Crystal pressure

HPC50 Series
Intrinsically Safe
Handheld Pressure Calibrator

AMETEK
SENSORS, TEST & CALIBRATION

Memory1
P1   Max. 300.00   - 0.003 /min
119.80 PSI G
Hi 290.58   Lo -1.96   Filter 118.56
P2   Max. 3000.0   0.1 /min
2590.6 PSI G
Hi 2905.8   Lo 2015.3   Filter 2588.3

HPC50 Series Calibrator
Intrinsically Safe

F1   F2   F3   F4

zero

Crystal pressure

10 bar   100 bar
▼ P1   P2 ▼
7/16-20 MP

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Advanced Simplicity

APMi and ATMi Module Connections
Connect 1 or 2 external modules to expand measurement options. The APMi module for pressure, and the ATMi module for 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 on the bottom of the display.

Protective Boot
Required for Intrinsic Safety.

Color Display
The large, full-color, sunproof display combined with the advanced simplicity of the user interface, makes the HPC50 Series the easiest-to-use pressure calibrator available.
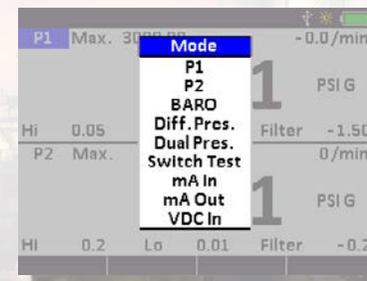
Cursor Keys
Cursor keys help you to navigate through the display to perform set up functions and fine tune values.

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 HPC50 Series to perform your tasks quickly and intuitively.

Pressure Your Way

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With multiple pressure options the HPC50 Series fits into any pressure calibration job.

Sensors

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

Pressure Ranges

Choose your pressure range from vacuum to 10 000 psi/700 bar. Order any combination of pressure ranges without limitations. Because the accuracy is 0.035% of reading, one HPC50 Series can typically replace several gauges or calibrators.

Absolute Pressure

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

External Pressure and Temperature Modules

Any combination of external pressure and temperature modules can be added to the HPC50. For example, add two temperature modules to read ambient and media temperature along with pressure through the internal pressure ports.

Differential Pressure

Read differential pressure between any of the four available sensors (including the external APMi modules). 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	Tare
	382.0	inH₂O 4°C	
P2	1508.5 PSI		
Dual Pres.			
P1	**1494.4**	PSI	
P2	**1508.5**	PSI	

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More Than Pressure

Thermometer

Use HPC50 Series as a high accuracy thermometer. Works with RTD´s and CvD equations, to obtain true temperature, based on "true ohm" technology! IS approved temperature probes are available to combine with the ATMi modules. A full system calibration with the HPC50, ATMi, and probe are also available.
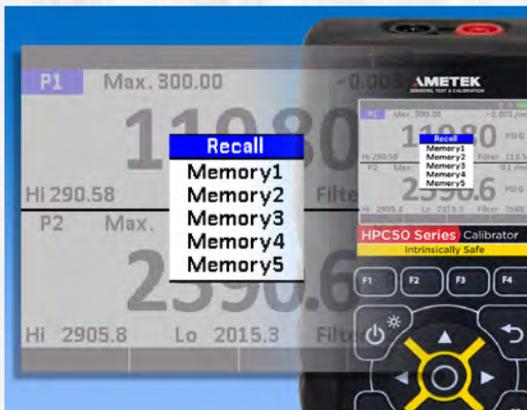
Current, Voltage, Switch Test

Full 0 to 24 mA loop calibrator. Measure and sink (including step & ramp) with external loop power. On top of that, it also measures 0 to 55 mA. Use the high speed switch mode screen to detect switch open and closures.
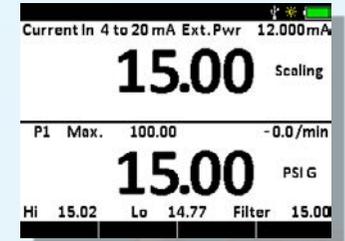
Intelligent Memory Slots

The HPC50 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 HPC50 Series is ready to use.
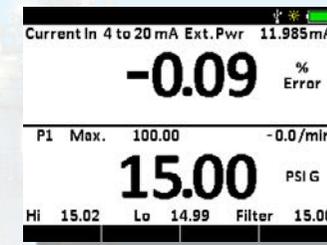
More Useful Features

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 HPC50 Series will perform this calculation for you, displaying the mA value as psi. You can also scale mA to flow % when measuring differential flow transmitters. **% Error Calculation:** The HPC50 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. **Damping:** If testing a pulsating pressure signal, use the filter feature to smooth out the measurements, making them easier to read. **Min/Max:** With an update rate of 10 readings per second, the HPC50 Series is perfect for pressure safety valve testing. **Leak Rate:** The HPC50 Series offers continuous measurement of rate/stability.

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Lab Accuracy in the Field

Active Temperature Compensation

With the HPC50 Series, all parameters are fully temperature compensated from -20 to 50C. 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 HPC50 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 HPC50 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 HPC50 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.

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II 1G IEx ia IIC T4/T3 Ga
FTZU 18 ATEX 0043X

Ex ia IIC T4/T3 Ga
IECEx FTZU 18.0012X

Exia Intrinsically Safe and Non-Incendive for Hazardous Locations: Class I, Division 1, Groups A, B, C, and D; Temperature Code T4/T3. Class I, Zone 0, AEx ia IIC T4/T3 Ga.

CE HPC50 Series complies with the Electromagnetic Compatibility and the Pressure Equipment Directives.

HPC50 Series complies with the Australian Radiocommunications (Electromagnetic Compatibility) Standard 2008.

DNV·GL This HPC50 is approved for use as a portable test instrument for Marine use and complies with DNV GL Rules for Classification of Ships, High Speed & Light Craft, and Offshore Units.

For detailed specifications
go to the Data Sheet at ametekcalibration.com

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6485.C 2101   *ISO 17025 accredited calibration lab, (A2LA #2601.01).   **DIN EN ISO / IEC 17025 accredited calibration lab.   ***DANAK EN ISO/IEC 17025 accredited calibration lab.

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