

# Laminar Flow Meter

FC0752



- Graphical display of flow and pressure
- 300 Product settings with up to 16 sequence steps
- Flow measurement from 0.001 ml/min to 5000 litres/min
- Robust steel bench-top case with optional rack mounting
- Automatic pressure regulator and dual regulators available
- Communications via RS232, RS485, USB or Ethernet
- Barcode scanner support
- Dual flow range option
- Built-in Data logger
- Programmable electrical and pneumatic I/O

The FC0752 is an advanced air/gas flow meter suitable for production line testing of gas industry appliances and valves, calibration of fuel injectors and many other flow measuring applications. The FC0752 can be easily interfaced to PLCs or PCs where integration is required, or in many cases the built-in programmable I/O functions can remove the need for a PLC.

Using the well proven Furness Controls laminar flow technology, the FC0752 adds temperature and barometric pressure compensation to provide an accurate flow measuring system with high resolution. The inherent low flow resistance of the design ensures minimal interference with the flow path.

## Flow Measurement

Flow ranges (all available with x10 range)	0 to 20 ml/min 0 to 200 ml/min 0 to 2 litres/min	0 to 6 litres/min 0 to 10 litres/min 0 to 20 litres/min	0 to 30 litres/min 0 to 100 litres/min 0 to 200 litres/min	0 to 2000 litres/min 0 to 5000 litres/min
Accuracy @ 20°C	10% to 100% range: < ± (1% reading + 1 digit) 0 to 10% range: < ± (0.1% range + 1 digit) For dual range instruments, "range" refers to the selected range.			
Resolution	4 digit display			
Temperature Coefficients	Zero: Automatic Zero facility, Span: < 0.1% per °C			
Long Term Drift (span)	< 1% per year			

## Pressure Measurement

Pressure Ranges	± 2 mbar ± 20 mbar ± 50 mbar	± 200 mbar ± 400 mbar ± 999 mbar	-1 bar to +4 bar -1 bar to +6 bar -1 bar to +8 bar	-1 bar to +9.999 bar -1 bar to +14 bar
Accuracy @ 20°C	10% to 100% range: < ± (1% reading + 1 digit) 0 to 10% range: < ± (0.1% range + 1 digit)			
Resolution	4 digit display			
Temperature Coefficients	Zero: < 0.05% per °C Span: < 0.1% per °C			
Long Term Drift (span)	< 1% per year			

## Electrical

Supply Voltage	24 VDC ± 10% < 500 mA
Electrical connections	Power: 2 way detachable screw terminal Outputs: 20 way detachable screw terminal Inputs: 16 way detachable screw terminal RS232: 9 pin D plug RS485: 5 pin detachable screw terminal LAN: RJ45 connector, 10base-T/100base-TX Ethernet USB: Type B USB connector
Control Inputs	Up to 24 Opto-isolated, active high or active low. 5 VDC to 24 VDC into 10 KΩ
Control Outputs	Up to 32 Active High transistor output (PNP). 12 VDC to 45 VDC, 120 mA (per channel)

## Pneumatic

Media Compatibility	Clean dry air or non-corrosive gas
Gas Temperature at LFE	0 – 50°C
Relative Humidity of Gas	0 – 95% Non-condensing
Air Supply Pressure	Maximum 10 bar gauge, Minimum 5 bar gauge
Regulator Supply Pressure	Maximum 16 bar gauge
Pneumatic Connections	Air supply – 6 mm push-in tube connector Regulator supply and output – 8 mm push-in tube connector Up to 5 programmable pneumatic outputs - 4 mm push-in tube connectors Pressure sense port - 4 mm push-on tube connectors Laminar Flow Element ports – Size dependent on range: 20, 200 ml/min 6/4mm Push-on tube fitting 2, 6, 10, 20, 30 litres/min 12mm Plain Spigot 100 litres/min 22mm Plain Spigot 200 litres/min 28mm Plain Spigot 2000, 5000 litres/min 76mm i/d 184mm o/d flange.
LFE Operating pressure	Maximum static pressure 4 bar.

## Construction

Enclosure	Steel construction enclosure with paint finish. Suitable for 19" 3U rack mounting.
Dimensions – Rack Case	482 x 133 x 296 mm (W x H x D) (excluding LFE)
Dimensions – Bench Case	366 x 147 x 296 mm (W x H x D) (excluding LFE)
Weight	8 kg ± 0.5 kg (excluding LFE)

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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