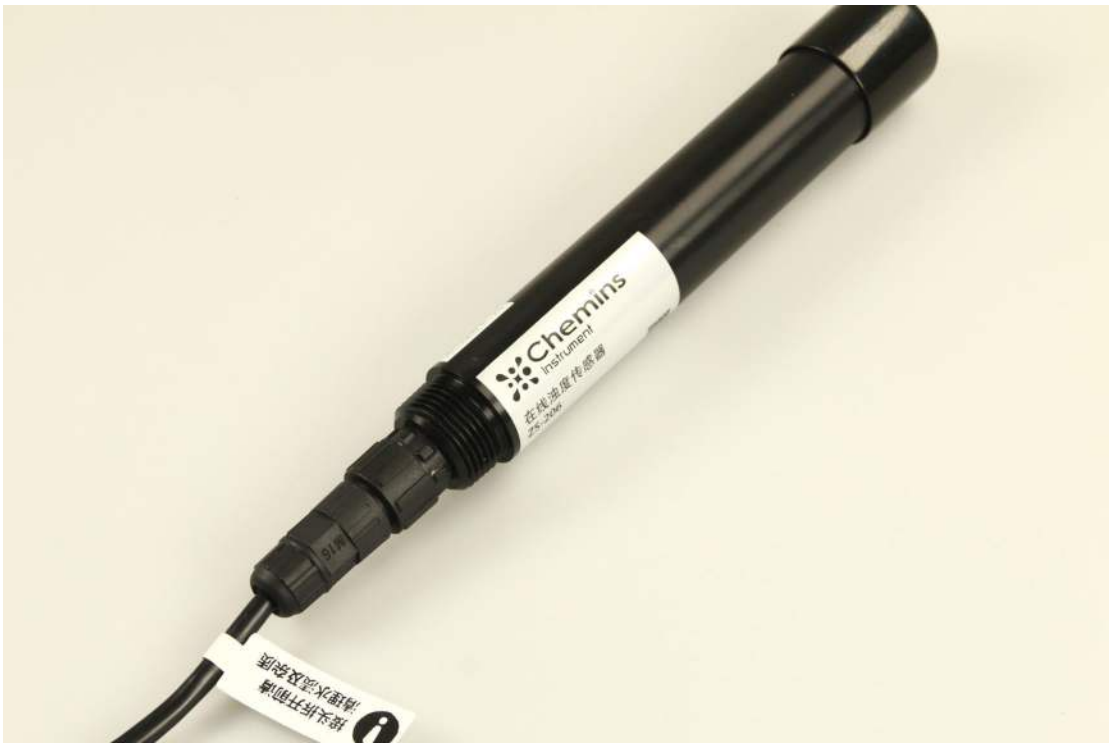
Product datasheet



WE-T125

Brief introduction of the product

WE-T125 is a transmitter used to measure the concentration of suspended particulate matter in water, and its transmission methods cover LoRa, 4G, NB-IoT and other ways, and the power supply mode is divided into battery power supply and 24V power supply. The turbidity transmitter uses a highly stable digital sensor that enables real-time monitoring and calculation of liquids in the field. Through LoRa, 4G, NB and other communication technologies, long-distance data transmission is realized, and combined with the industrial edge computing gateway products of Shidian Technology, the data is uploaded to the equipment management platform of Shidian Technology, so as to complete the real-time collection, analysis and calculation, storage and display of turbidity in liquid in the field.

The transmitter body and probe are designed separately, providing a variety of installation methods for different needs such as the liquid to be measured and the installation method in the field. It is mainly used in drinking water treatment, sewage treatment, natural water monitoring, and industrial production processes.

Key features:

Split design

- The transmitter body adopts LoRa type, supports the frequency band range of 410MHz~490MHz, and supports SMA antenna interface; The 4G type supports full Netcom communication;
- The transmitter communicates with the edge computing gateway of Shidian Technology through the WES-WIO wireless terminal communication protocol to realize the real-time reporting of turbidity content and status detection data in the liquid in the field.
- External turbidity probe, optional installation method;

Turbidity probe specifications

- 5m cable length, support cable length customization;
- Measured by scattered light method;
- Support a wide range of ranges;
- Easy to install, 3/4NPT, easy to sink installation or installation in pipes and tanks;

Robust, industrial-grade design

- IP67 protection level of the host and IP68 protection level of the probe;
- The host supports -40~85 ° storage temperature, -20~70 ° working environment temperature, 5~95% relative humidity;
- The working condition of the probe is 0~50° C, the ≤ is 0.2MPa, and the storage temperature is -5~65°C

Comprehensive installation and construction and after-sales maintenance

- The host supports 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 up to 15 years in a 1-hour reporting cycle.

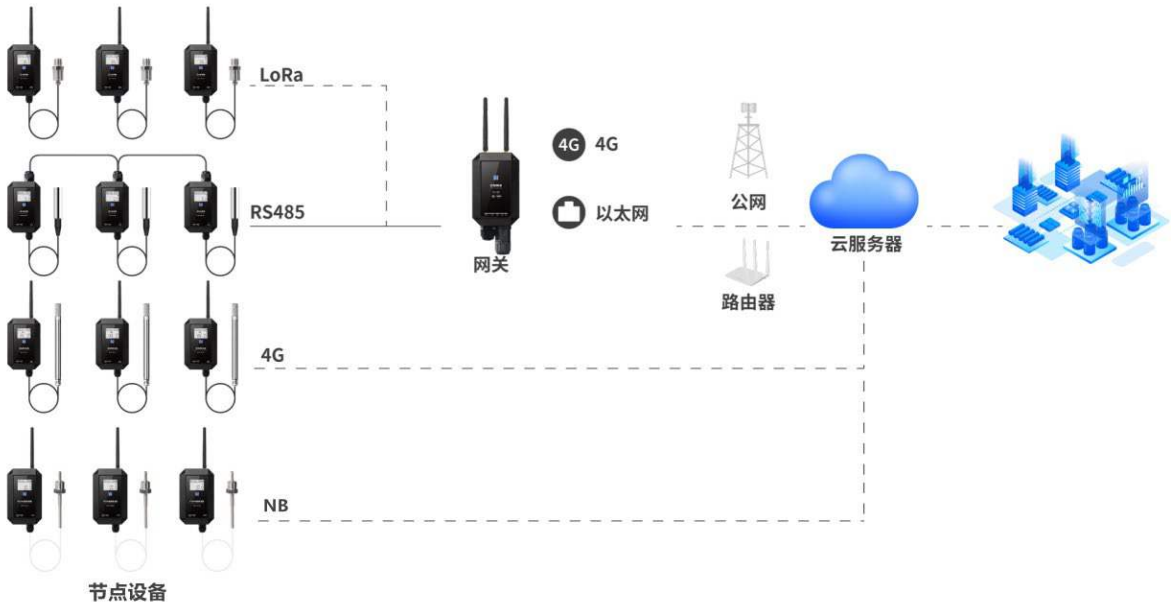
- It supports a wealth of fault detection functions, including turbidity threshold overrun, abnormal turbidity change, low battery and other fault detection, and notifies after-sales maintenance personnel by SMS and email through the equipment management platform of Shidian Technology;
- Support high-definition LCD display, with LED indicators and buttons, you can view the turbidity value and alarm information in real time on site;

Functional categories	Description of the function	remark
Communication interface	LoRa communication port	Antenna interface type: SMA female Support 410.125~490.125MHz frequency band Maximum 22dBm transmit power, The maximum receiving sensitivity of -147dbm, the signal coverage capacity of 5KM in open line-of-sight
	4G	MQTT、HTTP、WES 云服务协议 LTE FDD B1/3/5/8 LTE TDD B34/38/39/40/41（全频段） 速率(Mbps) LTE FDD：10.3(DL)/5.1(UL) LTE TDD:9.1(DL)/3.1(UL)
	NB	LTE Cat NB2：B3/B5/B8 速率(kbps)：Single-Tone：25.5(DL)/16.7(UL) Multi-Tpne：127(DL)/158.5(UL)
UI	1* Key input	Refer to the UI specification definition, multi-function buttons
	2* LED indicator	System、LoRa 通信指示灯
	screen	128*64 点阵单色 LCD Displays sensor values and status information Set up interactions
Power supply	Powered by lithium batteries	19000mAh, lithium battery
	24VDC power supply	Wide voltage input, 9~30V
environment	The host operating environment	Operating temperature: -20~70°C Working relative humidity: 5~95%.
	Host storage environment	Storage temperature: -40~85°C Storage relative humidity: 5 ~95%.
	Probe operating conditions	0~50°C,≤0.2MPa
	The probe stores the temperature	-5～65°C
Degree of protection	The main unit is waterproof and dustproof	IP67

	ESD	4KV contact, 8KV non-contact
	The probe is waterproof and dustproof	IP68
Physical properties	Exterior dimensions of the host	78 (width) * 121 (height) * 51.4 (depth) mm
	How the host is installed	Wall-mounted, pole-mounted, hoop-gripped, rail-mounted
monitoring	Type of measurement	turbidity
	Measuring range	浊度:0~20NTU、0~200NTU、0~1000NTU
	Detection accuracy	±5%或±3NTU(0~1000.0NTU) ±3%或±2NTU(0~200.0NTU) ±3%或±1.5NTU(0~20.00NTU)
	Minimum resolution	0.1NTU
	Probe mounting	Immersion mounting, 3/4 NPT

Specifications

Typical topology



Selection & Ordering

Product base model:
WE-T125

Parameter selection table:

Methods of Communication	A accuracy class	R range	P power supply mode	Sensor probe mounting
LR: LoRa4G: 4G/cat1 NB: NB-IoT	N/A	R20: 0-20 R200: 0-200 R1000: 0-1000	P0: Battery power supply P1: 9~30VDC power supply, other power supply methods are customized	N/A

Example:

WE-T125-LR-R20-P0

LoRa wireless turbidity transmitter, 0~20NTU detection range, battery powered