Sensors Program

_ Reliable data
_ Standard interfaces
_ Low power consumption
_ Accurate data

OTT water level measurement

New innovative level sensors

OTT CBS
Compact Bubbler

Features / Benefits
_ Indirect drift free measurement
_ Suitable for lightning areas
_ Low installation costs
_ Compact size
_ Standard interfaces 4 … 20 mA/SDI-12/RS-485
_ Purge function

The OTT CBS is a lightweight, compact water-level bubble gauge that operates on a drift-free air bubble principle.

The unit utilizes an integrated small piston pump to compress the air through the measuring tube and bubble chamber into the water. By comparing the barometric pressure to the bubble pressure, the unit calculates the water-level height.
Because the unit only produces a bubble when a measurement is initiated, the need for an air pressure tank connected to the unit is eliminated.

The OTT CBS can output water-level readings in SDI-12, as 4 … 20 mA, or RS-485 (SDI-12 protocol). The unit can be configured to any of the three output modes by simply using the 8 dual in-line package (DIP) switches located on the underside of the device.

Due to the indirect measurement principle with no electronic parts in the water, the OTT CBS is especially suitable for areas which are prone to lightning.

EPS 50 bubble chamber for accurate values

Specifications

Measuring range	0 ... 15 m
Accuracy	±5 mm
Power supply	10 ... 30 V DC, typ. 12/24 V DC
Power consumption	
1 min interval	typ. 320 mAh/day
15 min interval	typ. 25 mAh/day
Interfaces	4 ... 20 mA; SDI-12, RS-485 (SDI-12 protocol)
L x W x D	165 mm x 205 mm x 115 mm
Weight	approx. 1.5 kg
Operating temperature	-20 ... +60 °C
Relative humidity	0 ... 95 %, non condensing

OTT RLS
Radar Sensor

Features / Benefits
_ Low power radar
_ Designed for open field applications
_ Temperature compensation
_ Standard interfaces 4 … 20 mA / SDI-12 / RS-485
_ Compact size
_ Contactless measurement

The OTT RLS is a radar sensor for non-contact water level measurement at surface water locations. The sensor uses impulse radar technology to determine the water level.

The sensor is mounted above the water surface at bridges or auxiliary constructions. Its solid, light and water-proof housing is easy to install. Its extremely low energy consumption (active: <12 mA @12 V), the large power supply range and standardized interfaces make the OTT RLS very flexible for use in various applications.

The OTT RLS covers a measurement range of up to 35 m. It is specifically designed for the use in open air locations without mains power infrastructure. The OTT RLS is an economical, practical and reliable alternative to conventional level gauges.

Low power radar for field applications

Specifications

Measuring range	0.8 ... 35 m
Accuracy	±3 mm
Aperture radar beam	12 °
Power supply	9.6 ... 28 V DC, typ. 12/24 V DC
Power consumption	Active <12 mA @12 V
Interfaces	4 ... 20 mA; SDI-12; RS-485 (SDI-12 protocol)
L x W x D	222 mm x 152 mm x 190 mm
Weight (incl.swivel mount)	approx. 2.1 kg
Operating temperature	-40 ... +60 °C
Relative humidity	0 ... 100 %, non condensing

OTT PLS

Pressure Probe

Features / Benefits

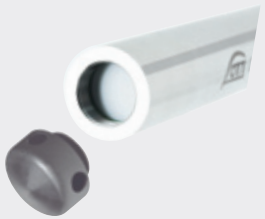
_ Robust ceramic sensor
_ Reliable data
_ Standard interfaces
4 … 20 mA / SDI-12 / RS-485
_ Suitable for dia. less than 1”
_ Barometric pressure compensation
_ Temperature compensation
_ Also available with plug-in pressure probe cable

The pressure probe OTT PLS reliably measures the water level in ground- and open surface waters.

The PLS features a long-term stable, highly precise, capacitive ceramic pressure cell. This cell is extremely robust and insensitive against mechanical overload as well as against aggressive media.

The sensor electronics measure pressure and temperature values. Compensating for temperature and barometric effects, the sensor delivers highly precise and repeatable actual water levels. The OTT PLS is supplied with a high quality and particularly tough stainless steel housing and even the cable for the probe is extra-ordinarily tough due to Kevlar fibres incorporated.

As output signal a serial SDI-12 or a RS-485 or a programmable 4 ... 20 mA interface is available.



Robust ceramic membrane
for reliable measurements

Specifications

Measuring range	0 ... 4 m, 0 … 10 m, 0 … 20 m, 0 … 40 m
Accuracy	0.05 % FS
Long term stability	±0.1 % FS max. per year
Power supply	+ 9.6 V ... + 28 V DC, typ. 12/24 V DC
Power consumption (SDI-12)	Active < 3.6 mA
Interfaces	4 ... 20 mA; SDI-12; RS-485 (SDI-12 protocol)
L x Ø	195 mm x 22 mm
Weight	approx. 0.3 kg
Operating temperature	-25 ... +70 °C

OTT SE 200

Shaft Encoder

Features / Benefits

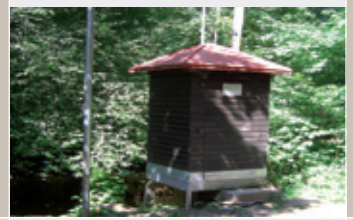
_ Reliable drift free measurement
_ Compact size
_ Low power
_ Standard interfaces
4 … 20 mA / SDI-12
_ Upgrade of mechanical recorders
_ For sites with stilling well or tube

The float-operated shaft encoder OTT SE 200 takes proven level measurement technology to the next stage. It is designed for direct water level measurements in stilling wells or tubes.

Time-tested, the highly reliable float and pulley mechanism of the shaft encoder is activated by even the slightest changes in waterlevel, providing highly accurate water level measure-ments every time.

The measured values are available as analogue or digital signal through industry standard interfaces SDI-12 and 4 … 20 mA output.

The SE 200 is extremely easy to connect to existing paper chart recorders, making a digital upgrade simple and cost-effective.



Beaded cable
for tide measurements

Specifications

Measuring range	±30 m
Accuracy (SDI-12)	±0.003 % FS
Accuracy (4 ... 20 mA)	±0.1 % FS
Power supply	9 ... 30 V DC, typ. 12/24 V DC
Power consumption	Active < 2 mA (SDI-12 mode)
Interfaces	4 ... 20 mA; SDI-12
L x W x H	82 mm x 82 mm x 34 mm
Weight	approx. 0.250 kg
Operating temperature	-20 ... +70 °C
Relative humidity	0 ... 95 %, non condensing

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93.000.002.I.E 03-12/2010