

PRESSURE GAUGES

PG-35L



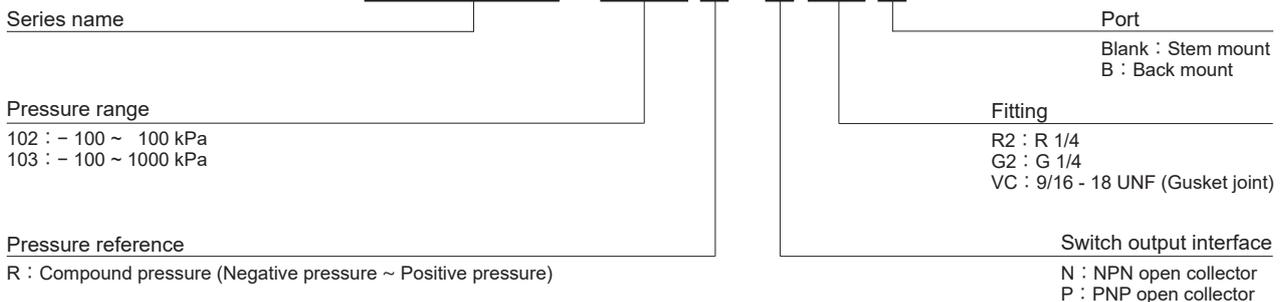
FEATURES

- For high vacuum pressure
- For corrosive gases and liquids compatible with SUS316L stainless steel diaphragm
- Compact • Light weight • Drip-proof structure (30 mm sq • 200 g • IP65)
- Low consumption by nondisplay mode
- Set data protection by panel lock function

INTERNAL STRUCTURE (9/16-18UNF)		Part name	Material
①	Fitting		
②	Sensor module (oil less)		SUS316L
③	Sensor holder		
④	Housing (Aluminum coating)		PBT (UL-94-HB)
⑤	Adapter		ADC 10, 12
⑥	Panel sheet		Polyester (UL746)
⑦	Shielded cable		Vinyl chlorid resin

MODEL NUMBER DESIGNATION

PG-35L-102R-NVCB



LIST OF MODEL NUMBERS

Port	Fitting	Pressure reference		Gauge			
		Switch output interface	Rated pressure range	-100~100 kPa		-100~1000 kPa	
Stem mount	R2 (R 1/4)	NPN			PG-35L-102R-NR2		PG-35L-103R-NR2
		PNP		⊕	PG-35L-102R-PR2	⊕	PG-35L-103R-PR2
	G2 (G 1/4)	NPN			PG-35L-102R-NG2		PG-35L-103R-NG2
		PNP		⊕	PG-35L-102R-PG2	⊕	PG-35L-103R-PG2
	G2 (9/16-18UNF)	NPN			PG-35L-102R-NVC		PG-35L-103R-NVC
		PNP		⊕	PG-35L-102R-PVC	⊕	PG-35L-103R-PVC
Back mount	R2 (R 1/4)	NPN		⊕	PG-35L-102R-NR2B	⊕	PG-35L-103R-NR2B
		PNP		⊕	PG-35L-102R-PR2B	⊕	PG-35L-103R-PR2B
	G2 (G 1/4)	NPN		⊕	PG-35L-102R-NG2B	⊕	PG-35L-103R-NG2B
		PNP		⊕	PG-35L-102R-PG2B	⊕	PG-35L-103R-PG2B
	G2 (9/16-18UNF)	NPN		⊕	PG-35L-102R-NVCB	⊕	PG-35L-103R-NVCB
		PNP		⊕	PG-35L-102R-PVCB	⊕	PG-35L-103R-PVCB

※ Verify the above model numbers when placing orders.
Marked ⊕ is manufactured upon receipt of order basis.

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PRESSURE GAUGES

STANDARD SPECIFICATIONS

● Unless otherwise specified, the specs are defined at an ambient temperature of 25 ± 5 °C and excitation voltage of 12 VDC.

Item	Model number	PG-35L		
		102R	103R	
General specifications	Pressure reference	Gauge		
	Pressure medium	Corrosive gases/liquids compatible with SUS 316L		
	Rated pressure range	kPa	- 100 ~ 100	- 100 ~ 1000
	Maximum pressure	kPa	200	1500
	Break-down pressure	kPa	300	2000
	Operating temp. range	°C	- 10 ~ 50	
	Compensated temp. range	°C	0 ~ 50	
	Operating humidity	%RH	35 ~ 85 (No condensation)	
	Protection grade		IP65	
	Pressure Port		R 1/4, G 1/4, VC (9/16 - 18 UNF)	
	Type of mounting		Stem mount, Back mount	
	Material of pressure port attachment		SUS 316L	
	Net weight	g	Approx. 150 (Including 2 m cable)	
	Thermal error		± 3 %F.S. (0 ~ 50 °C)	
	Insulation resistance		50 M Ω minimum	
	Dielectric strength		125 VDC 1 minute	
	Input voltage		10.8 ~ 30 VDC (Including ripple percentage)	
Consumption current		50 mA maximum		
Display	Display element	Full 3-digit LED		
	Rated display range	kPa	- 99.9 ~ 99.9	- 100 ~ 999
	Multiplier settings		Max. 11 settings	
	Display cycle		Approx. 4 times/s	
	Negative pressure display		“-” LED is ON	
Display accuracy		± 1 %F.S.		
Switch output	Output status	NPN/PNP		
	Output mode	2-point output (Transistor, Open collector output)		
	Output mode	Separate mode / window comparator mode		
	Switching capacity	30 VDC 100 mA maximum		
	Residual voltage	1.2 V maximum (NPN), 2.2 V maximum (PNP)		
	State indication	Output 1 (Green LED), Output 2 (Red LED) Lighted when output is ON.		
	Switch hysteresis	0~300 counts Adjustable		
	Repeatability	± 0.2 %F.S. ± 1 count		
Response		Approx. 5, 25, 250, 2500 ms adjustable		
Analog output	Output mode	3 modes		
	Output voltage V zero : Pin=0, V span : Pin=0 ~ Pin (H)	1 ~ 5 V (G/V mode ZERO : 1 ± 0.2 V, SPAN : 4 ± 0.2 V) 103 R (R mode) ZERO : 1.36 ± 0.2 V R mode ZERO : 3 ± 0.2 V, SPAN : 2 ± 0.2 V) SPAN : 3.64 ± 0.2 V		
	Impedance	10 k Ω		
	Resolution	1/204 (Approx. 20 mV / Approx. 0.5%F.S.)		

ENVIRONMENTAL CHARACTERISTICS

Test item	Test conditions	Permissible change
Vibration	10 ~ 500 Hz, 98.1 m/s ² or 1.5 mm P-P, 3 directions for 2 hours each	± 2 %F.S. maximum after test ※ 1 Amount of analog output fluctuation is permitted by adding conversion error of 20 mV.
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.	

※ 1 Change in the pressure indication, switch operating points and analog output.

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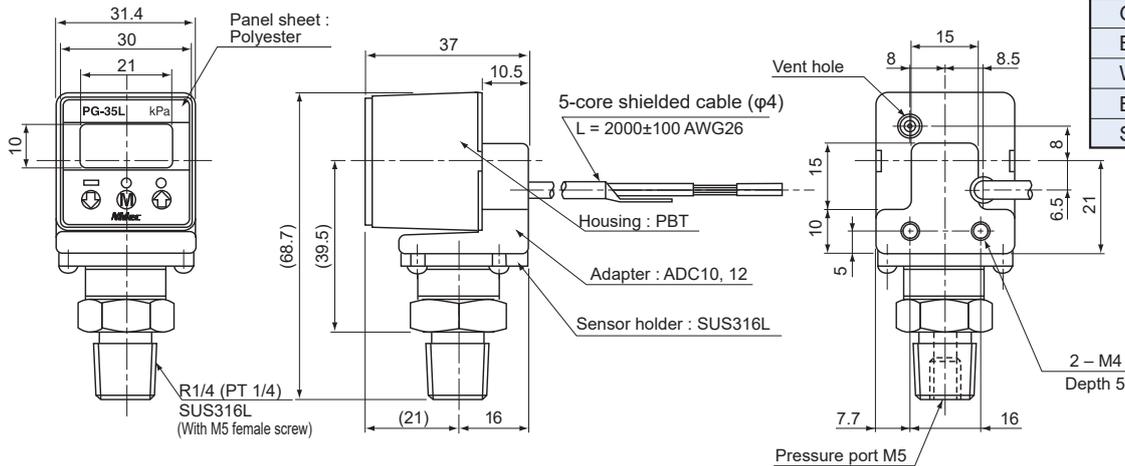
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OUTLINE DIMENSIONS

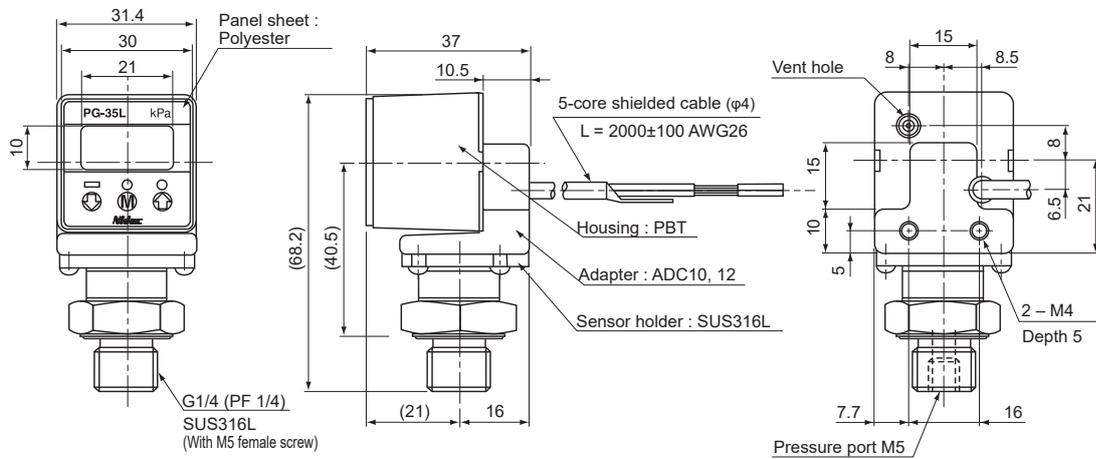
Unless otherwise specified tolerance : ± 0.5 (Unit: mm)

● Fitting R2 (R 1/4)

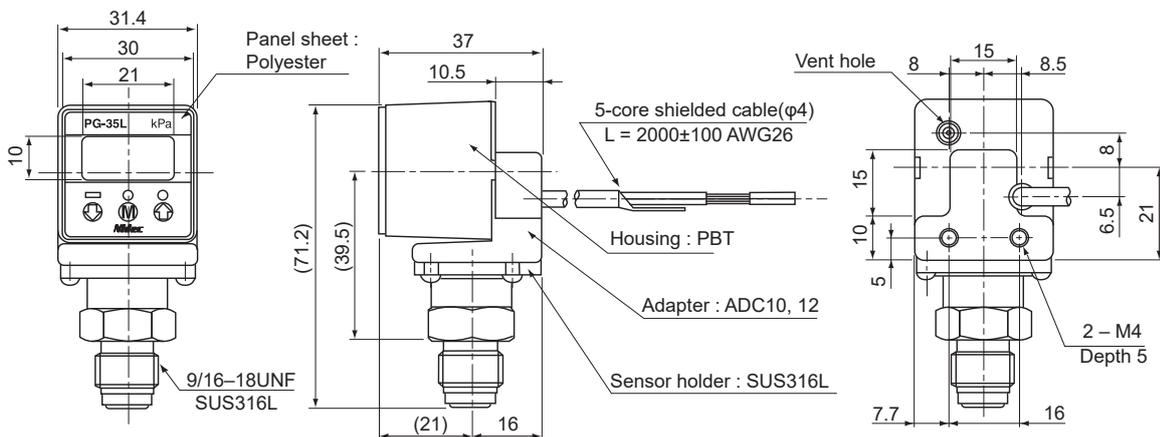
Wire color	Connection
Brown	Power ⊕
Gray	Analog output
Black	Switch output 1
White	Switch output 2
Blue	Common
Shield	Fitting



● Fitting G2 (G 1/4)



● Fitting VC (9/16 - 18 UNF)

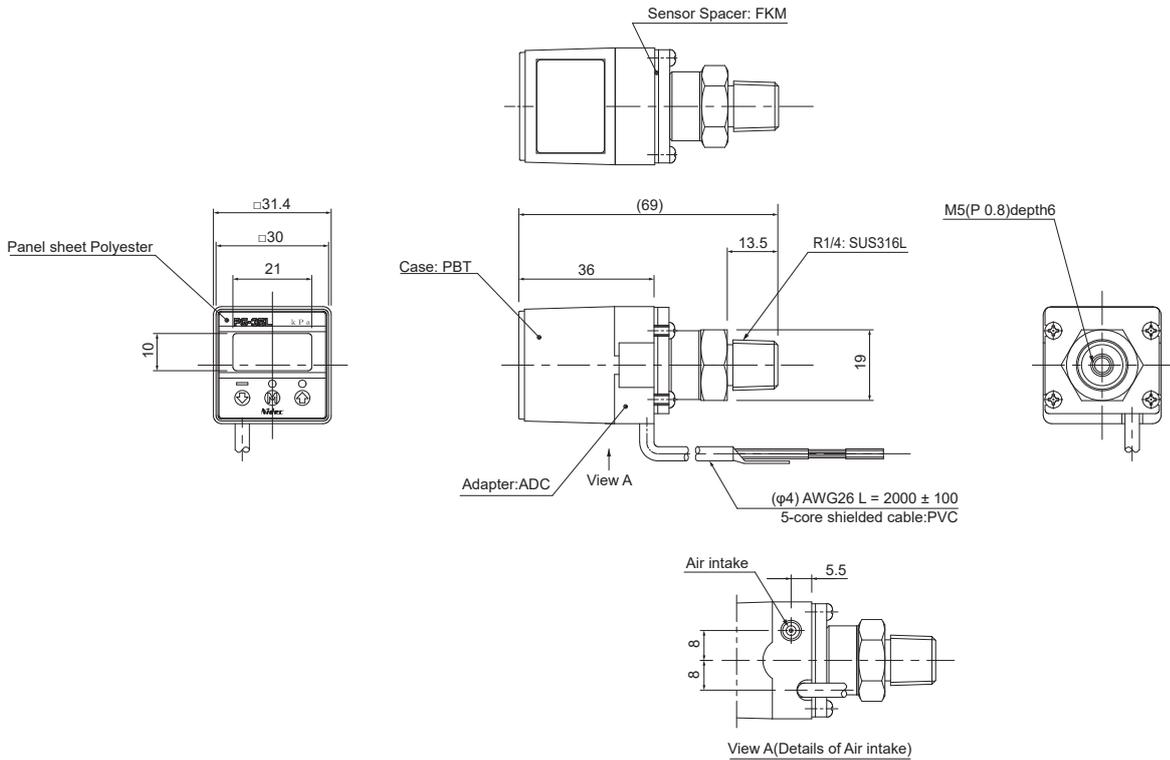


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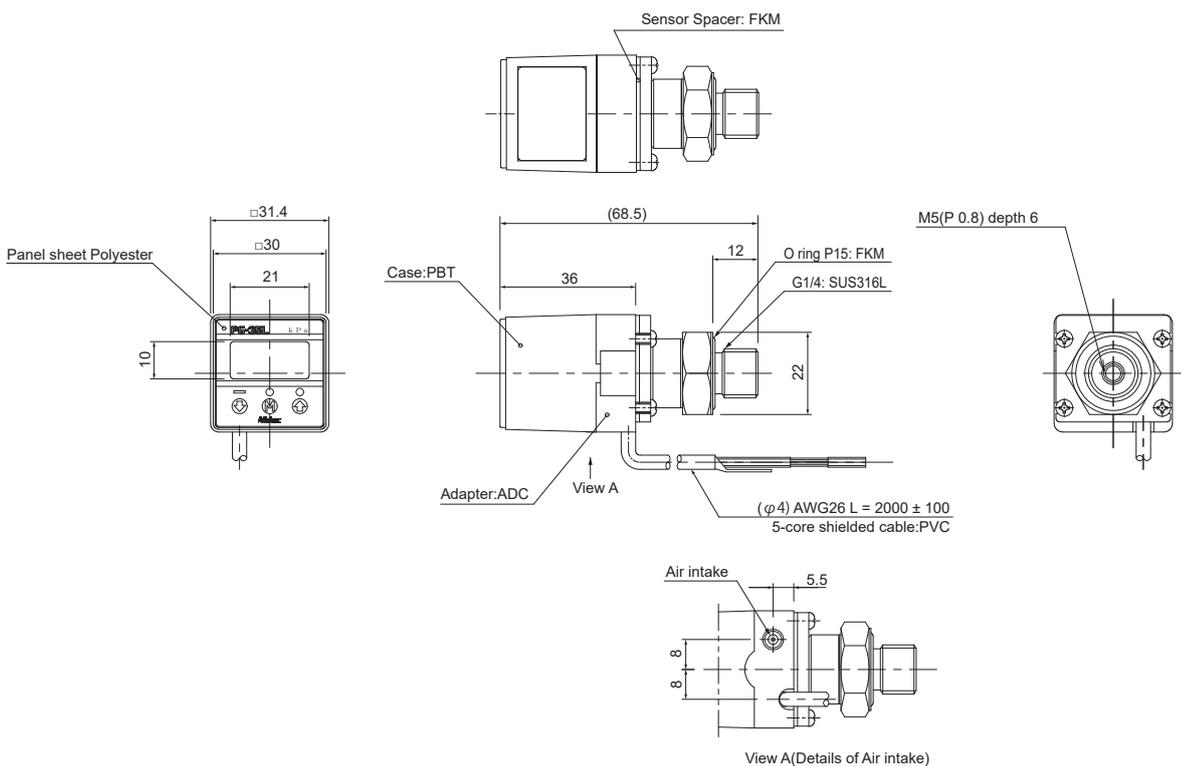
OUTLINE DIMENSIONS

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

● Fitting R2 (R 1/4) The horizontal installation type



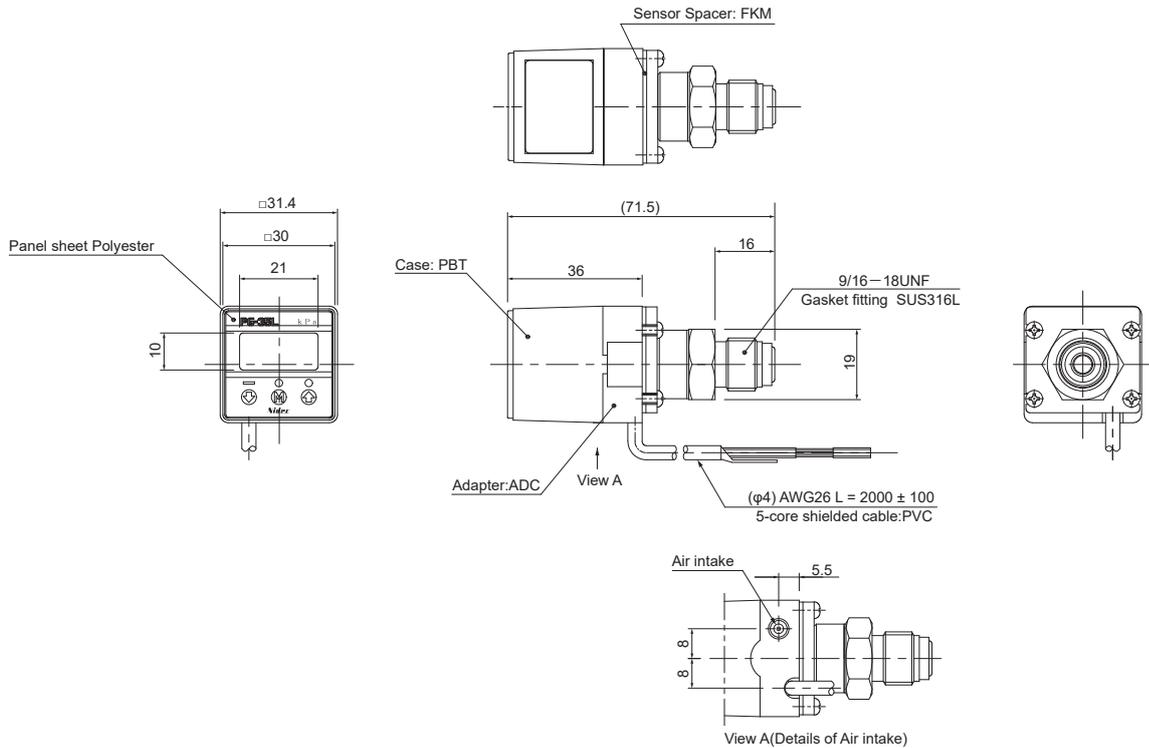
● Fitting G2 (G 1/4) The horizontal installation type



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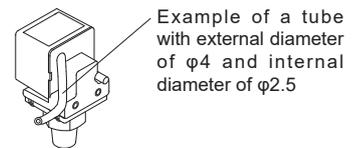
● Fitting VC (9/16 - 18 UNF) The horizontal installation type



■ Others

● Tube at atmospheric pressure intake

If there is any possibility that the sensor may become wet with oil or water, which may enter the case through the air intake, connect a silicon tube, or similar, to the intake and position the end of the tube in a suitably safe place. Be sure not to bend the tube or block the end of the tube.



● Piping

Use a wrench on a hexagon of fitting part. Do not hold the main body when tightening.

■ Customer specifications

We also offer customized solutions. Please contact your local sales office for details.

Model number	Shape and other customization
PG-35L-103R-NVC-056	Use no oil

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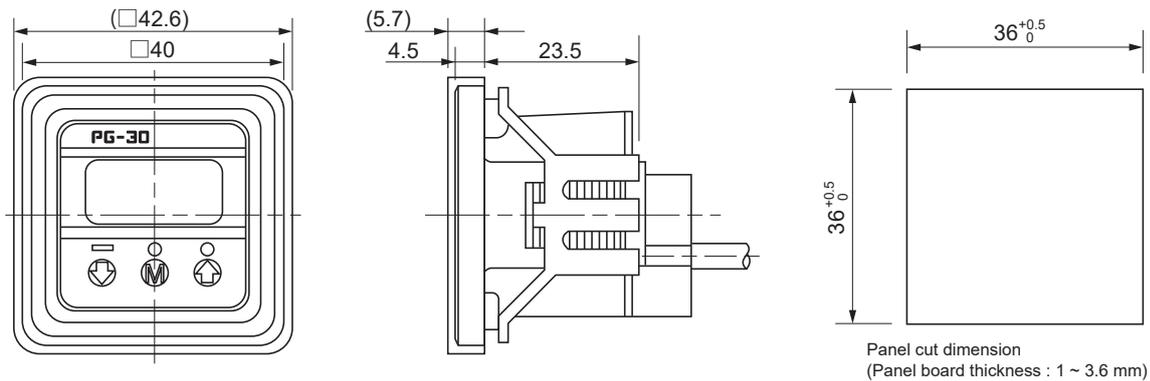
ACCESSORIES (Sold separately)

Name	Series name	Contents	Applicable model
Panel holder set	ACPG-003	Panel holder cover Panel holder Panel stopper (2pcs.)	PG-30 · PG-35 · PG-75 PG-35H · PG-35L · PS30
Holder cover set (For protecting gauge operating panel)	ACPG-004	Panel holder cover Panel holder	PG-30 · PG-35 · PG-75 PG-35H · PG-35L · PS30
Holder stopper set	ACPG-007	Panel holder Panel stopper (2pcs.)	PG-30 · PG-35 · PG-75 PG-35H · PG-35L · PS30

HOW TO MOUNT OPTIONAL ACCESSORIES (Sold separately)

(Unit: mm)

PG-30 · PG-35 · PG-35H · PG-35L · PG-75 · PS30 Panel cut holder set & holder cover set



Panel holder cover set

