FLOW AND ENGERY MONITOR
3000, 3050 SERIES

DESCRIPTION

The **Badger Meter 3000** and **3050 Series flow and energy monitors** are economical, full-featured, compact units designed for flow and BTU measurement applications. Outputs include one mechanical relay and one solid state pulse output, both featuring unit/pulse and set-point control independently based on flow or total readings.

3050-1-0

OPTIONAL FEATURES

An analog 4-20 mA or 0-20 mA output is optional and USB, RS-485 Modbus, and BACnet/MSTP provide high-level communication. A two-line by 16-character, 3/8" high backlit LCD display is configured by the user to display flow rate and flow total. Custom units can be created during field setup. The flow sensor input features flexible scaling options and signal type selections that permit the use of most Data Industrial meter sensors, or other frequency (sine/pulse) or linear devices. Matched 10 kΩ thermistors (ordered separately) provide temperature differential for BTU calculations.

One mechanical relay and one solid state relay output
Optional 0/4-20 mA output
USB, RS-485, Modbus, and BACnet/MSTP all in one unit

FEATURES

- ***Menu-driven programming or Windows based programming***
- ***NEMA 4X rated enclosure***
- ***Two-line x 16-character display***
- ***Password-restricted access***
- ***Non-volatile memory***
- ***Temperature sensor zeroing***

SPECIFICATIONS

Supply Voltage	8 to 28 VAC, 5 VA; 8-35 VDC, 280 mA
Input	Data Industrial flow sensor or other frequency (sine/pulse) device
Sensor Input	Two 2-wire 10 kΩ type II thermistors or 100Ω 3-wire platinum RTDs or field-defined custom temperature inputs
Maximum Output Impedance	1 kΩ @ 24 VDC
Output	Solid state pulse output rated at 1A @ 30 VAC or 35 VDC; closed 0.5Ω @ 1A; open >10 MΩ
Relay Output	Relay and pulse output are fully functional as either totalizing or setpoint outputs
Relay Output Rating	5A @ 120 VAC or 30 VDC resistive; 1A @ 120 VAC or 30 VDC inductive
Analog Output	4-20 mA, 0-20 mA (isolated, sinking or sourcing); loop powered (sinking) 30 VDC @ 0 mA maximum, 3 VDC @ 20 mA minimum; self powered (sourcing) 600Ω maximum load
Pulse Rate	1 pulse per 1.0000000 to 99999999 units; any predefined or custom unit can be used for flow or BTU totalizing; contact time 1 to 9999 milliseconds
Setpoints	Setpoint alarm for flow rate, BTU rate, Temp1, Temp2, DeltaT using any predefined or custom unit
Zero Adjustments	Compensation for variances between input sensors by adjusting T2 to match T1
Communication Interface	USB 2.0A to mini-B 5-pin cable required, provides access to all programming and operation features
Communication Protocol	RS485 supports Modbus and BACnet/MSTP
Display	Backlit LCD, 16 characters/line, 0.31"H (0.79 cm), two lines
Engineering Units	Flow and Total in gal, liters, ft3, acre-ft, or bbl; Energy rate kBTU/hr, BTU/min, KW, Tons, J/sec or field-programmed custom; energy total units can be MBTU, kBTU, kWh, MWh, kJ, or field-programmed custom
Operating Temperature	-4° to 158°F (-20° to 70°C)
Enclosure Rating	NEMA 4X
Approvals	CE
Weight	
Panel mount	0.8 lb (0.34 kg)
Wall mount	1.2 lb (0.54 kg)
Warranty	1 year

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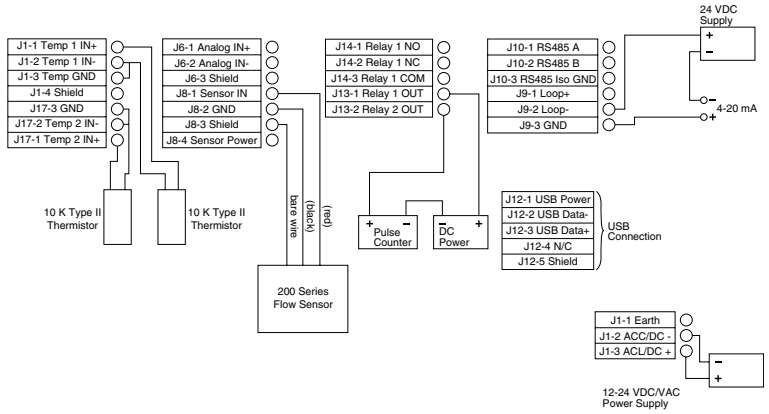
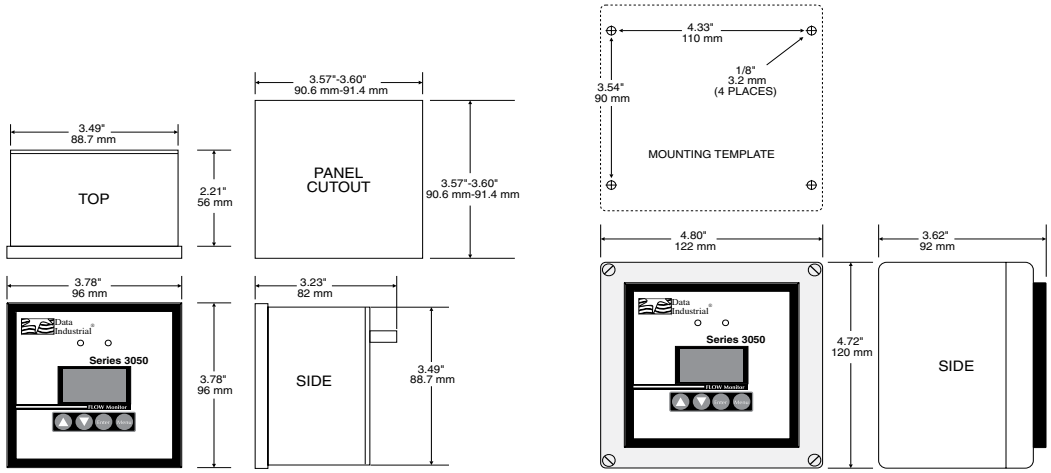
WIRING

Badger 3050 BTU Monitor



DIMENSIONS



ORDERING INFORMATION

MODEL	DESCRIPTION
3000	Flow meter with display
3050	BTU monitor with display
	ANALOG OUTPUTS
	0 No analog output
	1 Analog output, RS485 (BACnet/Modbus), and USB
	MOUNTING
	0 Panel mount
	1 Wall mount

RELATED PRODUCTS		PAGE
200 Series	Data Industrial impeller type flow sensors with pulse output	**290**
ST-U24B-XP	Temperature sensors, matched ±0.1°F, brass wells	
ST-U24S-XP	Temperature sensors, matched ±0.1°F, stainless steel wells	