



PRO Industrial-Grade Radar Level Meter

Overview

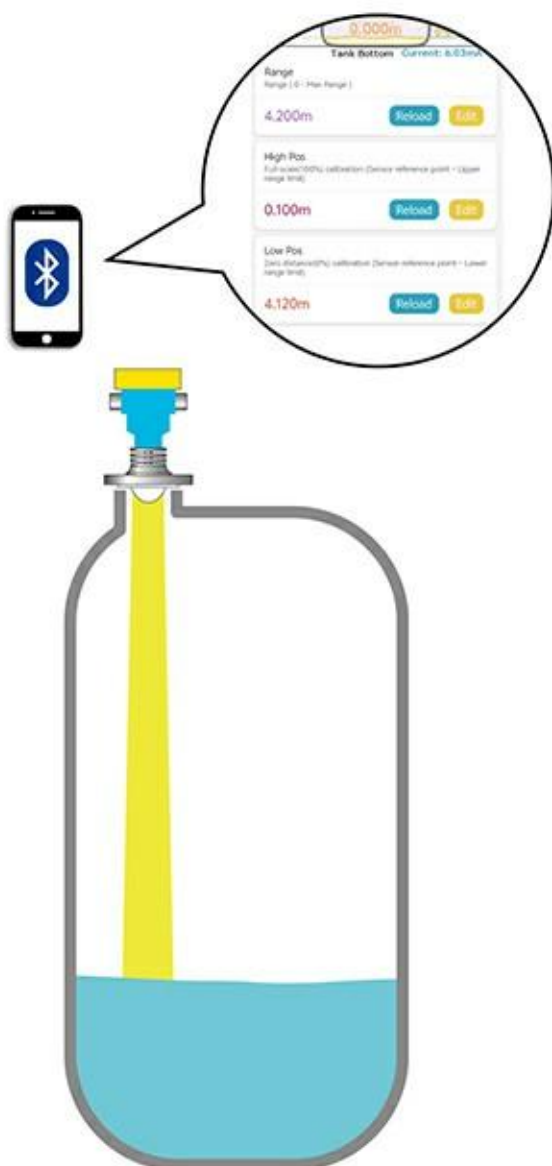
The JWrada[®] PRO industrial-grade radar level meter adopts 80 GHz FMCW technology, with a range of up to 150m, a narrow beam angle, and concentrated energy. It supports the “Jiwei Tools” APP for convenient commissioning and monitoring. Tested through over 50 factory validations, it is suitable for harsh explosion-proof environments, including reactors, storage tanks, powders, granules, and bulk solids.

Principle

The meter emits 80 GHz FMCW signals and receives echoes from the material surface. The distance is calculated through FFT analysis, allowing accurate level measurement.

Benefits

- **Non-contact measurement:** High-frequency radar measurement with $\pm 1\text{mm}$ accuracy.
- **Strong adaptability:** Unaffected by media, corrosion, high temperature, or high pressure.
- **User-friendly design:** Supports remote commissioning via the “Jiwei Tools” APP and WeChat Mini Program.
- **Smart echo technology:** Self-developed echo algorithm automatically adapts to the measurement environment.



JWrada®-31 Radar Level Meter**JWrada®-32 Radar Level Meter**

Features	Supports compact G3/4 process connections, ideal for small tanks and tight installations	A high-precision radar level meter with wide applicability, meeting both liquid level and solid level measurement requirements	
Applications	Suitable for small-range level measurement in explosion-proof areas, and widely used in industries such as pharmaceuticals, food, energy, hydrology, and water utilities	Suitable for liquid measurement in various explosion-proof areas, as well as level measurement of powders and solid granules with relatively high dielectric constants	
Antenna Aperture	16mm	38mm	
Range	≤10m	≤60m	
Beam Angle	13°	6°	
Process Temperature	-40 ~ 150℃	-40 ~ 150℃	-40 ~ 220℃
Accuracy	±1mm		
Process Pressure	– 1 ~ 30 bar		
Material	Antenna : 316L + PTFE	Housing : aluminum alloy, 316L	
Process Connection	G3/4 thread, threaded flange, sanitary tri-Clamp connection	Thread, flange, sanitary tri-Clamp connection	
Display	With LCD display and setting buttons		
Frequency	80 GHz		
Power Supply	12~30V DC		
Signal Output	Two-wire: 4 ~ 20mA / HART Four-wire: RS485 / Modbus Combined: 4 ~ 20mA / HART and 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	IP66/68(0.2bar)		
Explosion-proof	Ex db IIC T6 Gb Ex tb IIIC T80℃ Db	Ex ia IIC T6 Ga Ex ia IIIC T ₂₀₀ 80℃ Da	
Cable Entry	M20 X 1.5, 1/2NPT		

JWrada®-34 Radar Level Meter**JWrada®-35 Radar Level Meter**

Features	Designed for solid level measurement under dusty, vaporous, and complex operating conditions		Flange-mounted 80 GHz high-frequency radar level meter with plastic-sealed antenna, suitable for liquid level measurement under high pressure, corrosive media, and harsh operating conditions
Applications	Widely used for solid level measurement in various explosion-proof areas, suitable for powders, granules, lumps, and working conditions with heavy dust and strong interference		Widely used for high-pressure and corrosion-resistant liquid level measurement in explosion-proof areas, suitable for chemical, petrochemical, acid/alkali solutions, and corrosive medium storage tanks
Antenna Aperture	76mm		
Range	≤150m		
Beam Angle	3°		
Process Temperature	-40 ~ 150°C		-40 ~ 220°C
Accuracy	±1mm		
Process Pressure	- 1 ~ 30bar		
Material	Antenna :316L + PTFE Purge type antenna: 304 + PTFE Housing : aluminum alloy, 316L		Antenna : 316L + PTFE Housing : aluminum alloy, 316L
Process Connection	Universal flange, purge, bracket, hanger		Flange
Display	With LCD display and setting buttons		
Frequency	80 GHz		
Power Supply	12~30V DC		
Signal Output	Two-wire: 4 ~ 20mA / HART Four-wire: RS485 / Modbus Combined: 4 ~ 20mA / HART and 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	IP66/68(0.2bar)		
Explosion-proof	Ex db IIC T6 Gb Ex tb IIIC T80°C Db		Ex ia IIC T6 Ga Ex ia IIIC T ₂₀₀ 80°C Da
Cable Entry	M20 X 1.5, 1/2NPT		