AMETEK®
TEST & CALIBRATION INSTRUMENTS

Pressure Calibrator Overview psi

Advantages

- Easy to Use
- Rugged Field Use Design
- Temperature Compensated
- 1-3 Year Recommended Calibration Intervals
- Record and Store Tests
- Free Calibration & Configuration Software
- Innovative Patented Technology
- ISO17025 Accredited Calibration Certificates
- Intrinsically Safe

Handheld Pressure Calibrators

Pressure Range	Pressure Accuracy	Vacuum Accuracy	Operating Temp. Range	IP Rating	Pressure Sensors	Pressure Connection	Datalogging	Differential Pressure	Absolute Pressure	Read Temperature	Read Electrical	24 VDC Power Supply	Switch Test	External Pressure Module	Intrinsically Safe	Model
Vacuum to 15 000 psi	± 0.035% Rdg	± 0.05% FS	-20 to 50° C	IP65	1 or 2	CPF Female		✓	✓	✓	✓	✓	✓	✓		HPC40 Series
Vacuum to 15 000 psi	± 0.1% Rdg	± 0.25% FS	-10 to 50° C	IP67	1	CPF Female	✓		✓						✓	XP2i
Vacuum to 15 000 psi	± 0.025% Rdg	± 0.06% FS	-20 to 50° C	IP67	1 or 2	CPF Female	✓	✓	✓	✓	✓		✓		✓	nVision
Vacuum to 10 000 psi	± 0.035% Rdg	± 0.05% FS	-20 to 50° C	IP65	1 or 2	CPF Female		✓	✓	✓	✓		✓	✓	✓	HPC50 Series
Vacuum to 10 000 psi	± 0.2% Rdg	± 0.25% FS	-10 to 50° C	IP65	1	CPF Female										m1
Vacuum to 5000 psi	± 0.05% Rdg + 0.005% FS	± 0.25% Rdg	0 to 50° C	—	1 or 2	1/8" NPT Female					✓				✓	30 Series
Vacuum to 3000 psi	± 0.25% Rdg	± 0.5% FS	-10 to 50° C	IP65	1	CPF Female										m1M
Vacuum to 100 psi	± 0.1% Rdg	± 0.1% Rdg	-10 to 50° C	IP67	1	1/8" NPT Female	✓	✓							✓	XP2i-DP

From 18 to 28° C. Typical. Plus either 0.004 or 0.01 psi. 1/4" NPT M, 1/4" BSP M, or M20 M adapter included. 1/4" NPT M and 1/4" BSP M adapters included.

Deadweight Testers

Pressure Range	Standard Pressure Accuracy	Optional Pressure Accuracy (Rdg)	Maximum Pressure	Minimum Pressure	Minimum Increment	Pressure Connection*	Dual Piston Available	Dual Column Available	Tripod Compatibility	Sm. Incremental Weight Sets	Hydraulic	Pneumatic	Self Contained	Self Regulating Ball Type	Included Carrying Case	Model*
10 psi to 15 000 psi	± 0.015% Rdg	± 0.025%, ± 0.1%	15 000 psi	10 psi	5 psi	1/4" and 1/2" NPT F	✓	✓		✓	✓		✓		✓	Type T Series
10 psi to 3000 psi	± 0.1% Rdg	± 0.05%	3000 psi	10 psi	0.1 psi	1/4" NPT F	✓		✓		✓		✓		✓	HL Series
10 psi to 1500 psi	± 0.025% Rdg	—	1500 psi	10 psi	1 psi	7/16-20 37° AN4 M						✓		✓		HK Series
4 inH_2O to 301 psi	± 0.05% Rdg	± 0.025%, ± 0.015%	301 psi	4 inH_2O	1 inH_2O	1/8" NPT F			✓	✓		✓		✓	✓	RK Series
4 inH_2O to 30 psi	± 0.05% Rdg	± 0.025%, ± 0.015%	30 psi	4 inH_2O	1 inH_2O	1/4" NPT F			✓	✓		✓		✓	✓	PKII Series

Specifications (See the Data Sheets for complete specifications.) | Functions

With installed adapter to 1/4 tube fitting. Not included with dual column or 0.015% accuracy. These units are supplied with bench top column mounting plate and tubing.

* CPF connections are available for all deadweight tester models.

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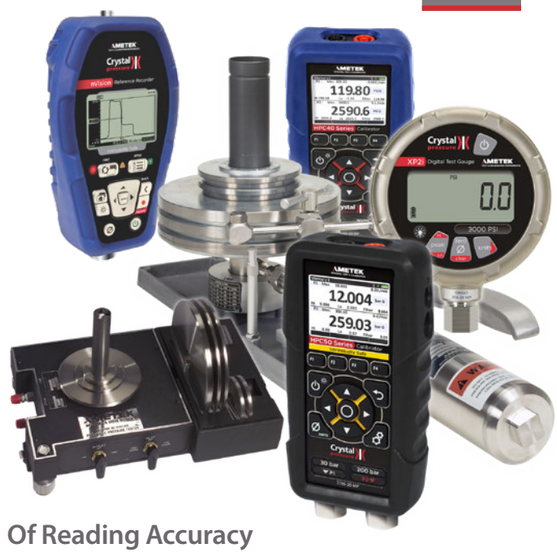

Of Reading Accuracy

Our gauge accuracy is defined as "percent of reading". For example, a gauge with 0.1 percent of reading accuracy that displays 100 psi would be accurate to ± 0.1 psi at that pressure. At 50 psi, the same gauge would have an accuracy of ± 0.05 psi (twice as accurate). This versatility is why one of our gauges can replace 3 to 5 standard "of scale" rated gauges.

Temperature Compensation

Our active temperature compensation corrects sensors for changes in temperature within our specified ranges (up to -20 to 50°C). Without temperature compensation, the additional errors can quickly overwhelm the basic specification at common working temperatures.

Floating Ball Testers

While in operation, our pneumatic tester's ball and weights float freely, which is virtually frictionless, supported only by a thin film of air. This eliminates the necessity to rotate the weights during testing and allows the user to concentrate on the instrument calibration.

Self-Regulating Design

The instrument's built-in flow regulator automatically adjusts the input air flow to maintain the ball and weights in a float position. The regulator also compensates for variations in pressure from the air supply. Simply add or remove weights to generate your target pressure.

Leak-free Seal up to 10 000 psi

Our patented CPF fitting design maintains a leak-free seal up to 10 000 psi, with only finger-tightening. Improve safety with a self-venting weep hole, which alerts you, by leaking gas or test fluid, before you fully disconnect from a pressurized system. Each of our products either includes CPF fittings as standard, or can be adapted to our CPF line.

AMETEK®
TEST & CALIBRATION INSTRUMENTS

Pressure Calibrator Overview bar

Advantages

- Easy to Use
- Rugged Field Use Design
- Temperature Compensated
- 1-3 Year Recommended Calibration Intervals
- Record and Store Tests
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- ISO17025 Accredited Calibration Certificates
- Intrinsically Safe

Handheld Pressure Calibrators

Pressure Range	Pressure Accuracy	Vacuum Accuracy	Operating Temp. Range	IP Rating	Pressure Sensors	Pressure Connection	Datalogging	Differential Pressure	Absolute Pressure	Read Temperature	Read Electrical	24 VDC Power Supply	Switch Test	External Pressure Module	Intrinsically Safe	Model
Vacuum to 1000 bar	± 0.035% Rdg	± 0.05% FS	-20 to 50° C	IP65	1 or 2	CPF Female		✓	✓	✓	✓	✓	✓	✓		HPC40 Series
Vacuum to 1000 bar	± 0.1% Rdg	± 0.25% FS	-10 to 50° C	IP67	1	CPF Female	✓		✓						✓	XP2i
Vacuum to 1000 bar	± 0.025% Rdg	± 0.06% FS	-20 to 50° C	IP67	1 or 2	CPF Female	✓	✓	✓	✓	✓		✓		✓	nVision
Vacuum to 700 bar	± 0.035% Rdg	± 0.05% FS	-20 to 50° C	IP65	1 or 2	CPF Female		✓	✓	✓	✓		✓	✓	✓	HPC50 Series
Vacuum to 700 bar	± 0.2% Rdg	± 0.25% FS	-10 to 50° C	IP65	1	CPF Female										m1
Vacuum to 300 bar	± 0.05% Rdg + 0.005% FS	± 0.25% Rdg	0 to 50° C	—	1 or 2	1/8" NPT Female					✓				✓	30 Series
Vacuum to 200 bar	± 0.25% Rdg	± 0.5% FS	-10 to 50° C	IP65	1	CPF Female										m1M
Vacuum to 7 bar	± 0.1% Rdg	± 0.1% Rdg	-10 to 50° C	IP67	1	1/8" NPT Female	✓	✓							✓	XP2i-DP

From 18 to 28° C. Typical. Plus either 0.0003 or 0.001 bar. 1/4" NPT M, 1/4" BSP M, or M20 M adapter included. 1/4" NPT M and 1/4" BSP M adapters included.

Deadweight Testers

Pressure Range	Standard Pressure Accuracy	Optional Pressure Accuracy (Rdg)	Maximum Pressure	Minimum Pressure	Minimum Increment	Pressure Connection*	Dual Piston Available	Dual Column Available	Tripod Compatibility	Sm. Incremental Weight Sets	Hydraulic	Pneumatic	Self Contained	Self Regulating Ball Type	Included Carrying Case	Model*
1 bar to 1000 bar	± 0.015% Rdg	± 0.025%, ± 0.1%	15000 psi	10 psi	5 psi	1/4" and 1/2" NPT F	✓	✓		✓	✓		✓		✓	Type T Series
1 bar to 225 bar	± 0.1% Rdg	± 0.05%	3000 psi	10 psi	0.1 psi	1/4" NPT F	✓		✓		✓		✓		✓	HL Series
0.5 bar to 100 bar	± 0.025% Rdg	—	1500 psi	10 psi	1 psi	7/16-20 37° AN4 M						✓		✓		HK Series
10 mbar to 20 bar	± 0.05% Rdg	± 0.025%, ± 0.015%	301 psi	4 inH_2O	1 inH_2O	1/8" NPT F			✓	✓		✓		✓	✓	RK Series
10 mbar to 2 bar	± 0.05% Rdg	± 0.025%, ± 0.015%	30 psi	4 inH_2O	1 inH_2O	1/4" NPT F			✓	✓		✓		✓	✓	PKII Series

Specifications (See the Data Sheets for complete specifications.) **Functions**

With installed adapter to 1/4 tube fitting. Not included with dual column or 0.015% accuracy. These units are supplied with bench top column mounting plate and tubing.

* CPF connections are available for all deadweight tester models.

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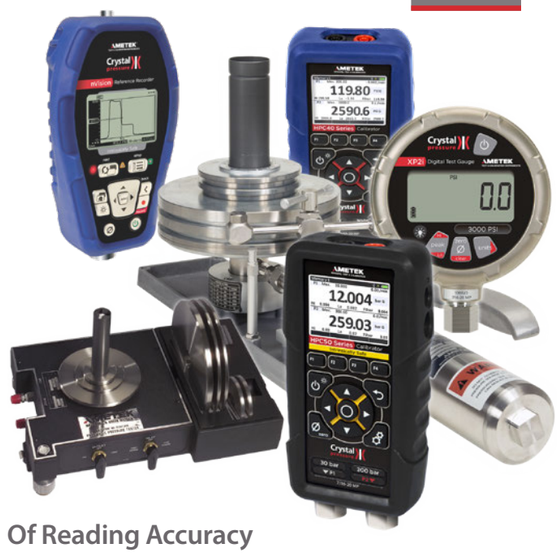

Of Reading Accuracy

Our gauge accuracy is defined as "percent of reading". For example, a gauge with 0.1 percent of reading accuracy that displays 100 bar would be accurate to ± 0.1 bar at that pressure. At 50 bar, the same gauge would have an accuracy of ± 0.05 bar (twice as accurate). This versatility is why one of our gauges can replace 3 to 5 standard "of scale" rated gauges.

Temperature Compensation

Our active temperature compensation corrects sensors for changes in temperature within our specified ranges (up to -20 to 50°C). Without temperature compensation, the additional errors can quickly overwhelm the basic specification at common working temperatures.

Floating Ball Testers

While in operation, our pneumatic tester's ball and weights float freely, which is virtually frictionless, supported only by a thin film of air. This eliminates the necessity to rotate the weights during testing and allows the user to concentrate on the instrument calibration.

Self-Regulating Design

The instrument's built-in flow regulator automatically adjusts the input air flow to maintain the ball and weights in a float position. The regulator also compensates for variations in pressure from the air supply. Simply add or remove weights to generate your target pressure.

Leak-free Seal up to 700 bar

Our patented CPF fitting design maintains a leak-free seal up to 700 bar, with only finger-tightening. Improve safety with a self-venting weep hole, which alerts you, by leaking gas or test fluid, before you fully disconnect from a pressurized system. Each of our products either includes CPF fittings as standard, or can be adapted to our CPF line.

AMETEK®
TEST & CALIBRATION INSTRUMENTS

Pressure Calibrator Overview kPa

Advantages

- Easy to Use
- Rugged Field Use Design
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Handheld Pressure Calibrators

Pressure Range	Pressure Accuracy	Vacuum Accuracy	Operating Temp. Range	IP Rating	Pressure Sensors	Pressure Connection	Datalogging	Differential Pressure	Absolute Pressure	Read Temperature	Read Electrical	24 VDC Power Supply	Switch Test	External Pressure Module	Intrinsically Safe	Model
Vacuum to 100 MPa	± 0.035% Rdg	± 0.05% FS	-20 to 50° C	IP65	1 or 2	CPF Female		✓	✓	✓	✓	✓	✓	✓		HPC40 Series
Vacuum to 100 MPa	± 0.1% Rdg	± 0.25% FS	-10 to 50° C	IP67	1	CPF Female	✓		✓						✓	XP2i
Vacuum to 100 MPa	± 0.025% Rdg	± 0.06% FS	-20 to 50° C	IP67	1 or 2	CPF Female	✓	✓	✓	✓	✓		✓		✓	nVision
Vacuum to 70 MPa	± 0.035% Rdg	± 0.05% FS	-20 to 50° C	IP65	1 or 2	CPF Female		✓	✓	✓	✓		✓	✓	✓	HPC50 Series
Vacuum to 70 MPa	± 0.2% Rdg	± 0.25% FS	-10 to 50° C	IP65	1	CPF Female										m1
Vacuum to 30 MPa	± 0.05% Rdg + 0.005% FS	± 0.25% Rdg	0 to 50° C	—	1 or 2	1/8" NPT Female					✓				✓	30 Series
Vacuum to 20 MPa	± 0.25% Rdg	± 0.5% FS	-10 to 50° C	IP65	1	CPF Female										m1M
Vacuum to 700 kPa	± 0.1% Rdg	± 0.1% Rdg	-10 to 50° C	IP67	1	1/8" NPT Female	✓	✓							✓	XP2i-DP

From 18 to 28° C. Typical. Plus either 0.03 or 0.1 kPa. 1/4" NPT M, 1/4" BSP M, or M20 M adapter included. 1/4" NPT M and 1/4" BSP M adapters included.

Deadweight Testers

Pressure Range	Standard Pressure Accuracy	Optional Pressure Accuracy (Rdg)	Maximum Pressure	Minimum Pressure	Minimum Increment	Pressure Connection*	Dual Piston Available	Dual Column Available	Tripod Compatibility	Sm. Incremental Weight Sets	Hydraulic	Pneumatic	Self Contained	Self Regulating Ball Type	Included Carrying Case	Model*
100 kPa to 100 MPa	± 0.015% Rdg	± 0.025%, ± 0.1%	15 000 psi	10 psi	5 psi	1/4" and 1/2" NPT F	✓	✓		✓	✓		✓		✓	Type T Series
100 kPa to 22.5 MPa	± 0.1% Rdg	± 0.05%	3000 psi	10 psi	0.1 psi	1/4" NPT F	✓		✓		✓		✓		✓	HL Series
50 kPa to 10 000 kPa	± 0.025% Rdg	—	1500 psi	10 psi	1 psi	7/16-20 37° AN4 M						✓		✓		HK Series
1 kPa to 2011 kPa	± 0.05% Rdg	± 0.025%, ± 0.015%	301 psi	4 inH_2O	1 inH_2O	1/8" NPT F			✓	✓		✓		✓	✓	RK Series
1 kPa to 200 kPa	± 0.05% Rdg	± 0.025%, ± 0.015%	30 psi	4 inH_2O	1 inH_2O	1/4" NPT F			✓	✓		✓		✓	✓	PKII Series

With installed adapter to 1/4 tube fitting. Not included with dual column or 0.015% accuracy. These units are supplied with bench top column mounting plate and tubing.

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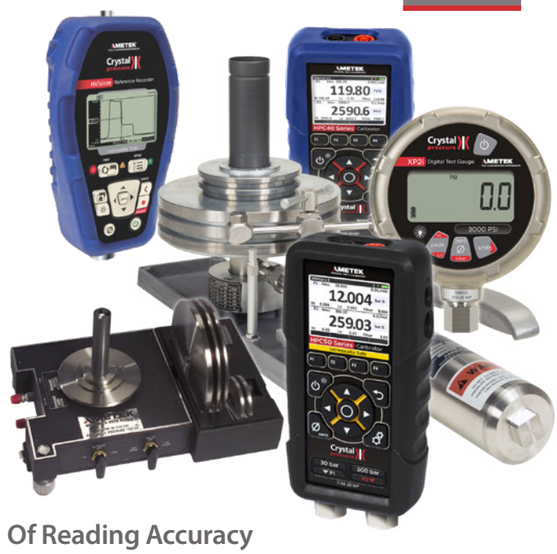

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Leak-free Seal up to 100 MPa

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