Two-Channel Portable Baratron® Measurement System
Type PBMS2A

**Features and Benefits**

- Provides for in situ verification of process gauge accuracy and tool-to-tool consistency
- Reduces downtime caused by removing the process gauge for calibration
- Eliminates the unnecessary replacement of properly functioning instruments
- Provides a diagnostic tool for troubleshooting
- Select from 8 ranges: 0.02 to 1000 Torr full scale
- Temperature controlled Type 627B Baratron® Capacitance Manometer provides stable measurements at 0.12% to 0.25% of Reading accuracy
- Inconel® and stainless steel wetted surfaces permit use with many corrosive gases
- Second channel may be used for another standard manometer or may be used to monitor the device under test
- Components are packaged in a convenient wheeled caddy which is readily moved about the production facility
- No warm up delays: an uninterruptable power supply maintains power to the manometer for 1 hour during transit
- The transducer is traceable to NIST which assists in compliance with government and industry regulations such as ISO9000
- Components are CE compliant

**Description**

Designed with the cleanroom in mind, the PBMS2A is a portable two-channel pressure standard that is designed for in situ applications. Equally at home on the bench as on the production floor, the unit may be used for any pressure measurement application in the range of $10^{-4}$ to 1000 Torr.

The system includes one or two Type 627B Baratron capacitance manometers, a Type PR4000 display and an uninterruptable power supply all housed in a rugged wheeled caddy with an extendible handle for easy towing. The caddy also includes an integral tilt stand which, when extended, places the unit at an angle of 15 degrees from the vertical, thereby improving visibility of the display when the unit is on the floor.

*Note: Unless otherwise specified, dimensions are nominal values in inches (mm referenced). Handle shown fully extended.*
## Specifications

**Reference Manometer**
MKS Type 627B Absolute Sensor (NIST traceable), see 600 Series Selection Guide for other specifications

**Baratron® Transducer Accuracy**
Standard: ± 0.12% of Reading (all ranges except 0.15% for 0.05 and 0.1 Torr, ±0.25% for 0.02 Torr)

**Resolution (of F.S.)**
1 x 10⁻⁴

**Fittings**
½" tubing, NW16KF or 8 VCR®, female

**Operating Temperature Range**
15° to 40°C

**Readout Electronics**
MKS Type PR4000, 4½-digit LCD

**Power Required**
110 VAC, 60Hz; 220 VAC, 50Hz; 100 VAC, 50/60 Hz; 3A

**Warm-up Time/Start Time**
4 hours. However, use of the internal 280 VA UPS will keep the Transfer Standard warmed up and ready for immediate use for at least 60 minutes.

**Configuration**
Removable Transfer Standard (10 ft./3m cable)

**Enclosure**
Metal wheeled caddy with extendible handle and tilt stand.

**Weight**
75 lb. (34 Kg)

Specifications are subject to change without notice.

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HP® and IDA™ are trademarks of MKS Instruments, Inc., Wilmington, MA.

VCR® and Swagelok® are registered trademarks of Swagelok Marketing Co., Solon, OH.

Contact Applications Engineering at 800-227-8766 for the correct configuration for your application.

## Typical Application

The illustration to the left shows a typical set up for process set point verification. The PBMS2A's Type 627 reference standard is removed from its storage drawer and placed in close proximity to the process tool's manometer port. This connection is facilitated by using a combination isolation valve such as the HPS® IDA™ valve. With the transfer standard connected to the IDA valve's access port via a short length of bellows tubing, the transfer standard can be used to verify the accuracy of the process gauge and check system set point pressures.

## Ordering Information

**Type PBMS2A Portable Baratron® Measurement System**

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**Fittings**

- ½" Diameter tubing
- Swagelok® 8 VCR® female
- NW16KF

**Input Power**

- Standard USA & Canada input power 110 VAC, 60 Hz
- 220 VAC, 50 Hz
- 100 VAC, 50/60 Hz

**Interface**

- RS-232 (standard)
- RS-485
- IEEE-488

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