

Low Pressure Manometer

FCO520



- User selectable units on large liquid crystal display
- Pressure measurement from 0.1Pa to 20kPa
- Accuracy 0.25% of reading
- Easy conversion from pressure to velocity
- Data logger

The FCO520 is a battery operated multi-purpose portable microprocessor based instrument which measures low differential pressures in a choice of engineering units and velocity when paired with Pitot tubes. Volume flow can be monitored by entering the duct area into the instrument menu. Readings can be recorded into the memory for subsequent down-loading via an RS232 interface. The FCO520 provides a practical way to measure differential pressure and airflow.

The FCO520 has the option of a built-in absolute pressure sensor.

Features

Ranges	Model 1 $\pm 600.0\text{Pa}$ 31m/s Model 2 $\pm 6.000\text{kPa}$ 100m/s Model 3 $\pm 20.00\text{kPa}$ 180m/s
Engineering Units	Differential Pressure: Pa, kPa, mbar, mmH2O, "H2O, PSI Velocity: m/s, ft/s Volume Flow: m3/s, ft3/s, CFM Mass Flow: kg/s, lb/s
Damping	Fast 0.4 sec, medium 3.2 sec, slow 12.8 sec
Optional Absolute pressure	800 to 1600mbar absolute (1mbar resolution)
Optional Temperature probe	-10 to 100°C (0.1°C resolution)

Performance

Differential Pressure Accuracy @ 20°C	10% to 100% range: $< \pm (0.25\% \text{ reading} + 1 \text{ digit})$ 0 to 10% range: $< \pm (0.025\% \text{ range} + 1 \text{ digit})$
Resolution	1:6000
Overload	20 x Range
Long Term Drift (span)	$< 1\%$ per year
Static Pressure	0.5 to 1.6 bar absolute
Absolute pressure Accuracy @ 20°C	0.5% span
Temperature Accuracy	0.15°C
Battery Life	Minimum 100 hours (without backlight)
Operating Temperature	0 to 50°C
IP Rating	IP40

Construction

Enclosure	Robust ABS Plastic
Dimensions	100 x 216 x 40mm (W x H x D)
Media Compatibility	Clean dry non-corrosive gas
Power Requirements	4 x AA battery
External Power Supply	7.5VDC $\pm 25\%$
Weight	630g

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

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