



RKL-05 Radar Velocity Sensor

Overview

RKL-05 Radar Velocity Sensor is a non-contact device specifically designed to measure water flow velocity. It efficiently monitors surface velocity in various channels, including natural waterways. The product is simple to install, operate, and maintain, making it highly versatile for applications in hydrology, flood control, drainage, and environmental pollution monitoring. It ensures reliable, continuous online monitoring around the clock.

Features

Adopt a 24GHz frequency electromagnetic wave
Simple construction and installation, low power consumption, economical and applicable
High IP68 protection level, maintenance free
Does not destroy the water flow state, guarantees the measurement data accurate
24/7 online automatic monitoring, unattended

Applications

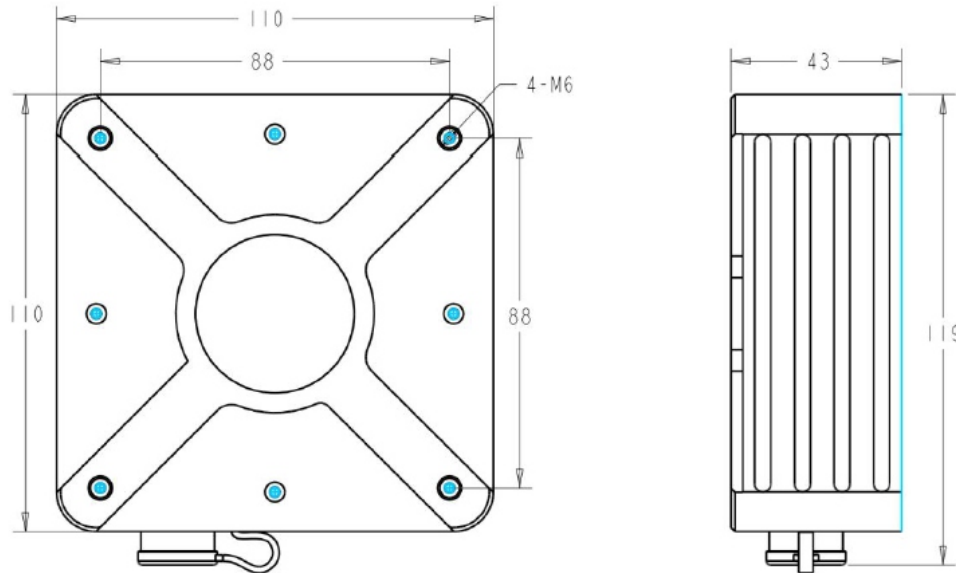
River water level measurement
Lake water level measurement
Shallow water level measurement
Hydrographic survey
Irrigation open channel water flow monitoring system

Technical Parameter

Item	Technical Specification
Frequency	24.000~24.250GHz
Range	0.1 ~ 20 m/s (It has to do with the flow pattern)
Accuracy	±1%FS
Resolution	0.01m/s
Effective distance	0.5-30m
Measurement time	3~240s
Supply	7~28VDC (suggested use 12 v)
Power consumption	Working current :120mA@12V; Standby current :1mA@12V
Output	RS485(MODBUS-RTU)
Automatic angle correction	30-60°
Antenna style	Flat microstrip array antenna,14°×32°
Working temperature	- 40~ + 85℃
Protection grade	IP68
Product size	110×110×43mm
Weight	1.1kg
Cable length	5m default, customizable

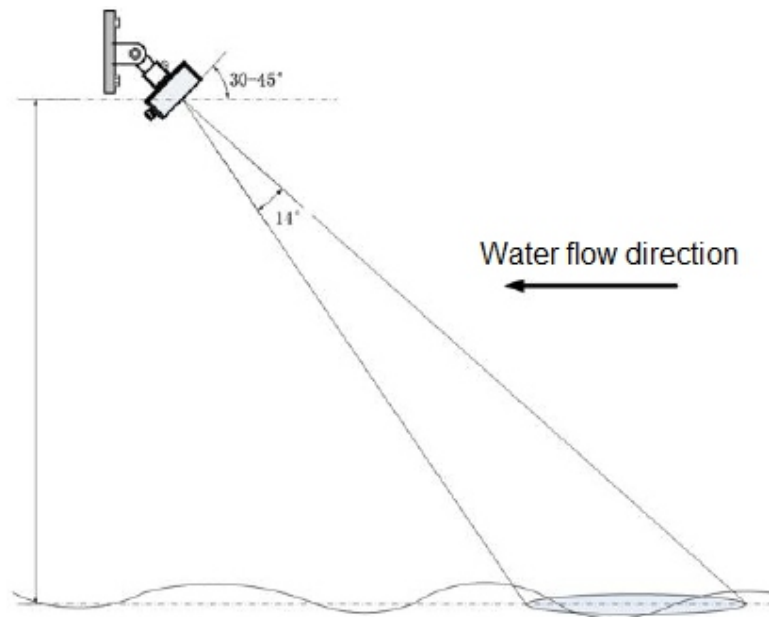
Dimension

Unit:mm



Mounting

It is recommended that the radar beam should be directed towards the water flow, as shown in the figure. The radar tilt angle (the residual angle between the radar beam and the horizontal plane) should be within the range of 30 degrees to 45 degrees, and 30 degrees is recommended.



Revision time	Reviser	Current Version	Remarks
20250719	Echo	V5.0	