OTT-CBS
NON-CONTACT BUBBLER SENSOR FOR LONGTERM SURFACE WATER LEVEL MONITORING

Non-contact, bubbler sensor for longterm surface water level monitoring

The OTT-CBS is a compact, accurate, and low power bubbler sensor for surface water level monitoring. The OTT-CBS meets or exceeds USGS standards for accuracy, and will not drift over time. It features outputs for SDI-12 and 4...20 mA.

- Application - Surface water, Groundwater
- Measurement technology - Bubbler-in
- Product Highlights - Drift-free water level measurement - no pressure sensor or electronics in the water
- Measurement range - 0 to 15 m or 0 to 30 m
- Accuracy - ± 3 mm (high accuracy version); ± 5 mm (standard and 30 meter versions)
- Internal data logger - No
- Interface - SDI-12, RS-485 (using SDI-12), or 4 ... 20 mA

Advantages

- Accurate—Meets and exceeds USGS guidelines for water level accuracy, and will not drift over time
- Complete Solution—Combining the CBS with an EPS-50 bubble chamber reduces the influence of wave action and prevents unnecessary noise in your data
- Low Maintenance—No desiccant, pump maintenance, or lubrication required
- Easy-to-Start/Install—All programming can be completed using DIP switches; connect into existing platforms using 3/8' O.D. or 4mm O.D. measuring tube (no adapters required)
- Compact Size—small and powerful pump motor generates the required volume of air to perform measurement.
- Low Power—Intelligent pumping strategy compares the previous measurement to the actual pressure at the current measurement, and optimizes the pumping time depending on the difference (i.e., small changes in level are measured with very short pump cycles)

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Example for Use

For surface water level measurement of:
- Streams, rivers, channels, or canals
- Groundwater wells
- Reservoirs, lakes, and wetlands

Ideal for monitoring:
- Continuous water level networks
- Lightning prone areas
- Channels with long, flat embankments

Technical Specifications

Water Level Measurements - Measuring range	
Version ''Standard'' & ''USGS specification''	0 ... 15 m (0...50 ft)
Version ''30 m measuring range''	0 ... 30 m (0...100 ft)
Resolution	1 mm (0.01 ft)
Accuracy - Version ''Standard'' and ''30m measuring range''	±5 mm
Accuracy - Version ''USGS specification''	0 ... 15 ft: ±0.01 % 15 ... 50 ft: ±0.065 % of measurement value or 0.02 ft, whichever is less
Accuracy - Units	m, ft, bar, PSI
Electrical Data	
Interfaces	4 ... 20 mA, SDI-12, SDI-12 via RS-485
Power supply	10 ... 30 V DC, typ. 12/24 V DC
Current consumption	
Interfaces	
Material	
Measuring interval 1 min	typ. 320 mAh/day
Measuring interval 15min	typ. 25 mAh/day
Housing material	ABS
Dimensions L x W x H	165 mm x 205 mm x 115 mm
Weight	approx. 1,500 g
Protection class	IP43
Environmental conditions	
Operating temperature	-20 ... +60°C
Storage temperature	- 40 ... +85°C
Relative air humidity	10 ... 95 %; not condensing
Measuring tube	inner diameter typ. 2 mm or 4 mm
EMV - limit values	According to IEC61326 and EN61326