

BT7310

Radar Water Level Gauge



Shaanxi Besteetech Importing&Exporting Co. Ltd

E-mail: roxy@besteetech.com

I.General Introduction

BT7310 Radar Water Level Gauge is a non-contact water (material) level detection device independently developed by BESTEETECH, which can be used to monitor the water level of rivers, lakes, reservoirs and can help with water treatment operations.

This Radar Water Level Gauge works in the 24GHz ISM frequency band and adopts FMCW modulation. It can detect water level information in real-time 24/7, and is not affected by climate, temperature, water vapor, and water pollutants. The product is equipped with efficient data processing algorithms to ensure the accuracy of product measurement results.

BT7310 provides 3 standard physical circuit interfaces: RS232, RS485 (default) and 4-20mA.

II.Product Features

☑FMCW frequency modulation continuous wave mode

☑Compact and delicate appearance, with ultra-high cost-effectiveness

- ☑Working 24/7, not affected by temperature, with strong anti-interference ability
- ☑Combining measurement operation and sleep mode to save energy and reduce consumption
- ☑Multiple interface modes are provided for easy access to platform systems
- ☑IP67 water-proof design, suitable for various outdoor environments

III. Technical parameters

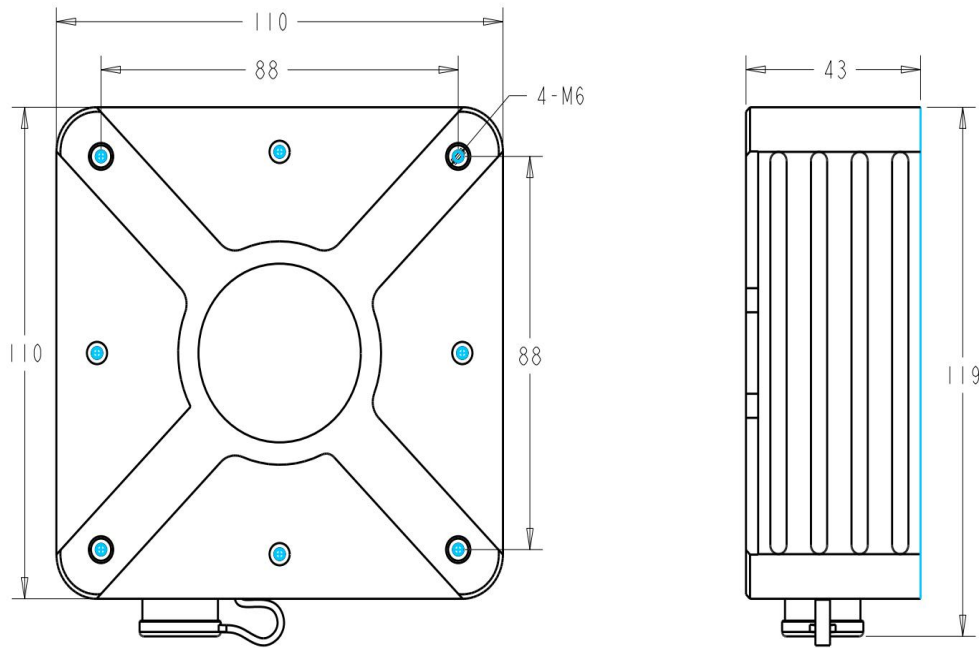
Main performance specification

Measurement Range	1.5 ~ 40m
Measurement Accuracy	$\leq \pm 1\text{cm}$
Resolution	4mm
Measurement Time	300 ~ 20000ms
Measurement Interval	0~30000s
Data Format	9600, n, 8, 1
Communication Interface	RS-485/ RS-232 / 4-20mA Current Loop
Communication Protocol	Customize ASCII/MODBUS

Antenna Type	Planar micro-strip array antenna, 11°×11°
Transmission Frequency	24.005 ~ 24.245GHz
Working Voltage	+7~28V DC
Working Current	Working Current under Working Mode ≤ 150mA@12V
	Working Current under Low-Consumption (Sleep) Mode≤ 1mA@12V
Working Temperature	-40 ~70°C
Protective Grade	IP67
Size(l×w×h)	110×110×43 (mm)
Housing Material	Front cover: POM(white), rear cover:aluminum alloy (silver)

IV. Parameters

Dimensional structure



V. Typical Industry Applications

Hydrological Survey & Monitoring:

Real-time water level tracking for rivers, lakes, reservoirs, and natural streams.

Irrigation & Channel Control:

Automated water level sensing in open canals, irrigation networks, and sluice gates.

Flood Control & Urban Waterlogging:

Early flood warning systems for mountain flash floods, river overflows, and city drainage hubs.

Water Treatment & Environmental Safety:

Non-contact level measurement for sewage treatment plants and water utility operations.