

RLS

Radar Level Sensor

RLS [radar level sensor] is a radar sensor for non-contact water level measurements at surface waters. The sensor uses impulse-radar technology to determine the water level.



Large measuring range



Low maintenance,
profile design and
power consumption



Flexible integration /
easy setup



High performance

RLS is mounted above the water surface e.g.: at bridges or auxiliary constructions. Its solid, relatively light and waterproof 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 RLS very flexible for different of applications.

The RLS covers a measurement range of up to 35 m. It is specifically designed for the use in open air locations that have no requirement for mains power supply. The special flat antenna design construction and its minimal energy consumption makes RLS an economical, practical and reliable alternative to conventional level gauges.

Technical data

Water Level Sensor

Measurement range	0.4 - 35 m
Resolution - SDI-12 interface	0.001 m
Measurement accuracy (SDI-12)	0.4 - 2.0 m : ± 9.1 mm 2.0 - 30.0 m : ± 3.0 mm 30.0 - 35.0 m : ± 9.1 mm
Measurement accuracy (4 ... 20 mA)	± 0.1 % full scale
Measurement time	20 s
Beam angle of antenna	12°
Sensor technology	pulse radar
Transmitting frequency	25.2 GHz pulse radar

Dimensions & Weight

L x W x D	221 x 152 x 191 mm
Weight (incl. swivel mount)	ca. 2.1 kg

Environmental conditions

Operating temperature	-40 °C to +60 °C
Storage temperature	-40 to +85 °C
Relative humidity	0 - 100 %; non-condensing
Temperature-compensated range	-20 to +60 °C
Ingress protection rating	IP 67

Electrical data

Power requirements	5.4 - 28 Vdc
Power consumption	active: < 15 mA @ +12 V equal to < 180 mW sleep: < 50 µA @ +12 V equal to < 0.6 mW
Interfaces	4 - 20 mA SDI-12 SDI-12 via RS-485

