

FC 2420 Linearised Frequency- Current Converter



FC 2420


The FC 2420 converts the output frequency from Webster turbine flow meters into a 4-20 mA signal for accurate transmission to a remote analogue readout. The FC 2420 has two independent microprocessor controlled channels. Each channel can be separately linearised to give an accuracy of better than 1% of the indicated flow.

The unit can also be used in conjunction with a magnetic speed pick-up to calculate speed. The FC 2420 can be customer-programmed with the number of gear teeth so that the current measured is directly proportional to the speed in rpm.

The FC 2420 requires no external amplifiers and is Crystal controlled for long term stability. Transformer and opto-isolators provide isolation.

The front panel has dual indicators to show loop compliance. Together with a DIN standard case and the option of a DIN rail connection, easy installation, calibration and set-up is assured.

Features

- Dual channel
- No calibration potentiometers
- Fast operation
- Linearises flow to within 1 %
- Flow averaging option
- Outputs can be summed
- DIN Standard case and rail connection
- True current source
- 20 MHz RISC Micro-controller
-  approved
- Isolation

Another quality product from the Webster Range

Specifications

Dimensions

95 mm (H)
95 mm (W)
170 mm (L)

Weight

1 kg

Environmental

IP54

EMC

EN55011	: 1991 CLASS A,B	Radiated RF Emissions
EN55011	: 1991 CLASS A,B	Conducted RF Emissions
ENV50140	: 1994	Radiated RF Immunity
ENV50204	: 1994	Radiated RF Immunity
ENV50141	: 1994	Conducted RF Immunity
EN61000-4-2	: 1995	Electrostatic Discharge Immunity
EN61000-4-4	: 1995	Electrical Fast Transients Immunity

Electrical Safety

EN60950

Functional

2 Input channels

Frequency Range : 1 Hz - 3kHz
Input Sensitivity : 10mv @ 1 Hz , 100mV @ 2 kHz
Max Input Voltage : 10 volts RMS

2 Output channels

Max. Load Resistance : 4-20 mA / 0-16 mA (selected by internal link)
Response Time : 580 ohms
: Option 1 less than 1 ms + 1 input period.
: Option 2 100 ms nominal.

Accuracy : Timing better than 0.1% FSD
: Current Generator better than 0.1% FSD
: Flow better than 1% of indicated

Noise : Typically 10 micro-amperes (200 ohm load 100 nF)

Isolation : Opto-Isolated output loops

Power Requirements : 110/240 V ac (selected by internal links) Nominal 6 VA

Connections : Mains via IEC type captive plug
: I/O via 25 way 'D' style.
: Optional DIN rail connectors

Controls : None external, Calibration via internal DIP switches

Indicators : Power, loop alarm

