

# P-2000

## PRESSURE TRANSDUCERS



### FEATURES

- Compact and light weight
- For non-corrosive gases
- Dual in line package
- Pressure range ~9.81, ~981 kPa {~0.1, ~10 kgf/cm<sup>2</sup>}

**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**

<p>Series name</p> <p>Rated pressure range</p> <p>101 : 0 ~ 9.81 kPa {0 ~ 0.1 kgf/cm<sup>2</sup>}</p> <p>501 : 0 ~ 49.0 kPa {0 ~ 0.5 kgf/cm<sup>2</sup>}</p> <p>102 : 0 ~ 98.1 kPa {0 ~ 1 kgf/cm<sup>2</sup>}</p> <p>352 : 0 ~ 343 kPa {0 ~ 3.5 kgf/cm<sup>2</sup>}</p> <p>502 : 0 ~ 490 kPa {0 ~ 5 kgf/cm<sup>2</sup>}</p> <p>702 : 0 ~ 686 kPa {0 ~ 7 kgf/cm<sup>2</sup>}</p> <p>103 : 0 ~ 981 kPa {0 ~ 10 kgf/cm<sup>2</sup>}</p>	<p>Terminal direction</p> <p>AN : Same direction as the pressure port</p> <p>BN : Opposite direction to the pressure port</p>	<p>Thermal error</p> <p>15 : ± 0.15 % (± 0.12 %) F.S./°C</p> <p>Pressure reference</p> <p>G : Gauge</p>
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### LIST OF MODEL NUMBERS

Terminal direction	Rated pressure range kPa {kgf/cm <sup>2</sup> }	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}
<b>AN</b>		↻ 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
<b>BN</b>		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 <sup>2</sup> }	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 <sup>2</sup> }	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 <sup>2</sup> }	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 <sup>2</sup> , 3 directions for 2 hours each	Offset voltage/Span voltage: ±1 %F.S. maximum each
Shock	981 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.	

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

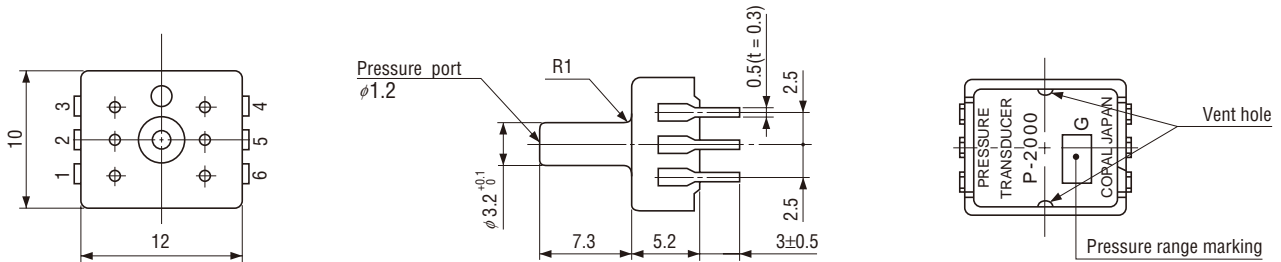
■ Specifications are subject to change without notice. Specifications in this catalog are for reference. The formal specification sheets will be submitted upon request.

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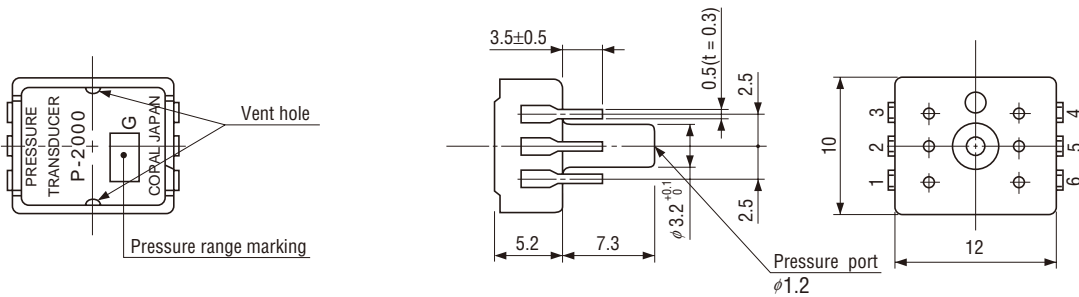
## OUTLINE DIMENSIONS

Unless otherwise specified, tolerance :  $\pm 0.3$  (Unit: mm)

### BN type

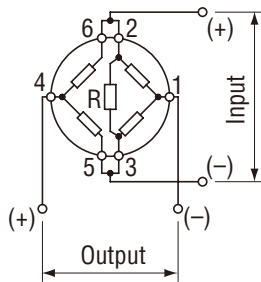


### AN type



## INTERNAL ELECTRICAL SCHEMATICS

## TERMINAL NUMBER



R : Built-in chip resistor for temp. compensation

Pin	Connection
1	Output (-)
2	Input (+)
3	Input (-)
4	Output (+)
5	Input (-)
6	Input (+)