

PRESSURE TRANSDUCERS

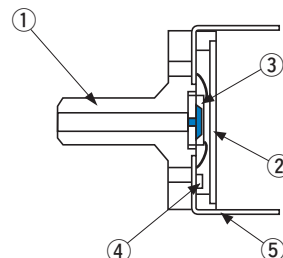
P-2000



FEATURES

- Compact and light weight
- For non-corrosive gases
- Dual in line package
- Pressure range ~9.81, ~981 kPa {~0.1, ~10 kgf/cm²}

INTERNAL STRUCTURE (BN type)



	Part name	Material
①	Housing	LCP (Liquid crystal polymer)
②	Cover	Aluminum
③	Sensor chip	Silicone
④	Chip resistor (compensatory resistor)	Ceramic
⑤	Terminal pin	Phosphor bronze + Au-plated

MODEL NUMBER DESIGNATION

P-2000 - 501 G - 15 - BN

Series name

Rated pressure range

101 : 0 ~ 9.81 kPa {0 ~ 0.1 kgf/cm²}
 501 : 0 ~ 49.0 kPa {0 ~ 0.5 kgf/cm²}
 102 : 0 ~ 98.1 kPa {0 ~ 1 kgf/cm²}
 352 : 0 ~ 343 kPa {0 ~ 3.5 kgf/cm²}
 502 : 0 ~ 490 kPa {0 ~ 5 kgf/cm²}
 702 : 0 ~ 686 kPa {0 ~ 7 kgf/cm²}
 103 : 0 ~ 981 kPa {0 ~ 10 kgf/cm²}

Terminal direction

AN : Same direction as the pressure port
 BN : Opposite direction to the pressure port

Thermal error

15 : ± 0.15 % (± 0.12 %) F.S./°C

Pressure reference

G : Gauge

LIST OF MODEL NUMBERS

Terminal direction	Rated pressure range kPa {kgf/cm ² }	0 ~ 9.81 {0 ~ 0.1}	0 ~ 49.0 {0 ~ 0.5}	0 ~ 98.1 {0 ~ 1}	0 ~ 343 {0 ~ 3.5}	0 ~ 490 {0 ~ 5}	0 ~ 686 {0 ~ 7}	0 ~ 981 {0 ~ 10}
AN		➡ P-2000-101G-15-AN	➡ P-2000-501G-15-AN	➡ P-2000-102G-15-AN	➡ P-2000-352G-15-AN	➡ P-2000-502G-15-AN	➡ P-2000-702G-15-AN	➡ P-2000-103G-15-AN
BN		P-2000-101G-15-BN	P-2000-501G-15-BN	P-2000-102G-15-BN	P-2000-352G-15-BN	P-2000-502G-15-BN	P-2000-702G-15-BN	P-2000-103G-15-BN

※ Verify the above model numbers when placing orders.

The AN version, marked ➡ is manufactured upon receipt of order basis.

P-2000

PRESSURE TRANSDUCERS

STANDARD SPECIFICATIONS

● Unless otherwise specified, the specs are defined at an ambient temperature of 25±5 °C and excitation current of 1.5 mA DC.

Item		Model number	P-2000							
			101G	501G	102G	352G	502G	702G	103G	
General specifications	Pressure reference		Gauge							
	Rated pressure range	kPa {kgf/cm ² }	9.81 {0.1}	49.0 {0.5}	98.1 {1.0}	343 {3.5}	490 {5}	686 {7}	981 {10.0}	
	Maximum pressure	kPa {kgf/cm ² }	19.6 {0.2}	98.1 {1.0}	196 {2.0}	686 {7.0}	981 {10}	1373 {14}	1471 {15.0}	
	Break-down pressure	kPa {kgf/cm ² }	49.0 {0.5}	245 {2.5}	490 {5}	1030 {10.5}	1471 {15}	1961 {20}	1961 {20}	
	Operating temp. range		°C − 20 ~ 80							
	Compensated temp. range		°C 0 ~ 50							
	Operating humidity		%RH 35 ~ 85 (No condensation)							
	Storage temp.		°C − 20 ~ 80 (Atmospheric pressure, humidity 65 %RH maximum)							
	Bridge resistance		Ω 3300 ± 30 %							
	Pressure medium		Non-corrosive gases							
	Insulation resistance		MΩ minimum	100 (500 V DC)						
	Dielectric strength		500 V AC, 60 s (Leakage current 1 mA maximum)							
	Pressure port		mm	φ 3.2						
	Net weight		g	Approx. 1						
Power	Excitation current		mA DC	1.5 (Constant current)						
Analog output	Offset voltage		mV	± 20	± 15					
	Span voltage		mV	50 ± 20	90 ± 30					
	Linearity/Hysteresis		%F.S.	± 0.3						
	Thermal error (Reference temp.: 25 °C)	ZERO %F.S./°C	± 0.15	± 0.12						
		SPAN %F.S./°C	± 0.05	± 0.04						
Response		ms	Approx. 1							

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	Offset voltage/Span voltage: ±1 %F.S. maximum each
Shock	981 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.	

※P-2000 series can be operated at the vacuum pressure.

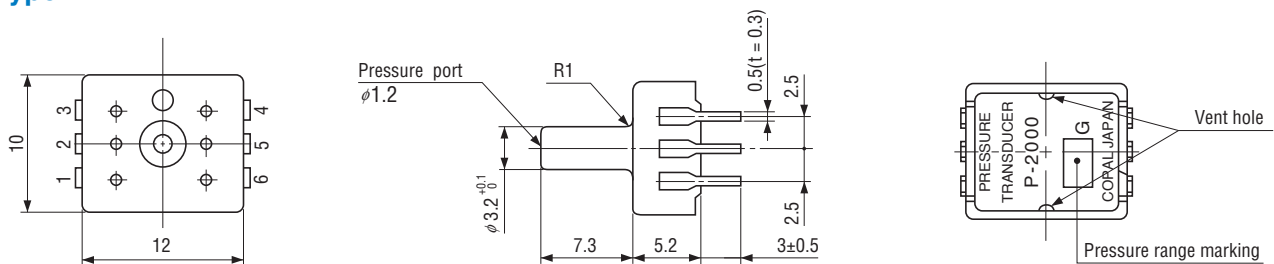
P-2000

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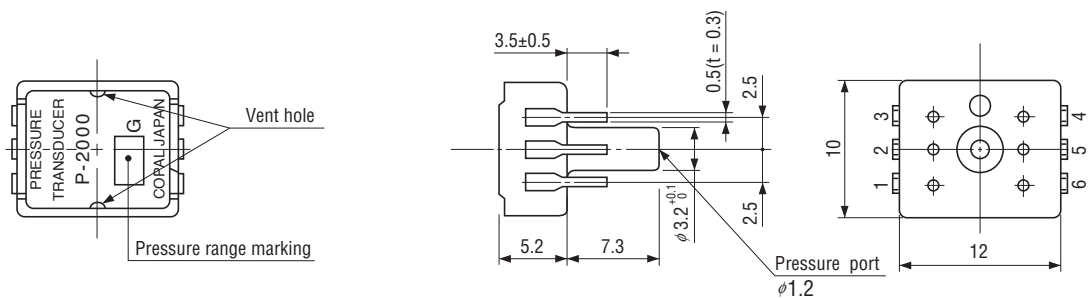
OUTLINE DIMENSIONS

Unless otherwise specified, tolerance : ± 0.3 (Unit: mm)

BN type

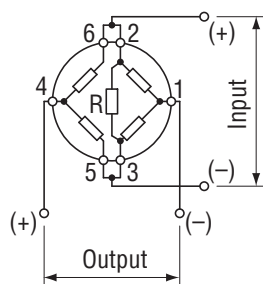


AN type



INTERNAL ELECTRICAL SCHEMATICS

TERMINAL NUMBER



R : Built-in chip resistor for temp. compensation

Pin	Connection
1	Output $\ominus$
2	Input $\oplus$
3	Input $\ominus$
4	Output $\oplus$
5	Input $\ominus$
6	Input $\oplus$