# TEST & CALIBRATION INSTRUMENTS

#### Advantages

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

#### ▶ Handheld Pressure Calibrators

	Preside Mediath	Vacuum var	Operating park	le la	ing Press	sure Server's Resident Resident	Oal	alogins Differe	intial e	e ped to	Imperature Read	Electrical 24 P	Ower Supply	in lest Extend	ssure Module	Sidily Safe
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	✓	✓	✓	✓	✓		✓		✓	<u>nVision</u>
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										<u>m1</u>
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										<u>m1M</u>
Vacuum to 100 psi	± 0.1% Rdg	± 0.1% Rdg	-10 to 50° C	IP67	1	1/8" NPT Female	✓	✓							✓	XP2i-DP
Pressure Range	Specifications	Functions									Model					

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

	Standard use Recutaci	Optional sure secured	Maximum	e Minimum	ure Minimur	arent Pressure Rection	Oral &	stor Dual A	Jumin Tripod	Introdibility	tenental eight sets	Julic Pries	imatic Self C	ontained Self Res	Julating Included	rying Case	
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	✓	✓		✓	✓		✓		<b>✓</b>	Type T Serie	
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 <sub>2</sub> O to 301 psi	± 0.05% Rdg	± 0.025%, ± 0.015%	301 psi	4 inH <sub>2</sub> O	1 inH <sub>2</sub> O	1/8" NPT F			✓	✓		✓		✓	✓	RK Series	
4 inH <sub>2</sub> O to 30 psi	± 0.05% Rdg	± 0.025%, ± 0.015%	30 psi	4 inH <sub>2</sub> O	1 inH <sub>2</sub> O	1/4" NPT F			✓	✓		✓		✓	✓	PKII Series	
Pressure Range	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.

Rev C 1910



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  $\pm$  0.1 psi at that pressure. At 50 psi, the same gauge would have an accuracy of  $\pm$  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

### 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.



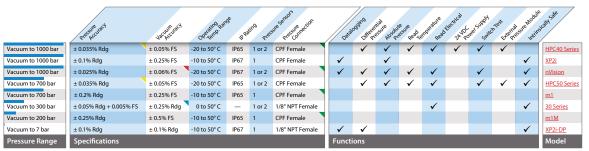


# Pressure Calibrator Overview

#### Advantages

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

#### ► Handheld Pressure Calibrators



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

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1 bar to 1000 bar	± 0.015% Rdg	± 0.025%, ± 0.1%	15 000 psi	10 psi	5 psi	1/4" and 1/2" NPT F	✓	✓		✓	✓		✓		<b>✓</b>	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 <sub>2</sub> O	1 inH <sub>2</sub> O	1/8" NPT F			✓	✓		✓		✓	✓	RK Series
10 mbar to 2 bar	± 0.05% Rdg	± 0.025%, ± 0.015%	30 psi	4 inH <sub>2</sub> O	1 inH <sub>2</sub> O	1/4" NPT F			✓	✓		✓		✓	✓	PKII Series
Pressure Range	Specification	Functions									Model*					

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.

Rev C 1910



#### 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  $\pm$  0.1 bar at that pressure. At 50 bar, the same gauge would have an accuracy of  $\pm$  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  $50^{\circ}C$ ). 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 callibration.

#### 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-wenting 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.



<sup>\*</sup>CPF connections are available for all deadweight tester models.

# Pressure Calibrator Overview

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#### ▶ Handheld Pressure Calibrators

	Preside West President	Vacuum Jaco	Operating part	je IP Rž	ing Pres	sue Sereots		Datak	oging Differen	tial Esure Absolut	e sure	imperature Read	tlectrical 2AVD	ower Supply	n Test	sesure Module	3 cally Sale
Vacuum to 100 MPa	± 0.035% Rdg	± 0.05% FS	-20 to 50° C	IP65	1 or 2	CPF Female	П		✓	✓	✓	✓	✓	✓	✓		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		✓	✓	✓	✓	✓		✓		✓	<u>nVision</u>
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											<u>m1</u>
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											<u>m1M</u>
Vacuum to 700 kPa	± 0.1% Rdg	± 0.1% Rdg	-10 to 50° C	IP67	1	1/8" NPT Female		✓	✓							✓	XP2i-DP
Pressure Range	Specifications		Functions									Model					

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

	Standard use Accuracy	Optional use accitated	Makinum	e Minimum	Minington	Preside Resident	Orași bi	stor Dual Av	Junit Salable Salable	ompatibility Sm. W	enental eight ses	sulic Pres	simatic Self	ontained Self Re	Julating Indude	And Case		
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	✓	✓		✓	✓		✓		1	Type T Serie		
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 <sub>2</sub> O	1 inH <sub>2</sub> O	1/8" NPT F			✓	✓		✓		✓	✓	RK Series		
1 kPa to 200 kPa	± 0.05% Rdg	± 0.025%, ± 0.015%	30 psi	4 inH <sub>2</sub> O	1 inH <sub>2</sub> O	1/4" NPT F			✓	✓		✓		✓	✓	PKII Series		
Pressure Range	Specifications (See the Data Sheets for complete specifications.)								Functions									

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#### Leak-free Seal up to 100 MPa

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