

- Simulates 45 calibrated levels from -500 to +500 mmHg.
- Accurate within 0.1% of setting ± 0.5 mmHg.
- Simulates Excitation (Input) and Signal (Output) resistance limits as defined by the ANSI/AAMI Standard for Blood Pressure Transducers (BP22-1994).
- Cables are available to connect the Transducer Simulator to most pressure monitors, amplifiers and recording systems.
- Certificate of Conformance traceable to NIST is available.



The BP-28 Pressure Transducer Simulator is used to trouble shoot and test the performance of pressure monitors. When substituted for a pressure transducer and a manometer, it provides stable and accurate levels for setup and calibration of the monitor. It can be used to quickly determine whether measurement problems are caused by the transducer or the monitor.

The simulator is designed for biomedical engineers, technicians, manufacturers and service organizations. It is also useful for training nursing and other health care professionals in the correct setup and operation of pressure monitors, and in the steps required to identify defective transducers.

The BP-28 contains a precision, thermally stable, bridge that simulates the electrical characteristics of pressure transducers used with patient monitors and provides 45 pressure levels from -500 to +500 mmHg. Selectable excitation (input) and signal (output) resistance is used to determine how a monitor functions with a transducer that has an excitation resistance as low as 200 Ohms, a signal resistance as high as 3000 Ohms, or both as defined by the ANSI/AAMI Standard for Blood Pressure Transducers (BP22-1994). Selectable signal resistance can also be used to measure the input impedance of a pressure amplifier.

Fogg System Company provides Cables for connecting the BP-28 to over 500 models of pressure monitors, amplifiers, and recording systems.

Technical Information

Input (Excitation) Resistance: 200 and 350 Ω , $\pm 1\%$, switch selectable.
Output (Signal) Resistance: 350 and 3000 Ω , $\pm 2\%$, switch selectable.
Excitation Voltage: Up to 12 Volts, ac or dc, supplied by pressure monitor.
Operating Temperature range: 10 to 50°C.
Output Sensitivity factor: 5 $\mu\text{V}/\text{V}/\text{mmHg}$.
Polarity: ZERO, POS (+) and NEG (-), switch selectable.
Simulated Pressures: ZERO and $\pm 7.5, 10, 12.5, 15, 20, 22.5, 30, 37.5, 45, 50, 75, 100, 125, 150, 200, 225, 250, 300, 375, 450,$ and 500 mmHg.
Simulated Pressure Accuracy: $\pm 0.1\%$ of setting ± 0.5 mmHg, at 25°C.
Output Offset at ZERO: Less than ± 0.5 mmHg, or $\pm 2.5 \mu\text{V}/\text{V}$.
Thermal Sensitivity Shift: Less than ± 0.1 mmHg/°C.
Thermal ZERO Shift: Less than ± 0.05 mmHg/°C.
Output Connector: MS3102A-14S-6P (Mates with MS3106A-14S-6S).
Power Requirements: Excitation for Transducer Simulator is supplied by pressure monitor.
Size: 3.6"W x 5.75"H x 1.6"D, including knob.
Weight: 7 Ounces net (0.20Kg), 1.5 pound shipping (0.68Kg).

ORDERING INFORMATION

A test system consists of the BP-28 Pressure Transducer Simulator and a Cable that connects it to the Pressure measuring instrument. Each Simulator is supplied with a User Manual that includes Schematics and Parts Lists. A Certificate of Conformance traceable to NIST is available.