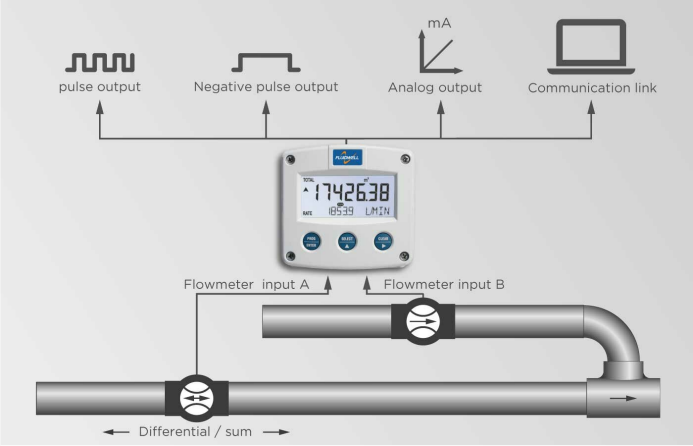
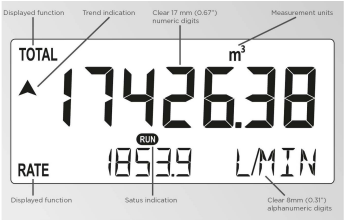
Your success counts

F116

Safe area / Intrinsically safe - Differential / Sum Flow Computer

with Modbus communication, analog and pulse outputs





Features

- Calculates differential flow rate (consumption), total and accumulated total of flow A and B.
- Calculates the sum flow rate, total and accumulated total of flow A and B.
- Precautions for pulsating flows and very low consumption readings.
- Analog and pulse outputs.
- The display shows flow rate, differential or summerized total and accumulated total.
- Large digit selection for flow rate or total.
- Flow rate: seven 17mm (0.67") or 8mm (0.31") digits.
- Total - resettable: seven 17mm (0.67") digits.
- Accumulated total - not resettable: eleven 8mm (0.31") digits.
- Separate engineering units for flow rate and total on the display.
- LED backlight.
- Intrinsically safe according ATEX and IECEx.
- GRP, Aluminum or high grade stainless steel enclosure.
- Auto backup of settings and running totals in EEPROM memory.
- Ambient temperature: -40°C to +80°C (-40°F to 176°F).
- Various accessories are available for this product.

Product description

The F116 flow computer has been developed to calculate differential / consumption or total volume. The usual difficulties encountered in such applications include: pulsating flows, very low consumption readings, vibration and high ambient temperatures. These are all well catered for in the design and operation of the F116. The pulse and analog outputs do reflect the calculated differential or sum value.

The display shows flow rate, total and accumulated total. On-screen engineering units are easily configured from a comprehensive selection.

Advantages

- Robust aluminum or stainless steel 316L field enclosure (IP65, IP67 / NEMA Type4X) .
  It is so rugged, a truck can even stand on it!
- Intrinsically Safe available - ATEX and IECEx approval for gas and dust applications.

- Familiar easy operation with the Fluidwell "Know one, know them all" configuration structure, saving time, cost and aggravation.
- Very diverse mounting possibilities: walls, pipes, panels or directly onto outdoor sensors.

Applications

- Differential function: fuel consumption calculation for diesel engines on board of ships or locomotives.
- Sum function: where flows are split-up in two pipe-lines and total flow has to be calculated.
- The F-Series is your first and best choice for field mount indicators in safe and hazardous area applications. Especially in harsh weather conditions like rain, snow, sandy deserts, salty atmospheres and temperatures between -40°C up to +80°C (-40°F up to 176°F).

Product specifications

Signal Inputs

Flowmeter Inputs

- Pulse type inputs:
  Reed-switch, NAMUR, NPN/PNP pulse, Sine wave (coil), active pulse signal.
  Different pulse signal types are allowed for input A and B.

Supply

Power Supply

- Long life Lithium battery.
- 4 – 20mA Output loop-powered.
- 8 – 24V AC/DC.
- 115 – 230V AC.
- Basic: 8 - 30V DC.

Sensor Supply

- 3.2, 8.2, 12, 24V DC.

Signal Outputs

Pulse outputs

- Function: Scaled pulse output according to differential or sum accumulated total (e.g. a pulse every 3.25 gallons).
  Max. frequency: 500Hz.
  Adjustable pulse length from 0.001 sec. to 9.999 seconds. The directional output is switched as soon as the pulse output reflects a "negative" differential.
- Type: Two passive NPN transistors, active PNP transistors or isolated electro-mechanical relays.

Alarm outputs

- None.

Analog outputs

- Function: Re-transmitting the differential or totalized flow rate - the output can be scaled to any range (e.g. 200 L/min to 1200 L/min).
- Type: One passive isolated, floating or loop powered 4 – 20mA output or one active (0)4 – 20mA or 0 – 10V DC output.

Hazardous Area

Intrinsically Safe

- ATEX:
  Gas: II 1 G Ex ia IIB/IIC T4 Ga
  Dust: II 1 D Ex ia IIIC T_{200} 100 °C Da
- IECEx:
  Gas: Ex ia IIC/IIB T4 Ga
  Dust: Ex ia IIIC T_{200} 100 °C Da

Explosion Proof

- ATEX/IECEx:
  Gas: II 2 G Ex db IIB+H2 T5 Gb
  Dust: II 2 D Ex tb IIIC T80°C Db

Communication

- Function: All process data and settings can be read and modified through the communication link.
- Protocol: Modbus RTU.
- Interface: RS232 / RS485 2-wire or 4-wire / TTL.

- HART communication is available with the F018 Flow rate Monitor / Totalizer.

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We’re happy to answer any questions about our products and services. Just send us an email or give us a call.