Pressure / Flow

Calibrator



- 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 FCO560 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	Model 1	Model 2	Model 3	Model 4
Range	200 Pa	2000 Pa	20000 Pa	30000 Pa
Accuracy @ 20°C (including linearity and hysteresis)	< 0.1% R + 0.003 Pa	< 0.1% R + 0.03 Pa	< 0.1% R + 0.3 Pa	< 0.1% R + 0.4 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 % per °C			

Measurement inputs

Ranges	3 x current inputs: 4-20 mA 1 x Voltage input: ± 20 VDC	
Accuracy @ 20°C	4 to 20 mA input: < 0.025% + 0.002 mA ±20 VDC Input: < 0.025% + 2 mV	
Resolution	Better than 1:20000	
PT100 input	Measurement range: 0 to 100 °C (0.01°C resolution)	
Absolute Pressure	Range: 0 to 1.6 bar absolute. (0.01 mbar resolution) Accuracy < 0.5%FS	

Electrical

Supply Voltage	12 VDC ± 10% (Universal mains power supply included)		
Electrical connections	Power: 2.1mm power socket Inputs: Dedicated multi-pin connectors for voltage, current, EUT and PT100		
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		

General

Enclosure	Aluminium enclosure with tilt feet
Display	Blue backlit graphic display.
Dimensions	W250 mm x H105 mm x D265 mm
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 Carry Handle 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.

