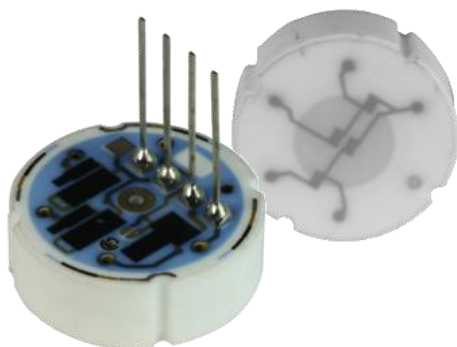




CPM 502

Piezoresistive ceramic pressure sensor with flush membrane

- Excellent chemical resistance
- Easy mounting
- Pressure ranges
7.5 to 750 psi gauge, absolute
1500 to 9000 psi sealed gauge

Standard Pressure Ranges

PSI ¹⁾	bar	Proof pressure		Admissible negative pressure		Burst pressure		Output signal	Sensor thickness
		[PSI ¹⁾ / bar]		[PSI ¹⁾ / bar]		[PSI ¹⁾ / bar]		[mV/V]	[mm]
7.5 ²⁾	0.5 ²⁾	15	1	- 0.15	-2	30	2	1.4 to 2.4	6.15
15	1	30	2	- 0.20	-3	45	3	2.0 to 3.6	6.17
30	2	60	4	- 0.40	-6	90	6	2.0 to 3.5	6.23
75	5	150	10	- 0.80	-11.5	180	12	2.3 to 4.0	6.30
150	10	225	15	vacuum resistant		300	20	3.4 to 6.0	6.35
300	20	525	35			750	50	2.4 to 4.0	6.55
750	50	1500	100			1800	120	4.0 to 6.0	6.70
1500 ³⁾	100 ³⁾	2250	150			3000	200	3.0 to 4.8	6.70
3000 ³⁾	200 ³⁾	5250	350			7500	500	2.5 to 3.9	7.05
6000 ³⁾	400 ³⁾	7500	500			9750	650	3.1 to 4.8	7.32
9000 ³⁾	600 ³⁾	11250	750			14250	950	3.1 to 4.8	7.55

Reference Conditions

Supply voltage	2 to 30 V _{DC} stabilized (I _{max.} = 4 mA)
Bridge resistance	11 kΩ ± 30 %
Reference temperature	25 °C
Measuring supply voltage	10 V _{DC}

Performance Characteristics

Offset	- 0.4 to 0.0 mV/V (Other nominal values available on request)
Total error (Nonlinearity, hysteresis, nonrepeatability)	Pressure ranges: ≤ ± 0,4 % FS (terminal based)
Long term stability	≤ ± 0.3 % FS / year (at reference conditions)
TC Offset (TC0)	≤ ± 0.02 % FS/°C ⁴⁾
TC Span (TCS)	≤ - 0.013 % FS/°C ⁴⁾

Environmental Specification

Operating temperature range	- 40 to 135 °C
Storage temperature range	- 50 to 150 °C
Compensated temperature range	0 to 85 °C

¹⁾ PSI values around rounded and for reference only

²⁾ only gauge available

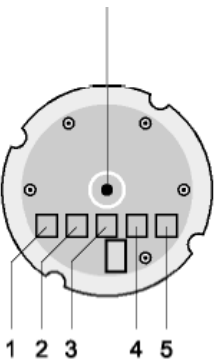
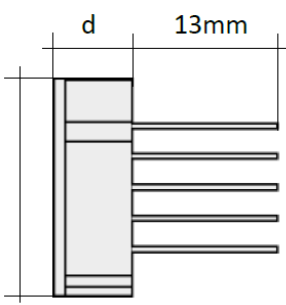
³⁾ only sealed gauge available

⁴⁾ over compensated temperature range

CPM-502

Ceramic Pressure Sensor

Specifications

Electrical connections	
Standard	Pins, pitch 0.1 inch / 2.54mm
Miscellaneous	
Media wetted parts	Ceramic Al ₂ O ₃ 96 %
Weight	approx. 7 g
Dimension	Ø = 18 ± 0.1 mm d = 6.15 to 7.55 ± 0.1 mm
Mechanical	
Venting hole: - open for gauge version - closed for absolute and sealed gauge version	
 1 2 3 4 5 1: + IN 2: + OUT 3: - IN 1 4: - OUT 5: - IN 2 	

Ordering code			
CPM502 -			
Type of pressure			
absolute	A		
gauge	G		
sealed gauge	S		
Pressure range			
7.5 psi / (only gauge) 0.5 bar	L 7 5		
15 psi / 1 bar	0 1 5		
30 psi / 2 bar	0 3 0		
75 psi / 5 bar	0 7 5		
150 psi / 10 bar	1 5 0		
300 psi / 20 bar	3 0 0		
750 psi / 50 bar	7 5 0		
1500 psi / (only sealed gauge) 100 bar	1 K 5		
3000 psi / (only sealed gauge) 200 bar	3 K 0		
6000 psi / (only sealed gauge) 400 bar	6 K 0		
9000 psi / (only sealed gauge) 600 bar	9 K 0		
Electrical connection			
Solder pads tinned, pitch 0.1 inch / 2.54mm ⁵⁾	2 0 1		
Pins, pitch 0.1 inch / 2.54mm	2 0 2		
Others – on request	9 9 9		
Options			
Standard	0 0 1		

⁵⁾ minimum order quantity required

This data sheet contains product specification, properties are not guaranteed. Subject to be changed without notice.