

LEVEL TRANSMITTERS • RADAR

76–81 GHz FMCW Radar Level Transmitter

II-LT-002

76–81 GHz FMCW radar



Non-contact level to 120 m with an 8 cm blind spot and a 3° beam.

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ISSUED

24 October 2026

76–81 GHz FMCW Radar Level Transmitter

Indiana catalogue ID **II-LT-002** Level Transmitters

Non-contact level to 120 m with an 8 cm blind spot and a 3° beam.

RANGE	ACCURACY	BEAM ANGLE
0.1 – 120 m	±1 mm	3° or 8°

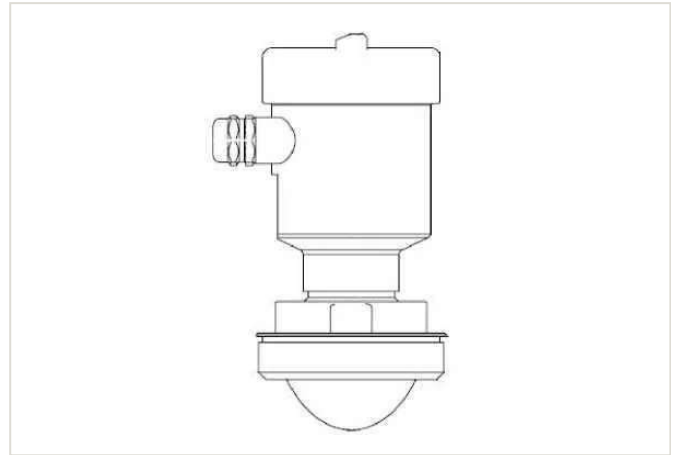
01 Overview

A frequency-modulated continuous-wave radar level meter supporting four-wire and two-wire applications. The higher operating frequency and shorter wavelength make it particularly suitable for solids. Transmitting and receiving through a lens gives it an advantage in high dust and harsh temperature environments.

02 Views



PRIMARY VIEW 76–81 GHz FMCW radar level transmitter — representative photograph of this radar type from a matching manufacturer listing (nameplate removed); not a factory photo of this exact unit
Product photograph



TECHNICAL Outline drawing from the product documentation
Product photograph



ALTERNATE VIEW 76–81 GHz FMCW radar level transmitter — head detail, representative manufacturer-listing photograph
Product photograph



APPLICATION Row of large cylindrical process storage tanks — illustrative environment, not an installation of this product
Illustrative scene

03 Principal data

MEASUREMENT

Transmission frequency	76 GHz – 81 GHz, FM scanning frequency width 5 GHz
Measuring range	0.1 – 120 m
Measurement accuracy	±1 mm
Beam angle	3° or 8°
Dielectric constant	≥2

The full set of stated values, variants and open points is in the specification document for this product.

04 Operating principle

1. 01 Built on self-developed CMOS millimetre-wave RF chips, giving a compact RF architecture, higher signal-to-noise ratio and smaller blind spots.
2. 02 The 5 GHz working bandwidth gives higher measurement resolution and accuracy.
3. 03 The narrowest 3° antenna beam angle minimises the effect of interference in the installation environment, which makes installation more convenient.
4. 04 The shorter wavelength reflects better off solid surfaces, so no universal flange is needed for aiming.

05 Applications and industries

APPLICATIONS

- Solid level in silos and hoppers, including high dust environments
- Liquid level in storage tanks
- High-temperature process vessels up to +200 °C at the antenna

INDUSTRIES

Cement

Mining and minerals

Chemical

Power generation

Water treatment

TO QUOTE THIS WE NEED

- Measuring range and tank height
- Medium — liquid or solid — and its dielectric constant
- Process temperature and pressure
- Dust, foam or condensation conditions
- Process connection — thread or flange
- Output and communication required
- Antenna accessories — cover, anti-corrosion, heat dissipation, quartz isolation flange

CONFIRM BEFORE ORDERING

- The manual states both four-wire and two-wire support in the product introduction while the specification table lists a four-wire power supply range. Confirm the wiring configuration for your model before ordering.

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QUOTATION

List the product, ID and quantity; add process conditions. We reply with a quotation.

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