

Product Specification



WE-T110

Product Brief

WE-T110 is a series of temperature monitoring transmitters, Transmission methods include LoRa, RS485, 4G, NB,etc., Battery-powered and 24V power supply options. Temperature transmitter adopts high stability digital sensors to realise real-time monitoring and calculation of on-site temperature, Remote communication using LoRa, RS485, 4G, NB and other communications, Combined with WES's Industrial Edge Computing Gateway products, Upload to WES Device Management Platform, Realise real-time acquisition, analysis and calculation, storage and display of on-site temperature physical quantities.

Separate transmitter body and probe design, For on-site measured media, temperature range, and different requirements such as installation methods, Multiple temperature ranges available, Temperature probes for mounting specifications, Optimal matching of application requirements, Can be widely used in buildings, industrial sites, municipalities and other applications.

Main features

Split design

- The transmitter body adopts LoRa type to support 410MHz~490MHz band range and SMA antenna interface; 4G type to support full network communication;
- The transmitter communicates with the WES Edge Computing Gateway via the WES-WIO wireless terminal communication protocol, Real-time reporting of on-site temperature and condition monitoring data;
- External temperature probe with selectable and customisable temperature ranges and mounting options;

Wide selection of pressure probe sizes

- Support -50℃~200℃ conventional temperature range, other ranges can be customised;
- Supports temperature probes with different levels of accuracy to meet different accuracy requirements;
- Supports straight pipe, threaded and other mounting methods;

Robust industrial-grade design

- IP67 protection rating;
- Supports -40~85° storage temperature, -20~70° working ambient temperature, 5~95% relative humidity;

Comprehensive installation and after-sales maintenance

- Supports rail, wall, ring, hoop and other mounting methods;
- P0 type supports 19000mAh large capacity lithium battery, Typical endurance of 5 years for a 5-minute reporting cycle and up to 15 years for a 1-hour reporting cycle;
- Supports rich fault detection functions, Includes fault detection such as temperature threshold overrun, abnormal temperature change, low battery, etc., Through the WES Device Management Platform, Notify maintenance staff by SMS and email;

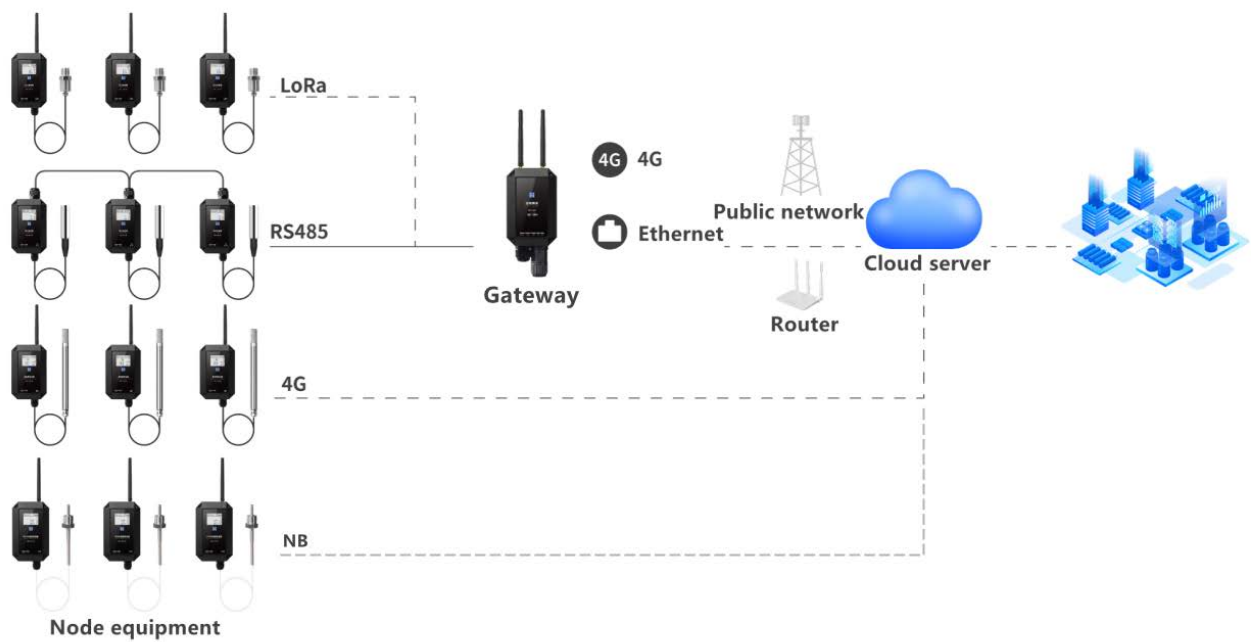
- Supports high definition LCD display, Matching LED indicators and buttons, Temperature values, alarms, etc. can be viewed on site in real time;

Specification

functional category	Functional Description	note
communication interface	LORACommunication port	Antenna connector type: SMA female
		Support 410.125~490.125MHz band
		Maximum 22dbm transmitter power,
		Maximum -147dbm reception sensitivity, open line-of-sight 5KM signal coverage capability
		MQTT、HTTP、WES cloud service agreement
		LTE FDD B1/3/5/8
		LTE TDD B34/38/39/40/41 (full band)
		speed (Mbps) LTE FDD: 10.3 (DL)/5.1 (UL)
		4G LTE TDD: 9.1 (DL)/3.1 (UL)
		communication protocols compatibility WES-IO (fixation 9600bps) and Modbus protocol
UI	1* keystroke input	baud rate 2400、4800、9600、19200、34800、57600、115200
		data bit 7bit、8bit
		stop bit 1bit、1.5bit、2bit
		RS485 parity bit None、Odd、Even
		LTE Cat NB2: B3/B5/B8
		speed (kbps): Single-Tone: 25.5 (DL)/16.7 (UL)
		NB Multi-Tpne: 127 (DL)/158.5 (UL)
		2* LED indicator
		light
		System、LoRa Communication Indicator Light
electricity supply	Lithium battery power supply	128*64 fractional colour print LCD
		Display of sensor values and status information
		screen
		Setting up the interaction
electricity supply	electricity supply	19000mAh, lithium battery
		24VDC
		Wide voltage input, 9~30V
environments	working	working temperature: -20° ~70°

	environment	Working relative humidity: 5% ~ 95%
	Storage	Storage temperature: -40° ~ 85°
	environment	Storage Relative Humidity: 5% ~ 95%
Protection level	waterproof and	
	dustproof	IP67
physical property	ESD	4KV contact, 8KVnon-contact
	Exterior	
	Dimensions	78 (width) *121 (height) *51.4 (depths) mm
monitors	Installation	Wall-mounted, pole, hoop, rail mounted
	Measurement	
	type	temperature
	Measurement	
	range	temperature: -50~200℃
	Detection	
	accuracy	temperature: $\pm 0.3^{\circ}\text{C}$
	minimum	
	resolution	0.1
	stability	<0.25%RH/Y
	Probe mounting	
	method	Threaded mounting, other mounting options available on request

Typical topology



Selection and ordering

Product base model:

WE-T110

Parameter Selection Table:

communication method	A Accuracy level	R Measurement range	P Power supply method	Sensor probe mounting method
LR: LoRa				M6: M6*1
4G: 4G/cat1				M8: M8*1
RS: RS485				M10: M10*1
NB: NB2				M12: M12*1
				M14: M14*1.5
				M16: M16*1.5
			P0: battery powered	M20: M20*1.5
Other			P1: 9~30VDC	G18: G1/8
Communication	A1: 1/3B		electricity supply	G14: G1/4
Customisation	A2: A	R1: -50~200°		G12:G1/2
	A3: B	R2: 200~500°		ZG14:ZG1/4
	A4: C			ZG12:ZG1/2
			Other power supply	PT14:PT1/4
			customisation	PT12:PT1/2
				NPT18:NPT1/8
				NPT14:NPT1/4
				NPT12:NPT1/2
				Other mounting
				customisation

example:

WE-T110-LR-A2-R1-P0-M20

LoRa Wireless Temperature Transmitter, A accuracy, -50~200°C detection range, battery powered, M20*1 threaded installation