



Q&T Instrument Co.,Ltd

Instrumentteam PLUS as

80GHZ Radar Level Transmitter

CATALOGUE

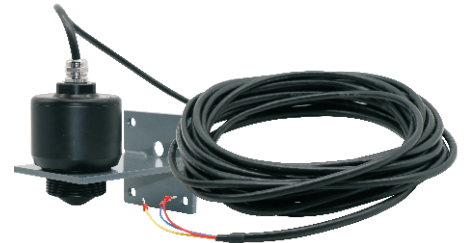




Introduction

QTRWL series radar water level transmitter is based on frequency modulated continuous wave (FMCW) operating at 76-81GHz. The maximum range of the product can reach 65m, and the blind zone is within 10 cm. it's non contact level measurement with high accuracy.

Because of its higher operating frequency, larger bandwidth, and higher measurement accuracy. The product provides a bracket fixing method, which makes installation convenient and easy.



It's particularly used to monitor the level of tank, river, water treatment and rain flow in open channels.



Product Features

Millimeter wave radio frequency chip, to achieve more compact radio frequency architecture, higher signal-to-noise ratio, smaller blind area.

5GHz working bandwidth enables the product to have higher measurement resolution and measurement accuracy.

The antenna beam angle is 6°, the interference in the installation environment will have less impact on the instrument, and the installation is more convenient.

Integrated lens design, compact size.

Display controller and water level gauge adopt separate design and can be customized.

Low power consumption operation.

Support Bluetooth debugging of mobile phone.

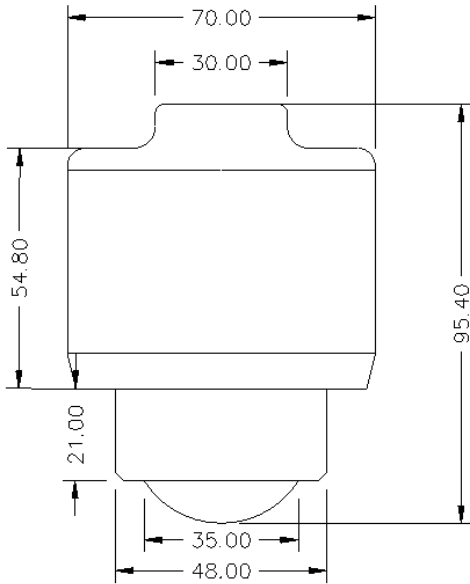


Parameters

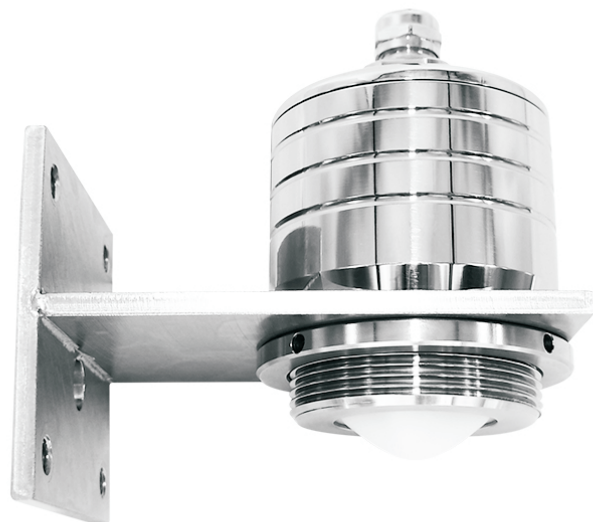
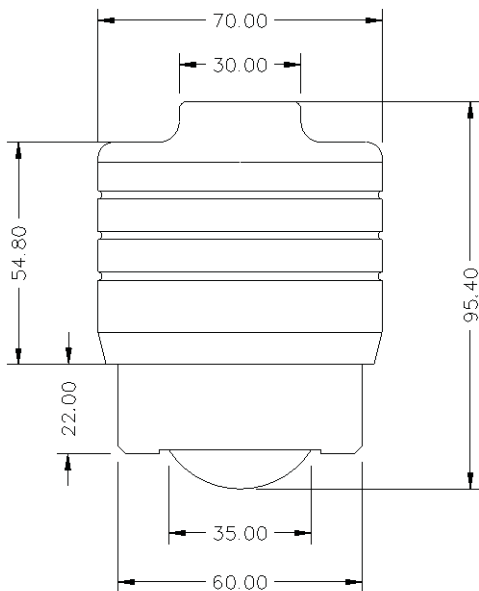
- Product: 80GHZ Radar Level Transmitter
- Measuring range: 0.1m~65m
- Accuracy: $\pm 1\text{mm}$
- Antenna: Lens
- Shell material: PP (Optional SS304)
- Beam angle: 6°
- Measuring frequency: 76~81GHz
- Power supply: 9~28VDC (RS485 Transmitter)
18~28VDC (4-20mA Transmitter)
- Output signal: 4-20mA / 4-20mA+Bluetooth / 4-20mA+HART / RS485 MODBUS RTU /
RS485 MODBUS RTU+Bluetooth / 4-20mA+HART+Bluetooth
- Process connection: PP sensor is 1.5" thread; SS304 sensor is 2" thread; Customized
- Process pressure: -0.1~2.0MPa
- Ambient temperature: $-30^\circ\text{C}\sim+75^\circ\text{C}$
- Protection grade: IP68
- Cable length: 8 m
- Cable Entry: PG9



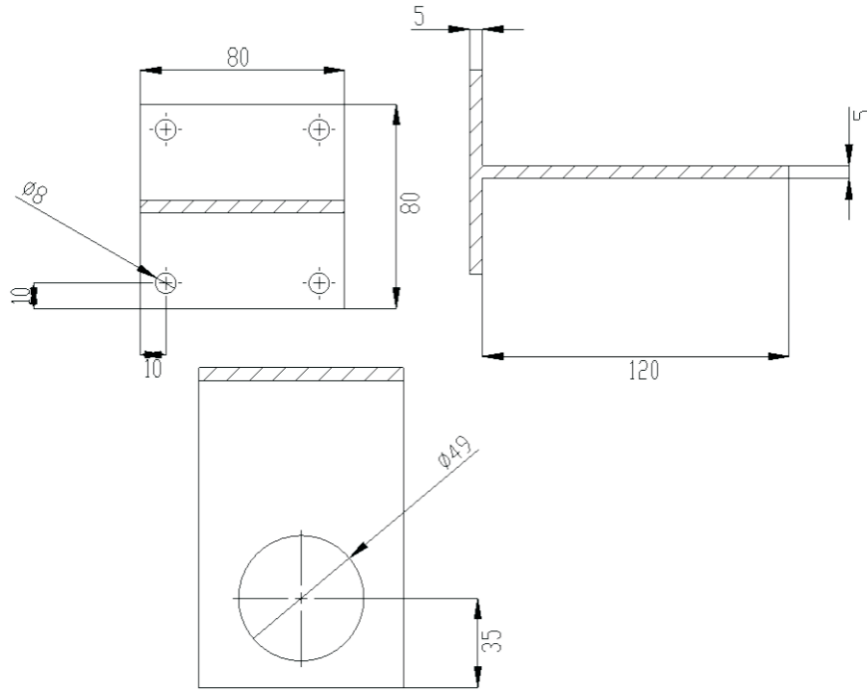
Product Drawing



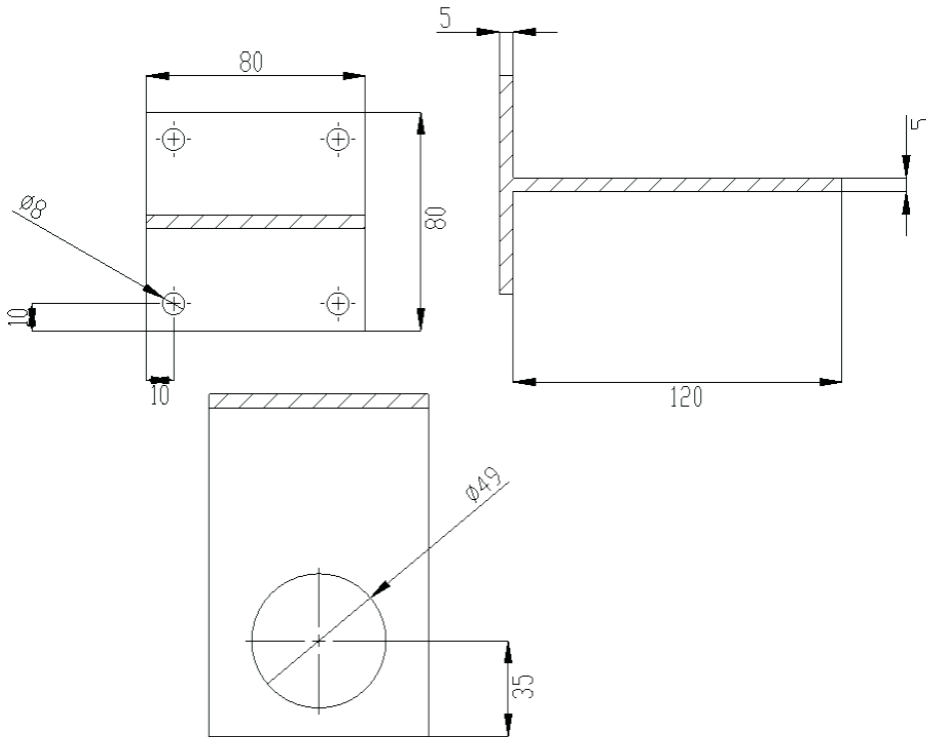
1.5" PP housing with 4-20mA (Unit:mm)



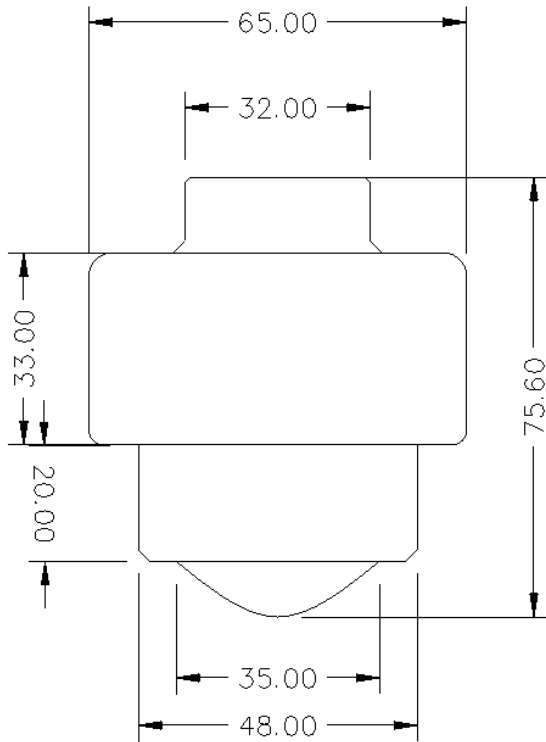
2" SS304 housing with 4-20mA (Unit:mm)



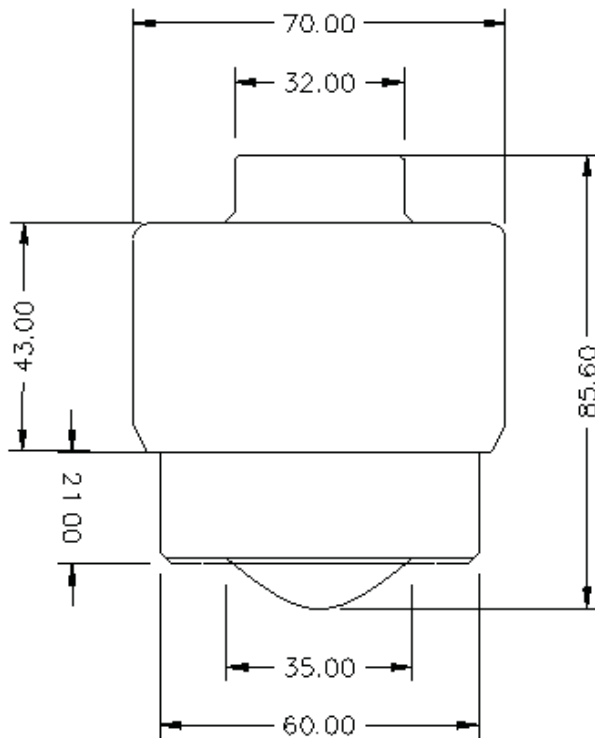
T shape bracket for 1.5" PP housing (Unit:mm)



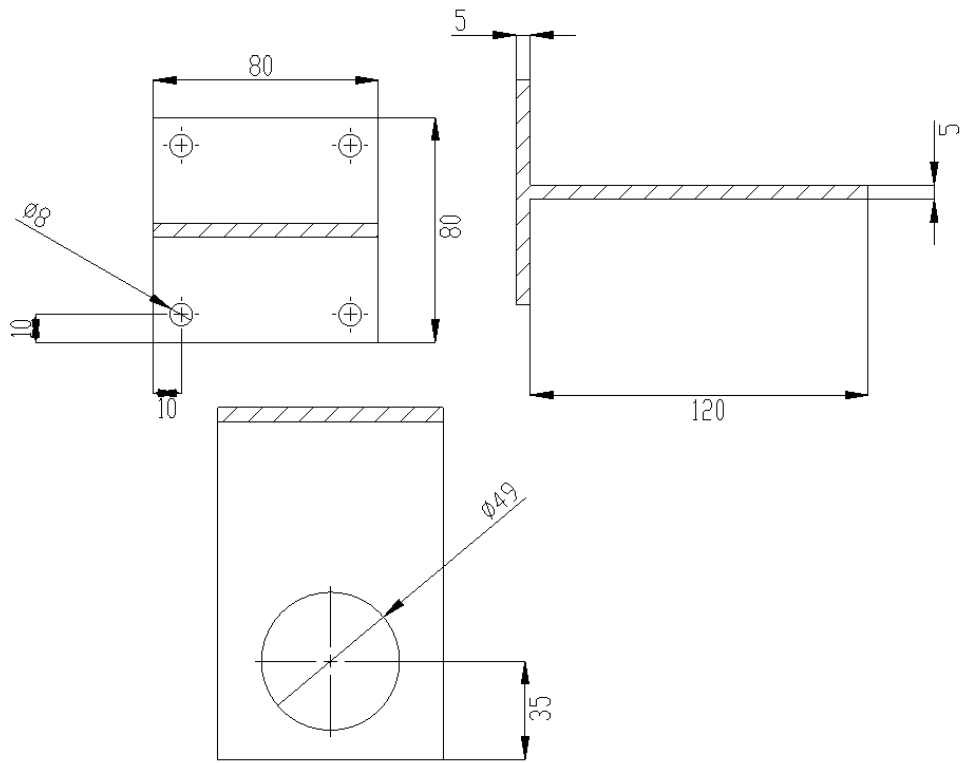
T shape bracket for 2" SS304 housing (Unit:mm)



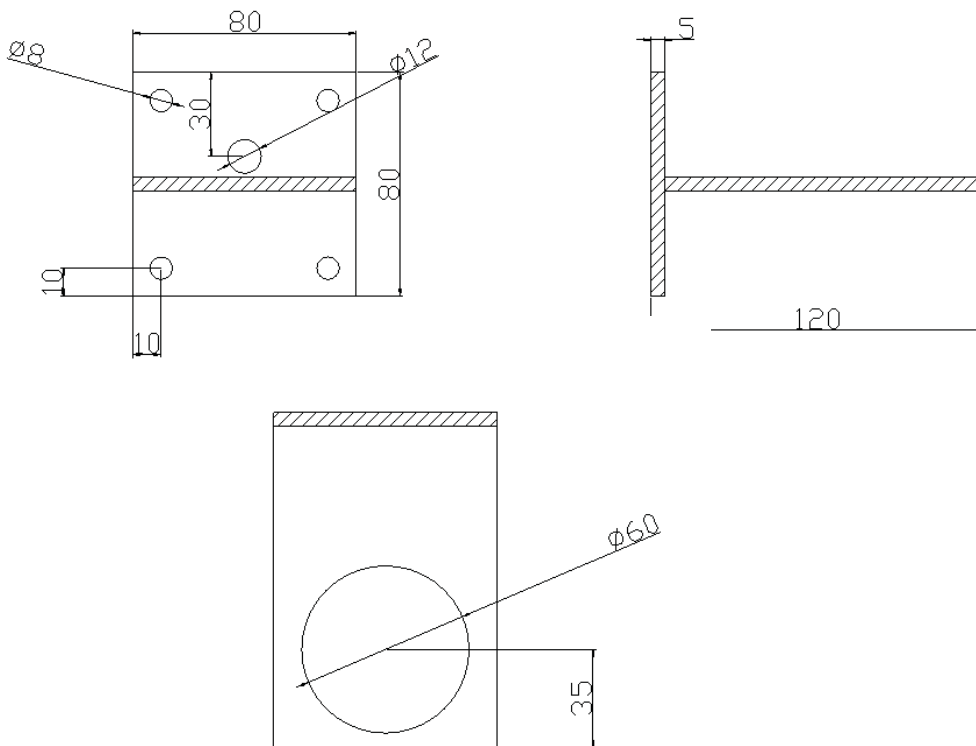
1.5" PP housing with RS485 MODBUS RTU (Unit:mm)



2" SS304 housing with RS485 MODBUS RTU (Unit:mm)



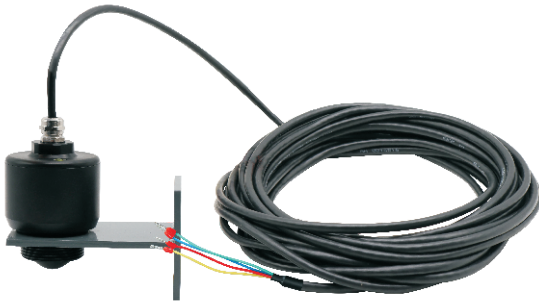
T shape bracket for 1.5" PP housing (Unit:mm)



T shape bracket for 2" SS304 housing (Unit:mm)



RS485 Trasnmitter Wiring



No.	Color	Note
1	Green	RS485A
2	Yellow	RS485B
3	Red	Power Supply+
4	Blue	Power Supply - (Ground)

The terminal leads out 4 wires for RS485 MODBUS RTU, connects the user's equipment according to the wiring sequence in the figure. The cable length can be customized.

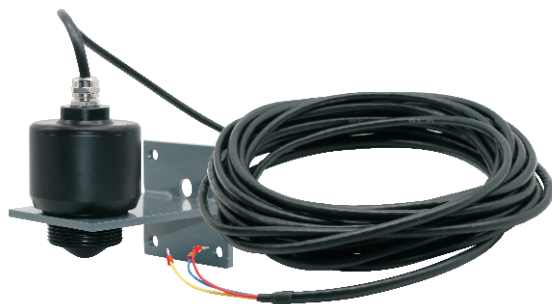
Serial port parameters:

RS485, baud rate--9600, data bits--8, stop bits--1, parity bits--none.

Power supply is 9~28 VDC, 12 VDC is recommended.



4-20mA Transmitter Wiring

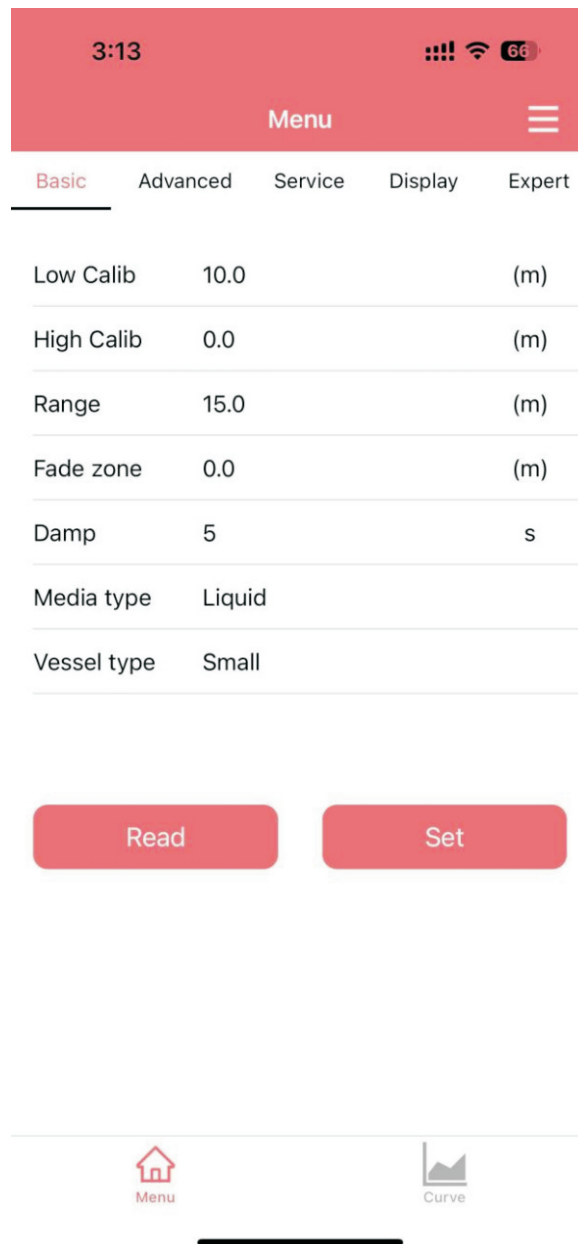


No.	Color	Note
1	Red	24VDC+
2	Blue	24VDC-
3	Yellow	GND



Level Transmitter With Bluetooth

The mobile APP can adjust and set parameters through Bluetooth on site, save the working time of installation and maintenance, improve the efficiency of project implementation.





Model Selection Table

QTRWL		X	X	X	X	X
Sensor housing material	PP	P				
	SS304	S				
Measuring Range	10m		1			
	20m		2			
	30m		3			
	65m		4			
Output Signal	RS485 MODBUS RTU			R		
	4-20mA			4		
	4-20mA, HART			H		
	4-20mA, HART, Bluetooth			B4H		
	4-20mA, Bluetooth			B4		
	RS485 MODBUS RTU, Bluetooth			BR		
Power supply	9~28VDC (RS485 Transmitter) 18~28VDC (4-20mA Transmitter)				D	
Cable Length	8m					8
	Others					XX