



Special characteristics

- 60GHz PCR technology for higher resolution and stable performance
- Non-contact measurement unaffected by density or dielectric constant changes
- Compact design with Bluetooth wireless commissioning via phone
- Effective in harsh environments with strong anti-interference

Features

- High accuracy: $\pm 5\text{mm}$ (5m/10m), $\pm 0.1\%FS$ (15m)
- Wide measuring range: 5m / 10m / 15m with 6° beam angle
- Minimum blocking distance: $\leq 0.15\text{m}$
- Multiple outputs: (4 ~ 20)mA, RS485 (Modbus-RTU), Bluetooth
- Wide temperature range: $-40 \sim 85^\circ\text{C}$
- IP68 protection with low power consumption

Measuring principle

The radar level transmitter operates based on the Pulsed Coherent Radar (PCR) principle, where the distance to the material surface is determined by measuring the time of flight of short radar pulses transmitted by the sensor and reflected back from the medium surface.



The 60G Radar Level Transmitter is a high-performance hydrological monitoring solution based on high-frequency microwave radar technology, enabling real-time and accurate level measurement. With high accuracy, strong real-time capability, and no need for on-site calibration, it is unaffected by changes in medium density or dielectric constant, making it ideal for rivers, reservoirs, lakes, and irrigation channels.

Preferred areas of use are



Widely used for real-time and accurate hydrological level monitoring in natural waters such as rivers, reservoirs, lakes, irrigation channels, and waterways.

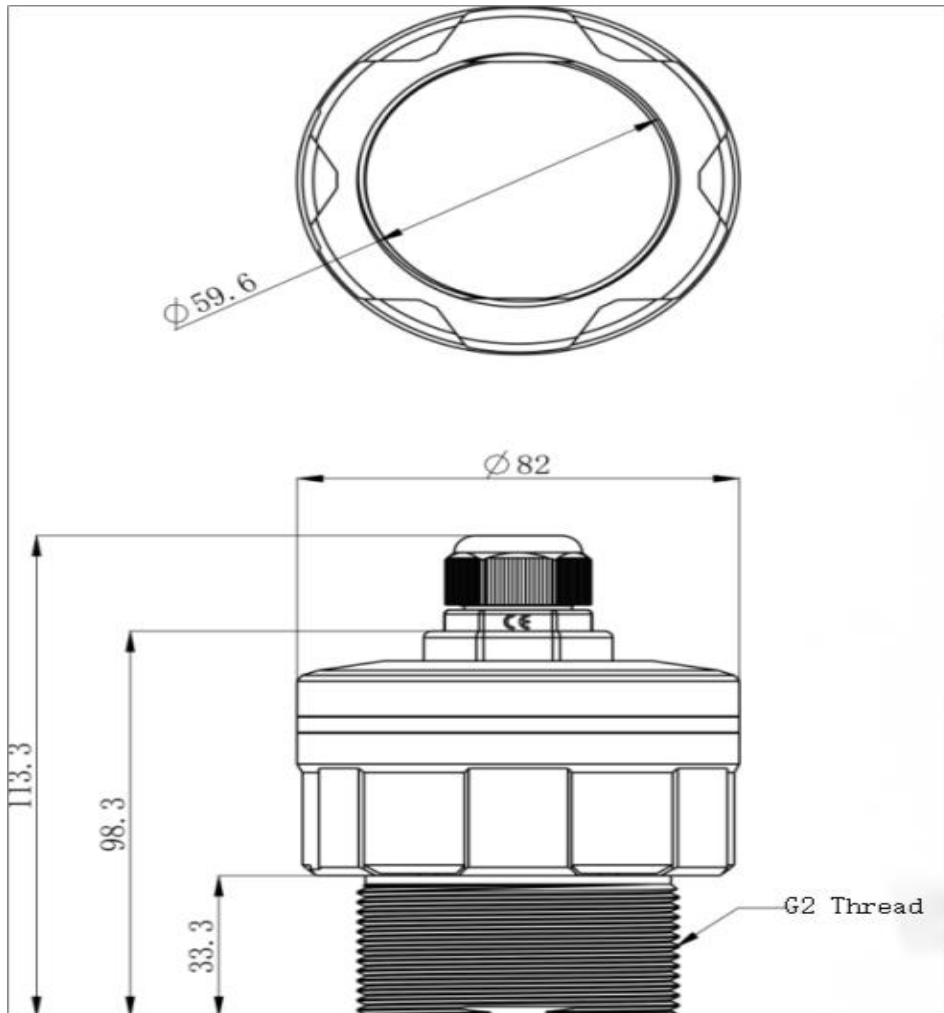
Material and test



Parameters

Measured variable	Level
Measuring range	5m/10m/15m
Blocking distance	$\leq 0.15\text{m}$
Modulation waveform	PCR
Transmission frequency	57GHz~64GHz
Beam angle	6°
Accuracy	$\pm 5\text{mm}$ (5m/10m) $\pm 0.1\%\text{FS}$ (15m)
Resolution	1mm
Refresh rate	$\geq 500\text{ms}$
Transmission output	(4~20)mA, current output accuracy 0.2% F.S Wire: $RL=(U-18\text{V})/0.021\text{A}$ 4-wire: $RL=(U-9\text{V})/0.021\text{A}$ Note: U is supply voltage, unit in V
Digital communication	RS485, Modbus-RTU
Wireless communication	Bluetooth
Power supply	2-wire Supply voltage: 18-36V DC Supply current: $\leq 25\text{mA}$, 24V DC
	4-wire Supply voltage: 9-36V DC Supply current: $\leq 80\text{mA}$, 24V DC
Power consumption	2-wire $\leq 1\text{W}$
	4-wire $\leq 1.9\text{W}$
Dielectric constant	≥ 3
Process pressure	(-0.1~0.3) MPa
Process temperature	(-40~85)°C
Protection degree	IP68

■ Dimension



Dimensions (unit: mm)

■ Ordering Code

FK-WSR201-A-05-B8-L2-TQ-5-01														Description
WSR201	-	-	-	-	-	-	-	-	-	-	-	-	-	Radar level gauge
Measured Medium	A													Liquid
Measuring Range		05												5m
		10												10m
		15												15m
Output and Power Supply			B8											Two-wire 4-20mA + Bluetooth
			B9											Four-wire 4-20mA+RS485 Bluetooth, 24VDC
Process Connection			L2											G2 threaded; PC
Heat Resistance Temperature				TQ										-40-85°C
Shell Material and Protection Level					5									PC, IP68
Cable Length						01								1m
						03								3m
						05								5m
						10								10m
						15								15m
						25								25m
						XX								Others
Accessories								EA						L-shaped stainless steel mounting bracket 0.8 m