

Miniature

18mm CERAMIC PRESSURE CAPSULE

**PTi18
Series**



- **Pressure Ranges 1bar to 600bar**
- **Vented Gauge or Absolute Versions**
- **Hermetically Sealed**
- **Low Operating Current**
- **Excellent Price/Performance Ratio**
- **Designed for OEM applications**
- **3 YEAR WARRANTY**

Options Available

Other Ranges available on request

Specific packaging of the capsule undertaken on request

DESCRIPTION

The PTi18 series of Ceramic Pressure Capsules offer outstanding chemical, corrosion and abrasion resistance and are available in standard pressure ranges from 1bar to 600bar.

Manufactured from high purity Al_2O_3 Alumina Ceramic, the diaphragm material possesses extraordinary chemical and abrasion resistance, making it unrivalled for use with virtually any pressure medium.

The diaphragm of the sensing element has a balanced four-active-arm wheatstone bridge fused onto it's inner face. This direct fusion, with the absence of traditional bonding agents, ensures excellent long term stability and repeatability together with a high output and practically no thermal hysteresis. The diaphragm is glass fired onto a rigid ceramic base. This presents a self contained, hermetically sealed pressure measuring capsule that is ready for installation into pressure transducers or as a standard pressure sensor.

Excellent linear thermal characteristics are provided by the high impedance bridge network which means that the sensor is especially suited for work in low current consumption applications, such as battery operation.

The PTi18 series is available in both vented gauge and absolute versions as standard. We can offer guidance on selection and application if required.

Transducer Specialists...

APPLIED MEASUREMENTS LIMITED

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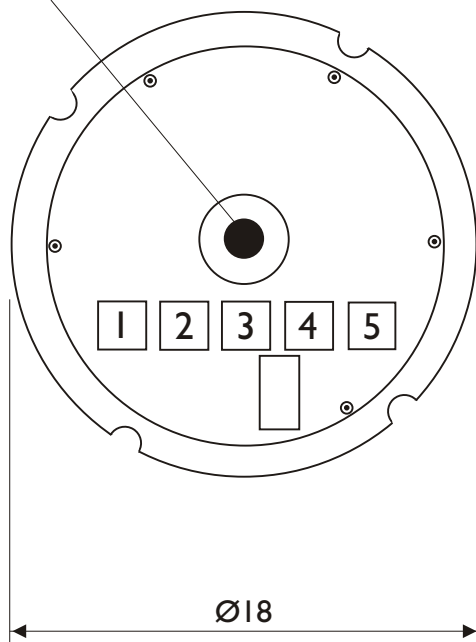
SPECIFICATION

CHARACTERISTICS	PT118	UNITS
Pressure Ranges:	1, 2, 5, 10, 20, 50, 100, 200, 400, 600	bar
Operational Mode:	Vented Gauge or Absolute	
Sensitivity (Rated Output):	2.8 - 5 ±30% (dependent on capsule range)	mV/V
Zero Offset	±0.1	mV/V
Excitation Voltage:	5 -30 (10 recommended)	Vdc
Combined Error:	<0.20	% of Rated Output
Overpressure Capability:	150	% of Pressure Range
Burst Pressure:	200	% of Pressure Range
Temperature Range Operating:	-40 to +135	°C
Compensated:	-40 to +135	°C
Temperature Effects On Output:	<0.01	±% of Rated Output/°C
On Zero:	<0.02	±% of Rated Output/°C
Bridge Impedance:	11K±20%	ohms
Media Compatibility:	Any Gas or Fluid compatible with Alumina Ceramic (AL ₂ O ₃)	
Response Time:	<1.0	milliseconds
Stability:	0.2	%/Rated Output/Annum

All dimensions in mm

Outline Drawing

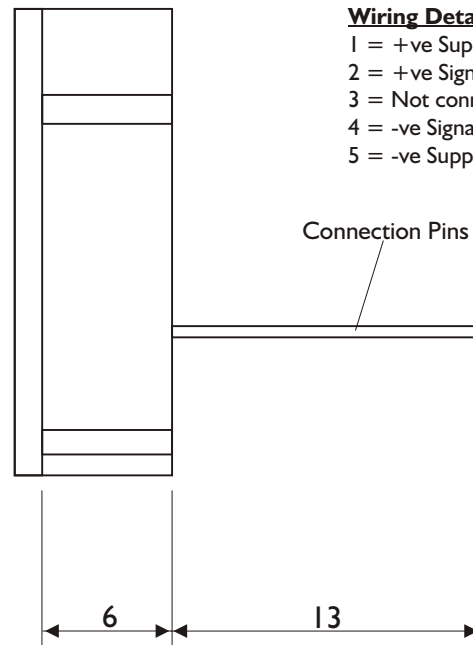
Vent Hole
(sealed on absolute types)



Wiring Details

- 1 = +ve Supply
- 2 = +ve Signal
- 3 = Not connected
- 4 = -ve Signal
- 5 = -ve Supply

Connection Pins



Capsule Range (bar)	1	2	5	10	20	50	100	200	400	600
Typical Sensitivity	2.8	2.8	3.4	4.7	3.1	5.0	4.0	3.2	4.0	4.0

