

Single Orifice Constant Flow Bubble Gauge/Recorder



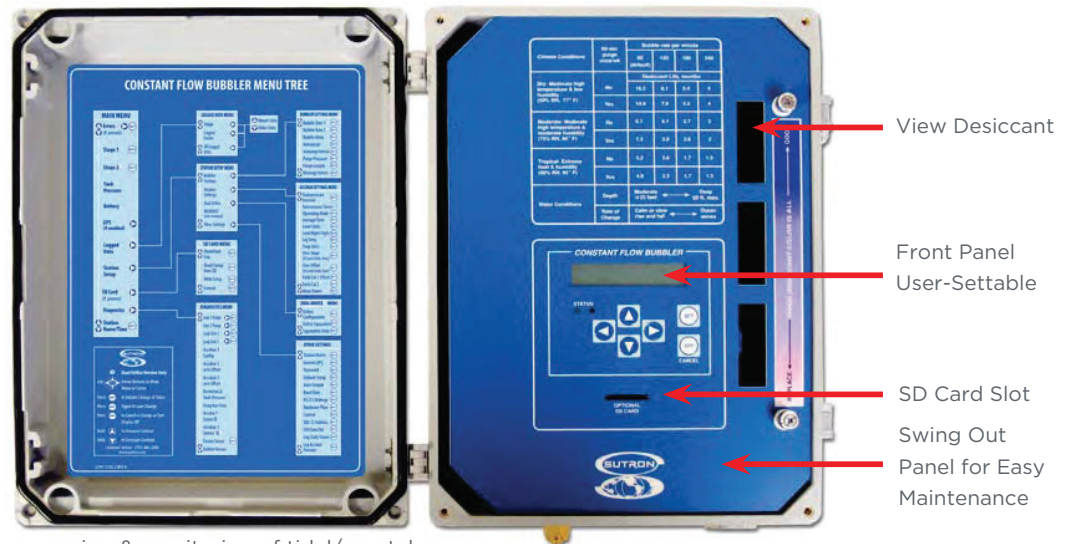
Overview

The Accubar® Constant Flow (CF) Bubble Gage is a self-contained, precision device to measure water levels & water temperature, consisting of a pump, tank, manifold, control board, display/keypad & enclosure.

The CF Bubbler's built-in precision Accubar® Pressure Sensor meets the high accuracy requirements for streamgaging & monitoring of tidal/coastal areas, estuaries, groundwater & reservoirs. The Bubbler includes a built-in datalogger for stand-alone operation &/or backup (redundant) data recording and RS232 & SDI-12 ports for communications & maintenance. Also supports MODBUS.

Features

- ▶ New Models with Water Temperature Measurements
- ▶ Self-contained system needing only external power & outlet tubing/orifice
- ▶ Long desiccant life (up to 1 year)
- ▶ Adjustable bubble rate
- ▶ Configurable averaging
- ▶ Auto-zero function
- ▶ User-variable auto purge & user-forced purge option
- ▶ Flexible auto blockage detection
- ▶ Modifiable auto measurement & logging
- ▶ The CF Bubbler supports MODBUS protocol.
- ▶ Built-in flash log for over 300,000 readings
- ▶ Stand-alone or operate with other loggers/communication devices
- ▶ Front panel setup & maintenance.
- ▶ SDI-12, RS232 & RS485 interfaces compatible with loggers, cell modems &
- ▶ Sutron's SatLink2 Transmitter/Logger
- ▶ Swing-out front panel for easy maintenance.
- ▶ 3 levels of filtration
- ▶ Easier re-calibration



Applications

- ▶ Meteorology
- ▶ Climatology
- ▶ Agrometeorology
- ▶ Natural Resources
- ▶ Oceanography
- ▶ Disaster Warning
- ▶ Water Level & Flow
- ▶ Water Quality
- ▶ Hydrology
- ▶ Structures
- ▶ Geotechnical
- ✓ Dam Safety
- ✓ Structural Stability

SPECIFICATIONS	
<i>Specifications Subject to Change without Notice</i>	
Measurements	Stage/Level, Pressure, Internal Temp, Battery, Optional: water temperature
Automeasure Interval	1 second to 24 hours
Stage/Level/Pressure Accuracy	Pressure/stage/Level: 0.05% reading with minimum of 0.01 ft.
Measurement Technique	Constant Flow. Bubble rate programmable by user. Pressure measured by Accubar*.
Stage/Level/Pressure Range	25 psi, 57 ft, 17 meters; 50 psi, 115 ft, 35 meters
Water Temperature (optional)	
Types Supported	Platinum 385, Platinum 392, Thermistor, Custom
Sensor Operational Range	-40°C to +60°C
The following specifications apply to specific Sutron-supplied Water Temperature Sensors, 5600-0100-100 & 5600-0030-1-050. (See Accessories in next column.)	
Accuracy	±0.1°C (-5°C to +45°C)
Resolution	0.01°C
Maximum Purge Pressure	50 psi or 70 psi based on model
Desiccant	Silica Gel, lasts up to a year
Outlet	4/6mm tube or 3/8" tube based on model
Compressor Type	Piston
Enclosure	Fiberglass NEMA-4, IP64, lockable
Communication Ports	SDI-12, RS232, RS485
Operating Temperature/Humidity	-25°C to +60°C standard, -40°C to +60°C optional 0-95% non-condensing humidity
Display Type	2x20 LCD with backlight
Keypad Type	6 button
Memory	
Built-In Flash	>300,000 readings
SD/MMC Card	yes
USB, Ethernet	no
Power Requirements	8 to 16 VDC
Max Current	4 amp for 25 psi unit 8 amp for 50 psi
Average Current	<15mA for 3 second measurement every 15 minutes, no purge
Communication Protocols	MODBUS (via RS232 only), SDI-12, command line
Programming	via front panel, commandline or SDI-12
DEVICE DIMENSIONS	
Height	15" (38.1 cm)
Length	12" (30.5 cm)
Width	7.5" (19.1 cm)
Weight	20 lbs. (9.1 kg)
NIST Traceable Calibration	
Please check availability & ordering details with your Regional Business Development Manager (http://www.sutron.com/worldwidecontacts.htm) or with Sutron Sales Administration (703-406-2800)	

ORDERING	
56-0133-25-1	Accubar® Constant Flow Bubble Gage/Recorder, 25 psi range
56-0133-50-1	Accubar® Constant Flow Bubble Gage/Recorder, 50 psi range
56-0133-25-1P	Accubar Constant Flow Bubbler - without Enclosure
56-0133-25-1C	Accubar® Constant Flow Bubble Gage/Recorder, 25 psi range, 6mm Orifice Lines (Canada users)
56-0133-50-1C	Accubar® Constant Flow Bubble Gage/Recorder, 50 psi range, 6mm Orifice Lines for Canadian* users
MODEL with WATER TEMPERATURE	
56-0133-25-1-T	Accubar® Constant Flow Bubble Gage/Recorder, 25 psi range with Water Temperature Sensor Port
56-0133-50-1-T	Accubar® Constant Flow Bubble Gage/Recorder, 50 psi range with Water Temperature Sensor Port
56-0133-50-1C-T	Accubar® Constant Flow Bubble Gage/Recorder 50 psi range with Water Temperature Sensor Port, 6mm Orifice Lines
ACCESSORIES	
2911-1183	Tubing, Orifice Line Black Polyurethane up to 2000 feet (609.6 m.)
2911-1279-1	Replacement Desiccant, full canister
6661-1314-1	Orifice Termination, fits on a 2" rigid pipe
5600-0100-100	Platinum 385 Water Temperature Sensor w/100ft cable
5600-0030-1-050	Thermistor Water Temperature Sensor w/50ft cable
SHIPPING DIMENSIONS	
Height	20 in. (51 cm)
Length	15 in. (38.1 cm)
Width	10 in. (25.4 cm)
Weight	22 lbs. (10 Kg)
*Canadian models are provided with 6mm O.D. orifice line connections. All other models have a 3/8 in orifice connection.	



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