

F SERIES (REMOTE PANEL MOUNT ELECTRONICS)



FLOMEC® F Series Electronics are designed with several different input and output options. Rugged and dependable, the F Series offers:

- Safe and Hazardous Area option
- Pulse, 4-20 mA, MODBUS RTU outputs
- Single/Dual input or batch control

FEATURES/BENEFITS

- **Batching**
- **High Low Alarms**
- **Net Use**
- **Linearisation**
- **4-20 mA Output**
- **Two Stage Valve Control**
- **HART Protocol**
- **Temperature Compensation**

PRODUCT CONFIGURATION

STANDARD CONFIGURATION **1**

- F018** = Flow Rate Monitor / Totaliser - Linearisation & Alarms
- F115** = Flow Rate Monitor / Totaliser - Bi-Directional - Quadrature
- F127** = Differential / Sum Flow Computer - Net Use - Temp Correction
- F130** = Batch Controller - Two Stage

FLOWMETER INPUT SIGNAL **2**

P = Pulse input: Coil, NPN, PNP, Namur, Reed-switch

ANALOGUE OUTPUT SIGNAL **3**

- AP** = Passive 4-20mA output, loop powered unit (F115 & F127)
- AH** = Galvanically isolated, loop powered 4-20 mA output (F018)
- AX** = No analog output (F130)

COMMUNICATION **4**

- CR** = HART Communication (F018)
- CX** = NO communications (F115, F127 & F130)

FLOW EQUATIONS **5**

- EL** = Corrected Liquid Volume (F127)
- EX** = No flow equations (F115 & F130)
= None on F018

ENCLOSURE **6**

HE = Cable Enter: 2-16 mm & 1-20 mm

ADDITIONAL INPUTS **7**

- IR** = Remote control input to start, pause or stop (F130)
- IX** = No additional inputs (F018, F115 & F127)
= None for F018

OUTPUTS **8**

OT = Two passive transistor outputs - standard configuration (F018 only has 1 not 2)

POWER SUPPLY **9**

PD-PB = 8 - 24 V (ac/dc) + sensor supply - with XI: 16 - 30 V (dc) & Lithium battery powered (F018*, F115 & F127)

PD-PC = 8 - 24 V (ac/dc) + sensor supply - with XI: 16 - 30 V (dc) & Lithium battery powered - Intrinsically Safe (F018* & F130)

*F018 does not have the 8 - 24 V (ac/dc)

TEMPERATURE INPUT SIGNAL **10**

- TP** = PT100 input (F127)
- TX** = No temperature input signal (F018, F115 & F130)

HAZARDOUS AREA **11**

XI = Intrinsically Safe, according to ATEX & IECEx

XX = Safe area

OTHER OPTIONS **12**

- ZB** = Backlight (F018, F115 & F127)
- ZX** = No options (F130)

1 2 3 4 5 6 7 8 9 10 11 12
>>>> **F018 P AP CX EX HE IX OT PD-PB TX XX ZB**

SPECIFICATIONS

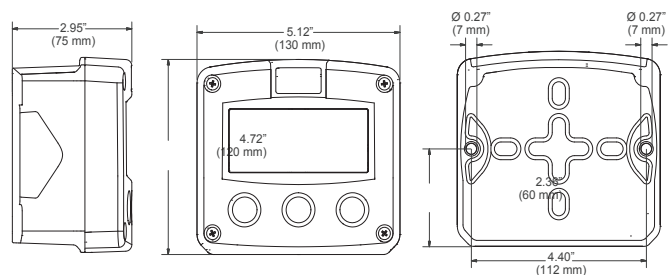
Display:	
Type	High intensity reflective numeric and alpha-numeric LCD, UV resistant
Dimensions	3.5 in. x 1.6 in. (90 mm x 40 mm)
Digits	Seven 0.67 in. (17 mm) and eleven 0.31 in. (8 mm) digits. Various symbols and measuring units.
Refresh rate	User definable: Fast, 1 s, 3 s, 15 s, 30 s, Off
Option ZB	Transflective LCD with green LED backlight. Good readings in full sunlight and darkness.
Operating Temperature:	
	-40°F to +176°F (-40°C to +80°C)
Power Requirements:	
	8 - 24 V (ac/dc) ± 10%. Power consumption maximum 10 Watt.
	16 - 30V (dc). Power consumption maximum 1 Watt.
Sensor Excitation:	
	1.2 / 3.2 / 8.2 / 12 / 24V (dc) - maximum 400mA @24V (dc)
Terminal Connections:	
	Removable plug-in terminal strip. Wire maximum 1.5 mm ² and 2.5 mm ²
Data Protection:	
Type:	EEPROM backup of all settings. Backup of running totals every minute. Data retention at least 10 years.
Pass-code:	Configuration settings can be pass-code protected.
Enclosure:	
Dimensions:	5.12" x 4.72" x 2.95" (130 x 120 x 75 mm) W x H x D
Type HE	GRP panel mount enclosure IP65 / NEMA 4X. UV-resistant and flame retardant.
Weight	1.32 lbs (600g)
Environment:	
Electromagnetic compatibility:	Compliant ref: EN 61326 (1997), EN 61010-1 (1993)
Signal Input (Flowmeter):	
	Coil / sine wave (minimum 20mVpp or 80mVpp - sensitivity selectable), NPN / PNP, open collector, reed switch, Namur, active pulse signals 8 - 12 and 24V (dc)
Frequency:	Minimum 0Hz - maximum 7kHz for total and flow rate internal low-pass filter. E.g. reed switch with low-pass filter: maximum frequency 120Hz
K-Factor	0.000010 - 9,999,999 with variable decimal position
Low-pass filter	Available for all pulse signals

ACCESSORIES

1522056	F-Series Wall Mount Kit
1522052	F-Series Pipe Mount Kit
1519011	M16 Cable Gland Kit
1519012	M20 Cable Gland Kit

Signal Output (Analogue):	
Function:	Transmitting differential / sum flow rate
Accuracy:	10 bit. Error < 0.05%. Analog output signal can be scaled to any desired range.
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
Signal Output (Pulse):	
Function:	Pulse output according to differential or sum accumulated total and indication negative pulse output.
Frequency:	Maximum 64 Hz. Pulse length user definable between 7.8 ms up to 2 seconds
Type OT:	Two passive transistor outputs (NPN) - not isolated. Maximum 50V (dc) - 300mA per output
Communication option:	
Function:	Reading display information, reading / writing all configuration settings
Protocol:	HART
Total - 7 digits, 0 - 1 - 2 or 3 decimals:	
Units:	L, m ³ , GAL, USGAL, kg, lb, bbl, no unit
Note:	Total can be reset to zero
Accumulated Total - 11 digits:	
Units / Decimals:	According to selection for total
Note:	Can not be reset to zero
Flow rate - 7 digits, 0 - 1 - 2 or 3 decimals:	
Units:	mL, m ³ , Gallons, kg, Ton, lb, bl, cf, RND, ft ³ , scf, Nm ³ , NI, ical - no units
Time units:	/s - /min - /hr - /day
Alarm values - 7 digits:	
Units / Decimals:	According to selection for total
Time units:	According to selection for total
Type of alarm:	Low and high flow rate alarm. Includes alarm delay time and configurable alarm outputs.
Line temperature - 6 digits, 1 decimal:	
Units:	°C, °F or K

DIMENSIONS



APPROVALS

