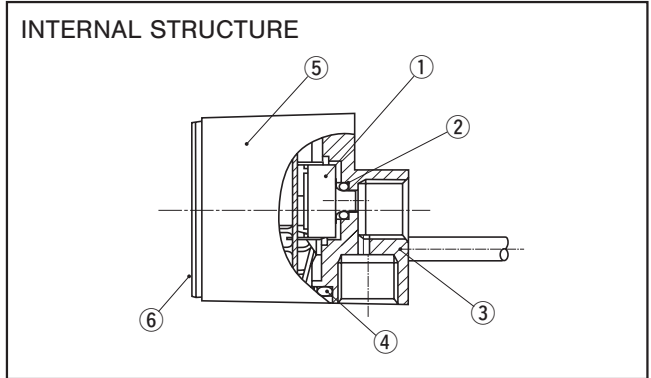
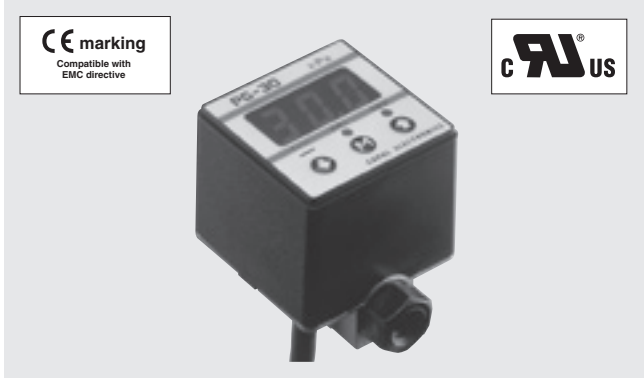


PRESSURE GAUGES

PG-30



Part name		Material
1	Pressure sensor	P-2000
2	Sensor "O" ring	NBR
3	Adaptor	Aluminum Die-casting
4	Case "O" ring	NBR
5	Case	PBT (Polybutyleneterephthalate)
6	Panel sheet	Polyester

FEATURES

- Compact and lightweight general-purpose pressure gauges**
 Innovative general-purpose gauges of compact design (30mm sq.) and drip-proof structure (IP65).
- Clear indication by LED**
 Easy-to-see LED assures clear readings on the panel and even in a dark place.
- Various modes and units can be selected according to applications**
 Eight different pressure units
 Three analog output modes
 Eight switch output modes

- Meet EMC standards**
 EN 55011 (EMI)
 EN 61326-1 (EMS)
- Low consumption by nondisplay mode**
- Set data protection by panel lock function**

MODEL NUMBER DESIGNATION

Non-corrosive gases type

PG-30 - 101 R - N

Series name

Pressure range

- 101 : - 10 ~ 10 kPa
- 102 : - 100 ~ 100 kPa
- 103 : - 100 ~ 1000 kPa

Switch output interface

- N : NPN open collector
- P : PNP open collector

Pressure reference

- R : Compound pressure
(Negative pressure ~ Positive pressure)

PG-30

PRESSURE GAUGES

LIST OF MODEL NUMBERS

Pressure medium	Fitting	Pressure reference		Gauge		
		Switch output interface	Rated pressure range	-10 ~ 10 kPa	-100 ~ 100 kPa	-100 ~ 1000 kPa
Non-corrosive gases	Rc 1/8	NPN		PG-30-101R-N	PG-30-102R-N	PG-30-103R-N
		PNP		PG-30-101R-P	PG-30-102R-P	PG-30-103R-P

※ Verify the above model numbers when placing orders.

ACCESSORIES (Sold separately)

Name	Series name	Contents	Applicable model
Rear panel bracket set	ACPG-001	Rear panel bracket and M 3 × 4 male screw (2pcs.)	PG-30
Panel bracket set	ACPG-002	Panel bracket and M 3 × 4 male screw (2pcs.)	PG-30
Panel holder set	ACPG-003	Panel holder cover Panel holder Panel stopper (2pcs.)	PG-30 · PG-35 · PG-75 · PG-35H · PG-35L
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

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-30		
		101R	102R	103R
Pressure reference		Gauge		
Pressure medium		Non-corrosive gases		
Rated pressure range	kPa	-10 ~ 10	-100 ~ 100	-100 ~ 1000
Maximum pressure	kPa	20	200	1500
Break-down pressure	kPa	50	500	2000
Operating temp. range	°C	-10 ~ 50		
Compensated temp. range	°C	0 ~ 50		
Operating humidity	%RH	35 ~ 85		
Protection grade		In accordance with IEC IP65		
Pressure port		2-Rc 1/8		
Material of pressure port attachment		Aluminum die-casting, silicone		
Net weight	g	Approx. 80 (Including 2 m cable)		
Thermal error		±3 %F.S. (0 ~ 50 °C)		
Insulation resistance		100 MΩ minimum (500 VDC)		
Dielectric strength		1 minute (Leakage current 1 mA maximum)		
Input voltage		10.8 ~ 30 VDC (Including ripple percentage)		
Consumption current		50 mA maximum		

PG-30

PRESSURE GAUGES

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 VDC.

Item		Model number	PG-30		
			101R	102R	103R
Display	Display element		Full 3-digit LED		
	Rated display range	kPa	- 9.99 ~ 9.99	- 99.9 ~ 99.9	- 100 ~ 999
	Multiplier settings		Max. 11 settings		
	Negative pressure display		Red LED is ON.		
	Display accuracy		$\pm 1 \%$		
Switch output	Output status		NPN/PNP		
			2-point output (Transistor, Open collector output)		
	Output mode		Separate mode / window comparator mode		
	Switching capacity		30 VDC 100 mA Short-circuit protection		
	Residual voltage		1.2 V maximum (NPN), 2.2 V maximum (PNP)(At load current of 100 mA)		
	State indication		Output 1 (Green LED),Output 2 (Red LED) Lighted when output is ON.		
	Switch hysteresis		0 ~ 300 counts (Adjustable)		
	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 : $1 \pm 0.2 \text{ V}$, SPAN : $4 \pm 0.2 \text{ V}$) 103 R (R mode) ZERO : $1.36 \pm 0.2 \text{ V}$ SPAN : $3.64 \pm 0.2 \text{ V}$)		
	Impedance		10 k Ω		
	Resolution		1/204		
	Response		Approx. 5, 25, 250, 2500 ms Adjustable		
Accessories			Seal screw, M 5 connecting joint screw		

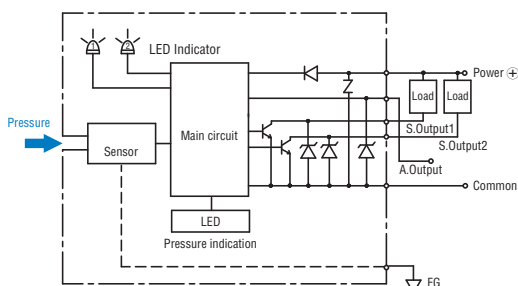
ENVIRONMENTAL CHARACTERISTICS

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	$\pm 2 \%$ F.S. maximum after test 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.	
EMC	EMI : EN55011: 2007, A2 : 2007 Group 1, class B EMS : EN61326-1 : 2006 Table 2	Pressure indication, switch operating pressure and analog output : $\pm 5 \%$ F.S. maximum during test

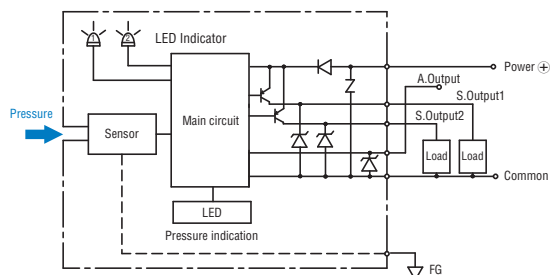
※ 1 Change in the pressure indication, switch operating points and analog output.

INTERNAL ELECTRICAL SCHEMATICS

NPN



PNP



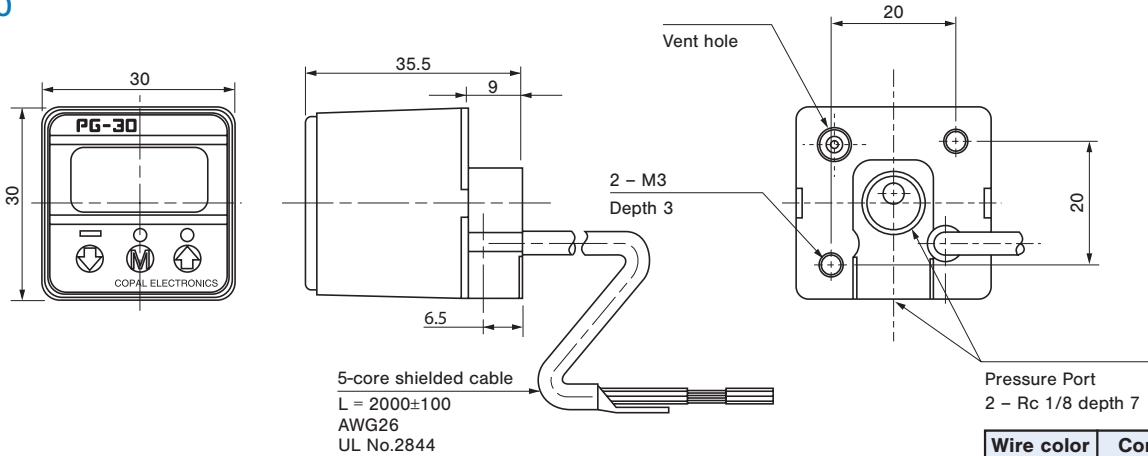
PG-30

PRESSURE GAUGES

OUTLINE DIMENSIONS

PG-30

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



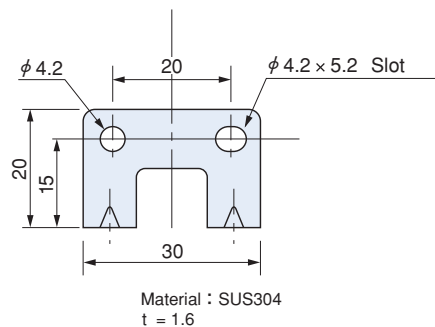
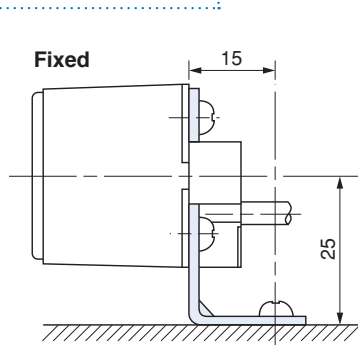
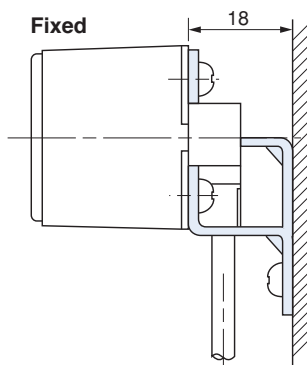
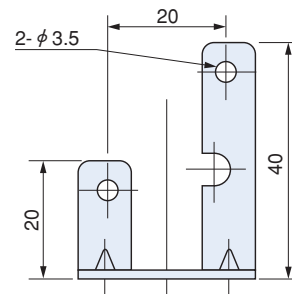
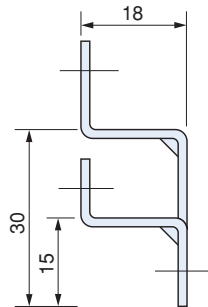
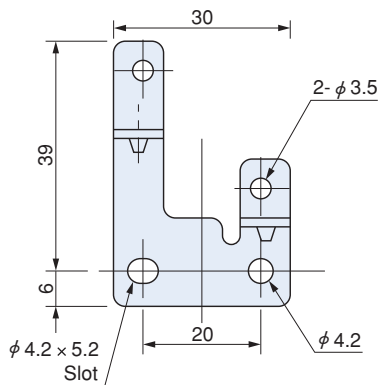
Wire color	Connection
Brown	Power ⊕
Gray	Analog output
Black	Switch output 1
White	Switch output 2
Blue	Common
Shield	Fitting

HOW TO MOUNT OPTIONAL ACCESSORIES (Sold separately)

(Unit: mm)

PG-30 Rear panel mounting bracket

PG-30 Panel mounting bracket

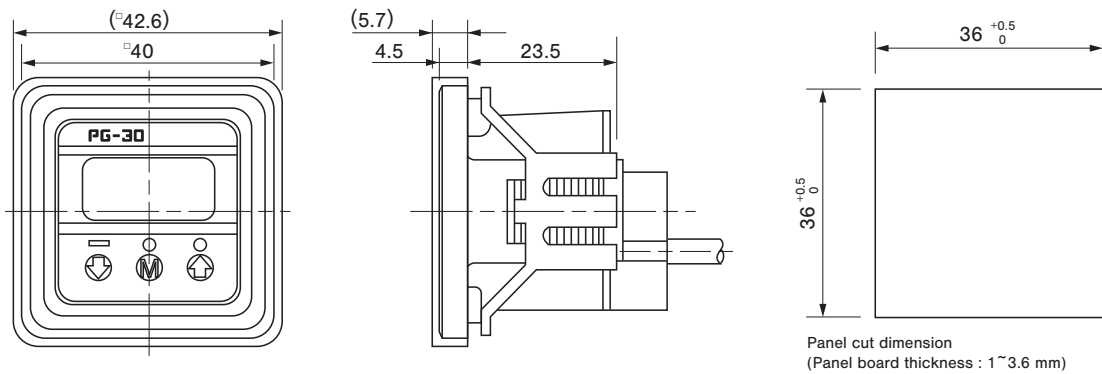


PG-30 PRESSURE GAUGES

■ HOW TO MOUNT OPTIONAL ACCESSORIES (Sold separately)

(Unit: mm)

● PG-30 • PG-35 • PG-35H • PG-35L • PG-75 Panel cut holder set & holder cover set



● Panel holder cover set

