Non-contact level sensor for long term surface water monitoring

- **Application**
  Surface water
- **Parameters measured**
  Water level / distance to water
- **Measurement technology**
  Non-contact pulse radar
- **Product highlights**
  Measures water level or depth to water from a bridge, pier or mounting arm
- **Measurement range**
  1.3-115 ft (0.4-35 m)
- **Accuracy**
  1.3-6.6ft: ±0.03 ft; 6.6-98.5 ft: ±0.01 ft; 98.5-115: ±0.03 ft
- **Internal data logger**
  No
- **Interface**
  SDI-12, RS-485 (using SDI-12), or 4 ...20 mA

The OTT RLS is a non-contact radar level sensor with pulse radar technology. The OTT RLS offers a large measurement range with a small blanking distance and narrow beam width

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and it easily connects to most dataloggers. The RLS has extremely low power consumption and is ideal for remote or solar powered sites.

Water level measurements	
Measuring range	1.3-115 ft.
Transmitting Frequency	25.2 GHz Pulse Radar (FCC Version)
Resolution SDI-12 output	0.01 ft
Accuracy (SDI-12)	1.3-6.6 ft: ±0.03 ft 6.6-98.5 ft: ±0.01 ft 98.5-115 ft: ±0.03 ft
Average temperature coefficient (-10 … +40 °C)	0.01 % full scale/10 K
Accuracy (4 … 20 mA)	±0.1 % full scale
Average temperature coefficient	10 ppm full scale/°C (at 20 °C)
Measuring time	20 s
Beam angle of antenna (width of beam)	12 °
Power Requirements	5.4 to 28 Vdc
Power consumption in active mode	< 15 mA @ +12 V equal to <180 mW
Power consumption in rest mode	< 0.05 mA @ +12 V equal to <0.6 mW
Interfaces	4 ... 20 mA, SDI-12, RS-485 (SDI-12 Protocol)
Housing	ASA (UV-stabilized ABS)
Radom (front plate)	TFM PTFE
Mounting bracket	1.4301 (V2A)
Lateral axis	±90 °
Longitudinal axis	±15 °
Dimensions L x W x H	8.7 in. x 6.0 in. x7.5 in.
Weight (incl. mounting bracket)	4.6 lbs
Operating temperature:	-40 ... +60 °C
Storage temperature	-40 ... +85 °C
Relative humidity	0 ... 100 %
With horizontal mounting	IP67 (submersion depth max. 1 m; submersion duration max. 48 h)
USA FCC ID	FCC ID: OA6RLS252

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