

#### Calibration

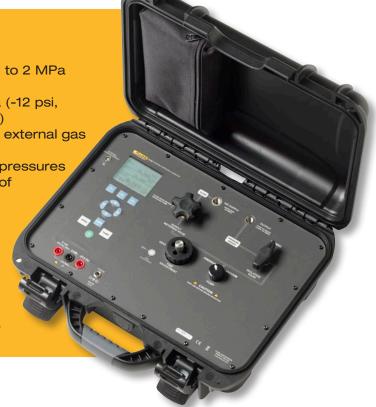
# 3130

# Portable Pressure Calibrator

# **Technical Data**

#### **Features**

- Measure and generate pressures from vacuum to 2 MPa (300 psi, 20 bar)
- Internal pump can generate vacuum to -80 kPa (-12 psi, -0.8 bar) or pressure to 2 MPa (300 psi, 20 bar)
- Supply pressure connection allowing the use of external gas supply up to 2 MPa (300 psi, 20 bar)
- Includes variable volume for fine adjustment of pressures
- Pressure measurement accuracy of ±(0.025 % of reading + 0.01 % FS)
- Electrical measurement and 24 volt supply for close looped calibrations
- Measure or generate 4 to 20 mA
- Measure 0 to 30 V dc
- Powered by internal, rechargeable, high capacity NiMH battery or universal ac mains adapter
- Compatible with Fluke 700P and 750P Pressure Modules



The 3130 Portable Pneumatic Pressure Calibrator is ideal for calibrating pressure transmitters, transducers, gauges and similar devices. The 3130 contains everything you need to generate, control and measure pressure, as well as read the output of the device under test (DUT).

#### **Pressure generation and control**

The internal, motorized pump provides an easy, efficient alternative to time consuming, tiring hand pumps. For applications that involve filling a large volume with pressure, the 3130 allows for connection to an external gas supply such as compressed plant air. The pressure can be fine-tuned using the variable volume.

#### **Pressure measurement**

The 3130 features an onboard pressure sensor with a full scale of 2 MPa (300 psi, 20 bar) and an accuracy of  $\pm$  0.025 % reading + 0.01 % FS (includes precision, one-year stability, uncertainty of the calibration standard, and temperature effects). In addition, the 3130 can be used with the Fluke 700P or 750P pressure module series to improve measurement performance across the entire range.

#### **Electrical measurement**

The 3130 offers electrical measurement capabilities for calibrating pressure transducers and transmitters, including measurements of 4 to 20 mA or 0 to 30 V dc. In addition, the 3130 provides 24 V dc supply to power the DUT and can generate current in the 4 to 20 mA range.



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# **Portability**

The 3130 is built into a ruggedized case with internal storage for power supply, test leads, and fittings. In addition, it includes a rechargeable, NiMH battery, allowing for approximately 50 hours of operation. When using the internal pump, the battery is sufficient to provide up to 100 calibration cycles to 300 psi. The battery is recharged by simply plugging the unit in using the included universal mains adapter.

### **Ordering Information**

Models	
3130-G2M	Portable Pressure Calibrator
	with US, EUR, UK, and China/
	Australia line cords (standard
	calibration)
3130-G2M/C	Portable Pressure Calibrator
	with US, EUR, UK, and China/
	Australia line cords (ISO 17025
	accredited calibration)
3130-G2M-2	Portable Pressure Calibrator
	with Brazil, Italy, Switzerland,
	and India line cords (standard
	calibration)
3130-G2M-2/C	Portable Pressure Calibrator
, , ,	with Brazil, Italy, Switzerland,
	and India line cords (ISO 17025

accredited calibration)



## Specifications

Specifications					
Environmental					
Operating temperature	-10 °C to +50 °C				
Storage temperature	-20 °C to +60 °C				
Power requirements	12 V dc (Universal ac adapter/charger supplied)				
Battery	Internal 3800 mAh advanced NiMH pack				
Operating time					
On full charge	Approx 50 hours (Measure only or external air; no pump)				
Using internal pump	Approx 100 calibration cycles to 300 psi				
Physical					
Dimensions	15.25 in L x 12 in W x 7 in D				
Weight	~7 kg (15 lb)				
EMI/RFI conformance	EN61326:2006 Annex A				
Connectors/ports	1/8 in NPT (External supply port and test port)				
Included accessories	Manual, NIST-traceable certificate, test leads, universal ac adapter/charger				
Ranges					
Pressure (internal pump)	-80 kPa to 2 MPa (-12 to 300 psi, -0.8 to 20 bar)				
Pressure (external air)	0 to 2 MPa (0 to 300 psi, 0 to 20 bar)				
mA	0 to 24.000 mA				
Volts	0 to 30.000 V dc				
Engineering units	psi, bar, mbar, kPa, MPa, kgf/cm², mm $\rm H_2O @ 4$ °C, mm $\rm H_2O @ 20$ °C, cm $\rm H_2O @ 4$ °C, cm $\rm H_2O @ 60$ °C, in $\rm H_2O @ $				
Instrumental measurement	uncertainty				
Pressure	±(0.025% of reading + 0.01% FS)				
mA	±(0.015% of reading + 0.002 mA)				
Volts	±(0.015% of reading + 0.002 V)				
Temperature effect (all func	tions)				
No effect on accuracy on all functions from 15 °C to 35 °C					
Add ± 0.002 % F.S./°C for tem	ps outside of 15 °C to 35 °C				

#### Fluke Calibration. Precision, performance, confidence.™

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	Electrical	RF	Temperature	Pressure	Flow	Software

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From other countries +1 (425) 446-5500 or Fax +1 (425) 446-5116 Web access: http://www.flukecal.com

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