



Sensors Program

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

OTT water level measurement
New innovative level sensors





OTT CBS

Compact Bubbler



OTT RLS

Radar Sensor

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.



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.



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



EPS 50 bubble chamber for accurate values

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



Low power radar for field applications



OTT PLS

Pressure Probe



OTT SE 200

Shaft Encoder

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 extraordinarily 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.



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 measurements 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.

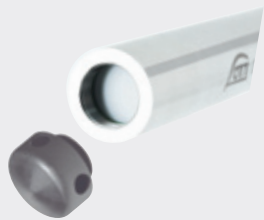


Specifications

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

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



Robust ceramic membrane for reliable measurements



Beaded cable for tide measurements



Germany
OTT Hydromet GmbH
Ludwigstrasse 16
87437 Kempten
Tel. +49 831 5617-0
Fax +49 831 5617-209
info@ott.com
www.ott.com

Austria
OTT Hydromet GmbH
Branch office Austria
Weidegut 76
4223 Katsdorf
Tel. +43 7235 8899-8
Fax +43 7235 8899-1
m.schinnerl@ott.com
www.ott-austria.at

UK & Ireland
OTT Hydrometry Ltd.
Unit 2 Magnet Business Park
14 High Hazels Road, Barlborough
Chesterfield S43 4UZ
Tel. +44 1246 573 480
Fax +44 1246 813 873
sales@ott-hydrometry.co.uk
www.ott-hydrometry.co.uk

India
OTT Hydromet
c/o DHR Holding India Private Ltd.
608-609, Rattan Jyoti Building,
18 Rajendra Place, New Delhi 110 008
Tel. +91 11 45094 781-112
Fax +91 11 45094 785
someshkumar@hach.com
www.ott.com/india

Southern Africa
OTT SOUTHERN AFRICA (PTY.) Ltd.
97 Bedford Avenue
1500 Benoni
Tel. +27 11 421 4484
Fax +27 11 421 4485
ottsa@absamail.co.za
www.ott.com

France
OTT France
Europarc de Pichaury – Bât. D2
13799 Aix en Provence Cedex 3
Tél. +33 (0)4 42 90 05 90
Fax +33 (0)4 42 90 05 95
info@ottfrance.fr
www.ottfrance.com

Switzerland
OTT HYDROMETRIE AG
Obere Bahnhofstrasse 13
5507 Melligen
Tel. +41 56 470 64 34
Fax +41 56 491 21 06
info@ott-schweiz.ch
www.ott-schweiz.ch

Spain
OTT MedioAmbiente
C/Teide, nº 5 - Planta Baja, Local nº 2
Parque Empresarial La Marina
28700 San Sebastián de los Reyes (Madrid)
Tel. +34 91 651 47 69
Fax +34 91 659 02 09
info@ott-medioambiente.com
www.ott-medioambiente.com

Brazil
OTT Hydromet
Av. Major Sylvio de Magalhães Padilha, 5200
Ed. Philadelphia, Boco B, Cj. 42
CEP: 05693-000, São Paulo, SP
Tel. +55 11 3759-7632
Fax +55 11 8711-9476
j.straub@ott.com
www.ott.com

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