

<p>BetaGauge 330 with Integral Electric Pump</p>  <p>This pressure calibrator is small, lightweight and generates 300 PSI using a high performance integrated electric pump. In addition, the 330 measures and simulates 4-20mA loop current signals. No more manual pumping, just push a button to generate both vacuum and pressure.</p>	<p>BetaGauge 311A/321A Pressure Calibrator</p>  <p>Whichever you choose, the single sensor 311A, or the dual sensor 321A, you'll have everything you need to calibrate pressure. Pick from 27 available pressure ranges. Measure 4-20mA and up to 30VDC. Large graphic display can be setup to display up to 3 inputs simultaneously.</p>	<p>BetaGauge 311A-EX/321A-EX Intrinsically Safe Calibrator</p>  <p>ATEX and CSA approved for Class 1, Division II applications. Temperature compensation ensures accuracy in the field. There is a Pt100 RTD for input for temperature, accurate to 0.1°C (0.2°F). Ideal for gas flow calibration (custody transfer) applications.</p>	<p>BetaGauge 301 Single Sensor Pressure Calibrator</p>  <p>This single sensor pressure calibrator offers great value and performance at $\pm 0.05\%$ FS accuracy. Add the optional BPPA-100 adapter and BetaPort-P pressure modules to expand measurement capability. Readings can be displayed in a number of engineering units including a user defined option.</p>
<p>Reference Class PIR-PRO Calibration Test Gauge</p>  <p>Accuracy of $\pm 0.04\%$ reading $\pm 0.01\%$ FS and temperature compensation makes this gauge an ideal choice for calibration. A protective rubber boot and ATEX approval come standard.</p>	<p>BetaGauge PI-PRO Digital Pressure Gauge</p>  <p>The PI-PRO provides $\pm 0.05\%$ FS accuracy in any one of eighteen (18) pressure ranges. Add the BetaLOG-PI software and you have a high performance data logger.</p>	<p>DPC-300A Precision Pneumatic Calibration System</p>  <p>The DPC-300 can regulate plant air up to 100 PSI or generate pressure up to 300 PSI with the internal electric pump. The rugged IP67 case and rechargeable NiMH battery make it ideal for field use.</p>	<p>T-140 Pressure Manometer</p>  <p>Operation of this manometer is made easy through the use of a sealed membrane keypad with simple controls. It's available in several ranges from 10" H2O to 3000 PSI.</p>
<p>BetaPort-P Digital Pressure Modules</p>  <p>BetaPort-P pressure modules are offered in 25 different ranges, covering gauge, vacuum, absolute, compound and differential measurements.</p>	<p>MECP100 Pneumatic Hand Pump, -12 to 100 PSI</p>  <p>This pocket sized pneumatic pump can generate vacuum and pressure well above 100 PSI. The precise vernier control makes it ideal for low pressure calibration. It's available in kit form in a rugged hard sided case.</p>	<p>MECP500 Pneumatic Hand Pump, -12 to 600 PSI</p>  <p>With improved volume per stroke and field serviceable check valves this is the go to pneumatic pump. The MECP500 is available in kit form with hard case, tubing and fittings.</p>	<p>MECP10K Hydraulic Pump, 0 to 10,000 PSI</p>  <p>This hand pump provides a hand held hydraulic pressure source from 0-10,000 PSI. A wide variety of pressure media may be used. Add a gauge for a complete testing solution. In kit form it comes in a rugged carrying case.</p>

Application Note - Calibrating Pressure Switches

A pressure switch uses a diaphragm, piston, or other pressure responsive sensor to open or close an electrical contact when a certain limit has been reached. They can be monitoring pressure, vacuum, or differential between two given points and actuate on pressure increase or decrease.

Pressure switches are used on all sorts of processes across numerous industries for safety, monitoring and control applications. Here are just a few examples: Food & Beverage to control incoming water pressure, Medical for monitoring oxygen for before mixing, HVAC to control gas pressure in a water heater, and Chemical for detecting pressure drop across a filter. Periodic calibration of the pressure switch is essential to ensure product or process quality and safety.

Martel Electronics offers a variety of calibrators and pumps that detect the switch open, close, and indicate deadband. The BetaGauge 330 Series and the DPC-300A both feature internal electric pumps and dedicated procedures that walk you through the process step by step. The results are captured right on the screen, and there is no need to carry an additional pressure source.



Calibration Technology Starts Here!

3001 Precision Lab Standard Multifunction Calibrator with Isolated Measurement Channel



- 0.003% Reading Accuracy
- Source & Read TC's, RTD, Voltage, Current, and Pressure
- Custom RTD and SPRT profiles
- RS-232, USB & IEEE-488 remote control
- Compatible with Fluke Met/Cal® Software
- Isolated Measurement Channel

M2000A Lab Voltage and Current Bench Calibrator



- 0.003% Reading Accuracy
- Direct keyboard entry or cursor entry with decade control
- Nine (9) manual/automatic setpoints per output range
- Automatic standby function protects device under test
- IEEE-488 (GPIB) port included
- Compatible with Fluke Met/Cal® software

Bench

DMC-1410 Documenting Multifunction Calibrator



The DMC-1410 provides access to a complete range of calibration functions while performing automated on-the-fly calibration data collection. Easy-to-use software is included with the calibrator.

MC-1210 Multifunction Calibrator



This all in one calibrator includes a dual display with isolated readback channel which allows the user to power a transmitter under test while reading the milliamp out. 50 mA and panel mount options are available.

MC-1010 Multifunction Calibrator



The MC-1010 provides a high level of functions and features at an easy to swallow price for the less demanding user who does not require an isolated readback channel. Easily add pressure capability with a BPPA-100 adapter.

PSC-4010 Process Calibrator



The PSC-4010 is a superior loop calibrator with voltage, current, and frequency functions. Programmable step and ramp functions let the end user quickly troubleshoot their application. All "10 Series" calibrators feature a high contrast ClearBrite™ display.

Signal

PTC-8010 RTD & Thermocouple Calibrator



The PTC-8010 is the clear choice for those users that need a high accuracy portable temperature calibrator for RTD's and TC's. An RS-232 serial interface can be setup for remote control making it ideal for lab applications.

TC-100 Thermocouple Calibrator



The TC-100 calibrator provides high accuracy source and measurement of ten thermocouples, as well as mV. It accepts both mini-plug and TC bare wires.

BetaProbe TI & TI + Precision Reference Thermometer



A single BetaProbe TI high precision thermometer can replace many liquid-in-glass (L-I-G) thermometers. It can also serve as a reference standard for other types of digital or analog temperature indicators. The internal probe rotates 90° for any angle reading of the display.

- High accuracy $\pm 0.06^{\circ}\text{C}$ (0.1°F)
- Selectable resolution 0.1° , 0.01° , 0.001°
- Intrinsically Safe Certification
- Data logging with optional BetaLOG™ TI software
- -50°C to 160°C (-58°F to 320°F) BetaProbe TI
- -50°C to 300°C (-58°F to 572°F) BetaProbe TI+

Temperature

LC-110H Precision Loop Calibrator with HART



The LC-110H is the first loop calibrator to offer HART communication capability for several universal and common practice commands. It also has the capability to data log and export configurations.

IVC-222HP11 Voltage Current Calibrator



The IVC-222HP11 features 0.015% of reading accuracy and intuitive, easy-to-use controls. The four output ranges: 200 mV, 2V, 20V, and 24mA.

MS-420 Loop Calibrator



This multi-purpose loop tool offers high accuracy in an ultra-small, rugged package. A single pushbutton selects 4,8,12,16, or 20mA with a drive capability up to 300 Ohms.

LC-110 Precision Loop Calibrator



The LC-110 loop calibrator features 0.01% reading accuracy a user friendly interface with adjustable span selection (0 to 20mA or 4 to 20mA).

Electrical

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IT'S NOT ROCKET SCIENCE – OR IS IT?

Although most calibration jobs aren't rocket science, some of the instrument calibration challenges faced by engineers and technicians are tricky. Martel can help with your problem. We offer combined application experience of 90+ years in the business. Our staff has handled applications in virtually all industries and types of applications for pressure, electrical and temperature measurement and control. Further, it's easy and free to get help. An email to sales@martelcorp.com or a call to 800.821.0023 (603.434.1433 outside the US or Canada) is all it takes. Your question will be promptly referred to one of our experienced staff. We won't just try to sell you, but will honestly answer your questions and tell you if we aren't able to offer a solution. In fact, if we know who can offer a solution, we'll tell you that, too.

