

THE WELL BUBBLER 10-120 Well Monitoring System

About

The Well Bubbler forces compressed air through an airline installed in the well to accurately measure the standing and pumping water levels - the same approach used by well drillers and pump installers. The well level is automatically calculated from the length of the airline and the air pressure, and is shown on the display in feet.

Benefits

The Well Bubbler was developed after years of struggling with transducers and acoustic well level sensors. Submersible pump motor wiring and tight clearances cause transducers to snag during installation. Turbine pump motors drip oil into the well, clogging and fouling the sensor. The pump can be damaged by ingesting the transducer and wiring. VFD noise can make transducers unreadable, while engine noise, and splashing water affect the accuracy of acoustic sensors.

The Well Bubbler can be safely installed with all pump and motor types - it is not affected by oil in the well, electrical VFD noise, or engine noise. In many cases, an air line is already installed in the well, for a truly "plug-and-play" installation.

Features

Cellular data reporting and text alerts

Record flow rate - compatible with pulse-type and 4-20mA flow meters

Record pump power & pressure - use standard 4-20mA transducers

Integrated solar power - no wiring, assembly or AC power required

LCD display - visible in bright sunlight, back light for night-time visibility

Relay output - stop the pump when well level is low, restart delay option

Secure data logger - view and download well level & flow history

Telemetry output - 4 to 20mA and 0 to 5Vdc for most telemetry systems

Compatibility - use with standard, 1/4" diameter airline

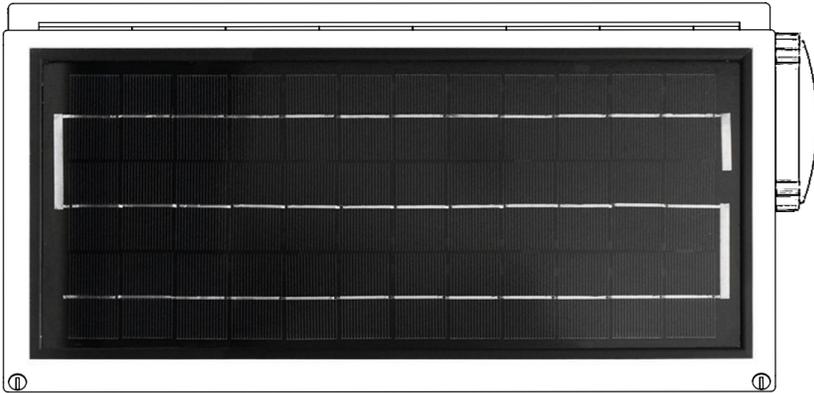
External power input - for use with remote solar panels or DC power

External power output - used to power flow meters and telemetry



PART NUMBER: 10-120	REVISION: 4.5
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SPECIFICATIONS

Mechanical

Enclosure: 14-ga powder coated steel, NEMA 12 and IP65
 External dimensions: 19 1/4" x 7 1/2" x 7" (W x D x H)
 Weight: 25 lbs
 Mounting: Strut channel, 1-5/8
 Air line compatibility: 1/4" OD, push to connect

Electrical

Maximum operating pressure: 150 psi
 Measurement range (SWL - PWL): 350 ft
 Sample rate, with external DC power: 5 min
 Sample rate, integrated solar: 5 min max, 15 min typical
 Accuracy: +/- 0.25% at 77°F (25°C)
 Operating temp range: 5°F to 131°F (-15°C to 55°C)
 Telemetry output: 0-5 Vdc, 4-20 mA (isolated), 10-bit
 Flow meter input: pulse type, 0.1Hz-100Hz, 12Vdc
 Discharge pressure input: 12Vdc, 4-20mA transducer
 Pump current input: 12Vdc, 4-20mA transducer
 Pump control relay: 5A @ 120Vac, SPST
 External power input: 1A @ 18-24Vdc
 External power output: 0.25A @ 12Vdc
 Integrated solar power: 10 Watt, monocrystalline
 Integrated storage battery: 12Vdc, 18Ah, sealed lead-acid

Data / Communication

Data logger capacity: 65,546 data points
 Storage: ~2 years at 15 min sample rate
 Cellular communication: Verizon 4G / LTE