

# Pressure Decay Leak Detector

InstruMetrics  
ENGINEERING

FC0790



- Intuitive touch-screen interface
- Customised graphical Screen image prompts for operators
- 300 Product settings with up to 16 sequence steps and a variety of test types such as leak, blockage, ramp, dump 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 FC0790 is an advanced multi-function pressure decay leak detector that is suited to applications requiring multiple test configurations or flexible control of associated tooling. The FC0790 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.

## Leak Measurement

Leak ranges	±200.0Pa ±2.000kPa ±20.00kPa
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: Automatic Span: < ±0.15% per °C
Long Term Drift (span)	< ±1% per year

## Pressure Measurement

Pressure Ranges	±99.99mbar ±200.0mbar ±999.9mbar	-1bar to +4.000bar -1bar to +8.000bar -1bar to +9.999bar	-1bar to +14.00bar -1bar to + 30.00bar
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	24VDC ±10% < 1A
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. 5VDC to 24VDC into 10KΩ
Control Outputs	Up to 32 Active High transistor output (PNP). 12VDC to 45VDC, 120mA (per channel)

## Pneumatic

Media Compatibility	Clean dry air or non-corrosive gas
Air Supply Pressure	Maximum 10bar gauge, Minimum 5bar gauge
Regulator Supply Pressure	Maximum 16bar gauge or 35bar for 30bar option
Pneumatic Connections	Air supply: 6mm push-in tube connector Regulator supply and output: 8mm push-in tube connector Test/Reference: 1/8" BSPF Up to 5 programmable pneumatic outputs: 4mm push-in tube connectors
Leak Tightness	< 0.2cc/Hour

## 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)
Dimensions – Bench Case	366 x 154 x 296 mm (W x H x D)
Weight	9 kg ± 0.5 kg

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

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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



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