



Pressure

Measurement
& Control

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Type 722B

BARATRON® GENERAL PURPOSE ABSOLUTE CAPACITANCE MANOMETER

Today's process environments require smaller sized, lower cost pressure measurement instruments that provide accurate, repeatable, and reliable measurements. MKS has applied its expertise in capacitance manometer design and manufacturing technology in the development of the compact, RoHS-compliant Type 722B General Purpose Baratron® Capacitance Manometer. The flexible design of the Type 722 makes it an ideal solution for retrofit applications as well as new equipment designs.

Robust sensor construction provides high overpressure tolerances, reducing errors caused by occasional line pressure spikes. All sensor wetted surfaces are made from Inconel® to ensure maximum compatibility with many process gases¹. Sophisticated technology and strict process controls ensure clean, smooth finishes (<10 Ra) on all wetted surfaces. Signal conditioning circuitry is CE and RoHS-compliant, and is assembled using the latest techniques in surface mount technology. All transducers are backed with a full two-year warranty.

Features & Benefits

Flexible

- Smaller, lower-cost manometer helps achieve overall system size reduction
- Signal output of 0-10 VDC or 0-5 VDC available
- Full Scale Range as low as 1 Torr
- High accuracy over a wide operating temperature range

Robust

- Overpressure limit of 45 psia or 2x F.S. (whichever is greater) assures no degradation in zero repeatability or performance
- Corrosion resistant — all-metal, all-welded construction exposes only Inconel and stainless steel to the media

Compatible

- All wetted sensor surfaces are micro-finished to <10 Ra, eliminating inclusion sites for corrosion growth
- Drop in replacement for earlier Baratron capacitance manometers
- CE and RoHS (Restriction of Hazardous Substances) Compliant

¹Contact Applications Engineering for specific applications.



Specifications and Ordering Information

Configuration

Full Scale Ranges

Accuracy (including non-linearity, hysteresis, and non-repeatability)

Response Time

Temperature Coefficients

Zero

Span

Ambient Operating Temperature

Overpressure Limit

Burst Pressure

Materials Exposed to Gases

Power

Input

Output

Electromagnetic Compatibility

Restriction of Hazardous Substances

Electrical Connectors

Fittings

Standard

Optional

Absolute, single-ended

1 Torr through 25,000 Torr (mmHg) (0.02 psia through 500 psia)

0.5% of Reading

< 20 msec

0.008% of F.S./°C (10 Torr through 25,000 Torr); 0.020% of F.S. (1 and 2 Torr)

0.04% of Rdg./°C

0° to 50°C (32° to 122°F), 15° to 40°C (59° to 104°F) (1 and 2 Torr only)

45 psia or 2x F.S., whichever is greater

10x F.S. or 100 psi, whichever is greater

Inconel® (Optional Fittings: 316SS)

0 to 10 Volt output, +13 VDC to +32 VDC @ 10 mA max. (For drop-in replacements of 122A and B which have a ±15 VDC input, use Input/Output Ordering Code 2. See below.)

0 to 5 Volt output, +10.8 VDC to +32 VDC @ 10 mA max (regulated if below 13 VDC)

0 to 10 VDC into > 10K ohms load

0 to 5 VDC into > 10K ohms load

Fully CE Compliant to EMC Directive 2004/108/EC¹

Fully compliant to RoHS Directive 2002-95-EC

9-pin Type "D", 15-pin high density Type "D", 15-pin Type "D" on 4.70" (118mm) ±0.5" (12.7mm) cable, 4-pin bayonet type, Bendix® -compatible, 5-pin terminal strip

1/2" tube

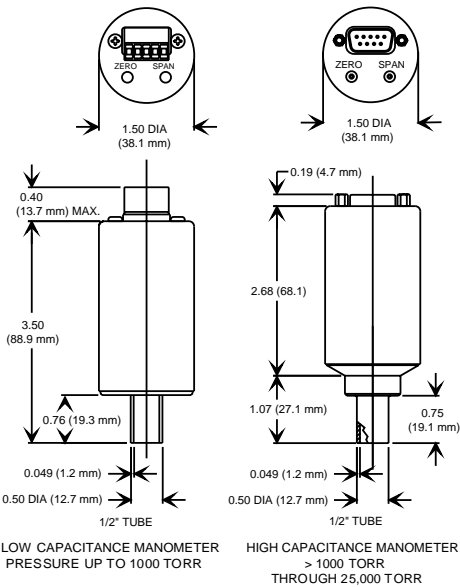
1/4" VCR® female, 8 VCR female, NW 16 KF², mini-CF

¹ For CE Compliance, an overall metal braided shielded cable, properly grounded at both ends, is required.

² NW 16 KF fittings cannot be used on units with a pressure range of 10,000 mmHg and higher. For units with a pressure range of 5,000 mmHg, an HPS Overpressure ring must be used.

Ordering Code Example: 722B12TCE2FJ

Type 722B	Code	Configuration	
Type 722B	722B	722B	
Pressure Range Full Scale (mmHg)			
1	01T	12T	
2	02T		
10	11T		
20	21T		
100	12T		
500	52T		
1,000	13T		
5,000 (must be ordered with a fitting)	53T		
10,000 (must be ordered with a fitting)	14T		
25,000 (must be ordered with a fitting)	RCT		
Fittings			
1/4" VCR Female	CD		CE
1/2" Tube	BA		
8 VCR female	CE		
Mini-CF, rotatable	HA		
NW 16 KF	GA		
Input/Output			
+13 to +32 VDC/0-10 VDC	2	2	
+13 to +32 VDC/0-5 VDC	3		
Accuracy			
0.5% of Reading	F	F	
Connectors			
9-pin Type "D"	A	J	
15-pin high density Type "D"	C		
4-pin bayonet type, Bendix® -compatible	D		
5-pin terminal strip	J		
15-pin Type "D" on 6-inch cable	K		



Dimensional Drawing —

Note: Unless otherwise specified, dimensions are nominal values in inches (mm referenced).

