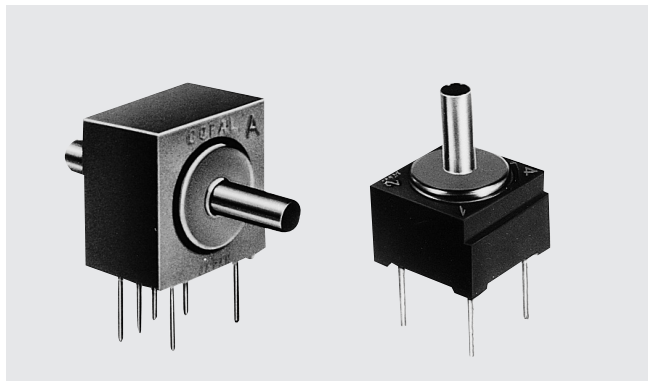


PRESSURE TRANSDUCERS

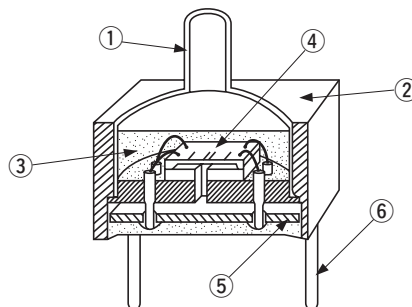
P-3000S



FEATURES

- For non-corrosive gases
- Built-in temp. compensation function (0 ~ 50 °C)
- Three pressure reference to choose from Gauge, Differential and Absolute pressure
- Compact and light weight
- PC board mountable

INTERNAL STRUCTURE (Gauge type)



Part name		Material
1	Pressure port	Iron/Nickel alloy + Nickel-plated
2	Housing	PBT (Polybutyleneterephthalate)
3	Resin compound	Silicone gel
4	Sensor chip	Silicone
5	Resistor board for temp. compensation	Ceramic
6	Terminal pin	Copper + solder-plated

MODEL NUMBER DESIGNATION

P-3000S - 501 G - 02

Series name

Rated pressure range

500 : 0 ~ 4.9 kPa {0 ~ 0.05 kgf/cm²}
 101 : 0 ~ 9.81 kPa {0 ~ 0.1 kgf/cm²}
 351 : 0 ~ 34.3 kPa {0 ~ 0.35 kgf/cm²}
 501 : 0 ~ 49.0 kPa {0 ~ 0.5 kgf/cm²}

102 : 0 ~ 98.1 kPa {0 ~ 1 kgf/cm²}
 *502 : 0 ~ 490 kPa {0 ~ 5.0 kgf/cm²}
 *702 : 0 ~ 686 kPa {0 ~ 7.0 kgf/cm²}

* ... Built-to-order

Thermal error

02 : ± 0.02 % F.S./°C
 10 : ± 0.10 % F.S./°C
 04 : ± 0.04 % F.S./°C

Pressure reference

G : Gauge
 D : Differential
 A : Absolute

LIST OF MODEL NUMBERS

Pressure reference	Gauge						Differential			Absolute	
Thermal error kPa {kgf/cm ² } Rated pressure range	0 ~ 4.9 {0 ~ 0.05}	0 ~ 9.81 {0 ~ 0.1}	0 ~ 49.0 {0 ~ 0.5}	0 ~ 98.1 {0 ~ 1}	0 ~ 490 {0 ~ 5.0}	0 ~ 686 {0 ~ 7.0}	0 ~ ± 9.81 {0 ~ ± 0.1}	0 ~ ± 49.0 {0 ~ ± 0.5}	0 ~ ± 98.1 {0 ~ ± 1}	0 ~ 34.3 {0 ~ 0.35}	0 ~ 98.1 {0 ~ 1}
± 0.02 % F.S./°C			P-3000S -501G-02	P-3000S -102G-02		P-3000S -702G-02		P-3000S -501D-02	P-3000S -102D-02		
± 0.04 % F.S./°C	P-3000S -500G-04	P-3000S -101G-04	P-3000S -501G-04	P-3000S -102G-04	→P-3000S -502G-04		P-3000S -101D-04	P-3000S -501D-04	P-3000S -102D-04	P-3000S -351A-04	P-3000S -102A-04
± 0.1 % F.S./°C		P-3000S -101G-10	P-3000S -501G-10	P-3000S -102G-10			P-3000S -101D-10	P-3000S -501D-10	P-3000S -102D-10	P-3000S -351A-10	P-3000S -102A-10

□ : Not available

※ Verify the above model numbers when placing orders.

The products marked → are built-to-order items. Please contact us separately to buy these products.

P-3000S

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-3000S										
			500G	101G	501G	102G	502G	702G	101D	501D	102D	351A	102A
General specifications	Pressure reference		Gauge						Differential			Absolute	
	Rated pressure range kPa {kgf/cm²}		4.9 {0.05}	9.81 {0.1}	49.0 {0.5}	98.1 {1.0}	490 {5.0}	686 {7.0}	± 9.81 {± 0.1}	± 49.0 {± 0.5}	± 98.1 {± 1.0}	34.3 (abs) {0.35}	98.1 (abs) {1.0}
	Maximum pressure kPa {kgf/cm²}		9.8 {0.1}	19.6 {0.2}	98.1 {1.0}	196 {2.0}	981 {10}	1372 {14}	19.6 {0.2}	98.1 {1.0}	196 {2.0}	103 (abs) {1.05}	196 (abs) {2.0}
	Break-down pressure kPa {kgf/cm²}		24.5 {0.25}	49.0 {0.5}	245 {2.5}	490 {5.0}	1471 {15}	2058 {21}	49.0 {0.5}	245 {2.5}	490 {5.0}	147 (abs) {1.5}	490 (abs) {5.0}
	Operating temp. range °C		- 20 ~ 100										
	Compensated temp. range °C		0 ~ 50										
	Operating humidity %RH		35 ~ 85 (No condensation)										
	Storage temp. °C		- 40 ~ 120 (Atmospheric pressure, humidity 65 %RH maximum)										
	Bridge resistance Ω		4700 ± 30 %										
	Pressure medium		Non-corrosive gases										
	Insulation resistance MΩ minimum		100 (50 VDC)										
	Dielectric strength		50 VAC, 60 s (Leakage current 1 mA maximum)										
	Pressure port mm		φ 3.5										
	Net weight g		Approx. 5						Approx. 7			Approx. 5	
	Power	Excitation current mA DC		1.5 (Constant current)									
Analog output	Offset voltage mV		± 3									± 5	
	Span voltage mV		70 ± 30	50 ± 20	100 ± 30			50 ± 20	100 ± 30		80 ± 40		
	Linearity/Hysteresis %F.S.		± 0.5	± 0.3	± 0.25			± 0.5	± 0.3		± 0.5		
	Thermal error (Reference temp.: 25 °C)	ZERO %F.S./°C	± 0.04	± 0.04/0.1	± 0.02/0.04/0.1		± 0.04	± 0.02	± 0.04/0.1	± 0.02/0.04/0.1		± 0.04/0.1	
		SPAN %F.S./°C	± 0.04	± 0.04/0.1	± 0.02/0.04/0.1		± 0.04	± 0.02	± 0.04/0.1	± 0.02/0.04/0.1		± 0.04/0.1	
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.	

※ The sensor can measure vacuum pressure, however its accuracy isn't always guaranteed.
If you need guarantee of accuracy Contact us separately.

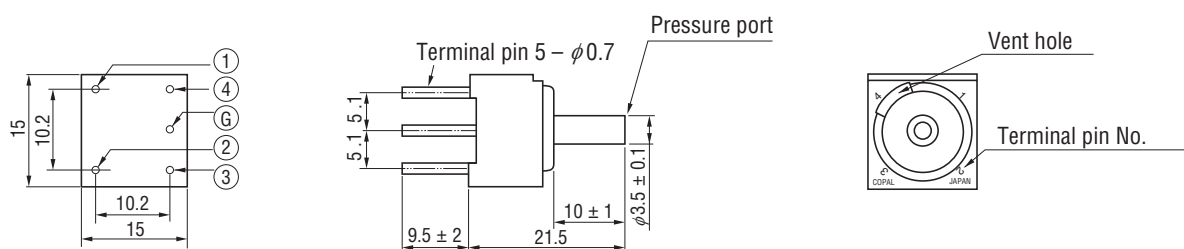
P-3000S

PRESSURE TRANSDUCERS

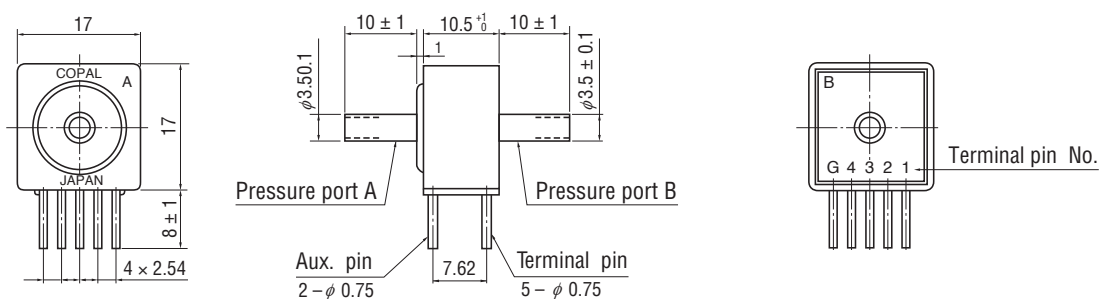
OUTLINE DIMENSIONS

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

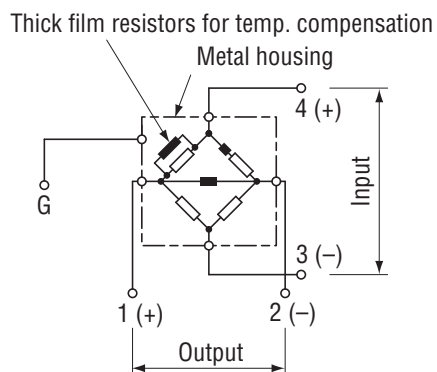
● Gauge Absolute type



● Differential type



INTERNAL ELECTRICAL SCHEMATICS



TERMINAL NUMBER

Pin	Connection
1	Output $\oplus$
2	Output $\ominus$
3	Input $\ominus$
4	Input $\oplus$
G	Housing

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Nidec:](#)

[P-3000S-101D-04](#) [P-3000S-101D-10](#) [P-3000S-101G-04](#) [P-3000S-101G-10](#) [P-3000S-702G-04](#) [P-3000S-501D-04](#)
[P-3000S-501D-10](#) [P-3000S-501G-02](#) [P-3000S-501G-04](#) [P-3000S-501G-10](#) [P-3000S-502G-04](#) [P-3000S-102G-04](#) [P-](#)
[3000S-102G-10](#) [P-3000S-351A-04](#) [P-3000S-351A-10](#) [P-3000S-500G-04](#) [P-3000S-501D-02](#) [P-3000S-102A-04](#) [P-](#)
[3000S-102A-10](#) [P-3000S-102D-02](#) [P-3000S-102D-04](#) [P-3000S-102D-10](#) [P-3000S-102G-02](#)