



MINI Radar Sensor

Overview

The JWrada® MINI is an 80 GHz FMCW smart radar water level meter with a maximum range of 30m. It is designed for short-range level measurement in simple conditions. It supports HART/Modbus and Bluetooth 5.0, enabling wireless commissioning and remote monitoring via the "Jiwei Tools" APP and WeChat Mini Program.

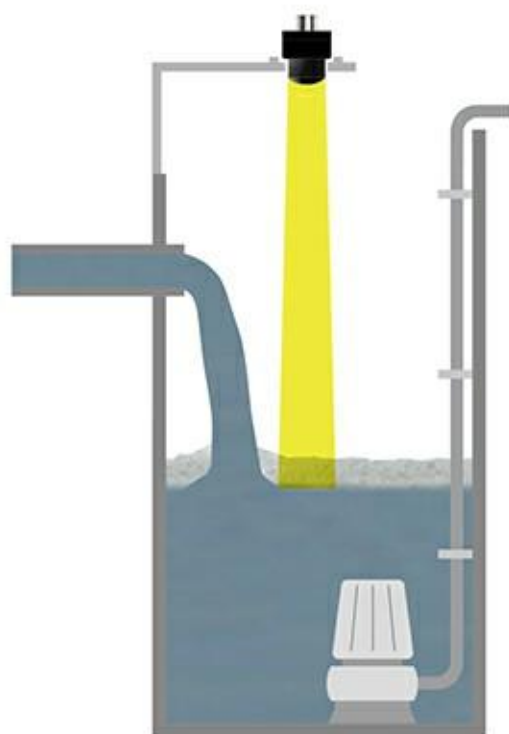
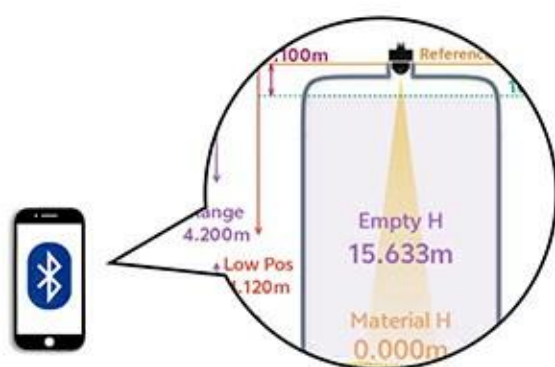
With intelligent echo processing, it automatically filters false echoes and adapts to changing conditions. It is easy to use, maintenance-free, and an ideal replacement for ultrasonic level meters. It is widely used in hydrological monitoring and water utility applications, and the JWrada®-23 model is also suitable for corrosive liquids.

Principle

The meter transmits 80 GHz FMCW signals and receives echoes from the liquid surface. The distance is calculated through FFT analysis to determine the level accurately.

Benefits

- Compact, low-cost, easy to install and commission.
- ± 1 mm accuracy, measuring range up to 30m.
- Built-in Bluetooth 5.0 for wireless commissioning and remote monitoring, and upgrades via the "Jiwei Tools" APP.
- Smart echo processing for stable and accurate measurement.
- UV-resistant nylon housing, with optional 316L stainless steel housing.
- Ideal replacement for ultrasonic level meters in water level measurement.



JWrada®-20 Radar Sensor



JWrada®-21 Radar Sensor



Features	Uses a G3/4 threaded connection to meet level measurement requirements in confined spaces	Easy to install with stable measurement, suitable for water level monitoring applications
Applications	Widely used for level measurement in hydrology, water utilities, and simple operating conditions.	
Antenna Aperture	16mm	44mm
Range	≤10m	≤30m
Beam Angle	13°	6°
Process Temperature	-40 ~ 80°C	
Accuracy	±1mm	
Process Pressure	- 1 ~ 3 bar	
Material	Made of PA12 nylon plastic	
Process Connection	G3/4 Thread	G1½ Thread
Display	No display	
Frequency	80 GHz	
Power Supply	12~30V DC	
Signal Output	Two-wire: 4 ~ 20mA / HART	Four-wire: RS485 / Modbus
Bluetooth Communication	Supports the "JW Tools" APP and WeChat Mini Program , enabling on-site wireless commissioning and monitoring for convenient field operation; remote commissioning and monitoring can also be achieved via the cloud data network.	
Ingress Protection	IP66/IP68 (0.2 bar)	
Cable Entry	L16 connector	

JWrada®-22 Radar Sensor



JWrada®-23 Radar Sensor



Features	Compact and simple radar water level meter with on-site display	Radar water level meter with stainless steel structure, offering corrosion resistance and high strength
Applications	Widely used for level measurement in hydrology, water utilities, simple operating conditions, and applications requiring on-site display	Widely used in industries such as hydrology and water utilities, and also suitable for level measurement of corrosive liquids
Antenna Aperture	44mm	
Range	≤30m	
Beam Angle	6°	
Process Temperature	-40 ~ 80℃	
Accuracy	±1mm	
Process Pressure	– 1 ~ 3 bar	– 1 ~ 30 bar
Material	Made of PA12 nylon plastic	Antenna : PTFE Housing : 316L
Process Connection	G1½ Thread	
Display	LCD display	No display
Frequency	80 GHz	
Power Supply	12~30V DC	
Signal Output	Two-wire: 4 ~ 20mA / HART	Four-wire: RS485 / Modbus
Bluetooth Communication	Supports the “JW Tools” APP and WeChat Mini Program, enabling on-site wireless commissioning and monitoring for convenient field operation; remote commissioning and monitoring can also be achieved via the cloud data network.	
Ingress Protection	IP66/IP68 (0.2 bar)	
Cable Entry	L16 connector	