

HPC40 Series

Handheld Pressure Calibrator



Advanced Simplicity

APM and Temperature Connection

Connect to an external APM module to expand the pressure options, plus a high accuracy RTD to read temperature.

"Wireless" Keypad

All input and output connectors are placed away from the display and keypad to give maximum freedom to operate.

Mini-USB Port

Customize the set-up through free CrystalControl software.

Function Buttons

The function of each button is clearly explained in the bottom of the display.

Color Display

The new large full-color display combined with the advanced simplicity of the new user interface, makes the HPC40 Series the easiest-to-use pressure calibrator available.

Cursor Keys

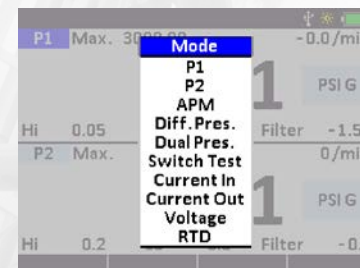
Cursor keys help you to navigate through the display to perform set up functions and fine tune values.

CPF Pressure Connections

Includes patented, leak-free, finger-tight CPF connection fittings.

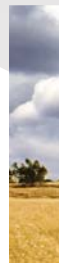
Unique "Non-Menu" User Interface

Easy to use single layer user interface. No deep menu structure! Operate and set up the HPC40 Series to perform your tasks quickly and intuitively.



Pressure Your Way

With multiple pressure options the HPC40 Series fits into any pressure calibration job.



Crystal
pressure



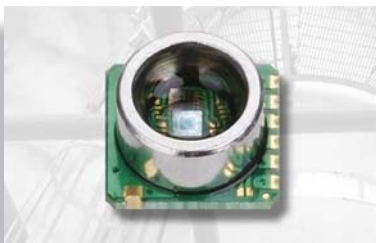
Sensors

Choose between a single sensor or a wide range dual sensor version.



Pressure Ranges

Choose your pressure range from vacuum to 15 000 psi/1000 bar. Order any combination of pressure ranges without limitations. Because the accuracy is 0.035% of reading, one HPC40 Series can typically replace several gauges or calibrators.



Absolute Pressure

Add the BARO option to toggle between gauge and absolute pressure on all ranges.



APM Pressure Module

Add an external APM CPF Series pressure module to read up to three pressures using a single device.

Differential Pressure

Read differential pressure between any of the three available sensors (including the external APM CPF Series module). A special tare feature allows you to normalize both readings at elevated static pressures, resulting in a more accurate differential pressure.

Memory1			
Diff. Pres.	P2	-	P1 Tar
382.0			inH ₂ O 4°C
P2	1508.5 PSI		
Dual Pres.			
P1	1494.4		PSI
P2	1508.5		PSI

More Than Pressure



Thermometer

Use HPC40 Series as a high accuracy thermometer. Works with RTD's and CvD equations, to obtain true temperature, based on "true ohm" technology!

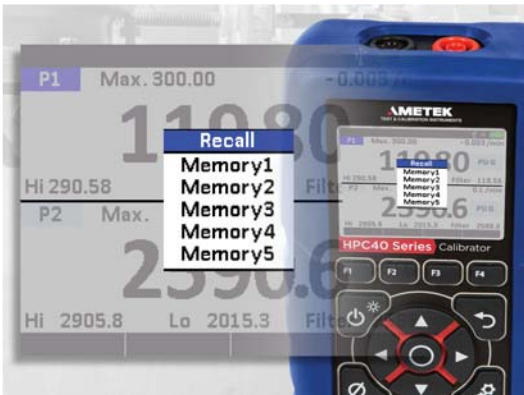
Current, Voltage, Switch Test

Full 0 to 24 mA loop calibrator. Measure and source (including step & ramp) with external loop power or internal 24 VDC loop power supply. On top of that it also measures 0 to 55 mA. Use the high speed switch mode screen to detect switch open and closures.



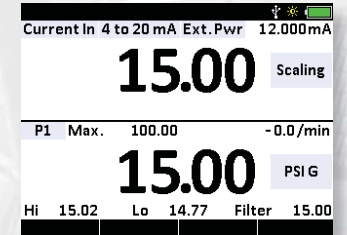
Intelligent Memory Slots

The HPC40 Series can store up to 5 screens (both upper and lower windows). The next time you need to perform your test, simply recall the previous stored settings and the HPC40 Series is ready to use.

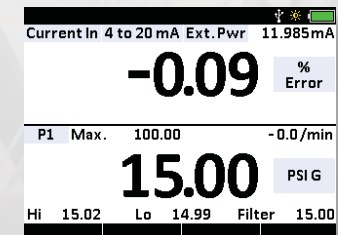


More Useful Features

Scaling: When testing a transmitter, it can be beneficial to view the input in units other than mA. For example, if measuring a 4-20 signal on a 0 to 30 psi transmitter, the upper display will show 12 mA when 15 psi is applied. The HPC40 Series will perform this calculation for you, displaying the



mA value as psi. **% Error Calculation:** The HPC40 Series can calculate pressure vs. mA error as a percentage of the 4-20 mA loop span. For example, if you are testing a 30 psi full scale pressure transmitter with a corresponding 4-20 mA signal, you can program

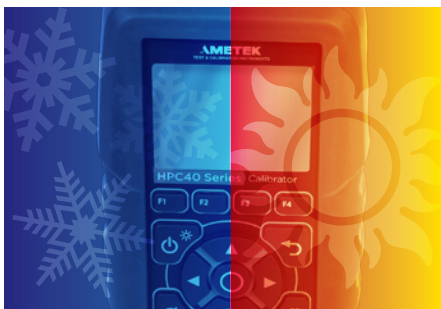


into the calibrator a 0 to 30 psi pressure span, and it will calculate and display the percent error in addition to the mA reading. This eliminates the need to manually calculate the error percentage. **Dampening:** If testing a pulsating pressure signal, use the dampening feature to smooth out the measurements, making them easier to read. **Min/Max:** With an update rate of 10 readings per second, the HPC40 Series is perfect for pressure safety valve testing.

Leak Rate: The HPC40 Series offers continuous measurement of rate/stability.

Lab Accuracy in the Field

Active Temperature Compensation



The HPC40 Series is the world's first combined pressure and mA loop calibrator to be fully temperature compensated from -20 to 50° C. You can count on the same accuracy whether measuring pressure, current, voltage, or temperature.

Calibrate with Confidence Anywhere



Take measurements with up to 0.035% of reading accuracy. Every HPC40 Series includes an ISO 17025 calibration report - NIST traceable, A2LA accredited (#2601.01), internationally recognized by ILAC - with test data at 5 temperatures, proving our calibrators meet specifications throughout their full temperature range. Other manufacturers charge extra for a report with data only at room temperature.

Fittings for Life™



CPF Crystal Pressure Fittings♦ are machined in high-strength 316 Stainless Steel to operate at 10 000 psi/700 bar. Removable CPF adapters shift everyday thread wear away from the HPC40 Series' ports, while a self-venting weep hole alerts you before you disconnect from a pressurized system.

♦ U.S. Patent No. 8,794,677

Pump Systems

Combine the HPC40 Series with any of our ready to use AMETEK pump systems, to provide a complete calibration kit. Our line of pressure generation products includes everything from small pneumatic hand pumps to a precision, hydraulic pressure comparator capable of generating up to 15 000 psi/1000 bar.



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For detailed specifications
go to the Data Sheet at crystalengineering.net/HPC40

Crystal
pressure

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