



RKL-02 Radar Liquid Level Transmitter

Overview

RKL-02 Radar Liquid Level Transmitter antenna emitter that emits narrow microwave pulses. These pulses travel through space at the speed of light. When the pulses encounter the surface of the measured medium, a portion of their energy is reflected back to the same antenna. The time interval between the emitted pulse and the received pulse is proportional to the distance from the antenna to the surface of the measured medium, allowing for accurate distance calculation.

Features

The small beam angle allows for energy concentration, resulting in strong anti-interference capability and high accuracy and reliability

Easy Installation

The transmitted power is extremely low, posing no harm to the human body or the environment

Multiple output signal is optional

Good stability

False Echo Filtering

The range extends up to 70 meters, allowing for measuring water levels in large reservoirs and other bodies of water

Applications

River water level measurement

Lake water level measurement

Shallow water level measurement

Hydrographic Survey

Environmental protection

Technical Parameter

Item	Technical Specification
Range	10m,30m,50m,70m
Output	4-20mA(2- wires), RS485(MODBUS-RTU)
Supply voltage	12VDC,24VDC,220VAC
Process connection	G1_1/2,support flange
Working frequency	26GHz
Accuracy	±3mm



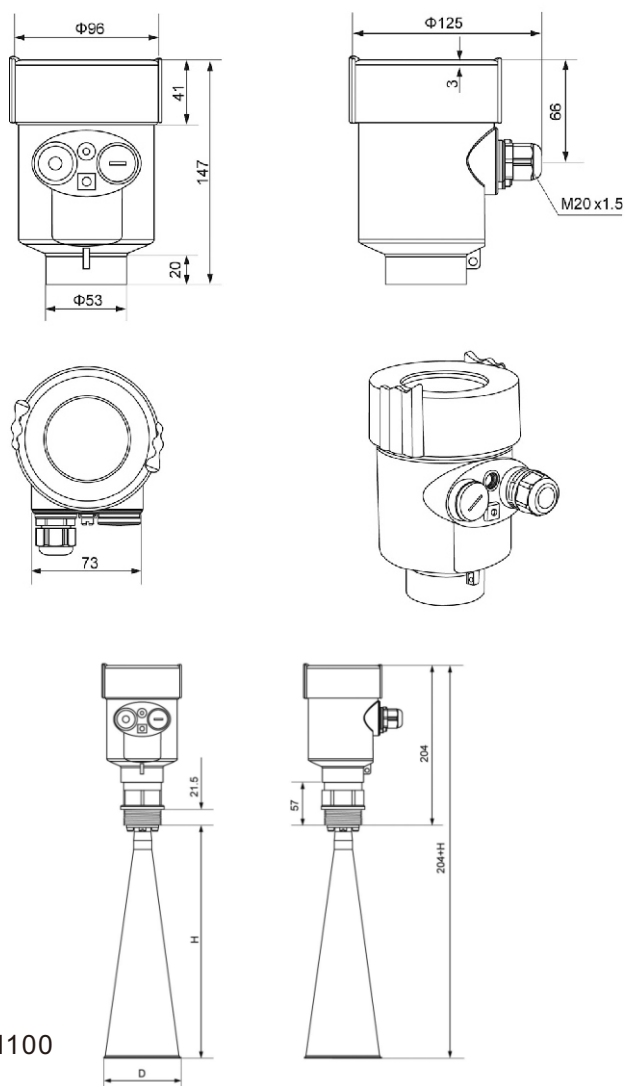
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Technical Parameter

Item	Technical Specification
Display	128*64LCD display resolution:1mm
Ingress Protection	IP67
Medium temperature	-40~+150°C
Medium pressure	-100~100kPa
Operating Temperature	-40°C~ +85°C
Housing material	Aluminum alloy
Antenna material	304ss
Shock	10m/s ² @10~150Hz
Storage Condition	10°C~50°C@20%-90%RH

Dimension

Unit:mm



D: $\Phi 96$ mm
H: 288mm
Flange(optional): DN100

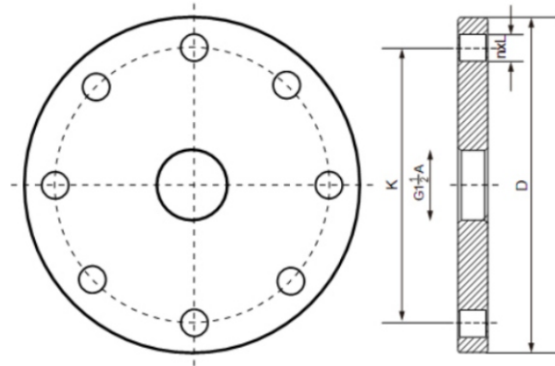


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Dimension

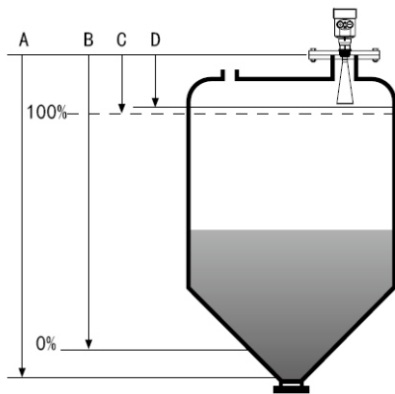
Unit:mm

Flange	D	K	N	L
Dn100	220	180	8	18

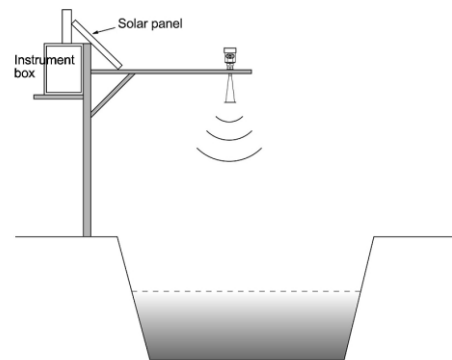


Flange dimension

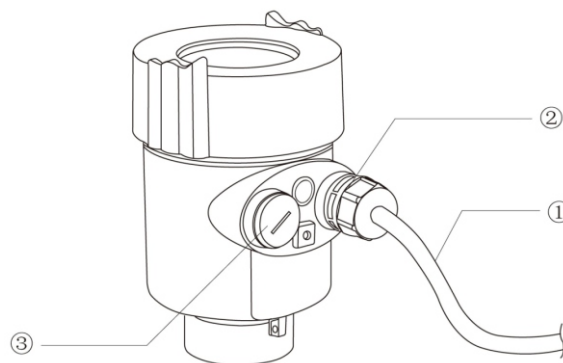
Mounting



A: measurement range
B: Low level adjustment
C: High level adjustment
D: Blind zone



The radar antenna emits microwaves at a specific angle. There should be no obstacles between the antenna's edge and the measured medium's surface, ensuring an unobstructed area for the microwave beam's radiation.



In order to ensure that products meet the requirements of IP67 rating, please make sure:

- The sealing head is intact.
- The cable is not damaged.
- Ensure that the cable used complies with the electrical connection requirements specified;
- Before entering the electrical interface, the cable should bending downward to ensure that water does not flow into the housing, as shown ①;
- Please tighten the cable seal head as ② ;
- Please return the unused electrical interfaces to ensure they are securely blind blind-plugged as ③.



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Parameter Selection Table

Remark	Series	Range	Output	Process connection	Cable Length
RKL					
	02				
		A			10m
		B			30m
		C			50m
		D			70m
		X			Other
			A		4-20mA(AC220V)
			B		4-20mA(DC24V)
			C		RS485 (DC12V)
			D		RS485 (AC220V)
			X		Other
				G	G1_1/2
				F	Flange DN100
				X	Other
					0
					5000
					...

Example: RKL-02ABG5000 Range:0-10m, Output: 4-20mA(DC24V), Process connection: G1_1/2, Cable length:5m.

Revision time	Reviser	Current Version	Remarks
20250715	Echo	V5.0	