Radar, capacitive and float level

80 GHz Radar Level Transmitter, 4–20mA plus RS485, up to 20 m

Model DW-RLT

Compact 80 GHz non-contact radar level transmitter with an 8° beam, 0.2 to 20 m range and ±10 mm accuracy, 4–20 mA, 0–5 V or 0–10 V plus RS485 (Modbus RTU), a G1½ thread and IP67 (IP68 optional), for water, wastewater and fuel tanks.



Range
0.2–20 m

Accuracy
±10 mm

Output
4–20 mA or voltage + RS485

Features

- 80 GHz mmWave radar, non-contact measurement
- Little affected by condensation, rain, vapour or corrosion
- Not affected by changes in dielectric constant or density
- 4–20 mA, 0–5 V or 0–10 V plus RS485, or RS485 only
- Low-power 3.3–5.5 V DC version with RS485
- Bubble level on top for alignment, no on-site calibration
- Water and fuel versions

Applications

Water and wastewater treatment, Hydrological monitoring of rivers and channels, Water and fuel tanks, Oil, gas, chemical and petrochemical storage tanks, Pharmaceutical, food and beverage plants, Power generation and process control

Specifications

Performance

Measuring principle	80 GHz mmWave radar, non-contact
Center frequency	80 GHz
Operating frequency band	76–81 GHz
Measuring range	0.2–10 m; 0.2–20 m (above 10 m only with 4–20 mA + RS485 and 12–30 V DC supply)

Accuracy	±10 mm (typical); ±5 mm (on request)
Analog output accuracy	0.25% FS (typical); 0.1% FS (on request)
Beam angle	8°

Output	
Output signal	12–30 V DC version: 4–20 mA / 0–5 V / 0–10 V + RS485 (Modbus RTU), or RS485 only; 3.3–5.5 V DC version: RS485 (Modbus RTU)
Baud rate	9600 bit/s (default)

Electrical	
Power supply	12–30 V DC (standard); 3.3–5.5 V DC (low-power version)
Power consumption	0.72 W (12 V × 0.06 A) to 1.2 W (30 V × 0.04 A); low-power version 0.067–0.65 W
Wiring	Red U+, black U−, green RS485 A, blue RS485 B, yellow analog output

Mechanical	
Process connection	G1½ thread (antenna side); G1 thread at the cable end
Dimensions	Ø76 × 131.5 mm
Housing material	PA6 nylon + glass fibre
Wetted material	PVDF (anti-corrosion version)
Cable length	1 m, 2 m or to order

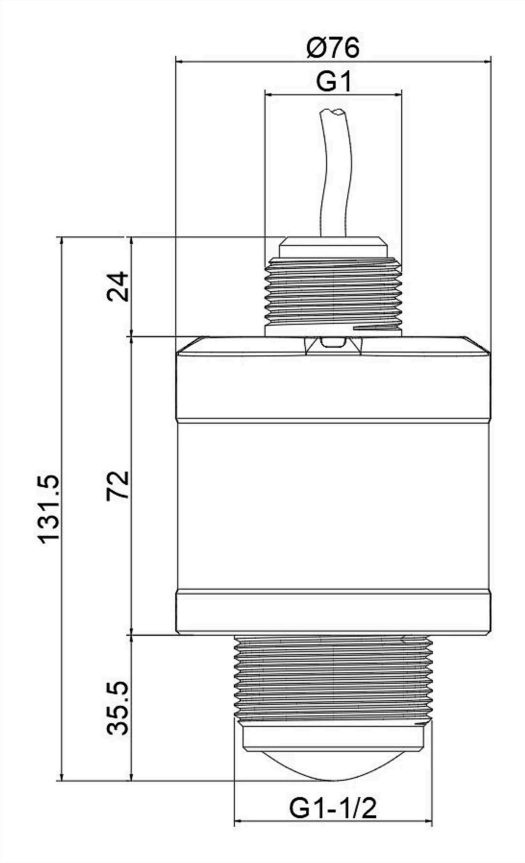
Environmental	
Operating pressure	−1 to 3 bar
Operating temperature	−40 to +85 °C
Ingress protection	IP67 (standard); IP68 (3 bar) optional

Ordering and support

Pricing, samples, lead time and custom versions: xyx@gzdwin.com, +86 181 0280 8901.

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Dimensions and wiring



Drawings are for reference. Dimensions in millimetres unless stated.