

RADAR LEVEL TRANSMITTER

4-20mA/RS485(Mod-bus - RTU)/Hart

ETRANS – R02N FMCW Datasheet

Precise Measurement,
Ultimate Control

www.enelean.com



Radar Level Transmitter

MODEL R02N



Application Areas

Water and Wastewater Management
Environmental Monitoring & Hydrology
Civil Infrastructure & Municipal Services
Agriculture
Open Channels
Rainwater Basins
Dams and Reservoirs
Simple Industrial Liquid Storage

Features

- Measured Product: Liquids
- Measurement Range Options: 15 m
- Process Connection: G Threaded or Flange
- Cable Entry: M12 x 1.5 (F)
- Electronics / Output: Two-wire 4...20mA/ MODBUS, or Wireless Bluetooth
Four wire 4-20mA or RS485 (select one of)

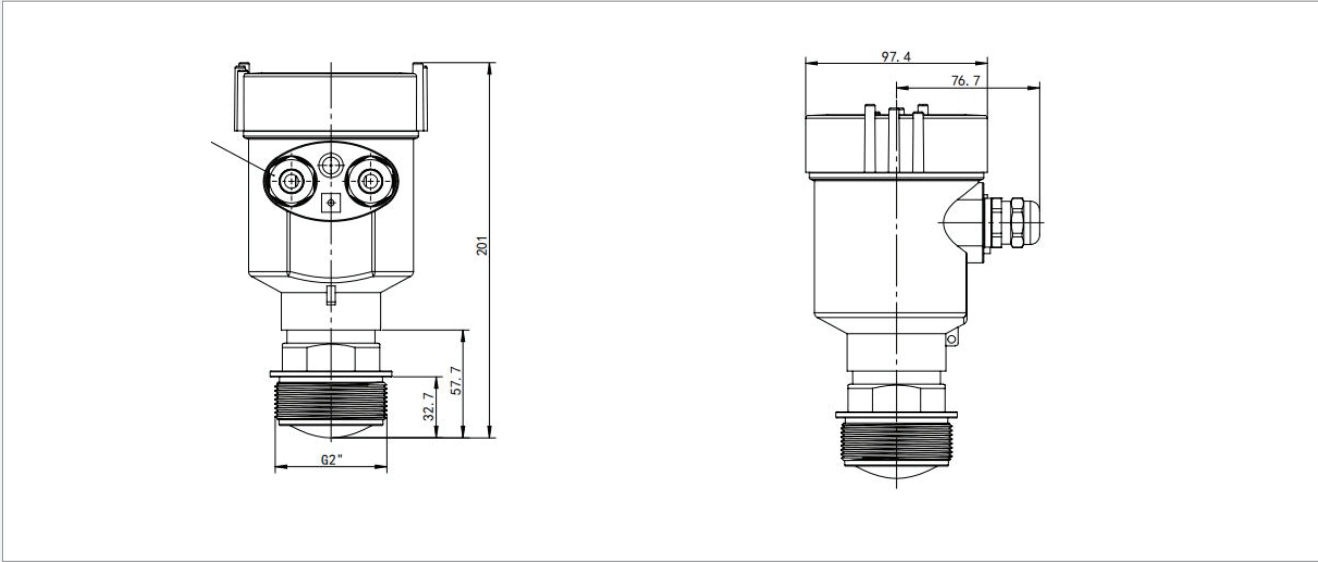
Description

The Etrans-R02N is a high-performance FMCW radar level transmitter designed for precise, non-contact level measurement in a variety of industrial and municipal environments. Operating at a frequency range of 77GHz to 81GHz, this sensor offers an impressive accuracy of 2mm for liquids and covers a measurement range of up to 15 meters. Its robust PVDF housing and IP68 protection rating make it exceptionally durable for challenging conditions, such as those found in sewage systems, rain basins, and water treatment plants.

This versatile device is particularly well-suited for open-channel applications, including flume monitoring, dam levels, and pumping stations. It supports flexible installation through a G 1 1/2" male thread or flange connection and operates reliably in temperatures ranging from -40°C to 60°C. Furthermore, the RM-R800E provides modern connectivity options, including 4-20mA signal outputs, RS485 Modbus, and Bluetooth wireless capabilities for easy monitoring via the RadarMe mobile app.



Structure



TECHNICAL FEATURES

Operating Frequency	77GHz - 81GHz
Measurement Range	30M-60M
Measurement Accuracy	±2 mm
Beam Angle	±3.5°
Material	SS 304/Sealed PTFE
Process Connection	Standard G2" Male Thread; Other threads and flanges are customized
Process Temperature	-30°C to 80°C
Process Pressure	Normal atmospheric pressure
Signal output	4-20mA / RS485(MODBUS - RTU) / HART
Protection Class	Two-wire DC 24V (22V~30V)
Power supply	IP67
Dimensions	96 mm x 200 mm
Weight	2 kgs.
Explosion-proof	Exd II CT6Gb

Contact us

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Radar Level Transmitter
MODEL R02N



Etrans -R02N /

1

Medium Type

Solid*Liquid

☒

N/S

2

Measurement Range

30 m

☒

30

60 m

☐

60

3

Process Connection

G " Thread

☒

G

Flange

☐

F

4

Process temperature

-30...+80°C

☒

N

5

Cable Entry

M12 x1.5 (F)

☒

M

6

Electronic

Two-wire 4...20mA

☒

T

MODBUS

☐

M

Wireless Bluetooth

☐

B

7

Protection

IP 67

☒

P

8

Explosion Proof

Ex db ia IIC T6 Gb

☒

Ex