

Product specifications



WE-T122

Brief introduction to the product

WE-T122 is a series of conductivity monitoring transmitters, including LoRa, RS485, 4G, NB-IOT, etc., and the power supply modes are battery power supply and 24V power supply. The conductivity transmitter adopts high-stability digital sensors to realize real-time monitoring and calculation of on-site liquid levels, and uses LoRa, RS485, 4G, NB and other communications to achieve long-distance communication.

The split design of the transmitter body and probe provides a variety of installation methods for different needs such as the liquid to be tested on site and the installation method, and can be widely used in building buildings, industrial sites, municipal and other application scenarios.

Key features:

Split design

- The transmitter body adopts LoRa type, supports the frequency range of 410MHz~490MHz, and supports SMA antenna interface; 4G type supports full network communication;
- The transmitter communicates with the edge computing gateway of Shidian Technology through the WES-WIO wireless terminal communication protocol to realize real-time reporting of on-site conductivity and condition detection data.
- External conductivity probe, the conductivity detection range and installation method can be selected and customized;

A wide range of conductivity probe specifications to choose from

- Support 0ms/cm~4ms/cm conventional conductivity range, other ranges can be customized;
- Conductivity probes with different levels of accuracy are supported to meet different accuracy requirements;
- Support a variety of installation methods such as straight pipe and input;

Robust, industrial-grade design

- IP67 protection level;
- Support -40~85° storage temperature, -20~70° working environment temperature, 5~95% relative humidity;

Comprehensive installation and after-sales maintenance

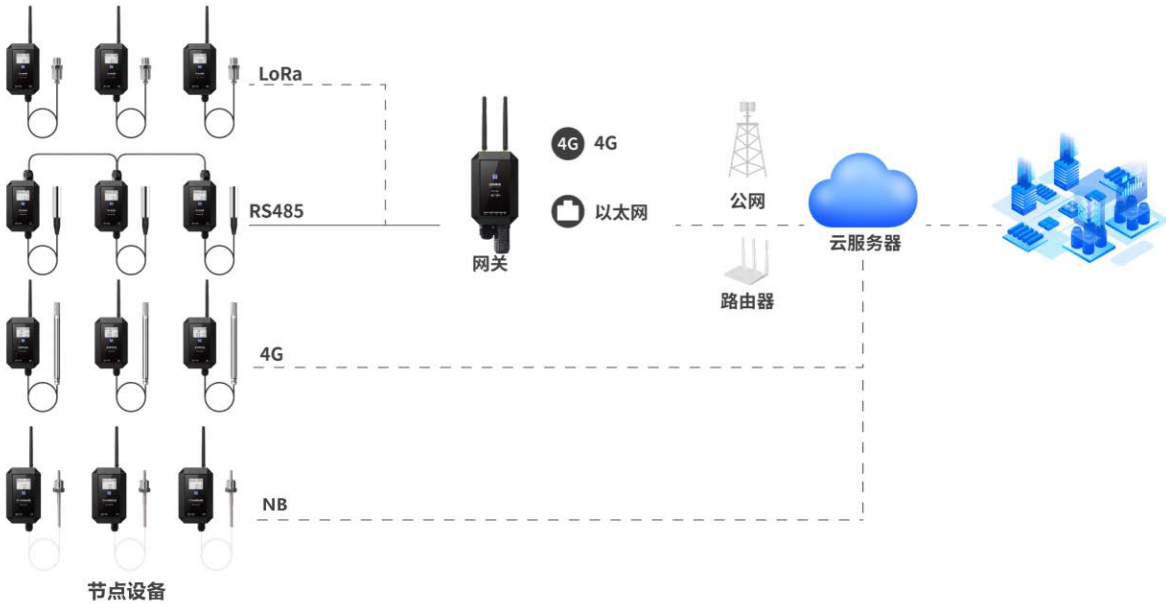
- Support installation methods such as guide rails, wall mounting, snap rings, and hoops;
- The P0 type supports 19000mAh large-capacity lithium battery, with a typical battery life of 5 years in a 5-minute reporting cycle and a battery life of up to 15 years in a 1-hour reporting cycle.
- Support rich fault detection functions, including fault detection such as conductivity threshold exceeded, abnormal changes in conductivity value, low power, etc., and notify after-sales maintenance personnel by mobile phone SMS and email through the Shidian Technology equipment management platform;
- Support high-definition LCD display, with LED indicators and buttons, you can check conductivity values, alarm information, etc. in real time on the spot;

Functional categories	Function description	Note:
Communication interface		Antenna Interface Type: SMA Female
	LORA	It supports the 410.125~490.125MHz frequency band
	communication	Maximum transmit power of 22dBm,
	port	Maximum -147dbm reception sensitivity, 5KM signal coverage capability with open viewing distance
		MQTT, HTTP, WES cloud service protocol
		LTE FDD B1/3/5/8
	4G	LTE TDD B34/38/39/40/41 (full band).
		Rate(Mbps) LTE FDD:10.3(DL)/5.1(UL)
		LTE TDD: 9.1(DL)/3.1(UL)
		LTE Cat NB2: B3/B5/B8
	NB	Rate(kbps):Single-Tone:25.5(DL)/16.7(UL)
		Multi-Tpne: 127(DL)/158.5(UL)
		Communication protocol Compatible with WES-I0 (fixed 9600bps) and Modbus protocol
		Baud rate 2400, 4800, 9600, 19200, 34800, 57600, 115200
	RS485	Data bits 7 bits, 8 bits
		Stop positions 1 bit, 1.5 bit, 2 bit
		Check bits None, Odd, Even
UI	1* Key input	Refer to the UI specification definition, multi-function buttons
	2* LED	
	indicators	System, LoRa communication indicator
		128*64 dot matrix monochrome LCD
		Displays sensor values and status information
	screen	Set up interactions
	Powered by	
	lithium	
Power supply	batteries	19000mAh, lithium battery
	24VDC power	
	supply	Wide voltage input, 9~30V
	Work	
	environment	Operating Temperature: -20~70 Working Relative Humidity: 5% ~ 95%
	Storage	
	environment	Storage Temperature: -40° ~ 85° Storage Relative Humidity: 5% ~ 95%
	Protection	
	Water and dust	
level	resistant	IP67
	ESD	4KV contact, 8KV non-contact

Physical		
characteristics	Appearance	
dimensions	78 (width) * 121 (height) * 51.4 (depth) mm	
Installation		
method:	Wall-mounted, holding rod, hoop, guide rail installation	
Measurement		
Monitoring	type	Conductivity
Measurement		
range	Conductivity: 0ms/cm~4ms/cm	
Detection		
accuracy	Conductivity: 3% FS	
Minimum		
resolution	1us/cm	
Installation		
method:	Drop-in (special waterproof air conduction cable)	

Specifications

Typical topology



Selection and ordering

Product base model:
WE-T122

Parameter selection table:

Communication mode	A Accuracy Rating	R range range	Power supply mode	Sensor probe mounting
LR: LoRa4G: 4G/cat1 NB: NB- IoTRS: RS485MB: RS485/Modbus	N/A	R4: 4ms/cm	P0: Battery power supply P1: 9~30VDC power supply Other power supply methods are customized	N/A
Other communication methods are customized				

Example:

WE-T122-LR-R4-P0

LoRa radio conductivity transmitter, 0ms/cm~4ms/cm detection range, battery powered.