

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.

RLS is mounted above the water surface e.g.: at bridges or auxilliary constructions. Its solid, relatively 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 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 a economical, practical and reliable alternative to conventional level gauges.



Water Level Sensor

Measurement range	0.8 ... 35 m; 2.6 ... 115 ft
Resolution SDI-12 interface	0.001 m; 0.01 ft
Measurement accuracy (SDI-12)	0.8 ... 2.0 m: ± 10 mm 2.0 ... 30 m: ± 3 mm; 30 ... 35 m: ± 10 mm
Average temperature coefficient (range: - 10 °C to + 40 °C)	0.01% full scale/10 K
Measurement accuracy (4 ... 20 mA)	± 0.1 % full scale
Average temperature coefficient	10 ppm full scale/°C (at 20 °C)
Measurement time	20 s
Aperture radar beam	12°

Electrical Data

Power supply	9.6 ... 28 V DC, typ. 12/24 V DC
Power consumption	active < 140 mW (< 12 mA @12V) sleep < 1 mW (< 0.05 mA @ 12V)
Interfaces	4 ... 20 mA; SDI-12; RS-485, two wire (SDI-12 protocol)

Dimensions&Weight

L x W x D	222 mm x 152 mm x 190 mm
Weight (incl. swivel mount)	ca. 2.1 kg

Environmental Conditions

Operating temp.	- 40 °C to + 60 °C
Storage temp.ture	- 40 to + 85 °C
Relative humidity	0 ... 100 %; non condensingt

Type of protection

With horizontal mounting	IP 67 (submersion depth max. 1m; duration max. 48 h)
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