

## THE WELL BUBBLER 5-120 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:** 5-120

**REVISION:** 1.4

**DRAWN BY:** A. BUGROV

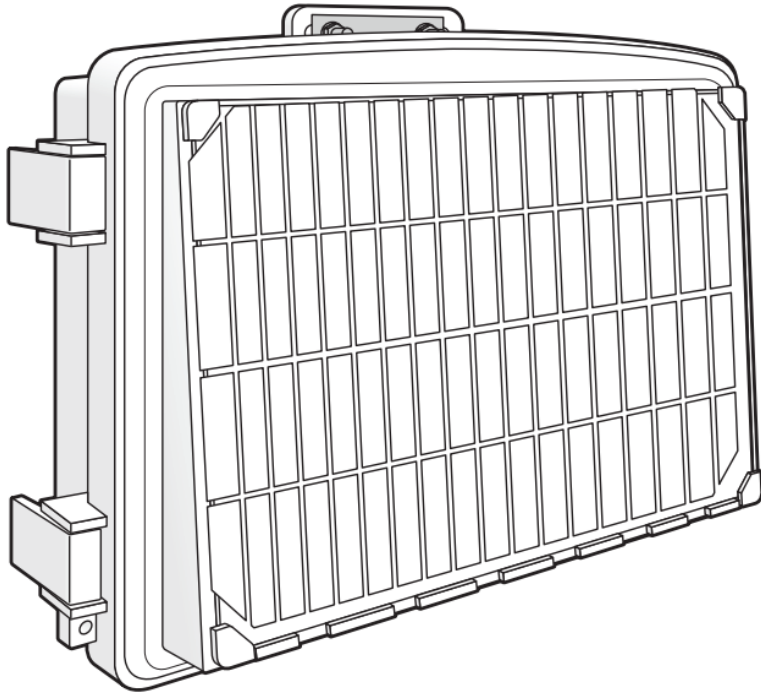
**DATE:** 8.15.22

**WEB:** [www.wellbubbler.com](http://www.wellbubbler.com)

**PH:** 805.610.7752

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## SPECIFICATIONS



### Mechanical

Enclosure: ASA Plastic, NEMA 12 and IP65  
External dimensions: 13.75" x 10" x 4.15" (W x D x H)  
Weight: 15 lbs  
Mounting: U-bolts for pipe up to 2.40" OD, lag screws  
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: 30 min max, 60 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: 5 Watt  
Integrated storage battery: 12Vdc, 7Ah, sealed lead-acid

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### Data / Communication

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