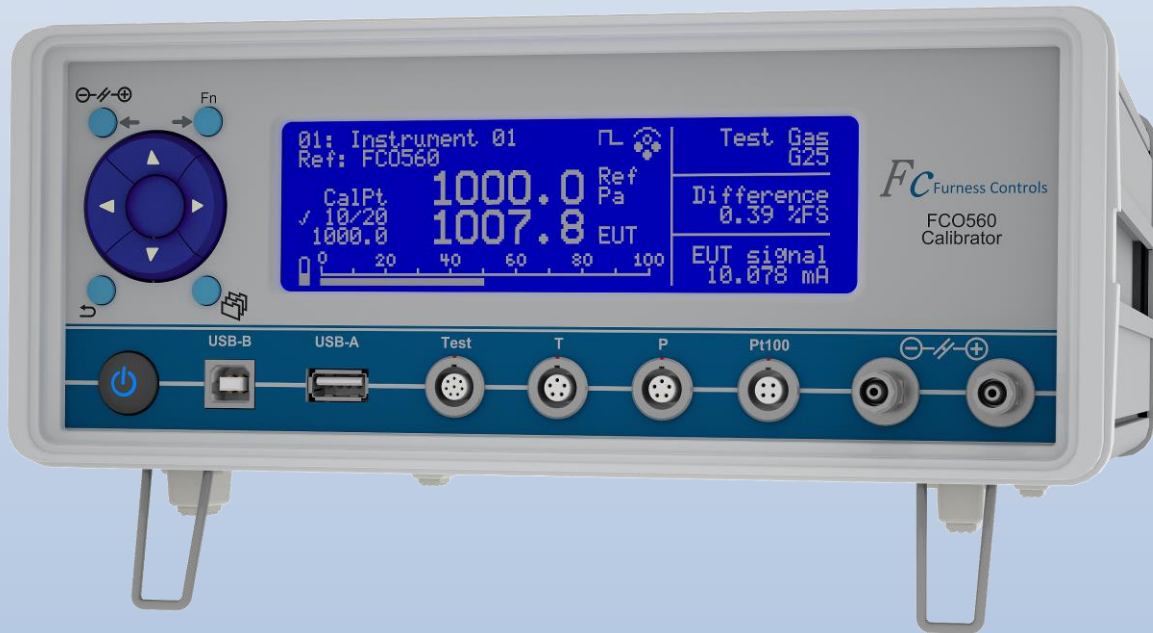


Pressure / Flow Calibrator

InstruMetrics
ENGINEERING

FC0560



- Portable unit suitable for laboratory or on-site calibration
- Calibration of Pressure or Flow
- Simultaneous display of applied pressure/flow and EUT values
- Automatic differential pressure generator
- Voltage and current inputs for EUT signal
- 4-20mA inputs for external temperature and pressure transducers
- PT100 temperature sensor input
- Internal absolute pressure sensor
- Communications via RS232 or USB
- Battery powered for portable calibration

The FC0560 fulfils the requirements for low differential pressure calibration of transmitters, transducers and pressure switches. An external 4-20mA loop powered pressure transducer may be used as a reference for calibration of higher pressure. The unit can also be combined with Laminar Flow Elements to provide a flow calibrator which can cover flows from less than 1 ml/min to over 30,000 l/min.

Differential Pressure Measurement

Instrument	2kPa	20kPa		
Range	±2000.0Pa / ±999.99Pa	±20000Pa / ±9999.9Pa		
Accuracy @ 20°C (including linearity and hysteresis)	< 0.1% R + 0.03 Pa	< 0.1% R + 0.3 Pa		
Control Stability (if internal pump fitted)	<0.003% FS (with both ports sealed)			
Resolution	1:200000 (auto-range 5-digit display)			
Temperature Coefficients	Zero: < 0.02 % fsd per °C (eliminated by Automatic zero function) Span: < 0.05 % fsd per °C			

Measurement inputs

Ranges	3 x current inputs: 4-20 mA (0.001mA resolution) 1 x Voltage input: ± 20 VDC (0.1mV resolution)
Accuracy @ 20°C	4 to 20 mA input: < 0.025% + 0.002 mA ±20 VDC Input: < 0.025% + 0.2 mV
PT100 input	Measurement range: 0 to 50 °C (0.01°C resolution) Accuracy <0.025% + 0.004Ω
Absolute Pressure	Range: 600 to 1600 mbar absolute. (0.01 mbar resolution) Accuracy < 0.5%FS

Electrical

Supply Voltage	12 VDC ± 10% 2A (Universal mains power supply included) 2.1mm power socket
Measurement inputs	Test: 8-pin socket (voltage + current) External Pressure Sensor: 5-pin socket (4-20mA) External Temperature Sensor: 5-pin socket (4-20mA) External PT100 Sensor: 4-pin socket (2, 3 or 4-wire connection)
Communication Interfaces	RS232: 9-pin D plug USB: Type A connector for connection to EUT or memory stick USB: Type B connector for connection to PC
Interface	Digital I/O: 4 inputs/outputs (5V logic) Analogue output: 0 to 10VDC

General

Enclosure	Aluminium enclosure with tilt feet
Display	Blue backlit graphic display.
Datalogger capacity	Storage of approximately 35,000 single display readings.
Dimensions	W 250mm x H 105mm x D 265mm (without handle)
Operating temperature	+5°C to +45°C
Storage Temperature	-10°C to +70°C
Battery life	> 8 hours of normal use
Weight	<4.5 kg
Long Term Drift (span)	< 0.25% reading per year
Overload	20 times fsd without damage
Media Compatibility	Clean dry air or non-corrosive gas
Static pressure:	Without internal pump: -1 bar to + 4 bar. With internal pump: -500mbar to + 500 mbar.
Pneumatic Connections	Test Ports: Push-on tube fittings for 6mm o/d, 4mm i/d flexible tube. Absolute sensor port: M5 female thread.
Options:	Basic unit (Without pressure generator or battery) Automatic pressure generator Internal Absolute pressure sensor Internal battery pack Soft carry case Laminar flow elements and pitot static tubes for flow / velocity measurement.

All information in this document is provisional and is subject to change without notice.

Furness Controls has a UKAS accredited laboratory which offers pressure calibration from 0 to 40 kPa and flow calibration from 0.1 ml/min to 2000 litres/min