

# Handheld Pressure Calibrators with Integral Pump

Integrated electric pump generates pressure to 300 psi and vacuum to –12 psi

The BetaGauge 330 pressure calibrator provides  $\pm 0.035\%$  full-scale accuracy on its internal isolated pressure sensor. Temperature compensation ensures accuracy in field applications. An external pressure module connection supports all 29 ranges of BetaPort-P pressure modules (sold separately on page 95) for even greater measurement capability. Also featured are a switch test using internal or external pressure input and percent (%) error and damping functions. Up to five frequently used setups can be stored and retrieved with one-button recall.

A Pt100 RTD input is provided for temperature measurements accurate to  $\pm 0.2^\circ\text{F}$  ( $0.1^\circ\text{C}$ ). In addition, the BetaGauge 330 measures and simulates 4 to 20 mA loop current signals and measures up to 30 VDC. Internal 24 VDC supplies power to a transmitter under test.

Calibrator displays up to three calibration values at one time from the choice of internal pressure sensor, external pressure sensor, temperature from the optional RTD probe, or electrical (mA or VDC).

- Available in three ranges: 30 psi, 150 psi, and 300 psi
- The 30 psi and 150 psi ranges use an integral electric pressure pump; the 300 psi range is available with an integral electric pump or manual-operated hand pump
- Power-saving design allows approximately 300 calibration cycles to 150 psi on one set of batteries or 100 cycles to 300 psi
- Large backlit LCD displays three calibration values at one time
- Pressure displayed in 15 user-selectable engineering units



68520-00

SPECIFICATIONS	
<b>Ranges</b>	
Current measurement	0 to 24 mA, max, load 1000 $\Omega$
RTD	Pt100, –58 to 302°F (–50 to 150°C)
Engineering units	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, mm H <sub>2</sub> O @ 4°C, mm H <sub>2</sub> O @ 20°C, mm Hg @ 0°C, in. H <sub>2</sub> O @ 4°C, in. H <sub>2</sub> O @ 20°C, in. H <sub>2</sub> O @ 60°C, in. Hg @ 0°C
Instrument power supply	24 VDC at 24 mA
<b>Accuracy</b>	
Pressure	$\pm 0.035\%$ full-scale on internal sensor, module dependent for external sensors. Add 0.002% full-scale/ $^\circ\text{C}$ outside of 15 to 35°C.
Current	$\pm 0.015\%$ of reading $\pm 2$ counts (simulation and measurement)
Voltage	$\pm 0.015\%$ of reading $\pm 2$ counts (measurement only)
Temperature	$\pm 0.2^\circ\text{F}$ ( $0.1^\circ\text{C}$ ) (measurement only) (Pt100 RTD)
<b>General</b>	
Operating conditions	14 to 122°F (–10 to 50°C)
Connections	$\frac{1}{8}$ " NPT(F) pressure, standard banana jacks for electrical, 4-pin LEMO for RTD, 6-pin LEMO for external module
Dimensions (W x H x D)	4" x 8" x 2 $\frac{3}{8}$ " (100 x 200 x 60 mm)
Power / battery life	Eight AA batteries / 100 pump cycles to 300 psi minimum, 1000 pump cycles to 30 psi

What's included: Test leads, dirt/moisture trap, carrying case, eight AA batteries, and NIST-traceable calibration report supplied by the manufacturer.

Catalog No.	Model No.	Description
TS-68520-00	330-30	Calibrator with electric pump, –12 to 30 psi (–0.8 to 2 bar)
TS-68520-01	330-150	Calibrator with electric pump, –12 to 150 psi (–0.8 to 10 bar)
TS-68520-16	330-300E	Calibrator with electric pump, –12 to 300 psi (–0.8 to 20 bar)
TS-68520-02	330-300	Calibrator with manual pump, –12 to 300 psi (–0.8 to 20 bar)
<b>Accessories</b>		
TS-68520-03	330-ASSYKIT	Assembly kit. Includes Pt100 RTD probe and BetaPort-P pressure module adapter.
TS-68447-77	910326-301	Pressure module, 0 to 1000 psig (70 bar)
TS-68447-80	910326-315	Pressure module, 0 to 1500 psig (100 bar)
TS-68447-78	910326-303	Pressure module, 0 to 3000 psig (200 bar)
TS-68447-79	910326-305	Pressure module, 0 to 5000 psig (333 bar)
TS-16113-64	910331-10K	Pressure module, 0 to 10,000 psig (700 bar)
TS-09386-01	—	Replacement batteries, AA. 4/pk
TS-17111-78	—	<b>NIST-traceable recalibration with data</b>