

# 722B

## General Purpose Absolute Baratron® Capacitance Manometer



Today's process environments require small-sized pressure measurement instruments that provide accurate, repeatable, and reliable measurements at a lower cost. MKS has applied its expertise in capacitance manometer design and manufacturing technology to the development of the compact, 722B general purpose absolute Baratron® capacitance manometer. The flexible design of the 722B 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 ( $\leq 10$  Ra) on all wetted surfaces. Signal conditioning circuitry is assembled using the latest techniques in surface mount technology. All transducers are backed with a full two-year warranty.

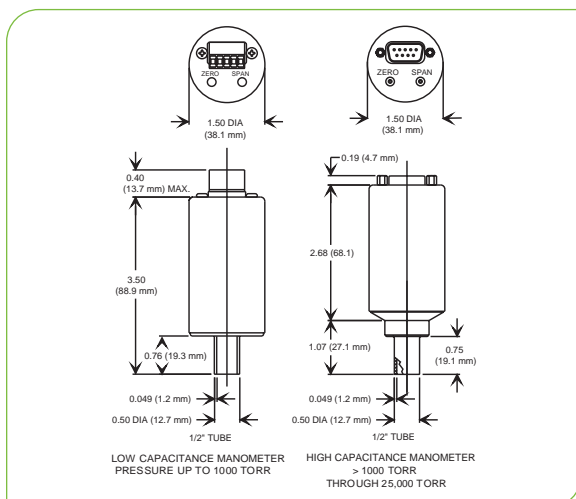


### Product Features

- 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
- Overpressure limit of 45 psia or 2x Full Scale (whichever is greater) assures no degradation in zero repeatability or performance
- All wetted sensor surfaces are micro-finished to  $\leq 10$  Ra, eliminating inclusion sites for corrosion growth

### Key Benefits

- Smaller manometer size helps achieve overall system size reduction
- Corrosion resistant — all-metal, all-welded construction exposes only Inconel and stainless steel to the media
- Drop in replacement compatible with earlier 722 Baratron capacitance manometers



### Dimensional Drawing

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

<sup>1</sup>Contact Applications Engineering for specific applications.

# Specifications & Ordering Information

<b>Configuration</b>	Absolute, single-ended	
<b>Full Scale Ranges</b>	1 Torr through 25,000 Torr (mmHg) (0.02 psia through 500 psia)	
<b>Accuracy</b>	0.5% of Reading (including non-linearity, hysteresis, and non-repeatability)	
<b>Response Time</b>	< 20 msec	
<b>Temperature Coefficients</b>	Zero Span	0.008% of Full Scale/°C (10 Torr through 25,000 Torr); 0.020% of Full Scale (1 and 2 Torr) 0.04% of Reading/°C
<b>Ambient Operating Temperature</b>	0° to 50°C (32° to 122°F), 15° to 40°C (59° to 104°F) (1 and 2 Torr only)	
<b>Overpressure Limit</b>	45 psia or 2x Full Scale, whichever is greater	
<b>Burst Pressure</b>	10x Full Scale or 100 psi, whichever is greater	
<b>Materials Exposed to Gases</b>	Inconel® (Optional Fittings: 316SS)	
<b>Power</b>	Input	+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)
	Output	0 to 10 VDC into > 10K ohms load 0 to 5 VDC into > 10K ohms load
<b>Electrical Connectors</b>	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	
<b>Fittings</b>	Standard	½" tube
	Optional	¼" VCR® female, 8 VCR female, NW 16 KF <sup>1</sup> , mini-CF
<b>Compliance</b>	CE <sup>2</sup>	

<sup>1</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.

<sup>2</sup> For CE Compliance, an overall metal braided shielded cable, properly grounded at both ends, is required.

Ordering Code Example: 722B12TCE2FJ	Code	Configuration
722B	722B	722B
<b>Full Scale Pressure Range (mmHg)</b>		
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	
<b>Fittings</b>		
¼" VCR Female	CD	CE
½" Tube	BA	
8 VCR female	CE	
Mini-CF, rotatable	HA	
NW 16 KF	GA	
<b>Input/Output</b>		
+13 to +32 VDC/0-10 VDC	2	2
+13 to +32 VDC/0-5 VDC	3	
<b>Accuracy</b>		
0.5% of Reading	F	F
<b>Connectors</b>		
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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