

Flow Monitor

B2800 Series

DESCRIPTION

The B2800 flow monitor is designed to be comprehensive, user-friendly, flexible and cost efficient. This microprocessor-based display can easily be configured in the field. You may choose between the simplified model that is programmed in seven steps and the advanced model that provides additional programming options.

The B2800 flow monitor is offered in five mounting configurations: meter, remote, swivel, panel and explosion-proof, allowing for flexible installation. When paired with a rugged, reliable Blancett® turbine flow meter, the flow monitor provides dependable and accurate flow information for many years. The flow monitor may also be used with almost any flow sensor that outputs a low-amplitude AC signal.

OPERATION

The B2800 flow monitor accepts a low-level frequency input to calculate flow rate and total. These calculations are then displayed in user-selected units of measurement. The flow monitor is available in a battery-powered or loop-powered version. The battery version uses one D size, 1.5V alkaline battery that provides up to 3-1/2 years of service. The loop-powered version offers a two-wire 4...20 mA output for electronic integration. The meter mount, remote and swivel mount monitors are equipped with a large eight-digit by 3/4 in. (19 mm) numerical LCD display making extended range viewing practical. The second eight character by 3/8 in. (9 mm) alphanumeric display provides for selectable units viewing in *Run* mode and prompts variables in *Programming* mode. Additionally, you can choose between displaying the rate or total, or alternating between both rate and total.

OPTIONAL VENT

The B2800 flow monitor may be ordered with an optional vent, which equalizes the enclosure pressure caused by changes in temperature.



FEATURES

- Displays rate and/or total
- User friendly front panel programming
- Microprocessor-based, low power consumption
- Simplified model displays in five selectable units of measure: US gallons, liters, cubic meters (per day), barrels or cubic meters (per hour)
- Advanced model offers thirteen selectable units of measure: US gallons, oil barrels, liters, cubic meters, Mgallon, Mcubic feet, MMcubic feet, cubic feet, Mliters, acre feet, liquid barrels, pounds or kilograms
- Advanced model allows selection of time intervals for rate measurement in either day, hour, minute, or second
- Advanced model includes gas measurement with correction software for pressure and temperature



MOUNTING STYLES

Meter Mount

- Monitor is assembled to the flow meter, creating a compact flow measurement system
- NEMA 4X (IP-66) enclosure
- Fixed or toggle modes of operation for flow rate and total display

Remote Mount

- Ideal for installations where flow sensor is located in a challenging environment such as high temperature, excessive noise or inaccessible area
- NEMA 4X (IP-66) enclosure
- Mounting hardware included
- Fixed or toggle modes of operation for flow rate and total display
- Cable lengths from 10 ft (3 m) up to 100 ft (30.5 meters) sold separately

Swivel Mount

- Capable of adjusting orientation up to 180 degrees
- · Offers additional protection from the sun/elements
- · Increased visibility in difficult viewing installations
- · Remote swivel mount also available, consult factory for details
- NEMA 4X (IP-66) enclosure
- Fixed or toggle modes of operation for flow rate and total display

Explosion Proof

- Ideal for hazardous locations
- Rugged compact design
- 8 digit 0.5 in. (12.7 mm) numeric display (rate/total display; programming choices)
- Fixed or toggle modes of operation for flow rate and total display
- NEMA 4X (IP-66) enclosure

Panel Mount

- NEMA 4 (front only)
- Designed to be mounted in 3.6 x 3.6 in. (91 x 91 mm) opening
- Fixed or toggle modes of operation for flow rate and total display





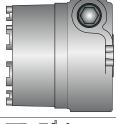








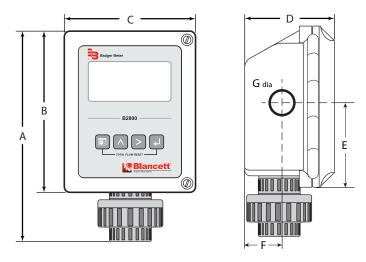






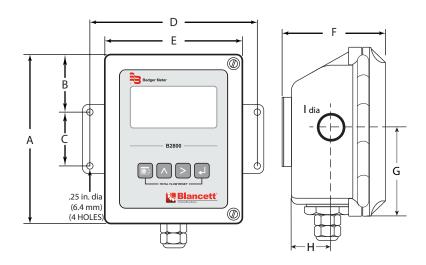
DIMENSIONS

Meter Mount



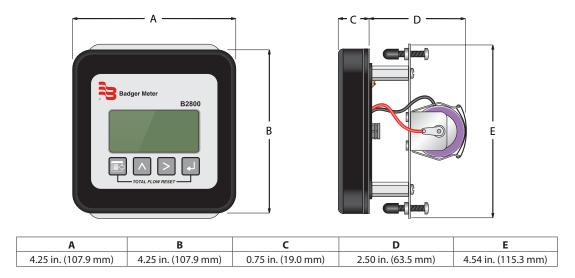
Α	В	c	D	E	F	G dia
9.25 in.	7.00 in.	5.75 in.	4.00 in.	3.45 in.	1.50 in.	0.875 in.
(235.0 mm)	(177.8 mm)	(146.0 mm)	(101.6 mm)	(87.6 mm)	(38.1 mm)	(22.2 mm)

Remote Mount

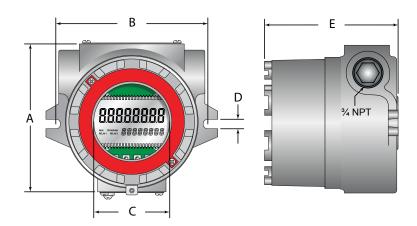


Α	В	C	D	E	F	G	Н	I dia
7.00 in.	2.40 in.	2.25 in.	7.00 in.	5.75 in.	4.38 in.	3.45 in.	1.50 in.	0.875 in.
(177.8 mm)	(61.0 mm)	(57.2 mm)	(177.8 mm)	(146.0 mm)	(111.2 mm)	(87.6 mm)	(38.1 mm)	(22.2 mm)

Panel Mount

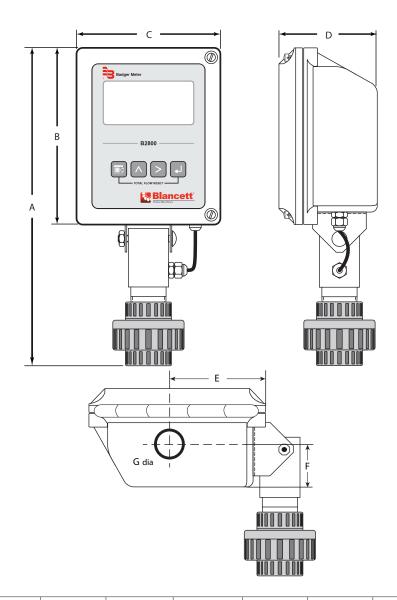


Explosion Proof



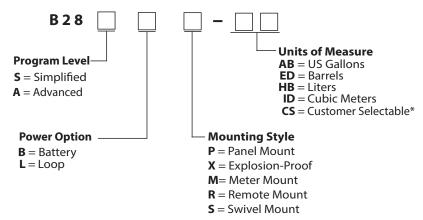
Α	В	С	D	E
5.1 in.	5.25 in.	2.6 in.	5/16 in.	4.51 in.
(19.31 mm)	(19.87 mm)	(9.84 mm)	(1.19 mm)	(17.07 mm)

Swivel Mount



Α	В	С	D	E	F	G dia
12.25 in.	7.00 in.	5.75 in.	4.00 in.	3.45 in.	1.50 in.	0.875 in.
(311.2 mm)	(177.8 mm)	(146.0 mm)	(101.6 mm)	(87.6 mm)	(38.1 mm)	(22.2 mm)

PART NUMBER CONSTRUCTION



^{*}Advanced B2800 monitors only, the default is US gallons per minute

SPECIFICATIONS

	I					
Power	Battery	1 D size 1.5V DC alkaline battery included; lasts approximately 3.5 years				
1 01101	Loop-powered	420 mA, two-wire current loop; 25 mA maximum consumption				
	One pulse for each increment of the least significant digit of totalizer					
	Pulse type	Opto-isolated open collector transistor				
Pulse Output	Max. voltage	30V DC				
	Pulse width	(ON State) 20 ms/max pulse rate 20 Hz				
	Current	(ON State) 0.9V drop @ 5.0 mA or 0.7V drop @ 0.1 mA				
	Magnetic pickup					
	Frequency range	13500 Hz				
Inputs	Trigger sensitivity	30 mV p-p				
	Over-voltage protected	30V DC				
Accuracy	+/- 0.1%					
Analog Output	Loop-powered	420 mA				
Operating Temperature	–22158° F (–3070° C)					
Humidity	090% non-condensing					
En el escura Datina	Meter, remote and swivel mount	NEMA/UL/CSA Type 4X (IP-66)				
Enclosure Rating	Panel mount	NEMA 4 (front only)				
	Explosion-proof	NEMA 4X (IP-66)				
	Meter, remote	CSA Intrinsically Safe Class I, Division 1, Groups C & D, Class II, Division 1, Groups E, F & G;				
	and swivel mount	CE IEC 61326-1				
Certifications	Panel mount	CSA ordinary area				
	Explosion-proof	CSA Hazardous Location Class I, Division 1, Groups B, C & D, Class II, Groups E, F & G, Class III, Type 4X, T6 @ 70 C				

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