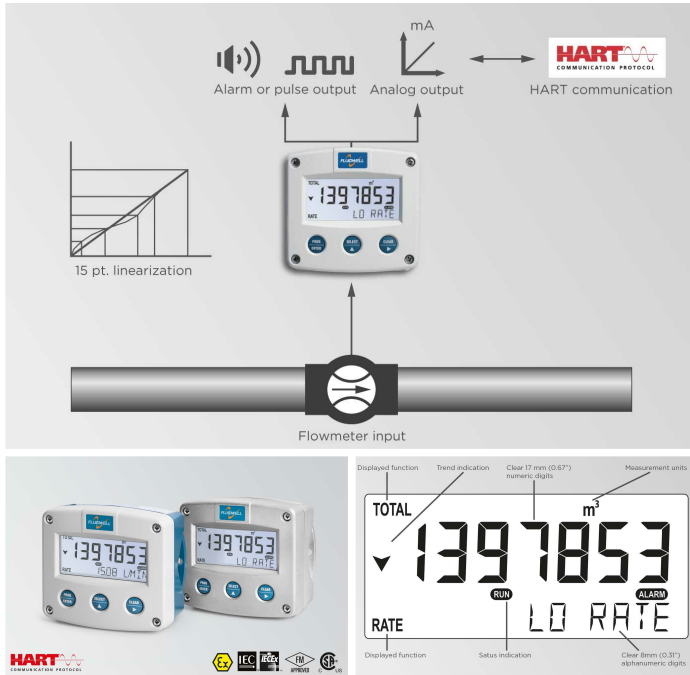


# F018 Safe area / Intrinsically safe - Flow rate Monitor / Totalizer

with linearization, pulse/alarm and analog outputs and **HART communication**



## Features

- The display shows flow rate, total, accumulated total, alarm values and alarm messages.
- Large digit selection for flow rate or total.
- Displays clear alarm messages.
- Red flashing LED backlight in case of a flow rate alarm; intensity adjustable.
- Fifteen point linearization of the flow curve - with interpolation.
- Two alarm values can be entered: low and high flow rate alarm.
- Pulse input retransmission, i.e. for calibration purposes or amplification and squaring of sinewave/coil signals.
- 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.
- Scaled pulse output reflecting the accumulated total.
- 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 alphanumeric display.
- Ambient temperature: -40°C to +80°C (-40°F to 176°F).
- Various accessories are available for this product.
- F018 on the [HART Foundation website](#).

## Product description

The F018 is a local indicator / transmitter with linearization and continuous flow rate monitoring feature. It displays the actual linearized flow rate, resettable total and non-resettable accumulated total. The F-Series is known worldwide as a range of user-friendly indicators. The F018 is even more impressive. The HART communication allows you to communicate in an easy way with smart "DD enabled host" systems.

In addition to the average K-Factor or Span, fifteen 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 signal outputs.

## 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

- Flow rate monitoring with a precise calculation over the full measurement range, where re-transmission of the totalizer and monitoring of the flow rate function and HART communication 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.
- 16 - 30V DC.
- Basic: 8 - 30V DC.
- Analog output loop powered.

#### Sensor Supply

- 1.2 / 3.2 or 8.2V DC.

### Signal Outputs

#### Pulse outputs

- Function: Scaled pulse output according to linearized accumulated total (e.g. a pulse every 3.25 gallons) and unscaled pulse input retransmission. Max. frequency: 500Hz. Retransmission: Minimum pulse duration: 50µs, Adjustable pulse length from 1 msec. Up to 10 seconds.
- Type: One passive NPN transistor.

#### Alarm outputs

- Function: Configurable alarm output for high, low or both combined flow rate alarms.
- Type: One passive NPN transistor.

### Hazardous Area

#### Intrinsically Safe

- ATEX:  
Gas: II 1 G Ex ia IIC T4 Ga  
Dust: II 1 D Ex ia IIIC T<sub>200</sub> 100 °C Da
- IECEX:  
Gas: Ex ia IIC T4 Ga  
Dust: Ex ia IIIC T<sub>200</sub> 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

- For Explosion Proof applications we recommend the E-Series.

### **Analog outputs**

- Function: Re-transmitting the linearized flow rate, the output can be scaled to any range (e.g. 200 L/min to 1200 L/min).
- Type: One galvanically isolated, loop powered 4 - 20mA output.

### **Communication**

- Function: All process data and settings can easily be read and modified through the HART communication link with all registered "DD enabled host" systems.
- Protocol: HART, Revision 7.0.
- Device specific DD can be downloaded at the dropdown downloads above .



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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.