

# Flow Rate Monitor / Totaliser



The F018 is a local indicator with linearization that displays the actual 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 with specific DD (Device Descriptor) allows you to communicate in an easy way with other smart field devices and control / monitoring systems.



## Features

- Fifteen point linearization of the flow curve- with interpolation
- Displays instantaneous flow rate, total and accumulated total
- 2 alarm values can be entered: low and high flow rate alarm
- Large 17mm (0.67") digits for flow rate or total
- Red flashing LED backlight in case of a flow rate alarm
- Ability to process all types of signals: Sine wave (coil), NAMUR, NPN/PNP pulse, Reed-switch, active pulse signals.
- HART communication
- One digital output that can be configured as a scaleable pulse output or as a flow rate alarm output.
- Galvanically isolated, loop powered 4-20mA output according to the linearized flow rate.
- Output loop powered, battery powered or 8-30V DC
- Sensor supply: 3.2 / 8.2 / 12 / 24V DC
- Auto backup of settings and running totals

## Advantages

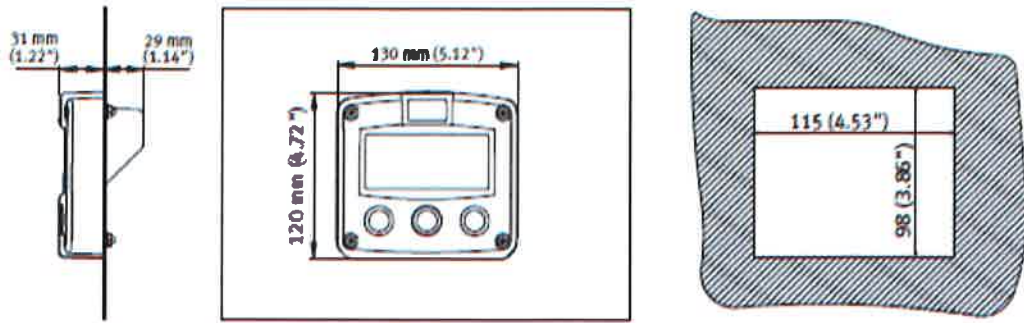
- Robust IP67 (NEMA Type4X) field enclosure. It is so rugged you can even stand on it!
- Intrinsically safe available – ATEX, IECEx, FM and CSA approval for gas and dust applications
- Programming can be done by your own crew, with the sensible menu-driven structure, saving cost and irritation. Know one, know them all!
- Very diverse mounting possibilities: walls, pipes, panels or directly onto outdoor sensors.

## Specifications

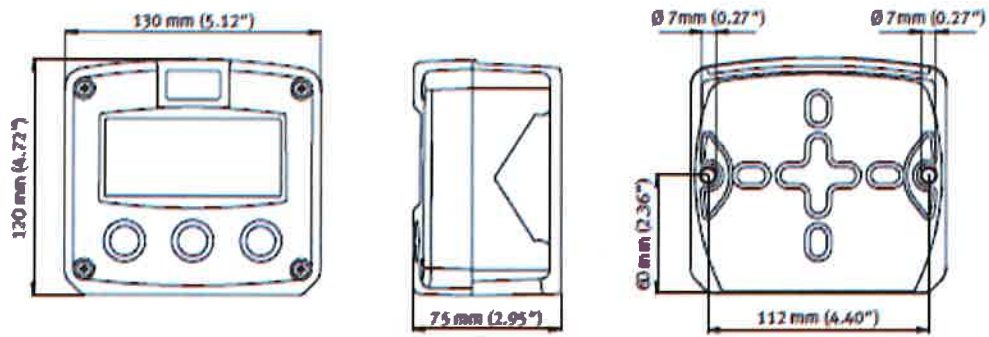
<b>Display</b>	
Type	High intensity reflective numeric and alpha-numeric LCD, UV resistant
Dimensions	3.5" x 1.6" (90mm x 40mm)
Digits	Seven 0.67" (17mm) and eleven 0.31" (8mm) digits
Operating temperature	-40°F to +176°F (-40°C to +80°C)
Power Requirements	Long life lithium battery available for both safe and intrinsically safe area applications. The basic 8-30V DC (PX) can power the F018 but doesn't offer a real sensor supply when the backlight requires at least 20V DC. A real sensor supply of 8.2, 12 or 24V is optional available with type PD (16-30V DC)
<b>Signal Input</b>	Coil/sin wave (minimum 20mVpp or 80mVpp – sensitivity selectable), NPN/PNP, open collector, reed switch, Namur, active pulse signals 8 – 12 and 24V (dc)
Frequency	0Hz – 7kHz for total and flow rate internal low-pass filter. E.g. reed switch with low-pass filter: maximum 120Hz
K-Factor	0.00001-9,999,999 with variable decimal position
<b>Signal Output (Analog)</b>	
Update Time	Ten times per second
Type AP	Passive 4 – 20mA output – not isolated. Unit will be loop powered
Type AH	Galvanically isolated, loop powered 4-20mA output
<b>Signal Output (Pulse)</b>	
Frequency	Maximum output frequency is 500Hz. Pulse length user definable between 1ms up to 10 seconds
Type OT	Passive NPN signal

## Dimensions

### Panel Mount Enclosure



### Wall Mount Enclosure



## Product Codes

F018		Flow Monitor / Totaliser
Input Analog output Communi- cation	P	<b>Pulse input, eg. Coil, NPN, PNP</b>
	AH	<b>Galvanically isolated, loop powered 4-20mA output</b>
	CR	HART Communication
	CX	<b>No Communication</b>
Enclosures	HB	Aluminium panel mount enclosure
	HC	<b>GRP panel mount enclosure</b>
	HD	GRP field mount –Cable entry: no holes
	HE	GRP field mount –Cable entry: 2 x 16mm & 1 x 20mm
	HF	GRP field mount –Cable entry: 1 x 22 mm (7/8")
	HG	GRP field mount –Cable entry: 2 x 20 mm
	HH	GRP field mount –Cable entry: 6 x 12mm
	HJ	GRP field mount –Cable entry: 3 x 22mm (7/8")
	HK	GRP field mount, flat bottom – Cable entry: no holes
	HA	Aluminium field mount – Cable entry: 2 x PG9 & 1 x M20
	HL	Aluminium field mount – Cable entry: 2 x 1/2" NPT
	HM	Aluminium field mount – Cable entry: 2 x M16 & 1 x M20
	HN	Aluminium field mount – Cable entry: 1 x M20
	HO	Aluminium field mount – Cable entry: 2 x M20
	HP	Aluminium field mount – Cable entry: 6 x M12
	HT	Aluminium field mount – Cable entry: 1 x 1/2" NPT
	HU	Aluminium field mount – Cable entry: 3 x 1/2" NPT
	HV	Aluminium field mount – Cable entry: 4 x M20
	HZ	Aluminium field mount – Cable entry: no holes
	Digital output	OT
PD		16 – 30V DC & sensor supply
PX		<b>Basic power supply 8 – 30V DC</b>
Battery	PB	Additional lithium battery powered (opt.) – requires XX
	PC	Additional lithium battery powered (opt.) – Intrins. Safe – requires XI
Hazardous	XI	Intrinsically safe, according ATEX, IECEx, CSA c-us and FM
	XX	<b>Safe area only</b>
	ZB	Backlight
Options	ZF	Coil input 10mVpp
	ZG	Coil input 5mVpp
	ZX	<b>No options</b>

The **bold** marked text contains the standard configuration: F018-P-AH-CX-HC-OT-PX-XX-ZX

F018 20-24

**Filton Process Control Engineering**  
Unit 2, The Old Grain Store,  
Ditchling Common Industrial Estate,  
Ditchling, East Sussex  
BN6 8SG  
United Kingdom  
Tel: 01444 248777  
Fax: 01444 243750  
Email: [sales@filton.com](mailto:sales@filton.com)

