

laminar FLOWMETER

FC0732



- Air and gas flows from 0.01 ml/min to 2000 litres/min in 9 models

- Measures pressure and flow simultaneously

- Programmable cycle times for production testing

- High accuracy and repeatability

Furness

TEST -1.00 TO +4.00 BAR
TEST -1.00 TO -4.00 BAR

1500ml 500cc/HR
1500ml 500cc/HR

TEST -1.00 TO +4.00 BAR
TEST -1.00 TO -4.00 BAR

1500ml 500cc/HR
1500ml 500cc/HR

Description

Model FCO732 is a cost effective flow and pressure measuring instrument designed to meet the needs of production line testing of injectors and other assemblies requiring leak detection and live flow measurement, where simultaneous indication of pressure and flow are required.

Using the well proven Furness Controls laminar flow technology the FCO732 adds temperature compensation and optional barometric pressure compensation to an already highly accurate flow measuring system giving a high resolution with complete linearity. The inherent low flow resistance of the design ensures minimal interference with the flow path.

The advantages of this unique design are:-

- Minimum resistance to flow (< 1mbar)
- High turndown (better than 1:2000)
- Automatic pressure compensation
- Temperature compensation
- Excellent calibration accuracy (1%FS over full range)



The main applications include

- Measurement and calibration of gas jets and burners
- Measurement and calibration of fuel injectors
- Leak Detection using laminar flow technology

The FCO732 uses the latest flash technology, allowing system diagnostics with a laptop computer and is part of the 700 series of Furness Controls Leak Detectors and flowmeters. The front panel uses a 2X16 digit LCD backlit display and has start and reset buttons with Pass and Fail lamps to indicate test results. The front panel pressure regulator allows pressure adjustment or an external regulator for air or gas can be used. Optional half 19" rack brackets can be supplied.

Flow Rate & Test Pressure Ranges

FLOW RATES

0-20 ml/min, 0-200 ml/min, 0-2 litres/min,
0-6 litres/min, 0-20 litres/min, 0-30 litres/min,
0-100 litres/min, 0-200 litres/min,
and 0-2000 litres/min

PRESSURE RANGES

0- minus 800 mbar (vacuum) 0-2 mbar,
0-20 mbar, 0-200 mbar, 0-999 mbar,
0-4 bar and 0-8 bar
0-58 PSI and 0-120PSI

Furness Controls

**2020 Younts Road
Indian Trail, NC 28079**

Telephone: 704-882-3311

Fax: 704-882-3811

Email: sales@furnesscontrols.com

Web Site: http://www.furnesscontrols.com

Performance Specifications

| | |
|---------------------------------|---|
| FLOW MEASUREMENT | |
| ACCURACY @ 20 °C | < ±1% FS ± 1 DIGIT |
| TEMPERATURE COEFFICIENT (ZERO) | AUTO ZERO |
| TEMPERATURE COEFFICIENT (SPAN) | < ± 0.15% PER °C |
| SPAN ADJUSTMENT | SOFTWARE ADJUSTABLE |
| PRESSURE MEASUREMENT | |
| ACCURACY @ 20°C | < ± 1% FS ± 1 DIGIT |
| TEMPERATURE COEFFICIENT (SPAN) | < ± 0.02% PER °C |
| SPAN ADJUSTMENT | SOFTWARE ADJUSTABLE |
| ZERO ADJUSTMENT | SEMI-AUTOMATIC |
| ELECTRICAL | |
| SUPPLY VOLTAGE | 24VDC ± 10% |
| SUPPLY POWER | <500MA |
| ELECTRICAL CONNECTIONS | 9 PIN D (RS232C) DETACHABLE SCREW TERMINALS FOR INPUTS AND OUTPUTS |
| OUTPUT TYPE | ACTIVE HIGH TRANSISTOR OUTPUT (PNP) |
| OUTPUT RATING | 5VDC TO 40VDC, 120MA (PER CHANNEL) |
| INPUT TYPE | OPTO-ISOLATED, ACTIVE HIGH OR ACTIVE LOW |
| INPUT RATING | 5VDC TO 24VDC INTO 10KΩ |
| MEMORY BATTERY LIFE | >6 MONTHS DATA RETENTION |
| PNEUMATIC | |
| MEDIA COMPATIBILITY | CLEAN, DRY AIR OR NO HAZARDOUS GAS |
| GAS TEMPERATURE AT SOURCE | 0 - 104 DEGREES F |
| RELATIVE HUMIDITY OF GAS | 0 - 95% NON-CONDENSING |
| AIR SUPPLY PRESSURE | MAXIMUM 10 BAR GAUGE, MINIMUM 5 BAR GAUGE |
| REGULATOR SUPPLY PRESSURE | MAXIMUM 232 PSI GAUGE OR 35 BAR FOR 30 BAR OPTION |
| PNEUMATIC CONNECTIONS | SUPPLY 6MM PUSH IN AND 8MM PUSH IN, EXHAUST PILOT 4MM PUSH IN, TEST/REFERENCE 1/8" BSPF |
| INTERNAL VOLUME | 10CC (+ 1CC FOR CALIBRATION PORT OPTION) |
| TEST PORT | CALIBRATION PORT OPTION) |
| TEST VOLUMES RANGE | 0cc - 30000cc |
| LEAK TIGHTNESS | <0.2cc/HOUR |
| MATERIALS IN CONTACT WITH MEDIA | COPPER, BRASS, NICKEL, MICA, PVC |
| PHYSICAL | |
| OVERALL DIMENSIONS- BENCH CASE | 294MM X 232MM X 145MM |
| NET WEIGHT | 8KG ± 0.5KG |
| TEMPERATURE LIMITS | STORAGE: -20 TO 70 °C. WORKING: 0 TO 40 °C. |
| WARM-UP PERIOD | < 30 MINUTES |
| TIMER ACCURACY | <0.005s |

AGENTS STAMP