

## BetaGauge 301 Single Sensor Pressure Calibrator Product Data Sheet

### General Description

The BetaGauge 301 is a general purpose, value oriented pressure calibrator. With one internal pressure range and an available adapter for external BetaPort–P pressure modules, the possibilities are extensive.

### Available Ranges and Engineering Units

The available internal sensor ranges are: 1, 5, 30, 100 and 300 PSI. Note: 30 and 100 PSI ranges are calibrated from -12 PSI to full scale.

Pressure may be displayed in the user's choice of engineering units, which include

- |                              |       |                              |
|------------------------------|-------|------------------------------|
| • PSI                        | • Bar | • mBar                       |
| • kPa                        | • MPa | • kg/cm <sup>2</sup>         |
| • cm H <sub>2</sub> O@4°C/   |       | • cm H <sub>2</sub> O @ 20°C |
| • cm H <sub>2</sub> O @ 60°F |       | • m H <sub>2</sub> O @ 4°C   |
| • m H <sub>2</sub> O @ 20°C  |       | • m H <sub>2</sub> O @ 60°F  |
| • in H <sub>2</sub> O @ 4°C  |       | • in H <sub>2</sub> O @ 20°C |
| • in H <sub>2</sub> O @ 60°F |       | • ft H <sub>2</sub> O @ 4°C  |
| • ft H <sub>2</sub> O @ 20°C |       | • ft H <sub>2</sub> O @ 60°F |
| • mm Hg, in Hg               |       | • USER defined unit.         |

### Major Features

- One isolated pressure sensor
- External pressure module connection supports all BetaPort–P pressure modules (25+ ranges)
- Internal 24 V DC loop power supply
- Measure 24 mA or 30 V DC
- Large, backlit, configurable display for 1, 2 or 3 variables
- Switch test on Pressure (internal or external)
- Five (5) frequently used setups can be saved
- % error and damping functions
- Compact handheld design
- Powered by 4 AA Alkaline batteries

### Performance

#### Pressure Accuracy

All ranges  $\pm 0.05\%$  FS

#### DC Measurement Accuracy

mA  $\pm 0.015\%$  of rdg  $\pm 0.002$  mA

Volts  $\pm 0.015\%$  of rdg  $\pm 0.002$  V

#### Temperature Effect

No effect on accuracy for all functions from 18° to 23°C

Add  $\pm 0.005\%$  FS/°C for temperatures outside range

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### General Specifications

#### Environmental

Operating Temperature -10° to +50°C  
Storage Temperature -20° to +60°C

#### Power

Battery Four (4) AA Alkaline cells  
Battery Life >35 hours continuous typical usage

#### Physical

##### Dimensions

8.3" H x 3.9" W x 1.8"D  
21 cm H x 10 cm W x 4.6 cm D

##### Weight

1 lb., 4 oz. (0.57 kg)

#### Connectors/Ports

Pressure (1) 1/8" FNPT, BetaPort-P pressure module, std. banana jacks for mA and V.

#### Included Accessories

Soft case, batteries, manual, NIST traceable calibration certificate, test leads