MKS Baratron® Type D24B Dual-Range Manometer is an applications-specific absolute capacitance manometer based on the latest MKS family of general purpose manometers. It features the added capability of providing two distinct measurement outputs to provide accurate, reliable, and repeatable pressure measurements for multi-step processes. The D24B is temperature controlled at 45°C, and is available in full scale ranges of 10, 100 and 1000 Torr, with a customer specified second output at 2, 5, or 10 times lower full scale. The lower pressure limitation of system A/D resolution is now minimized with higher output signal levels. The instrument operates with ±15 VDC (±5%) input at 400 mA (max.), and provides two outputs of 0 to 10 VDC linear with pressure.

The D24B’s sensor exposes only Inconel® to the process permitting the use with corrosive or dirty gases. Measurements are independent of gas composition. The D24B also features two trip point relays, each separately adjustable from 0.1 to 100% of Full Scale. Dual color LEDs indicate relay status. Typical relay uses include pump cross-over and valve activation. The modern stainless steel enclosure provides a cleanroom compatible product.

**Features & Benefits**

**Accurate**
- Second output provides greater resolution over the lower range of the instrument—ideal for multi-step processes
- Percent of Reading accuracy for more repeatable output signal
- Provides improved sensitivity for system I/O architecture with limited A/D resolution
- Measures total pressure directly, independent of gas composition

**Robust**
- All Inconel® corrosion resistant wetted surfaces
- Integrated sump (US Patent #5,822,685) provides particle protection
- High overpressure rating for improved reliability

**Compatible**
- All Inconel® sensor—corrosion resistant wetted surfaces
- Cleanroom-compatible stainless steel package
- Compatible with earlier Baratron® capacitance manometers, MKS power supply/readout modules and pressure controllers
- CE Compliant—meets requirements for European Union
Specifications and Ordering Information

Full Scale Ranges: 10, 100, 1000 Torr
Resolution: 0.001% of F.S.
Accuracy: 0.12% of Reading (including non-linearity, hysteresis, and non-repeatability)
Temperature Coefficients:
- Zero: 0.002% of F.S./°C
- Span: 0.02% of Rdg./°C
Ambient Operating Temperature: 15°C to 40°C
Volume: 6.3 cc
Warm-Up Time: 2 hours
Overpressure Limit: 45 psia (310 kPa)
Materials Exposed to Gases: Inconel® (Optional fittings: 316 SS)
Input Power Required: ±15 VDC ±5% @ 0.40 Amps (max.)
Output Signal: Pressure: 0 to +10 VDC into > 10KΩ load; second output 0 to 10 VDC into > 10KΩ load over range
Output Relays: SPDT contacts rated at 1 Amp @ 30 VDC or 0.5 Amp @ 30 VAC resistive
Trip Point Level Signal: 0.01 to 10 VDC for each trip point (first output only)
Electromagnetic Compatibility: Fully CE Compliant to EMC Directive 89/336/EEC
Fittings: Standard: 1/2” (12.7 mm) tubulation; Optional: 8 VCR® female, Mini-CF, NW 16 KF

Ordering Code Example: D24B11TBACB2

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