# Liquid | Solid | Bluetooth | 80GHz

## **Radar Level Meter**





## **JWrada Radar Level Meter**

#### Overview

The JWrada series radar level meters utilize 80GHz FMCW technology, offering a measuring range of up to 120 meters. With a narrow beam angle and focused energy, they are ideal for low dielectric constant and complex media. Each unit undergoes over 50 rigorous factory tests and is well-suited for harsh conditions such as high temperature, high pressure, steam, and dust.

### **Principle**

Radar level meters send microwave signals from above to the material surface. The signal bounces back, and the device calculates the distance to measure the level. This method works for both liquids and solids.

#### **Benefits**

- Non-contact Measurement: High-precision radar technology with accuracy up to ±1 mm, ensuring reliable results without physical contact.
- Excellent Environmental Adaptability: Measurement remains stable regardless of medium properties or process conditions.
- User-Friendly Design: Easy setup with support for remote commissioning via the "Jiwei Smart Control" Bluetooth app.
- Self-Developed Intelligent Echo Technology: Proprietary echo-learning algorithm that intelligently adapts to complex environments for optimized accuracy.

	JWrada-31	JWrada-32	JWrada-33
Features	Economical 80GHz high frequency radar level meter with wide applicability	Long range up to 120m, 80GHz high-frequency radar, suitable for general liquid and solid level measurement, complete explo- sion-proof certification	80GHz high-frequency radar designed for high temperature, high pressure, and corrosion resistance with a maximum range of 120 meters
Applications	For continuous non-contact liquid measurement in complex containers in pharmaceutical, food, energy, and water industries	Liquid and bulk solid level measurement in various conditions, suitable for flammable and explosive environments in oil, chemical, and mining industries	Level measurement for liquids and bulk solids in harsh conditions, ideal for petroleum, chemical, metallurgy, and power industries; withstands 220°C, corrosion, and steam interference.
Measurement Medium	Liquids	For liquids and solid particles	
Range	Max. 30m	Max. 120m	
Antenna	PFA/316L+PTFE	PFA/316L+PTFE	Stainless steel 316L / PTFE diaphragm
Process Temp	Ambient temperature: -40 ~ 150°C High temperature: -40 ~ 220°C		
Process Pressure	-1 ~ 25 bar		
Beam Angle	≥ 3°		
Process Connection	Thread, flange, bracket, hanger		
Frequency	80GHz		
Wireless Communication	Support Bluetooth® v5.4		
Signal Output	<ul> <li>Analog output: 4~20mA</li> <li>Communication protocols: HART / RS-485 / MODBUS protocols</li> </ul>		
Qualifications & Certifications	None		C T1T6 Ga (Intrinsically Safe) IIC T80℃ Db (Gas & Dust )