FLUKE®

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 ± 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.

FLUKE®
Calibration

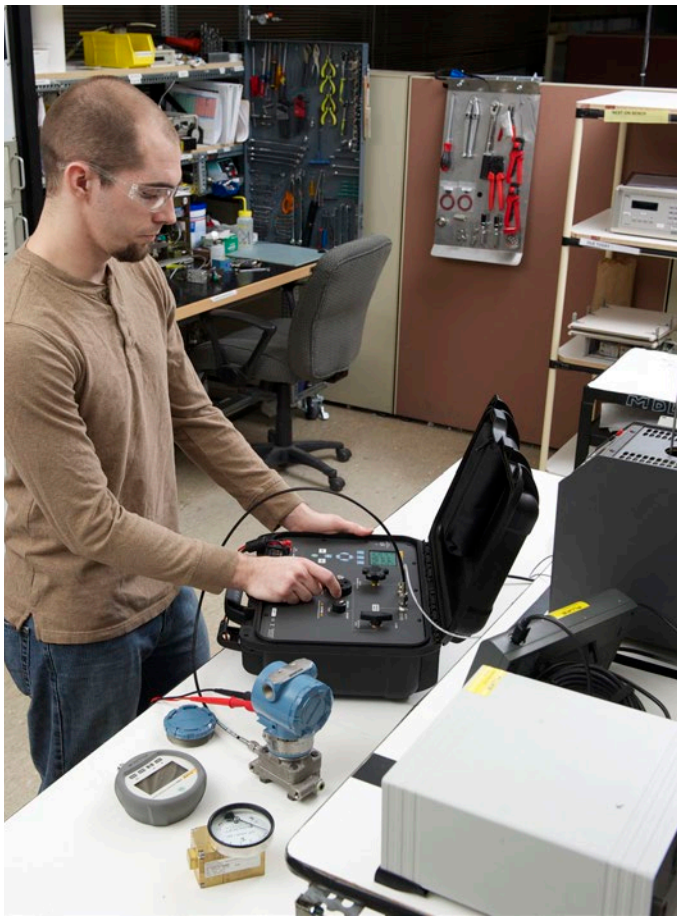
Portability

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

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, kg*f*/cm^2, mm$H_2$0 @ 4 °C, mm$H_2$0 @ 20 °C, cm$H_2$0 @ 4 °C, cm$H_2$0 @ 20 °C, in$H_2$0 @ 4 °C, in$H_2$0 @ 20 °C, in$H_2$0 @ 60 °F, mmHg @ 0 °C, inHg @ 0 °C
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 functions)	
No effect on accuracy on all functions from 15 °C to 35 °C	
Add ± 0.002 % F.S./°C for temps outside of 15 °C to 35 °C	

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

Electrical | RF | Temperature | Pressure | Flow | Software