

DUAL PRESSURE + TEMPERATURE SENSOR *PCT 18 or PC18 Model*

- ◆ Technology : **Thick Film Strain Gage On Ceramic**
+ Pt 1000 Platinum Probe

Dual (P + T) simultaneous measurements (PCT18 Model)

Global temperature effect (Z+S): ± 0.03% FS / °C

Operating temperature range - 40 up to + 135°C

High reliability + Excellent long term stability

18 mm Diameter
0...1 to 0...600 bar
Absolute and Gage Pressure

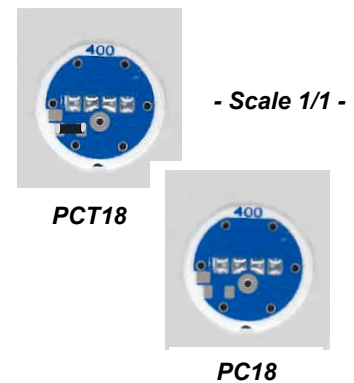
All applications
All aggressive fluids (★)

The PCT and PC18 sensors are fully **Temperature Compensated**, by means of a **Thermistor** printed on the top of the ceramic base plate. The PCT18 Model features a **Pt 1000 Platinum Probe** which gives an accurate Temperature measurement, allowing a perfect control of the fluid process, whilst the PC18 performs a single Pressure measurement. The ceramic diaphragm, **inert and chemically neutral**, can be in direct contact with all fluids, even very aggressive, without additional separator device.

- ❖ Very easy mechanical integration
- ❖ **High performance level**
- ❖ Attractive Cost / Performance ratio

- ◆ **Industrial Equipment (OEM) - Transducers Manufacturing**

- ◆ **Main Applications : Pneumatic, hydraulic, medical, chemical, petrochemical, pharmaceutical, food industry...**



Mechanical specification:

MODEL	Rated Range (bar)	Burst Pressure (bar)	Full Scale Output Signal in mV/V (± 20%)
• PCT18 / PC18 – 1	0...1	4	1,7
• PCT18 / PC18 – 2	0...2	5	2,0
• PCT18 / PC18 – 5	0...5	12	3,2
• PCT18 / PC18 – 10	0...10	25	3,1
• PCT18 / PC18 – 20	0...20	50	3,0
• PCT18 / PC18 – 50	0...50	125	3,2
• PCT18 / PC18 – 100	0...100	250	2,9
• PCT18 / PC18 – 200	0...200	400	3,0
• PCT18 / PC18 – 400	0...400	700	2,9
• PCT18 / PC18 – 600	0...600	800	2,6

Custom solutions up to 1000 bar available on request.

Combined Error (Linearity + Hysteresis)	≤ ± 0.3% FS [Terminal based] [0..2 bar to 0..50 bar]
Repeatability	≤ ± 0.4% FS [Terminal based] [0..1 bar, 0..100 bar to 0..600 bar]
	≤ ± 0.1% FS

- (★) Except hydrofluoric acid

RoHS Compliant
Directive 2002/95/EC

Specification subject to change without prior notice

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(Continued)

Electrical specification:

▣ **PRESSURE**

- Maximum Bridge Excitation Voltage 30 Vdc (10 Vdc typ.)
- Input & Output Impedance 11 K Ω \pm 30%
- Initial zero unbalance $\leq \pm 0.2$ mV/V
- Dielectric strength > 2 kV
- Zero point Long Term Stability @ 25°C $\pm 0.2\%$ FS, typ. (non cumulative versus time)

▣ **TEMPERATURE (PCT18 Model only)**

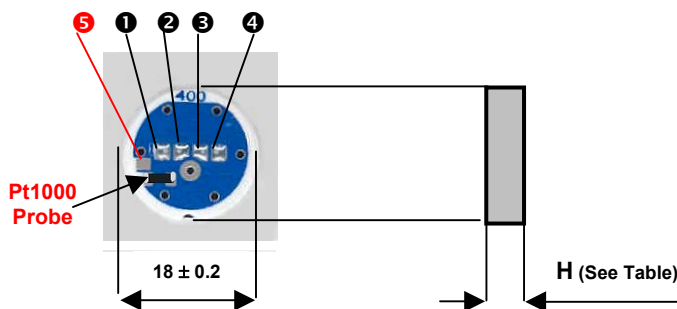
- Pt 1000 Probe 1000 Ω at 0 °C
- Class B
- Sensitivity Coefficient $+ 3850$ ppm / °C
- Norms Conformity to IEC 751 / EN 60751

Environmental specification:

- Material in contact with fluid Alumina Al₂O₃ – 96%
- Operating Temperature Range - 40 up to + 135°C
- Storage Temperature - 50 up to + 150°C
- Residual Temperature Effect (Zero and Span) $\leq \pm 0.03\%$ FS / °C [Ranges: 5 bar up to 600 bar]
- $\leq \pm 0.04\%$ FS / °C [Ranges: 1 bar & 2 bar]
- Relative Humidity (Absolute Sensor) 0 – 100 %
- Relative Humidity (Gage/Relative Sensor) 0 – 70 %
- Sensor Weight < 7 g

Dimensions (mm):

FS	1	2	5	10	20	50	100	200	400	600	Bar
H	5.18	5.25	5.25	5.33	5.45	5.65	5.95	6.25	6.85	7.15	mm
	± 0.08					± 0.1					



◆ **ORDERING CODE : PCT18 or PC18 - xxx - x**

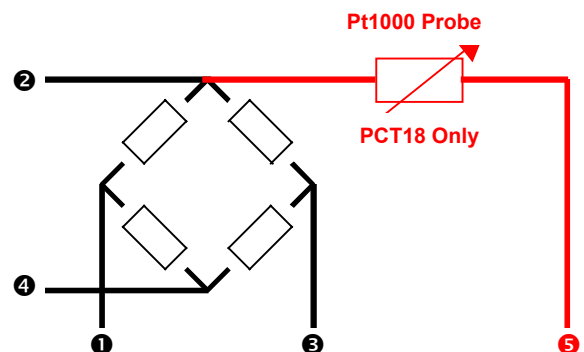
Range (in bar) _____

Pressure: _____

A (Absolute)
R (Relative/Gage)

Electrical Wiring:

- ① : - Output
- ② : - Excitation (for pressure & Pt1000)
- ③ : + Output
- ④ : + Excitation
- ⑤ : Pt 1000 Output



Important Notice:

- ▣ Refer to **Inst01** (PC/PCT18 - Instruction For Use)
- ▣ Additional Info on website: Consult **Technical Notes**

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Oct. 08 Issue