

Ideal for rivers, streams, reservoirs, oceans & industrial areas plus any area where water density changes, ie, tidal areas where wave action affects pressure measurements

Accubar® Constant Flow Dual Orifice Bubble Gauge/Recorder 56-0134-25-2C

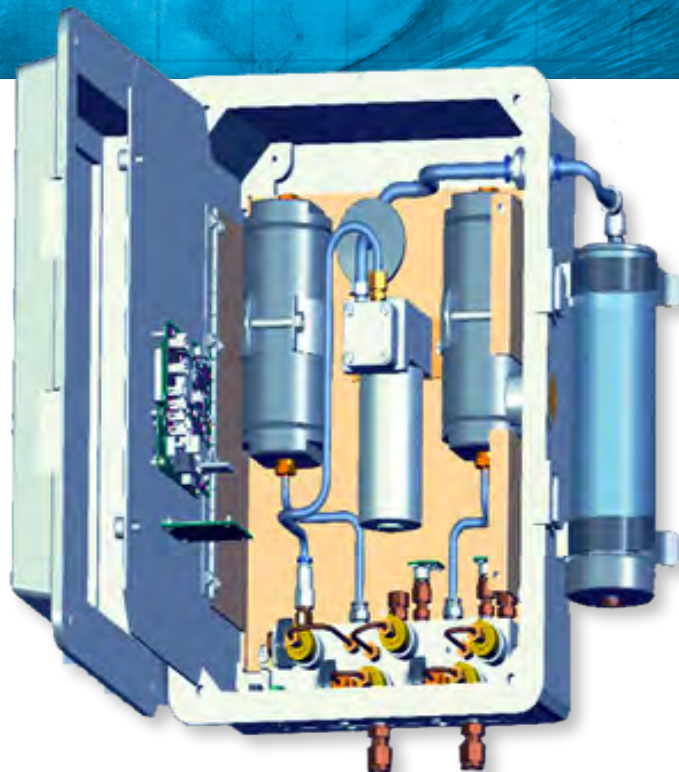
The Sutron Accubar® Constant Flow (CF) Dual Orifice Bubble Gauge/Recorder, a self-contained, precision device for measuring water levels using long established bubble gauge principles, combines into a **single package**:

- ▶ Pump
- ▶ Tanks
- ▶ Manifold
- ▶ Control board
- ▶ Front panel (display and keypad)
- ▶ Accubar sensor
- ▶ SDI-12 and RS232 interfaces
- ▶ Enclosure

Sutron offers three versions. See next page.

UNIQUE FEATURES

- ▶ User-set measurement & logging. Versions -1 & -2 make separate measurements in 2 locations. The Bubbler manages pressure on each orifice line independently so that pressures in one line do not affect operation of the other line.
- ▶ Make measurements in *separate channels* or *separate bodies of water* or within the same area as *redundant* sensors (-1 & -2 versions)
- ▶ Install the Bubbler in a *vertical* orientation to get an extended range measurement with up to 50 psi total. During measuring, the -1 version switches its sensor between the two lines. The switch in lines causes a delay (<1 minute) to allow pressure to settle. The -2 version adds to the -1 an additional Accubar® sensor to eliminate the need to switch between lines. Each line can be measured simultaneously.
- ▶ The -3 version adds a special *ultra-accurate density sensor*. **The -3 density measurement is 3 times more accurate (0.1%) than measurements by separate density sensors on-site would be.**
- ▶ Bubbler is both a logger & a sensor, capable of working as a stand-alone or with other loggers/communications devices via SDI-12, RS232 & RS485.
- ▶ In addition, the Bubbler can be used with another water level pressure sensor.
- ▶ Flash Log holds over 300,000 readings & allows recording of status, water level data.
- ▶ SDI-12 & RS232/RS485 interfaces provide data to loggers or communications equipment
- ▶ Dual Orifice CF Bubbler **supports MODBUS protocol.**
- ▶ RS232 port supports a simple command line mode compatible with HyperTerminal & other communications programs.
- ▶ RS232 port also provides full access to setup, status & Bubbler data plus easy connection to a modem or radio.
- ▶ Front panel for setting up operating parameters, monitoring performance, testing, & examining the log
- ▶ Self-contained needing only external power & outlet tubing
- ▶ Long-life desiccant (1 year depending on local humidity & user set flow rate)
- ▶ User-set bubble rate for each line & a variety of field conditions
- ▶ User-set configuration of single, dual orifice lines & extended range operation (-1, -2 only)
- ▶ Built-in, precision Accubar® sensor, accuracy 0-20ft 0.01 ft, 20-57.5 ft. 0.05% reading.
- ▶ User-configured averaging to filter out waves.
- ▶ User-set auto purge to keep the outlet clear of debris
- ▶ Easy maintenance swing-out panel
- ▶ Redundant data storage when connected to a logger



SUTRON CORPORATION

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Sterling, VA 20164
NESDIS Certified

(703) 406-2800
ISO Certified

(703) 406-2801 Fax
EUMETSAT Certified
Average Power

www.sutron.com
CE Certified
<15 mA @12V for a 3 second

sales@sutron.com
INSAT Certified

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Accubar® Constant Flow Dual Orifice Bubble Gauge/Recorder 56-0134-25-2C

SPECIFICATIONS

ELECTRICAL

Power Required	8-16VDC
Average Power	<15 mA @12V for 3 sec. measurement every 15 min., no purge <30 mA @12V for 120 sec. measurement every 5 min with 30 sec. purge daily.
Pump on Current	4 Amp max, 2.5 Amp typical
Quiescent current	<1 mA
Outputs	SDI-12, RS232, RS485

PNEUMATIC

Pressure Range	0-25 psi (0-57.5 ft or 17.5 m water)
Accuracy	0-20ft, +0.01ft 20-57.5 ft, +0.05% reading
Resolution	0.0001 psi
Purge Pressure	>= 50 psi max
Bubble Rate	Set by user, separate for each orifice line
Line to Line Isolation	50 psi
Compressor Type	Piston
Density Accuracy	0.1% (excluding orifice spacing error) (-3 model only)

MECHANICAL

Enclosure	NEMA-4 Fiberglass
Dimensions (Size)	15" (40 cm) x 15" (40 cm) x 7.5" (20 cm)
Weight	20.5 lbs (9.3 kg)
Pressure Outlet	Dual 3/8" Tube fitting

ENVIRONMENTAL

Temperature	-25°C to +60°C ; Optional -40°C to +60°C (order 56-0134-ET)
Humidity	0-95% Non-condensing

ORDERING

Part Number	Description
56-0134-25-2C	Accubar Constant Flow, Dual Orifice Bubble Gauge, 25 PSI max, Dual sensors
56-0134-25-3	Accubar Constant Flow, Dual Orifice Bubble Gauge, 25 PSI max, Single sensor w/ density measurement
56-0134-ET	Extended temperature test (-40°C to +60°C)

** References to ft based on USGS conversion factor of 2.3073 ft water per psi (pure water @ 50°C).



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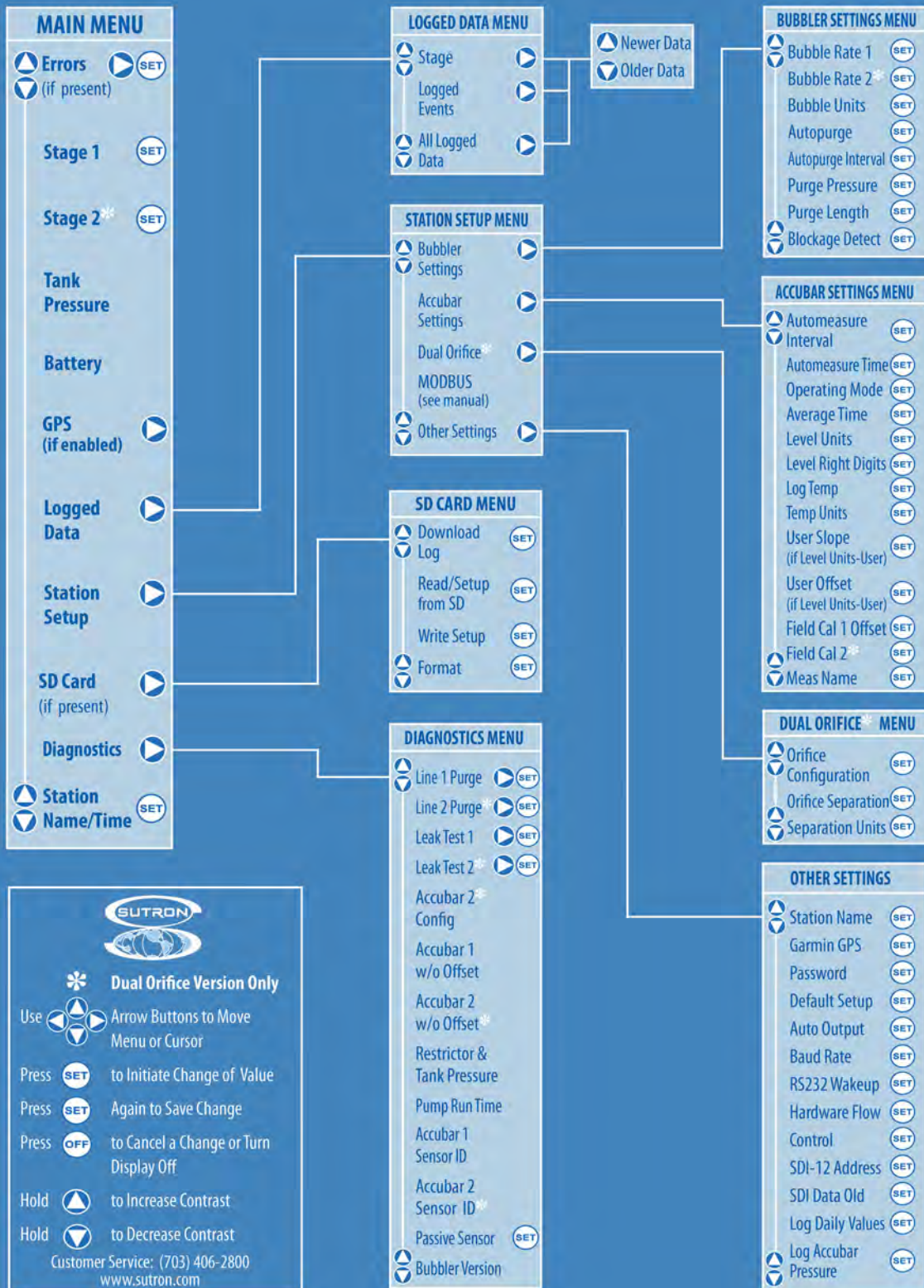
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CONSTANT FLOW BUBBLER MENU TREE



2291-1230-2 REV A



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