

"THE WELL BUBBLER" Compressed Air Well Level Sensor

About

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

Benefits

The Well Bubbler was developed after years of struggling with hydrostatic, "pressure-type", and acoustic well level sensors. Submersible pump motor wiring and tight clearances cause hydrostatic sensors to snag during installation. Tubine pump motors drip oil into the well, clogging and fouling the sensor. The pump can be damaged by "swallowing" the sensor body and wiring. VFD noise can make pressure-type sensors 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, 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 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, backlight 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

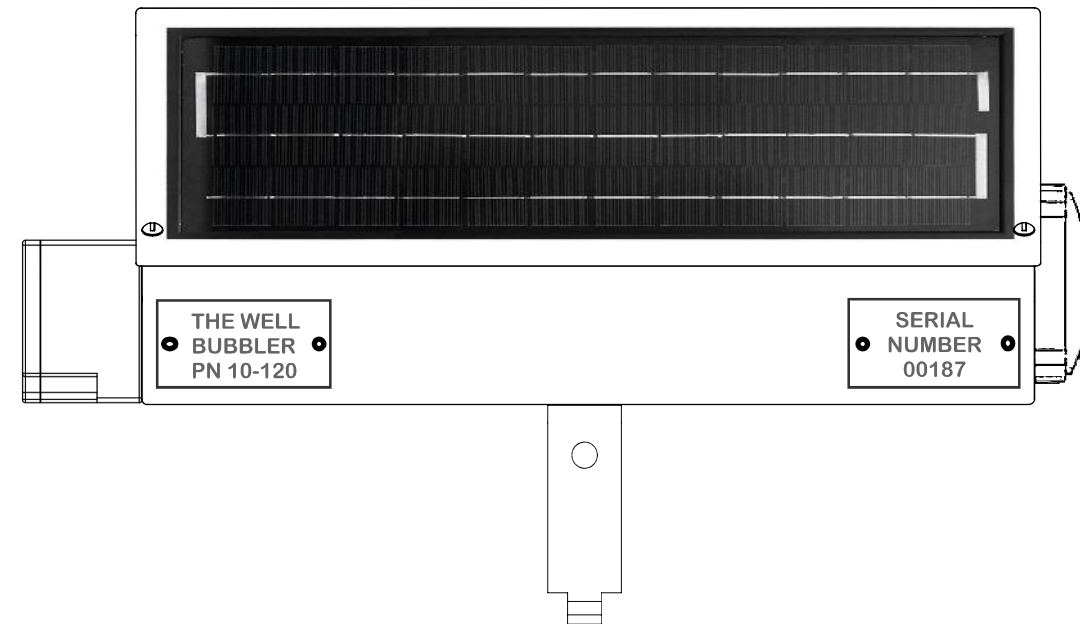
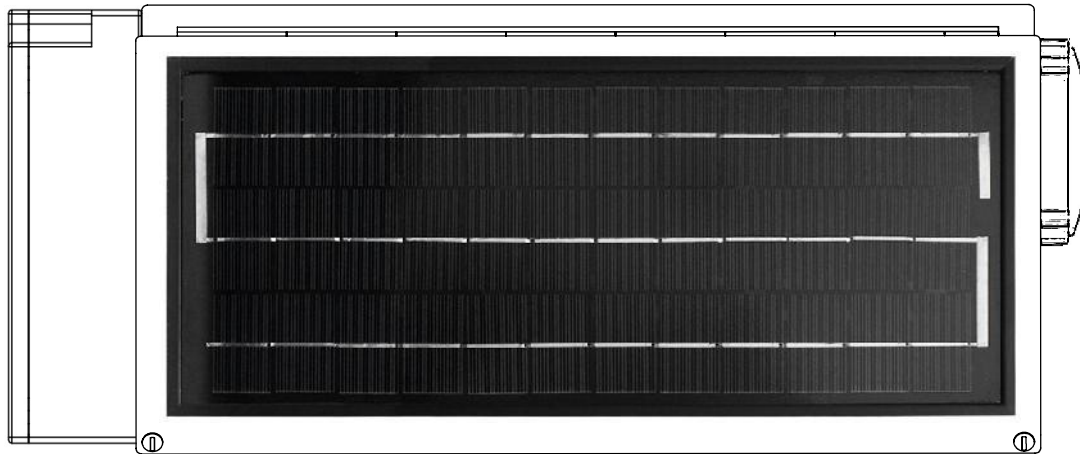
Compatibility - use with standard, 1/4" diameter air tubing

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

External power output - used to power flow meters



 PACIFIC COAST ENGINEERING	PART NUMBER 10-120	REVISION: 4.3
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SPECIFICATIONS

Mechanical


14-ga Steel enclosure, 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 tube compatibility: 1/4" OD, push to connect

Electrical

Maximum operating pressure: 150 psi
 Measurement range (SWL - PWL): 350 ft
 Accuracy: 0.25% or 1ft
 Calibrated temperature range: 32F - 122F
 Operating temperature range: 5F - 131F
 Sample rate: 5 min max, 15 min typ
 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

Data / Communication

Data logger capacity: 1MB or 65,546 data points
 Storage: ~2 years at 15 min sample rate
 Cellular communication (optional): Verizon LTE-M

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