



RLS30

Radar Level Sensor



UNDATEC Flow measurements

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Radar Level sensor RLS30 (optional ATEX certified)

Radar sensor for continuous level measurement of water and wastewater

Technical data

Measuring range up to	30 m
Accuracy	±3 mm
Process fitting flanges from	Thread G1½ DN50, DN 80, DN100
Microwave frequency	26GHz
Process pressure	-0.1 ... 4 bar/-10 ... +400 kPa
Process temperature	-40 ... +80 °C (-40 ... +176 °F)
Ambient, storage and transport temperature	-40 ... +80 °C (-40 ... +176 °F)
Operating voltage	16 ... 36 V DC (optional 24V DC +/-10% with Ex-Certification)
Output	4 ... 20 mA
Protection class	IP68 (flood-proof)
Explosion-proof class	Ex ib IIC T6 Gb (optional)
Cable entrance / plug	1 x M20x1.5 / 1 x blind
Integral time	0 ... 50 sec. adjustable
Blind area	the end of antenna

Materials

The wetted parts of the instrument are made of Polycarbonate and stainless steel. The process seal is made of FPM.

Housing

The housing is optimized for applications in the waste water industry and manufactured of Polycarbonate. Due to the encapsulated cable gland, protection rating IP 68 is achieved.

Application area

The RLS30 is the ideal sensor for all applications in water and waste water applications. It is particularly suitable for use in water treatment, pumping stations as well as overflow basins, for flow measurement and height measurement in open waters such as lakes, rivers, canals, channels and meter monitoring. The , RLS30 is an economical solution thanks to its versatile and simple installation options. The flood-proof IP 68 housing ensures a maintenance-free continuous operation.

Function

Extremely short microwave pulses are emitted by the antenna system in the direction of the measured product, reflected by the product surface and resumed by the antenna system. The time from the emission to the reception of the signals is proportional to the level.

The reflected radar waves are received and processed in time in the electronic module to the correct distance. The periods are averaged by the electronics, further processed with temperature compensation and then converted into an output current of 4 to 20mA.

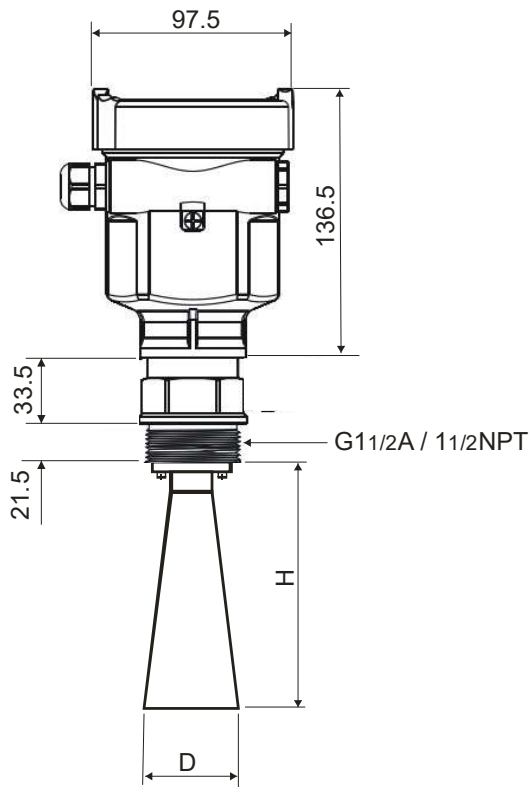
Your benefit

- Maintenance-free operation thanks to non-contact measuring principle
- High plant availability, because wear and maintenance free
- Exact measuring results independent of product, process and ambient conditions

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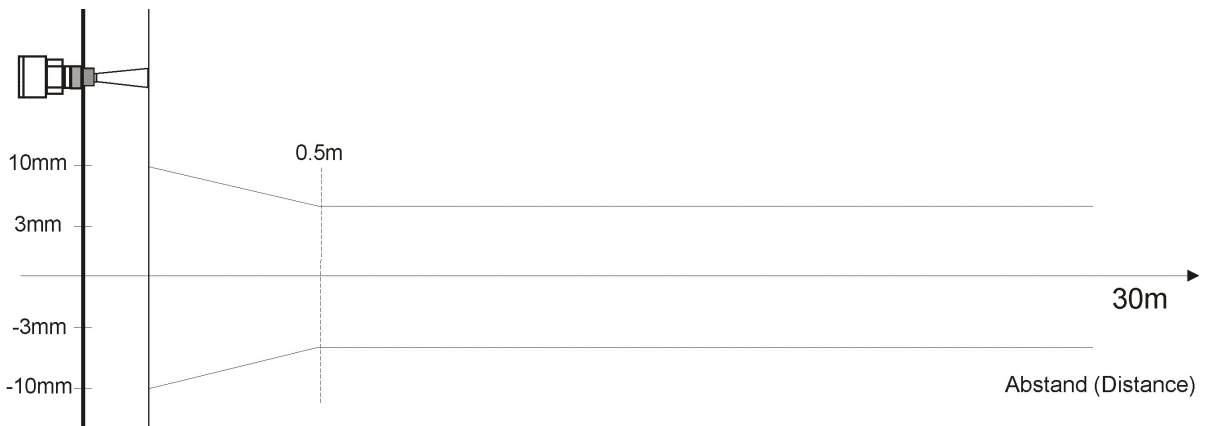
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Dimensions



Antenna	-3db Beam Angle	D (Diameter)	H (Height)
1	18°	Ø48mm	140mm
2	12°	Ø78mm	227mm
3	8°	Ø98mm	288mm
4	6°	Ø123mm	620mm

Accuracy illustration diagram



Genauigkeit
(Accuracy)

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