

# F112

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

with linearization, Modbus, analog and pulse outputs



### Features

- Fifteen point linearization of the flow curve - with interpolation.
- Analog and pulse outputs.
- Displays linearized total and flow rate simultaneously and additional 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.
- Remote control input to reset total or to lock the "clear total" button.
- 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 F112 is a versatile flow rate indicator / transmitter and totalizer with the ability to precisely linearize the flowmeter signal. 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 output signals.

Displays total and flow rate simultaneously and additional 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

- Liquid flow measurement with mechanic flowmeters where a precise calculation over the full measurement range is required. Also re-transmission of the flow rate and/or totalizer functions or serial communication is desired.
- 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, open collector, NAMUR, NPN/PNP pulse, Sine wave (coil), active pulse signal.
- (0)4 - 20mA.

#### Status Inputs

- Remote control: external reset for clearing total or to disable manual clearing by the keypad.

### Supply

#### Power Supply

- Long life Lithium battery.
- 4 - 20mA 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 linearized accumulated total (e.g. a pulse every 3.25 gallons).  
Max. frequency: 500Hz.  
Adjustable pulse length from 0.001 sec. to 9.999 seconds.
- Type: One passive NPN transistor, active PNP transistor or isolated electro-mechanical relay.

#### Alarm outputs

- None.

#### 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 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<sub>200</sub> 100 °C Da
- IECEX:  
Gas: Ex ia IIC/IIB T4 Ga  
Dust: Ex ia IIIC T<sub>200</sub> 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.