722C

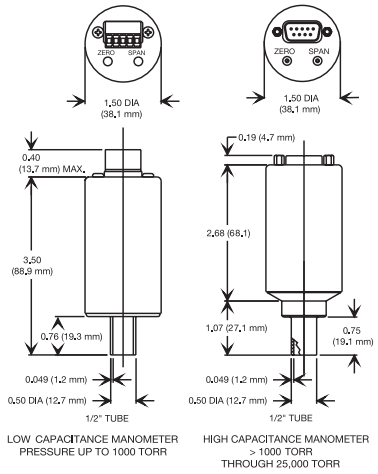
General Purpose Absolute Baratron® Capacitance Manometer

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, 722C general purpose absolute Baratron® capacitance manometer. The flexible design of the 722C 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[1]. Sophisticated technology and strict process controls ensure clean, smooth finishes (≤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 ≤10 Ra, eliminating inclusion sites for corrosion growth



Dimensional Drawing — Unless otherwise specified, dimensions are nominal values in inches (mm referenced).

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

Specifications		
Configuration		Absolute, single-ended
Full Scale Ranges		1 Torr through 25,000 Torr (mmHg) (0.02 psia through 500 psia)
Accuracy		0.5% of Reading (including non-linearity, hysteresis, and non-repeatability)
Response Time		< 20 msec
Temperature Coefficients	**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
Ambient Operating Temperature		0° to 50°C (32° to 122°F), 15° to 40°C (59° to 104°F) (1 and 2 Torr only)
Overpressure Limit		45 psia or 2x Full Scale, whichever is greater
Burst Pressure		10x Full Scale or 100 psi, whichever is greater
Materials Exposed to Gases		Inconel® (Optional Fittings: 316SS)
Power	**Input** **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
Electrical Connectors		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
Fittings	**Standard** **Optional**	• ½’’ tube • ¼’’ VCR® female, 4 VCR male, 8 VCR female, NW 16 KF[1], mini-CF
Compliance		CE[2]

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

Ordering Code Example: 722C12TCE2FJ	Code	Configuration
Model		
722C	722C	722C
Full Scale Pressure Range (mmHg)		
1 2 10 20 30 50 100 250 500 1,000 2,000 (must be ordered with a fitting) 5,000 (must be ordered with a fitting other than NW16KF) 10,000 (must be ordered with a fitting other than NW16KF) 20,000 (must be ordered with a fitting other than NW16KF) 25,000 (must be ordered with a fitting other than NW16KF)	01T 02T 11T 21T 31T 51T 12T RDT 52T 13T 23T 53T 14T 24T RCT	12T
Fittings		
¼" VCR Female ½" Tube 4 VCR male, rotatable 8 VCR female Mini-CF, rotatable NW 16 KF	CD BA CB CE HA GA	CE
Input/Output		
+13 to +32 VDC/0-10 VDC +13 to +32 VDC/0-5 VDC	2 3	2
Accuracy		
0.5% of Reading	F	F
Connectors		
9-pin Type "D" 15-pin high density Type "D" 4-pin bayonet type, Bendix®-compatible 5-pin terminal strip 15-pin Type "D" on 6-inch cable	A C D J K	J

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