

# Laminar Flow Tester

FC0792



- Intuitive touch-screen interface
- Customised graphical Screen image prompts for operators
- Flow measurement from 0.001 ml/min to 5000 litres/min
- 300 Product settings with up to 16 sequence steps and a variety of test types such as flow, back pressure and input/output
- Automatic pressure regulator and dual regulator available
- Communications via RS232, RS485, USB, Ethernet, PROFIBUS, PROFINET, EtherNet/IP
- Barcode scanner support
- Built-in Data Logger with USB memory stick connection
- Programmable electrical and pneumatic I/O

The FC0792 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 FC0792 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. The communications facility may be used for configuration, control and data logging.

## 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: $< \pm (1\% \text{ reading} + 1 \text{ digit})$ 0 to 10% range: $< \pm (0.1\% \text{ range} + 1 \text{ digit})$ 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	$\pm 2 \text{ mbar}$ $\pm 20 \text{ mbar}$ $\pm 50 \text{ mbar}$	$\pm 200 \text{ mbar}$ $\pm 400 \text{ mbar}$ $\pm 999 \text{ mbar}$	-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: $< \pm (1\% \text{ reading} + 1 \text{ digit})$ 0 to 10% range: $< \pm (0.1\% \text{ range} + 1 \text{ digit})$			
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 $\pm 10\%$ $< 1\text{A}$
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: 1 x USB Type A connector, 1 x USB Type B connector
Control Inputs	Up to 24 Opto-isolated, active high or active low. 5 VDC to 24 VDC into 10 K $\Omega$
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: <div style="display: flex; justify-content: space-between;"> <div> 20, 200 ml/min 2, 6, 10, 20, 30 litres/min 100 litres/min 200 litres/min 2000, 5000 litres/min </div> <div> 6/4mm Push-on tube fitting 12mm Plain Spigot 22mm Plain Spigot 28mm Plain Spigot 76mm i/d 184mm o/d flange. </div> </div>
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 $\pm 0.5$ kg (excluding LFE)

All information 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