

BetaGauge 330

Fingertip Pressure Calibration with
Integral Electric Pressure Pump



**The new standard
of pressure
calibration**

BETAGAUGE 330 with
Integral Electric Pressure
Pump

The BetaGauge 330 is a revolution in pressure calibration technology for the process industries. With the 330, technicians have a small, lightweight calibrator that generates from high vacuum to 150 PSI using a high performance integral electric pump.

Gone is the drudgery of manual pumping or using large, heavy and unwieldy boxes with limited portability and poor battery life. The BetaGauge 330 has a form factor only slightly larger than Martel's popular BetaGauge 321 and weighs in at a mere 1.2kg. The housing is contoured to easily fit a technician's hand with good balance top to bottom. Performance doesn't stop with the pump. The BetaGauge 330 provides $\pm 0.025\%$ of full scale accuracy on its internal, isolated pressure sensor. Temperature compensation on its internal sensor ensures accuracy in field applications. An external pressure module connection supports all 29 ranges of BetaPort-P pressure modules for even greater measurement capability.

A Pt100 RTD input is provided for temperature measurements accurate to ± 0.1 °C. In addition, the BetaGauge 330 measures and simulates 4-20 mA loop current signals. It can measure up to 30 VDC. An internal 24 VDC Instrument Power Supply supplies power to a transmitter under test.

Like its calibrator siblings, the 330 displays up to 3 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). The display is a large back lit graphics style LCD that's easy to read in any lighting condition.

The new BetaGauge 330 Pressure Calibrator provides a number of convenience features. Switch test can be performed on internal or external pressure input. Percent (%) Error and damping functions are provided. Up to five frequently used setups can be stored and retrieved with one button recall.

The compact, rugged design operates on eight (8) standard AA Alkaline batteries. Due to the power saving designs incorporated in the BetaGauge 330, it can perform approximately 300 calibration cycles to 150 PSI on one set of batteries.

The 330 comes in 3 ranges of 30 PSI, 150 PSI and 300 PSI. The 300 PSI version uses a manually operated handpump.

Like all Martel calibrators, the BetaGauge 330 comes from the factory ready to go to work with batteries installed, traceable calibration certificate, test leads, connection hose, fittings, deluxe carrying case and user manual.

General Features

- Integrated battery operated pneumatic pump generates high vacuum (-12 PSI/-0.8Bar) to 150 PSI/10 Bar
- Accuracy of 0.025% of full scale on pressure measurement
- Compact rugged design operates on eight (8) AA Alkaline batteries
 - Only 20 cm x 10 cm x 6 cm
 - Lightweight at just 1.2 kg
- External pressure module interface supports all 29 BetaPort-P pressure modules using optional BPPA-100 module adapter
- Pt100 RTD input for temperature measurement, accurate to 0.1°C (measurement only)
- Source or measure 4-20 mA including 2 wire transmitter simulation
- 24 VDC instrument loop power supply
- Store and recall 5 user defined setups
- Large graphic LCD with backlight
- Ideal for gas custody transfer flow meter applications
- Pressure displayed in the user's choice of 16 engineering units
- Automatic switch test using internal or external sensors
- IP 56 rating
- Percent error function
- HART™ loop load resistor (user selectable)
- Can be supplied with a UKAS calibration certificate from our laboratory

BetaGauge 330

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SPECIFICATIONS

RANGES	
Available Pressure PSIG:	-12 to 30 PSI /-0.8 to 2 bar (electric pump) -12 to 150 PSI /-0.8 to 10 bar (electric pump) -12 to 300 PSI /-0.8 to 20 bar (manual pump)
mA	0 to 24 mA, max, load 1000 Ohms
RTD	Pt100, -50 to 150°C
Engineering Units	psi, bar, mbar, kPa, kgcm2, cmH2O@4°C, cmH2O@20°C, inH2O@4°C, inH2O@20°C, inH2O@60°F, mmHg@0°C, inHg@0°C, ftH2O@4°C, ftH2O@20°C, ftH2O@60°F, mmH2O@20°C
Instrument Power Supply	24 VDC at 24 mA
ACCURACY	
Pressure	±0.025% of full scale on internal sensor. Module dependent for external sensors Add 0.002% FS/°C outside of 15 to 35°C
mA	±0.015% of reading ± 2 counts (simulation and measurement)
Volts	±0.015% of reading ± 2 counts (measurement only)
Temperature	±0.1°C (measurement only) (Pt100 RTD)
GENERAL	
	Integrated internal electrically operated pneumatic pump: generates -12 PSI to 150 PSI pressure (-0.8 to 10 Bar, -80 to 1000 kPa) Manual pump version -12 to 300 PSI / -0.8 to 20 Bar / -80 to 2000kPa
ENVIRONMENTAL	
Operating Temperature	-10 °C to +50 °C
Storage Temperature	-20 °C to +60 °C
Power Requirements	
Battery Eight	Eight (8) standard Alkaline AA batteries
Battery Life	300 pump cycles to 150 PSI minimum 1000 pump cycles to 30 PSI
PHYSICAL	
Dimensions	20 cm H x 10 cm W x 6 cm D
Weight	1.2 kg
CONNECTIONS	
Pressure:	1/8" female NPT - Stainless Steel
Electrical:	standard banana jacks
RTD:	4 pin LEMO style
External module:	6 pin LEMO style

Included Accessories - traceable calibration certificate, batteries installed, test leads, test hose, fittings, user guide, carrying case.

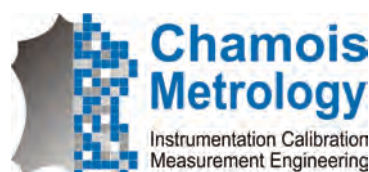
Ordering information

ORDER NO.	Description and Range
BG330-30	BetaGauge 330, 30 psi, integral electric pump calibrator
BG330-150	BetaGauge 330, 150 psi, integral electric pump calibrator
BG330-300	BetaGauge 330, 300 psi, integral manual pump calibrator
BG330-30-1500	BetaGauge 330, 30 psi, custody transfer kit, includes 1500 psi BetaPort-P pressure module
BG330-150-3000	BetaGauge 330, 150 psi, custody transfer kit, includes 3000 psi BetaPort-P pressure module
BG330-300-30/OPTION	BetaGauge 330, custody transfer kit, order pressure module separately



0822

All instruments can be supplied with a UKAS accredited calibration certificate from our laboratory.



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