humidity 65 %RH maximum)					
	Pressure medium		Corrosive gases/liquids compatible with SUS 316L					
	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		R 1/4、G 3/8 (Flash diaphragm)、G 1/4 ※ 1					
	Net weight	g	R2 : Approx. 165, GF : Approx. 180, G2 : Approx. 170					
	Protection grade		IP65					
Power	Supply voltage	V DC	24 ± 10 % (Including ripple percentage)					

※ 1 : An "O" ring provided. (G 3/8 : P18, G 1/4 : P15)

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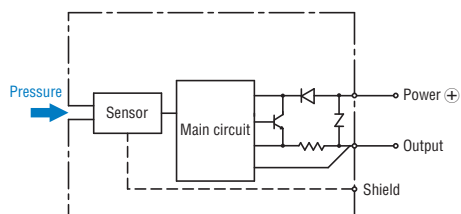
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Item		Model number	PA-858					
			102G	352G	103G	102V	302R	102A
Analog output	Output current	mA	4 ~ 20 mA					
	Zero current	mA (at 25 °C)	4 ± 0.2				8 ± 0.2	4 ± 0.2
	Span current	mA (at 25 °C)	16 ± 0.2					
	Load resistance		0 ~ 500 Ω					
	Linearity/Hysteresis	%F.S.	± 0.5					
	Thermal error	ZERO %F.S./°C	± 0.06					
		SPAN %F.S./°C	± 0.06					
	Response	ms	Approx. 2					
Gravitational effect (From horizontal position to vertical position)			± 0.3	± 0.1	± 0.05	± 0.3	± 0.1	± 0.3

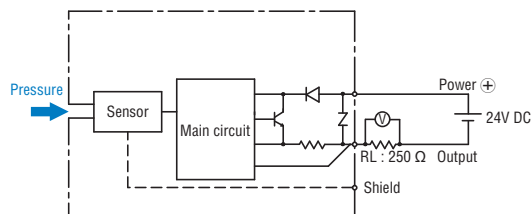
ENVIRONMENTAL CHARACTERISTICS

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 current, Span current: ± 1 %F.S. maximum each
Shock	490 m/s ² 3 directions for 3 times each	
Pressure cycling	10 ⁶ cycles 0 ~ Rated pressure/Rated pressure range	
Moisture resistance	40 °C, 90 ~ 95 %RH, 240 hrs.	

INTERNAL ELECTRICAL SCHEMATICS



RECOMMENDED EXTERNAL SCHEMATICS



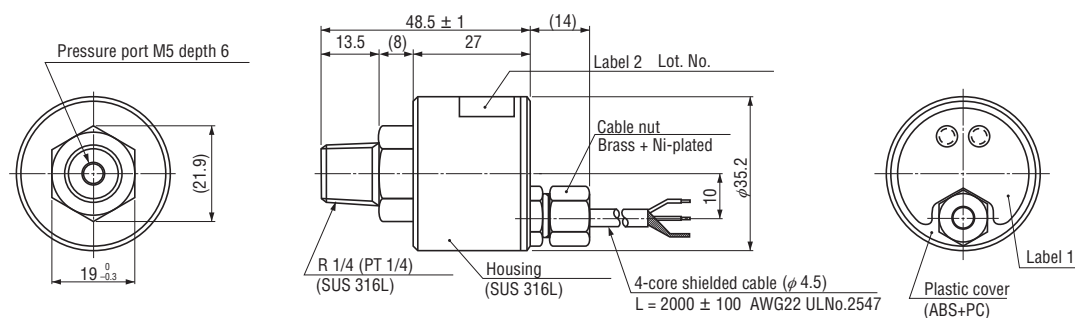
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OUTLINE DIMENSIONS

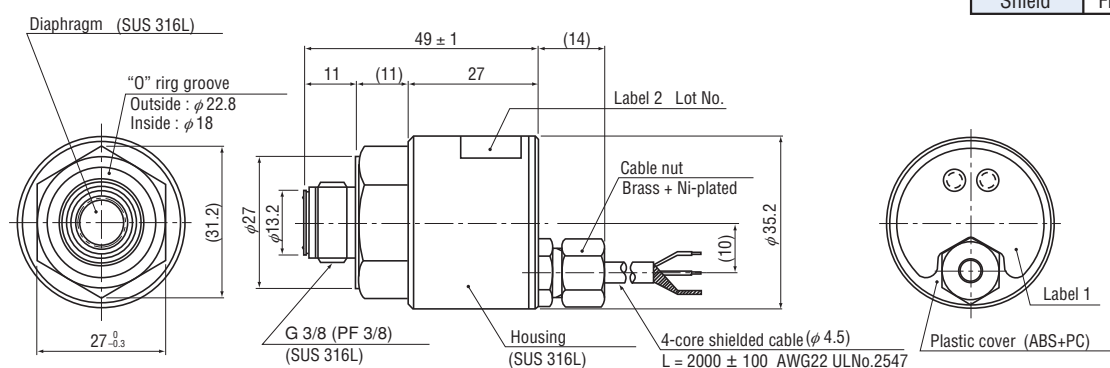
Unless otherwise specified, tolerance : ± 0.5 (Unit: mm)

Configurations of joint R2 (R1/4) type



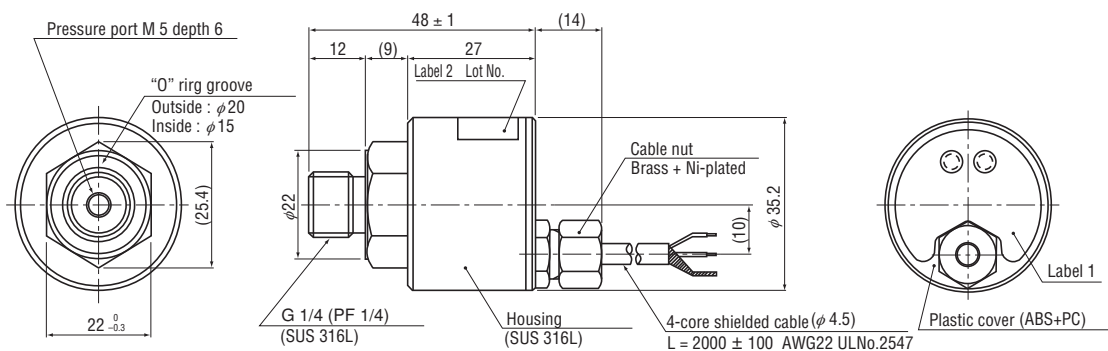
Wire color	Connection
Brown	Power $\oplus$
White	Output
Black	N.C.
Blue	N.C.
Shield	Fitting

Configurations of joint GF (G 3/8) type



! Extra care should be taken with the diaphragm part. Do not touch the diaphragm directly to avoid damaging the diaphragm.

Configurations of joint G2 (G 1/4) type



Mouser Electronics

Authorized Distributor

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[PA-858-102A-G2](#) [PA-858-102A-GF](#) [PA-858-102A-R2](#) [PA-858-102G-G2](#) [PA-858-102G-GF](#) [PA-858-102G-R2](#) [PA-858-302R-G2](#) [PA-858-302R-GF](#) [PA-858-302R-R2](#) [PA-858-352G-G2](#) [PA-858-352G-GF](#) [PA-858-352G-R2](#) [PA-858-102V-G2](#) [PA-858-102V-GF](#) [PA-858-102V-R2](#) [PA-858-103G-G2](#) [PA-858-103G-GF](#) [PA-858-103G-R2](#)