DISPLAYS & OUTPUT Instruments

Operating Temperature

-40°F to +176°F (-40°C to +80°C)

115 - 230VAC± 10%. Power consumption maximum 15 Watt.

Power Requirements Options

Enclosure (Panel Mount)

F Series: F130



Top of the line specialty electronics by FLOMEC®. F Series Electronics are rugged and dependable, the F Series offers:

- Remote Panel Mount Electronics
- Field-mountable with back enclosure (included)
- For batching small up to very large quantities. Single or repeating batches.
- Easy programming with a sensible menu-driven structure
- · 2 stage valve control
- Large (17mm) 7 digit display
- Accepts several different input signals

	Dimensions:	130 x 120 x 60mm (5.12 in. x 4.72 in. x 2.36 in.) W x H x D	
	Panel cut-out::	115 x 98mm (4.53 in. x 3.86 in.) L x H	
	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	
	Signal Output (Analog)		
	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	
	Signal Output (Pulse)		
	Function:	Pulse output according to differential or sum accumulated total and indication negative pulse output.	
	Frequency:	Maximum 64Hz. Pulse length user definable between 7.8 msec up to 2 seconds.	
	Total - 7 digits, 0 - 1 - 2 or 3 decimals		
	Units:	L, m ³ , GAL, USGAL, kg, lb, bbl, no unit	
	Accumulated Total - 11 digits		
	Units / Decimals:	According to selection for total	
	Flow rate - 7 digits, 0 - 1 - 2 or 3 decimals		
i.	Units:	mL, $m^{3},$ Gallons, kg, Ton, lb, bl, cf, RND, $ft^{3},$ scf, $Nm^{3},$ NI, igal - no units	
	ENC	LOSURE APPROVALS	
ff		CE	

F130 – SPECIFICATIONS				
Display				
Туре	High intensity reflective numeric and alphanumeric LCD, UV-resistant.			
Dimensions	90 x 40mm (3.5" x 1.6")			
Digits	Seven 17mm (0.67") and eleven 8mm (0.31") digits. Various symbols and measuring units.			
Refresh rate	User definable: Fast, 1sec, 3sec, 15sec, 30sec, Off			

N410 Deluxe Batch Controller

The N410 distinguishes itself by its user-friendly features:

- Numerical keypad
- Clear programming menu structure
- Easy-to-read and simple mounting enclosure

 The numerical keypad allows simple and fast changing of the preset batch quality 			
N410 – SPECIFICATIONS			
Power Requirements			
110 - 230V AC. Power consumption maximum 10 Watt. 24V DC + 10%. Power consumption maximum 10 Watt.			
ENCLOSURE APPROVALS			
CE			

Signal Output (Control, Alarm or Pulse Output)				
	One batch output (always a mechanical relay) Two configurable outputs (one mechanical relay and one transistor): batch / two-stage control / any alarm / scaled pulse output			
Relays	2 isolated, field replaceable, electro-mechanical relays (NO-NC). Max. switching capacity (resistive load): 8A @ 250V AC / 30V DC Max. switching power (resistive load): 2000VA 240W			
Preset / Total				
Digits	7 digits			
Units	L, m3, USGAL, IGAL, ft3, bbl, kg, Ton, US Ton, lb			
Decimals	0 - 1 - 2 or 3			
Accumulated Total				
Digits	10 digits			
Flow Rate				
Digits	7 digits			
Units	L, m³, USGAL, IGAL, ft³, bbl, kg, Ton, US Ton, lb			
Decimals	0 - 1 - 2 or 3			
Time Units	/sec - /min - /hr - /day			

APPROVALS Guide

At Great Plains Industries, we've been building rugged, reliable, liquid flowmeters for over 35 years. The GPI Industrial Meter family includes a full line of Precision and Industrial Turbine meters plus Oval Gear meters in various materials, sizes and fitting options.

We design products to meet the needs of our customers. This includes maintaining appropriate, industry standard approvals.

Approvals vary by product line and may be dependent on meter application.

The Approval symbol is listed under product specifications on individual product pages. If no approval mark is found, check the chart to the right. For details about specific "Approvals" refer to the chart.

3-A	3-A Sanitary Standards, Inc. "Flowmeters for Milk and Milk Products, Number 28-03" for GSCPS Models and L Option Meters.
ATEX Ex	Ex II 1 G Per 94/9/EC.
C€	Product reviewed for EMC Directive 2004/108/EC. Includes: Euro Norms 61000-6-2 (2005) and 61000-6-3 (2007) on A1 and G2 Series Meters. Note: For Oval Gear Meters , the CE Approval is applied when meter is part of a system.
FM	Factory Mutual Approved Intrinsically Safe for Class I, II, III, Division 1, All Groups. Nonincendive for Class I, II, III, Division 2 Groups A, B, C, D, F, G.
c FM us APPROVED	Factory Mutual Approved Class 1, Div. 1, Group D (01A31GM Only)
c FM APPROVED	Factory Mutual Approved Intrinsically safe for Class I & II, Div. 1, Groups A, B, C, D, E, F & G, T6 Ta=-40° C to 60° C hazardous locations, and for use in Class I, Zone 0 as Ex is IIC T6 Ta=-40° C to 60° C.
F©	Federal Communication Commission Industry Canada Approval Class B; digital service, part 15 of FCC Rules.
IEC IECEX	Ex ia IIC T6 Ta=60° C
IP44/IP54/IP66	Ingress Protection Code IP44 (Greater than 1 mm and splashed water); IP54 (Dust protected and splashed water); IP66 (Dust-tight and heavy seas).
IP/NEMA	Pulse versions of Oval Gear Meters have enclosure ratings that vary from IP54 / NEMA 13 to IP66 / NEMA 16 depending on the application.
NEMA 4	NEMA Requirements: Enclosure constructed for indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment. Protection against falling dirt, rain, sleet, snow, windblown dust, splashing or hose directed water that will be undamaged by the external formation of ice on the enclosure. GPI products are tested to NEMA requirements.
RoHS	Restriction of Hazardous Substances Directive 2002/95/EC and 2011/65/EU
C US	Indicates that the product was tested and has met the certification requirements for electrical, plumbing and/or mechanical products.