

# B30XX SERIES

Accurately Displays Flow Data



B30xx Series flow monitors are offered for use with the B142 gas Quicksert gas flow meter. The B30xx Series provides a flexible, durable, easy-to-use platform for flow metering applications.

## SPECIFICATIONS

INPUT POWER	
4 to 20 mA, Pulse, and Modbus Models	Auto switching between internal battery and external loop power; Advanced output models include isolation between loop power and other I/O Battery: 3.6VDC lithium "D Cell" gives up to 6 years of service life Loop: 4 to 20 mA, two-wire, 25 mA limit, non-polarity sensitive, 7 Vdc loop loss
Solar Models Only	Internal battery (3.6 Vdc NiCd) provides up to 30 days of power after 6 to 8 hours exposure of the integrated photovoltaic cell to direct sunlight
SENSOR INPUTS	
Magnetic Pickup	Frequency Range: 1 to 3500 Hz Frequency Measurement Accuracy: $\pm 0.1\%$ Over Voltage Protection: 28 Vdc Trigger Sensitivity: 30mVp-p (High) or 60mVp-p (Low) (selected by circuit board jumper)
SYSTEM	
Accuracy	$\pm 0.05\%$
Response Time	1 to 100 sec response to a step change input, user adjustable
OUTPUTS	
Analog 4 to 20mA	4 to 20 mA, two-wire current loop; 25 mA current limit
Totalizing Pulse	Pulse Type: (selected by circuit board jumper) Opto-isolated (Iso) open collector transistor, Non-isolated open drain FET Maximum Voltage: 28 Vdc Maximum Current Capacity: 100 mA Maximum Output Frequency: 16 Hz Pulse Width: 30 msec fixed

## NEMA 4X enclosure

NEMA 4X (IP66) enclosure with meter mount, remote mount, and swivel mount options. Explosion-proof housing available.

## Power options

Solar, battery, and 4 to 20 mA loop power options...can be installed in remote locations and be up and running immediately

## 8-year battery life

Battery-life up to 8 years...maintain readings and settings during power loss

## APPLICATIONS

- Monitor natural gas flow in boiler systems
- Monitor propane or gas flow in industrial systems

Modbus (Advanced Output Models Only)	Modbus RTU over RS-485, 127 addressable units/2-wire network, 9600 baud, long integer and single precision IEEE754 formats; retrieve: flow rate, job totalizer, grand totalizer, alarm status and battery level; write: reset job totalizer, reset grand totalizer
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## OPERATING CONDITIONS

Operating Temp. Range	-30 to +70 °C (-22 to +158 °F)
Operating Humidity Range	0 to 90% RH, non-condensing

## MATERIALS AND ENCLOSURE RATINGS

Standard	Polycarbonate, stainless steel, polyurethane, thermoplastic elastomer, acrylic; NEMA 4X/IP66
Explosion Proof	Copper free, epoxy-coated aluminum, buna seal, NEMA 4X/IP66

## ENGINEERING UNITS

Liquid*	Gallons, Liters, Oil Barrels (42 gallon), Liquid Barrels (31.5 gallon), Cubic Meters, Million Gallons, Cubic Feet, Million Liters, Acre Feet
Gas	Cubic Feet, Thousand Cubic Feet, Million Cubic Feet, Standard Cubic Feet, Actual Cubic Feet, Normal Cubic Meters, Actual Cubic Meters, Liters
Rate Time	Seconds, minutes, hours, days
Totalizer Exponents	0.00, 0.0, X1, x10, x100, x1000
K Factor Units	Pulses/Gallon, Pulse/cubic meter, pulses/liter, pulses/cubic foot

## COMPLIANCE INFORMATION

Agency Approvals, Standard Housing	Class I Division 1, Groups C, D; Class II, Division 1 Groups E, F, G; Class III for US and Canada. Complies with UL 913 and CSA C22.2 No. 153
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## Selectable display

Selectable display and totalization options...simultaneous display of rate and total, as well as standard, batch and grand totals

## Pulse & 4-20 mA

All models feature pulse and 4 to 20 mA outputs, advanced output models also feature Modbus RTU...communication versatility

## Robust alarm parameters

Faster warning when something in the system changes



**SPECIFICATIONS, CONT.**

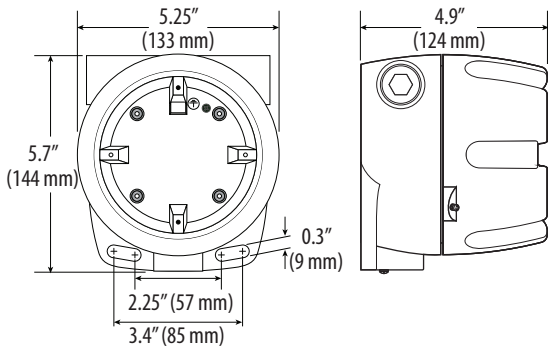
Agency Approvals, Explosion Proof	Class I Division 1 Groups B, C, D; Class II, Division 1, Groups E, F, G; Class III for US and Canada Complies with UL 1203 and CSA C22.2 No. 30 ATEX II 2 G Ex d IIC T4 Gb and ATEX II D Ex tb IIIC T125 °C Db Complies with Directive 94/9/EC
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<b>WARRANTY</b>	
Limited Warranty	1 year

\* B30xx may be used with non-gas meters. Consult Veris for specific liquid applications.

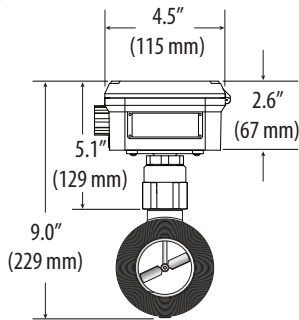
**EXPLOSION-PROOF BOX**

Dimensional Drawing



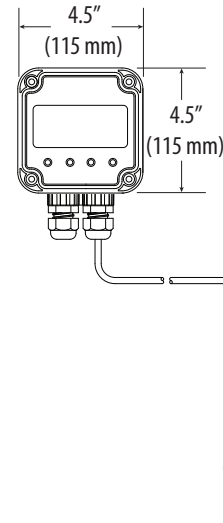
**METER MOUNT, SHOWN WITH B142 METER INSTALLED**

Dimensional Drawing



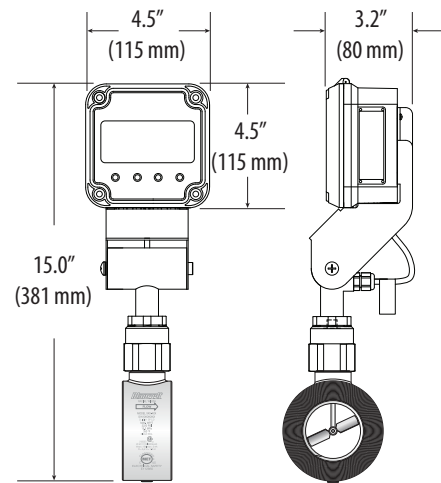
**REMOTE MOUNT, SHOWN WITH B142 METER INSTALLED AND B220 REMOTE CABLE**

Dimensional Drawing



**SWIVEL MOUNT, SHOWN WITH B142 METER INSTALLED**

Dimensional Drawing



**ORDERING INFORMATION**

PART #	MANUFACTURER PART #	DESCRIPTION
U021-0006	B30AM-CS	Flow Monitor, Standard Housing, Advanced Output, Meter Mount
U021-0007	B30AR-CS	Flow Monitor, Standard Housing, Advanced Output, Remote Mount**
U021-0008	B30AS-CS	Flow Monitor, Standard Housing, Advanced Output, Swivel Mount
U021-0009	B30BM-CS	Flow Monitor, Standard Housing, Basic Output, Meter Mount
U021-0010	B30BR-CS	Flow Monitor, Standard Housing, Basic Output, Remote Mount**
U021-0011	B30BS-CS	Flow Monitor, Standard Housing, Basic Output, Swivel Mount
U021-0012	B30SM-CS	Flow Monitor, Standard Housing, Solar Display Only, Meter Mount
U021-0013	B30SR-CS	Flow Monitor, Standard Housing, Solar Display Only, Remote Mount**
U021-0014	B30SS-CS	Flow Monitor, Standard Housing, Solar Display Only, Swivel Mount
U021-0015	B30XR-CS	Flow Monitor, Explosion Proof Housing, Basic Output, Remote Mount**
U021-0016	B30ZR-CS	Flow Monitor, Explosion Proof Housing, Advanced Output, Remote Mount**
U021-0017	B220-221	Remote Cable Assembly with 10 ft connector**
U021-0018	B220-221-30	Remote Cable Assembly with 30 ft connector**
U021-0019	B220-221-50	Remote Cable Assembly with 50 ft connector**

\*\* B220 remote cable is required for all remote mount options.

