

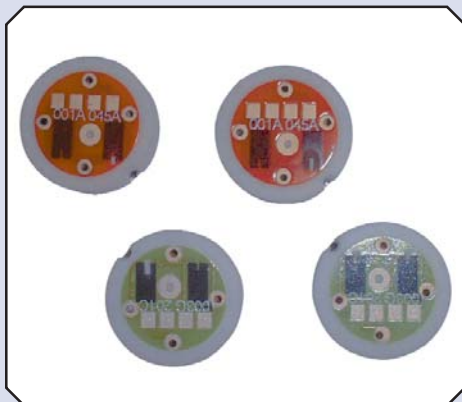
## P193 Pressure Capsule

The P193 pressure sensor is a low cost pressure capsule available in standard ranges from 100mbar to 600 bar. All ranges are available in gauge or absolute format. It is ideal for continuous use in applications where the pressure medium is wet and corrosive and long term stability is of prime importance.

### DESCRIPTION

The type P193 pressure sensor is manufactured from high purity alumina ceramic. This material possesses superb chemical and abrasion resistance, making it unrivalled for use with virtually any pressure medium.

The diaphragm of the sensing element has a four-active-arm strain gauge bridge fused to its inner face. This direct fusion ensures excellent long term stability and repeatability, which, coupled with the matched bridge network, provides excellent linear thermal characteristics.



### SPECIFICATION

<b>Range (bar)</b>	0-100mbar to 0-600 bar
<b>Sensitivity</b>	1.0 - 5.0 mV/V dependent on range
<b>Non Linearity</b>	<±0.25% of span (best fit straight line)
<b>Thermal Zero Shift</b>	<±0.04% span / °C typical
<b>Thermal Span Shift</b>	<-0.04% reading / °C typical
<b>Output Tolerance</b>	±30%
<b>Zero Output</b>	<±0.2mV/V
<b>Supply Voltage</b>	1-30Vdc
<b>Operating Temperature Range</b>	-25 to 125°C
<b>Safe Over-range without Calibration Change</b>	1.5 x minimum
<b>Burst Pressure</b>	3 x range minimum
<b>Bridge Resistance</b>	10k Ω ±30%

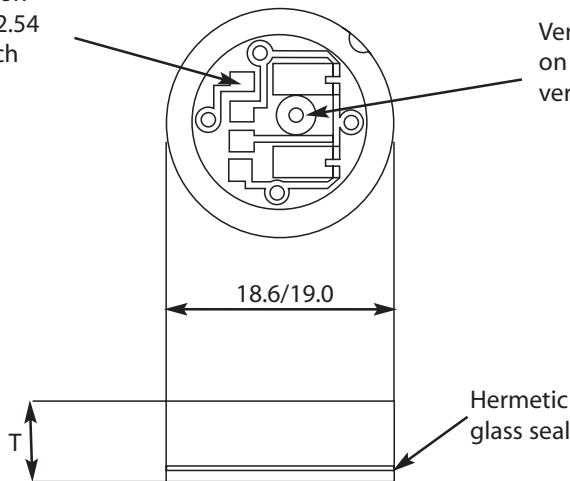
### FEATURES

- Superb chemical and corrosion resistance
- High output
- High bridge resistance
- Excellent linearity
- Low cost
- Low supply current
- High electrical isolation
- Excellent long term stability
- Small size
- Bridge balanced at zero applied pressure

## DIMENSIONAL DETAILS

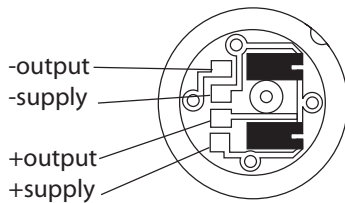
Connection pads on 2.54 (0.1") pitch

Vent hole, sealed on absolute versions

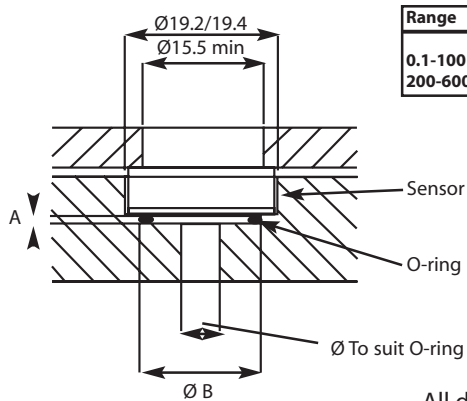


Range (bar)	T (mm, nominal)	Sensitivity (mV/V) ±30%
0.1	6.2	0.9
0.4	6.2	2.2
1	6.2	3.0
2	6.3	3.0
3	6.35	3.0
5	6.4	3.5
10	6.5	4.0
20	6.6	5.0
50	6.8	4.5
100	7.3	4.0
200	7.8	5.0
400	8.6	4.0
600	9.5	3.0

## INSTALLATION DETAILS



## O-RING DETAILS



Range	Size	A	B
0.1-100 bar	12 x 2	1.35/1.45	16.1/15.95
200-600 bar	7 x 2	1.40/1.50	11.20/11.10

All dimensions in mm

## APPLICATIONS

- Water level/pressure
- Data logging
- Chemical processing
- Soil mechanics
- Load measurement
- Automotive

- Printing
- Medical engineering
- Air compressors
- Gas flow
- Pneumatic controls
- Central heating

- Hydraulic machinery
- Air conditioning
- Tank contents
- Crop spraying
- Paper processing

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Head Office: 2 Downgate Drive, Sheffield, S4 8BT, England  
Tel: +44(0)114 244 2521 Fax: +44(0)114 243 4838



**RM&C** Roxspur Measurement & Control Ltd

1-4 Campbell Court, Bramley, Tadley, Hampshire, RG26 5EG, England

Tel: +44(0)1256 884901 Fax: +44(0)1256 882986

email: [sales@roxspur.com](mailto:sales@roxspur.com) [www.roxspur.com](http://www.roxspur.com)



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