

# Pressure Calibrator Overview

#### Advantages

- Easy to Use
- Rugged Field Use Design
- Temperature Compensated
- 1-3 Year Recommended

Calibration Intervals

- Record and Store Tests
- Free Calibration & Configuration
  Software
  - Ultwale
- Innovative Patented Technology
- ISO17025 Accredited Calibration
  Certificates
- Intrinsically Safe

### Handheld Pressure Calibrators

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	Pressure ActuaCt	Vacuumuracy	Operating Ran	IP Ro	Press	presure connection	Dati	Difference	ntial esure Absolut	essure Read re	mperature Read	Et 2AVPC	ower Supply	nTest APM EX	essure Intrins	
Vacuum to 15000 psi	± 0.035% Rdg	± 0.05% FS	-20 to 50° C	IP65	1 or 2	CPF Female		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		HPC40 Series
Vacuum to 15000 psi	± 0.1% Rdg	± 0.25% FS	-10 to 50° C	IP67	1	CPF Female	$\checkmark$		$\checkmark$						$\checkmark$	<u>XP2i</u>
Vacuum to 15000 psi	± 0.025% Rdg	± 0.06% FS	-20 to 50° C	IP67	1 or 2	CPF Female	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	<u>nVision</u>
Vacuum to 10000 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					$\checkmark$				$\checkmark$	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 300 psi	± 0.02% Rdg + 0.015% FS	± 0.025% FS	-10 to 50° C	IP56	1	1/8" NPT Female			$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		<u>HPC600</u>
Vacuum to 100 psi	± 0.1% Rdg	± 0.1% Rdg	-10 to 50° C	IP67	1	1/8" NPT Female	$\checkmark$	$\checkmark$							$\checkmark$	XP2i-DP
Pressure Range	Specifications (See the	e Data Sheets for	complete speci	fications.	.)		Func	tions								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 ute vacuation	Optional use recuracy	Natinum Natinum	e Ninimum	Jre Minimur	enent Pressue Prestion*	Dualpi	stor le cualitation de la cual	Junn Jaiable Tripod	mostbilly	remental eight Sets	outic Pret	matic Self	ontained set per	Justing IType Included	wing Case	
10 psi to 15 000 psi	± 0.015% Rdg	± 0.025%, ± 0.1%	15000 psi	10 psi	5 psi	1/4" and 1/2" NPT F	$\checkmark$	✓		$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	Type T Series	
10 psi to 3000 psi	± 0.1% Rdg	± 0.05%	3000 psi	10 psi	0.1 psi	1/4" NPT F	$\checkmark$		$\checkmark$		$\checkmark$		$\checkmark$		$\checkmark$	HL Series	
10 psi to 1500 psi	± 0.025% Rdg	_	1500 psi	10 psi	1 psi	7/16-20 37° AN4 M						$\checkmark$		$\checkmark$		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			$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$	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			$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$	PKII Series	
Pressure Range	<b>Specifications</b> (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.

## psi



#### **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  $\pm$  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 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.



## Pressure Calibrator Overview bar

#### 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

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	Pressue Accuracy	Vacuumuracy	Operating Ran	IP Rat	ing pres	ure sent ure chorn	Data	ogging Differen	tial essure Absolut	esure Reade	mperature Read	Electrical 2AVPC	ower Supply	n IL APMEN	ernal Module	cally safe
Vacuum to 1000 bar	± 0.035% Rdg	± 0.05% FS	-20 to 50° C	IP65	1 or 2	CPF Female		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		HPC40 Series
Vacuum to 1000 bar	± 0.1% Rdg	± 0.25% FS	-10 to 50° C	IP67	1	CPF Female	$\checkmark$		$\checkmark$						$\checkmark$	<u>XP2i</u>
Vacuum to 1000 bar	± 0.025% Rdg	± 0.06% FS	-20 to 50° C	IP67	1 or 2	CPF Female	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	<u>nVision</u>
Vacuum to 700 bar	± 0.2% Rdg	± 0.25% FS	-10 to 50° C	IP65	1	CPF Female										<u>m1</u>
Vacuum to 300 bar	± 0.05% Rdg + 0.005% FS	± 0.25% Rdg	0 to 50° C	—	1 or 2	1/8" NPT Female					$\checkmark$				$\checkmark$	30 Series
Vacuum to 200 bar	± 0.25% Rdg	± 0.5% FS	-10 to 50° C	IP65	1	CPF Female										<u>m1M</u>
Vacuum to 20 bar	± 0.02% Rdg + 0.015% FS	± 0.025% FS	-10 to 50° C	IP56	1	1/8" NPT Female			$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		<u>HPC600</u>
Vacuum to 7 bar	± 0.1% Rdg	± 0.1% Rdg	-10 to 50° C	IP67	1	1/8" NPT Female	$\checkmark$	$\checkmark$							$\checkmark$	XP2i-DP
Pressure Range	Specifications (See the	e Data Sheets for	complete speci	fications.	)		Funct	tions								Model

🥆 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

	5andard ure not	Optional use recuracy	Natinum	e Ninimum	Jre Minimum	Pressue pressue onection*	Dualpi	alable Quality	Junn Jaiable Tripod	mostbilly	renental eight sets	aulic Pret	matic self	ontained set per	Justing Luder	Ning case
1 bar to 1000 bar	± 0.015% Rdg	± 0.025%, ± 0.1%	1000 bar	1 bar	500 mbar	1/4" and 1/2" NPT F	$\checkmark$	✓		$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	Type T Series
1 bar to 225 bar	± 0.1% Rdg	± 0.05%	225 bar	1 bar	5 mbar	1/4" NPT F	$\checkmark$		$\checkmark$		$\checkmark$		$\checkmark$		$\checkmark$	HL Series
0.5 bar to 100 bar	± 0.025% Rdg		100 bar	0.5 bar	100 mbar	7/16-20 37° AN4 M						$\checkmark$		$\checkmark$		HK Series
10 mbar to 20 bar	± 0.05% Rdg	± 0.025%, ± 0.015%	20 bar	10 mbar	10 mbar	1/8" NPT F			$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$	RK Series
10 mbar to 2 bar	± 0.05% Rdg	± 0.025%, ± 0.015%	2 bar	10 mbar	5 mbar	1/4" NPT F			$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$	PKII Series
Pressure Range	Specificatio	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.

\* CPF connections are available for all deadweight tester models.



#### **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°C). Without temperature compensation, the additional errors can guickly 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.



# Pressure Calibrator Overview kPa

#### Advantages

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Calibration Intervals

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  Software
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### Handheld Pressure Calibrators

	Pressue Actualy	Vacuumach	OPerating Ran	Je IPRa	ung cont	ure server connection		ogging Differen	tiale essure Absolut	le sure d	mperature Read	Electrical 2AVPC	ower Supply	ntest	enal Nodule	stall stall
	Pres Acc	NSC ACC	OPETERI	IP Pro	Pres	Pres Con.	Date	Differr	est ADSON	est Reache	the Reac	24 20	JNN SWIT	APM-Pre	est Intri	
Vacuum to 100 MPa	± 0.035% Rdg	± 0.05% FS	-20 to 50° C	IP65	1 or 2	CPF Female		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		HPC40 Series
Vacuum to 100 MPa	± 0.1% Rdg	± 0.25% FS	-10 to 50° C	IP67	1	CPF Female	$\checkmark$		$\checkmark$						$\checkmark$	<u>XP2i</u>
Vacuum to 100 MPa	± 0.025% Rdg	± 0.06% FS	-20 to 50° C	IP67	1 or 2	CPF Female	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	<u>nVision</u>
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					$\checkmark$				$\checkmark$	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 2000 kPa	± 0.02% Rdg + 0.015% FS	± 0.025% FS	-10 to 50° C	IP56	1	1/8" NPT Female			$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		<u>HPC600</u>
Vacuum to 700 kPa	± 0.1% Rdg	± 0.1% Rdg	-10 to 50° C	IP67	1	1/8" NPT Female	$\checkmark$	$\checkmark$							$\checkmark$	XP2i-DP
Pressure Range	Specifications (See the	e Data Sheets for	complete speci	fications.	)		Funct	ions								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 une recuraci	Optional use recuracy	Natinum Natinum	e Ninimum	Jre Minimum	enert Pressure connection*	Dualpi	stonie (	Junn Junne Jaiable Tripod	mostbilly Sn.W	renental eight Sets	aulic Pret	matic self	ontained set per	Justing Intype Intype Included	wing case	
100 kPa to 100 MPa	± 0.015% Rdg	± 0.025%, ± 0.1%	100 MPa	100 kPa	50 kPa	1/4" and 1/2" NPT F	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	Type T Series	
100 kPa to 22.5 MPa	± 0.1% Rdg	± 0.05%	20 MPa	100 kPa	0.5 kPa	1/4" NPT F	$\checkmark$		$\checkmark$		$\checkmark$		$\checkmark$		$\checkmark$	HL Series	
50 kPa to 10 000 kPa	± 0.025% Rdg	_	10 000 kPa	50 kPa	10 kPa	7/16-20 37° AN4 M						$\checkmark$		$\checkmark$		HK Series	
1 kPa to 2011 kPa	± 0.05% Rdg	± 0.025%, ± 0.015%	2011 kPa	1 kPa	1 kPa	1/8" NPT F			$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$	RK Series	
1 kPa to 200 kPa	± 0.05% Rdg	± 0.025%, ± 0.015%	200 kPa	1 kPa	0.5 kPa	1/4" NPT F			$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$	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.

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