

# PBTS1B

Portable Baratron® Transfer Standard



Designed with the cleanroom in mind, the PBTS1B is a portable single-channel high accuracy 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  $10^{-5}$  to 25,000 Torr.

The system includes a AA06A Baratron® pressure sensor, a 670C signal conditioner/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.

Figure 1 shows a typical process set point verification. The AA06A transfer standard of the PBTS1B is removed from its storage drawer and placed in close proximity to the process tool's manometer port. This is facilitated by using a combination isolation valve such as the IDA™ valve. With the transfer standard connected to the IDA valve's access port, it can be used to verify accuracy of the gauge and check system set point pressures.

## Product Features

- 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 10 ranges: 0.1 to 25,000 Torr Full Scale
- Inconel® and stainless steel wetted surfaces permit use with many corrosive gases
- The transducer is traceable to NIST which assists in compliance with government and industry regulations such as ISO9000



## Key Benefits

- Components are packaged in a wheeled caddy which is conveniently moved about the production facility
- No warm up delays: an uninterruptable power supply maintains power to the manometer for 1 hour during transit
- Premium AA06A transfer standard Baratron Capacitance Manometer provides a wide measurement band at 0.05% or 0.08% of Reading accuracy

## Specifications

### Performance

<b>Transfer Standard</b>	AA06A Absolute Sensor (NIST traceable); see AA06A data sheet for other specifications
<b>Baratron® Pressure Sensor Accuracy (including non-linearity, hysteresis, and non-repeatability)</b>	
<b>Standard</b>	• 0.08% of Reading ( $\pm$ temp. coefficients)
<b>Optional</b>	• 0.05% of Reading ( $\pm$ temp. coefficients) - (for 1-1000 range)
<b>Resolution (of Full Scale)</b>	$1 \times 10^{-6}$
<b>Fitting</b>	4 VCR® female
<b>Operating Temperature Range</b>	15° to 40°C
<b>Readout Electronics</b>	670C, 5½-digit LCD
<b>Power Required</b>	110 VAC, 60 Hz; 220 VAC, 50 Hz; 100 VAC, 50/60 Hz; 3A
<b>Warm-up Time/Start Time</b>	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.
<b>Configuration</b>	Removable transfer standard (10 ft./3m cable with 4 VCR female transducer fitting)
<b>Enclosure</b>	Metal wheeled caddy with extendible handle and tilt stand
<b>Weight</b>	75 lb. (34 Kg)

## Configurations

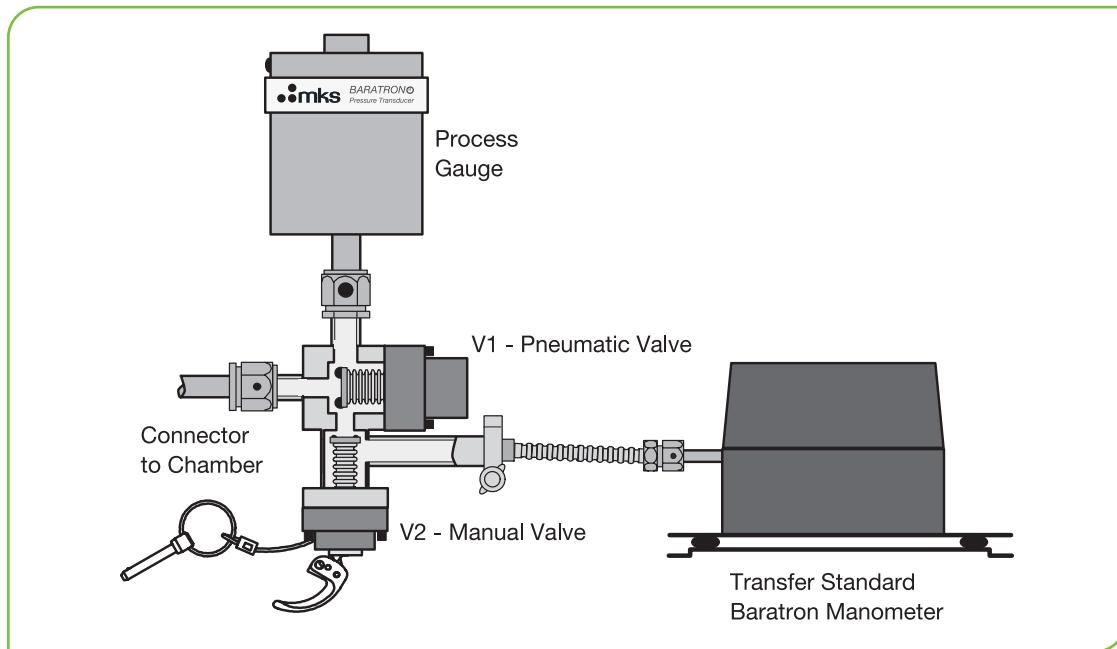
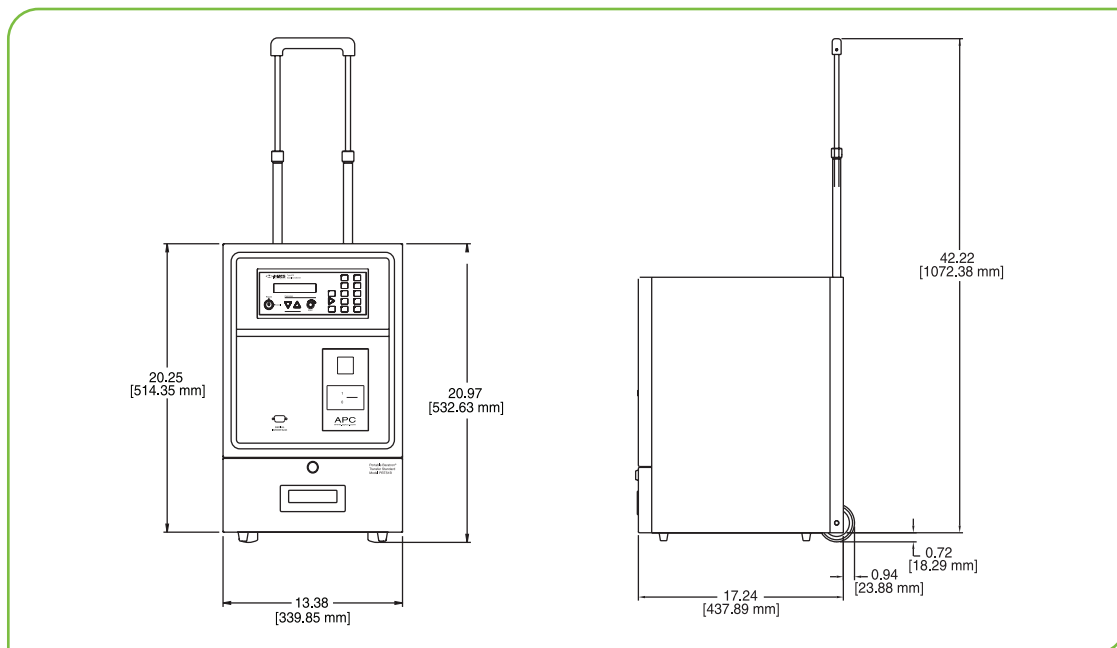


Figure 1 - Typical process set point verification



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

## Ordering Information

Ordering Code Example: PBTS1B01UB2	Code	Configuration
<b>Model</b>		
Portable Baratron Transfer Standard	PBTS1B	PBTS1B
<b>Ranges</b>		
0.1 mmHg	.1	01
1	01	
10	11	
100	12	
1000	13	
5000	53	
10000	14	
15000	RB	
20000	24	
25000	RC	
<b>Input Power (Y)</b>		
Standard USA & Canada input power 110 VAC, 60 Hz	U	U
220 VAC, 50 Hz	F	
100 VAC, 50/60 Hz	J	
<b>Accuracy (Z)</b>		
±0.08% of Reading	B	B
±0.05% of Reading (1, 10, 100, 1000 mmHg models only)	A	
<b>Interface</b>		
RS-232 (standard)	2	2
IEEE-488	8	
<b>Accessories</b>		
Isolation valve, 4 VCR-F to 4 VCR-M - use recommended for 1000 Torr and lower		99A0298
Bellows adapters, 4 VCR each end (male to female)		6" 6BL4VCR
In Situ Diagnostic Access (IDA) Valve - simplifies access to process chamber; various configurations available		12" 12BL4VCR