

# Wireless 26GHz Lens Radar Level Sensor

SKU: WS433-RD26L

Doc No: WS433-RD26L-DS-EN-10



## Introduction

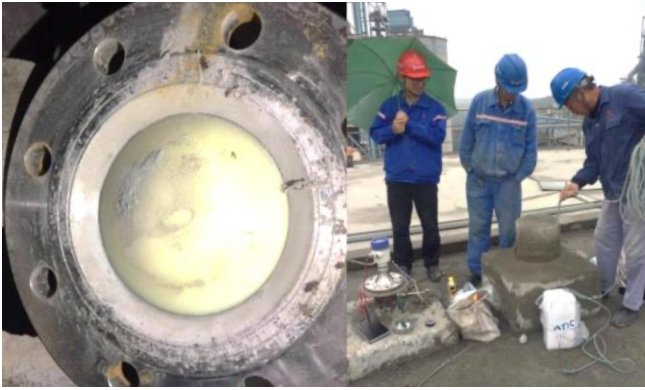
WS433-RD26L is K-band radar level sensor with special lens for Solid or Liquid measurement. With special lens design, it will be not affected by coagulation/hanging/operating medium/sediment and dust. It can measure up to 70m range with small beam angle 8 degree. The wireless portion is Sub-GHz technology from Texas Instruments allows long range transmission at ultra-low power consumption. It will connect 2-way wirelessly to the wireless co-ordinator WS433-CL to send data and receiving the configuration. It can be configured the operation parameters like data sending interval, health check cycle...remotely from Globiots platform or via ModbusRTU software (thru the WS433-CL). Its default data rate is 50 kbps, can be switched to 625 bps to increase the communication range. The complete set of wireless radar sensor can be powered by 12pcs x AA 1.5V, can last up to 12 years.

- Not affected by Dust, Steam...;
- Range up to 70m;
- High performance Sub-GHz Wireless communication;
- Ultra-low power with 12 years battery;
- Plug & Play.

## Typical Applications

- Level measurement in Tank;
- Level measurement in Silo;
- Level measurement for Liquid or Solid;

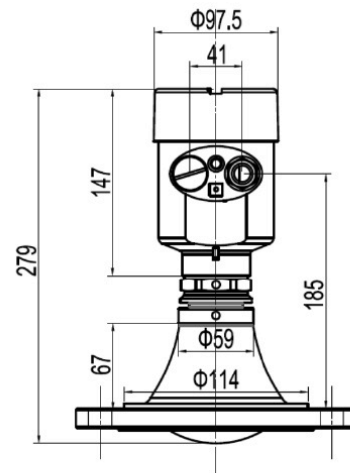
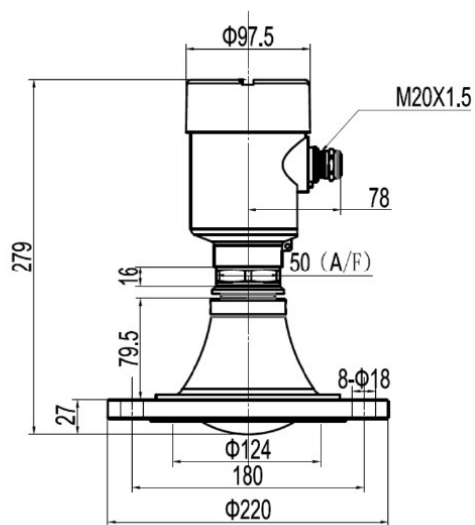
## Coalmine Application



## Cement Application



## Dimension Drawings




## Specification


| SENSOR SPECIFICATION        |  |
|-----------------------------|--|
| Sensor technology           | 26 GHz Pulse radar with lens             |
| Measurement range           | 10, 30, 70m                              |
| Resolution                  | 1.0 mm                                   |
| Accuracy                    | +/- 5.0 mm                               |
| Beam angle                  | 8 degree                                 |
| Lens material               | Nylon/PEEK/PTFE/POM                      |
| Process temperature         | -40 .. + 85oC standard, +120 oC optional |
| Process pressure            | -1 .. + 4 barg                           |
| Ambient working temperature | -40 .. + 85 oC                           |
| Ambient working humidity    | 0 .. 95% RH, non-condensing              |
| WIRELESS SPECIFICATION      |  |

|   |   |
|---|---|
| Data speed                                    | Up to 50kbps  |
| Transmission distance, LOS                    | 1000m   |
| Antenna                                       | External Antenna 0 dBi  |
| Functions                                     | Sending data in interval  |
| Battery                                       | 12 x Battery AA Type 1.5VDC and 7..48VDC  |
| Frequency Band                                | ISM 433MHz, Sub-GHz technology from Texas Instrument, USA                         |
| International Compliance                      | ETSI EN 300 220, EN 303 204 (Europe) FCC CFR47 Part15 (US), ARIB STD-T108 (Japan) |
| Vietnam Type Approval Certification           | QCVN 73:2013/BTTTT, QCVN 96:2015/BTTTT (DAVITEQ B00122019)                        |
| Security Standard                             | AES-128   |
| Ambient Operating temperature of complete set | -40oC..+60oC (with Lithium Ultimate AA battery)                                   |
| Housing/Protection                            | Cast aluminum, Polycarbonate, IP67  |
| Mounting                                      | Direct mount on flange  |
| Dimension                                     | 220x220x450 (without antenna)   |
| Net weight                                    | <= 10 kgs   |

## Ordering Codes

| Item code         | Descriptions  |
|-------------------|---|
| WS433-RD26L-SL-01 | WIRELESS 26GHZ RADAR LEVEL SENSOR WITH PA LENS FOR SOLID IN HIGH DUST ENVIRONMENT, SUS304 JIS10K 100A RF FLANGE, 0-30M CALIBRATED RANGE, -40 .. + 85 C, IP67 ALUMINUM HOUSING |
| WS433-RD26L-SL-02 | WIRELESS 26GHZ RADAR LEVEL SENSOR WITH PA LENS FOR SOLID IN HIGH DUST ENVIRONMENT, SUS304 JIS10K 100A RF FLANGE, 0-70M CALIBRATED RANGE, -40 .. + 85 C, IP67 ALUMINUM HOUSING |

 [Link for full datasheet:](#)

 [Link for manual:](#)

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