F016
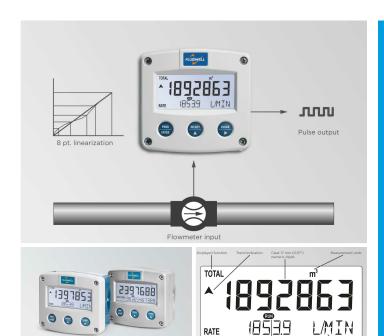
Safe area / Intrinsically safe - Flow rate Indicator / Totalizer

with linearization and pulse output

8 pt. linearization

Flowmeter input

Pulse output

Features

- Displays total and flow rate simultaneously and additional accumulated total.
- Large digit selection for flow rate or total.
- Selectable on-screen engineering units for flow rate: mL, L, m³, mg, g, kg, ton, GAL, bbl, lb, cf, REV, scf, Nm³, NL, P or no unit. Time units for flow rate: /sec, /min, /hour or /day.
- Selectable on-screen engineering units for total: ml, L, m³, GAL, USGAL, kg, lb, bbl or no unit.
- Eight point linearization of the flow curve - with interpolation.
- Scaled pulse output reflecting the accumulated 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.
- LED backlight with adjustable intensity.
- Intrinsically safe according ATEX, IECEx, FM and CSA C-US.
- GRP, Aluminum or high grade stainless steel enclosure.
- Auto backup of settings and running totals in EEPROM memory.
- Easy configuration with clear alphanumerical display.
- Ambient temperature: -40°C to +80°C (-40°F to 176°F).
- Various accessories are available for this product.

Product description

The F016 is a local indicator / transmitter which displays the actual flow rate, total and accumulated total. In addition to the average K-Factor or Span, eight linearization points can be entered with their frequencies or values. The unit will interpolate between these points, greatly enhancing accuracy in any flow range, even for very low frequency applications. This linearization affects all displayed information as well as the pulse output. 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, IECEx, FM and CSA 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

- Liquid flow measurement with mechanic flowmeters where a precise calculation over the full measurement range is required.
- 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.

Supply

Power Supply
- Long life Lithium battery.
- 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 accumulated total (e.g. one pulse every 3.25 gallons).
  Max. frequency: 500Hz.
  Adjustable pulse length from 1 msec. to 10 seconds.
- Type: One passive NPN transistor, active PNP transistor or isolated electro-mechanical relay.

Alarm outputs
- None.

Analog outputs
- None.

Hazardous Area

Intrinsically Safe
- ATEX:
  Gas: II 1 G Ex ia IIC T4 Ga
  Dust: II 1 D Ex ia IIIC T_{200} 100 °C Da
- IECEx:
  Gas: Ex ia IIC T4 Ga
  Dust: Ex ia IIIC T_{200} 100 °C Da
- CSA & FM:
  I.S. Class I/II/III, Div 1, Grp A...G, T4
  Class I, Zone 0, AEx ia IIC T4 Ga
  Note: Extended aluminum enclosures not available with CSA/FM approval.

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

- Modbus communication available on F1-Series

products.

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