

HPC40 Series Replaces HPC-500/502

In November 2014, AMETEK Test & Calibration Instruments introduced the latest in a proud line of accurate, rugged, reliable, easy to use products from Crystal Engineering. The HPC40 Series Pressure Calibrator combines high accuracy pressure readings with the intuitive user interface and bright color display found in the ASC-400. Its unique “menu-free,” single-window interface greatly simplifies operating, allowing all functions to be controlled or set from the main menu screen.

What’s the Difference

	HPC40 Series	HPC-500/502
Maximum Pressure Range	15 000 psi/1000 bar	10 000 psi/700 bar
Accuracy 1 Year	18 to 28° C ± 0.01% FS (0 to 30% of range) ± 0.035% of rdg (30 to 110% of range) -20 to 50° C ± 0.015% FS (0 to 30% of range) ± 0.050% of rdg (30 to 110% of range)	18 to 28° C ± (0.025% of rdg + (0.01% or 0.015% F.S.)) 0 to 50° C ± (0.04% of rdg + (0.01% or 0.015% F.S.))
Number of Internal Pressure Sensors	1 or 2 (3 with BARO)	1 or 2
Internal Barometer	Yes (optional)	Abs. Sensor
Selectable Gauge/Abs.	Yes (with barometer)	Yes (with Abs. and Gauge Sensor)
mA Pressure Range	55 mA	24 mA
mA Source Range	25 mA	No
mA and V Temperature Compensation	-20 to 50° C	18 to 28° C
mA Accuracy	± 0.015% of rdg + 0.002 mA	± 0.015% of rdg + 0.002 mA
V Accuracy	± 0.015% of rdg + 2 mV	± 0.015% of rdg + 2 mV
Scaling	Yes	No
Leak Test	Yes (on-line leak rate)	Yes (with timer)
Communication Port	USB-mini	RS232 (not with external module)
Display Backlight	Yes (color TFT display)	Yes
Differential Pressure	Yes (special high accuracy/more resolution mode)	Yes (simple subtraction)
Switch Test, Dampening, % Error Calculation	Yes	Yes
Setup and Recall	Yes	Yes
External Pressure Module	Yes	Yes
Temperature Measurement	Yes, RTD	Yes, RTD



HPC40 Series vs. the Competition

► HPC40 Series Advantages over the Competitors

- Superior user interface
- Bright color display
- Higher maximum pressure range
- Selectable between Gauge and Absolute pressure
- 55 mA Range
- Source mA
- Temperature Compensated mA accuracy
- Scaling and Leak Testing

What's the Difference



	HPC40 Series	Fluke 721	Druck DPI 610	Beta 321A
Maximum Pressure Range	15 000 psi/1000 bar	5000 psi/350 bar	6000 psi/400 bar	10 000 psi/700 bar
Accuracy 1 Year	18 to 28° C ± 0.01% FS (0 to 30% of range) ± 0.035% of rdg (30 to 110% of range) -20 to 50° C ± 0.015% FS (0 to 30% of range) ± 0.050% of rdg (30 to 110% of range)	15 to 35° C ± 0.025% FS -10 to 50° C ± 0.002% FS/° C	20° C Only ± 0.025% FS + stability -10 to 40° C ± 0.004% of rdg /° C	15 to 35° C ± 0.025% or 0.035% FS -10 to 50° C ± 0.002% FS/° C
Number of Internal Pressure Sensors	1 or 2 (3 with BARO)	2	1	1 or 2
Internal Barometer	Yes (optional)	No	Abs. Sensor	Abs. Sensor
Selectable Gauge/Abs.	Yes (with barometer)	No	No	No
mA Pressure Range	55 mA	24 mA	55 mA	24 mA
mA Source Range	25 mA	No	24 mA	No
mA and V Temperature Compensation	-20 to 50° C	15 to 35° C	20° C only	15 to 35° C
mA Accuracy	± 0.015% of rdg + 0.002 mA	± 0.015% of rdg + 0.002 mA	± 0.05% of rdg + 0.004 FS	± 0.015% of rdg + 0.002 mA
V Accuracy	± 0.015% of rdg + 2 mV	± 0.015% of rdg + 2 mV	± 0.05% of rdg + 0.004% FS	± 0.015% of rdg + 2 mV
Scaling	Yes	No	No	No
Leak Test	Yes (on-line leak rate)	No	No	No
Communication Port	USB-mini	RS232 (not with external module)	RS232	RS232 (not with external module)
Differential Pressure	Yes (special high accuracy/ more resolution mode)	With external module only	With external module only	With external module only
Temperature Measurement	Yes, RTD	Yes, RTD	No	Yes, RTD