



# 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 gases<sup>1</sup>. 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

<sup>1</sup>Contact 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 compliant to EMC Directive 2004/108/EC<sup>1</sup>

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"

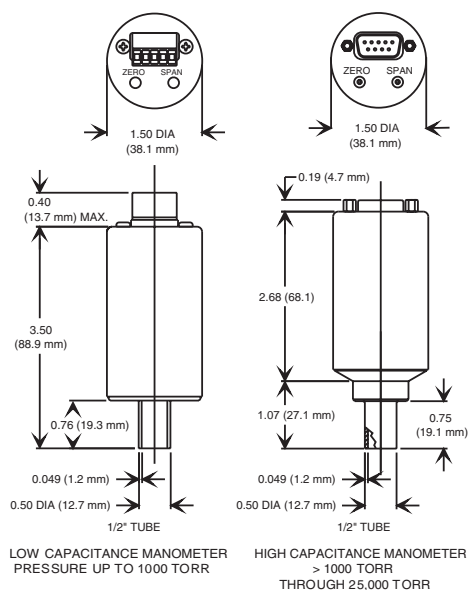
(12.7mm) cable, 4-pin bayonet type, Bendix® -compatible, 5-pin terminal strip

½" tube

¼" VCR® female, 8 VCR female, NW 16 KF<sup>2</sup>, mini-CF

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

<sup>2</sup> 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.



## Dimensional Drawing —

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

## Ordering Code Example: 722B12TCE2FJ

Pressure Range Full Scale (mmHg)		
1	01T	12T
2	02T	
10	11T	
20	21T	
30	31T	
50	51T	
100	12T	
250	RDT	
500	52T	
1,000	13T	
2,000 (must be ordered with a fitting)	23T	
5,000 (must be ordered with a fitting other than NW16KF)	53T	
10,000 (must be ordered with a fitting other than NW16KF)	14T	
20,000 (must be ordered with a fitting other than NW16KF)	24T	
25,000 (must be ordered with a fitting other than NW16KF)	RCT	
Fittings		
¼" VCR Female	CD	CE
½" 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	

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722B, RoHS - 8/12

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