



BTU METER AND FLOW MONITOR 3050 SERIES

DESCRIPTION

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

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*



3050-1-0



SPECIFICATIONS

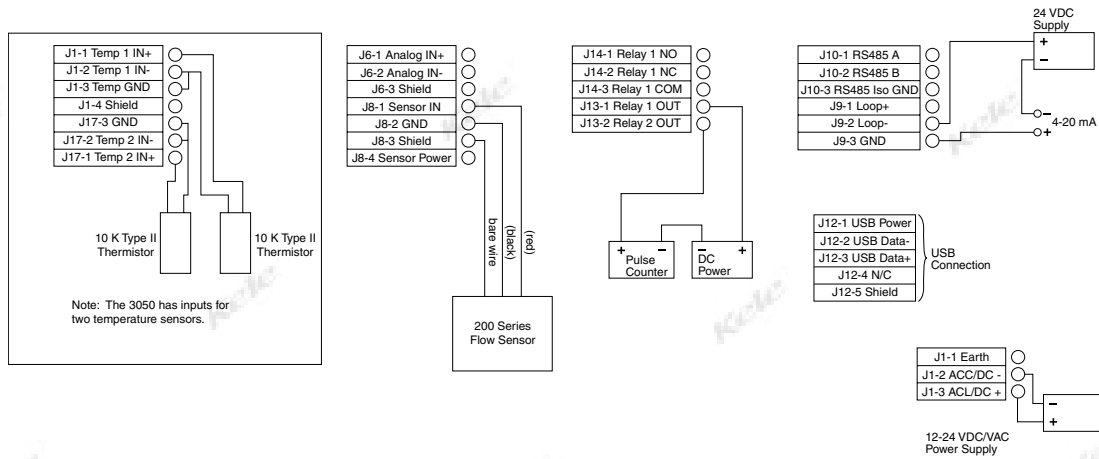
Supply Voltage	8 to 28 VAC, 5 VA; 8-35 VDC, 280 mA	Zero Adjustments	any predefined or custom unit Compensation for variances between input sensors by adjusting T2 to match T1
Input	Data Industrial flow sensor or other frequency (sine/pulse) device	Communication Interface	USB 2.0A to mini-B 5-pin cable required, provides access to all programming and operation features
Sensor Input	Two 2-wire 10 kΩ type II thermistors or 100Ω 3-wire platinum RTDs or field-defined custom temperature inputs	Communication Protocol	RS485 supports Modbus and BACnet/MSTP
Maximum Output Impedance	1 kΩ @ 24 VDC	Display	Backlit LCD, 16 characters/line, 0.31"H (0.79 cm), two lines
Output	Solid state pulse output rated at 1A @ 30 VAC or 35 VDC; closed 0.5Ω @ 1A; open >10 MΩ	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
Relay Output	Relay and pulse output are fully functional as either totalizing or setpoint outputs	Operating Temperature	-4° to 158°F (-20° to 70°C)
Relay Output Rating	5A @ 120 VAC or 30 VDC resistive; 1A @ 120 VAC or 30 VDC inductive	Enclosure Rating	NEMA 4X
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	Weight	
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	Panel mount	0.8 lb (0.34 kg)
Setpoints	Setpoint alarm for flow rate, BTU rate, Temp1, Temp2, DeltaT using	Wall mount	1.2 lb (0.54 kg)
		Approvals	CE
		Warranty	1 year



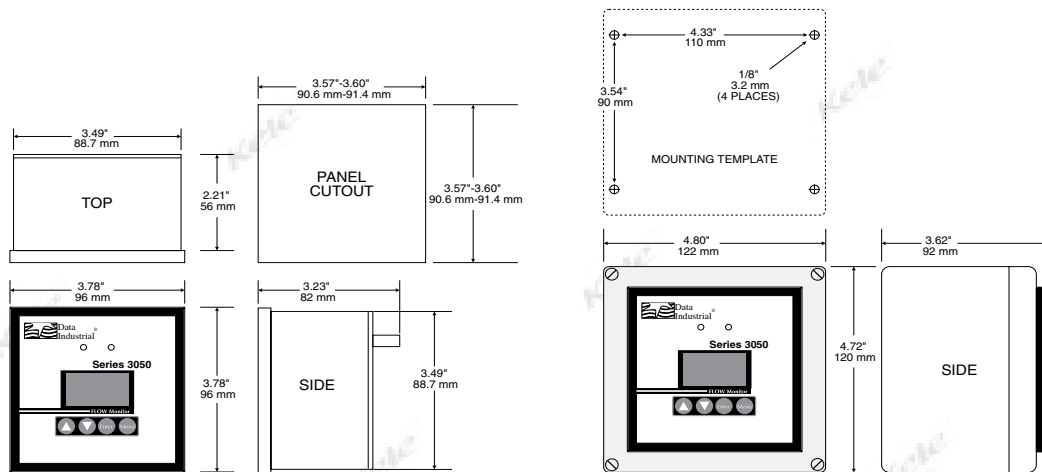
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WIRING

Badger 30XX BTU Monitor



DIMENSIONS



ORDERING INFORMATION

MODEL	DESCRIPTION
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

200 Series
ST-U24B-XP
ST-U24S-XP

Data Industrial impeller type flow sensors with pulse output
Temperature sensors, matched $\pm 0.1^\circ\text{F}$, brass wells
Temperature sensors, matched $\pm 0.1^\circ\text{F}$, stainless steel wells