

Product Specification



WE-T100

Product Brief

WE-T100 is a range of pressure monitoring transmitters, Transmission methods include LoRa, RS485, 4G, NB, etc., Battery-powered and 24V power supply options. The pressure transmitter uses a high stability digital sensor, Realisation of real-time monitoring and calculation of on-site pressure, 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 pressure physical quantities.

Separate transmitter body and probe design, For on-site measured media, Pressure range, and different requirements such as installation methods, Multiple pressure ranges available, Pressure probes for installation 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 pressure and condition detection data;
- External Pressure Probe, Selectable and customisable pressure measurement ranges and mounting options;

Wide selection of pressure probe sizes

- Support 0~1.6MPa conventional pressure range, other ranges can be customised.;
- Support different levels of accuracy of the pressure probe 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, including pressure threshold overrun, abnormal pressure value change, low battery and other fault detection, Through the WES Device Management Platform, Notify maintenance staff by SMS and email;
- Supports high definition LCD display, Matching LED indicators and buttons, You can view the

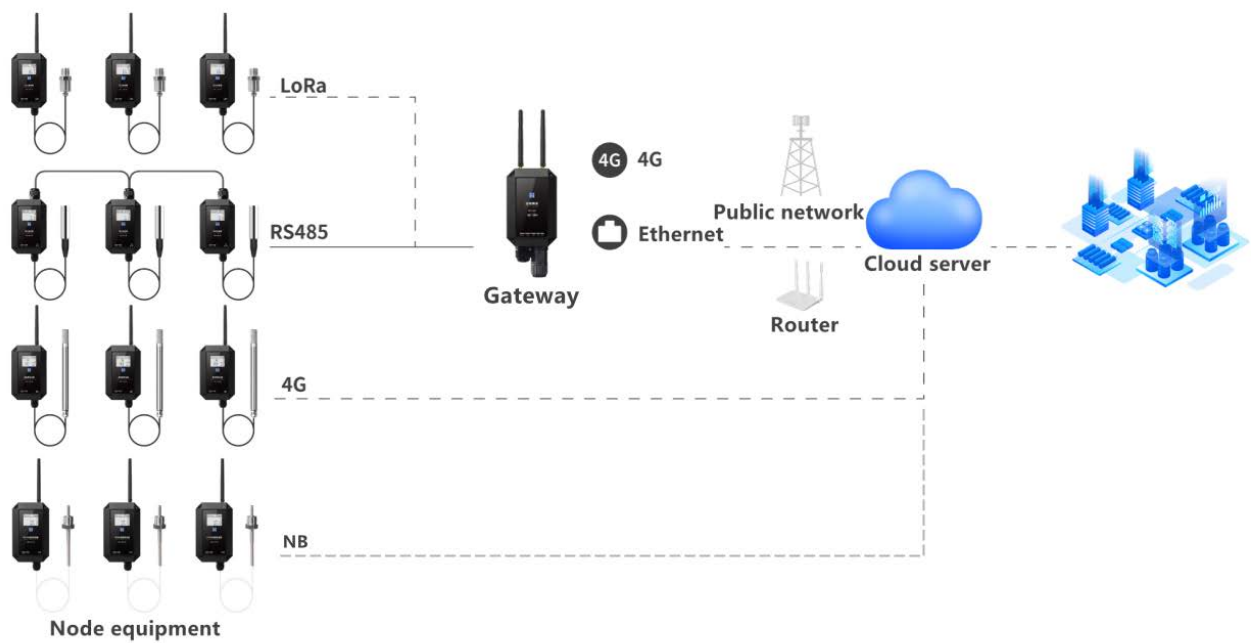
pressure value and alarm information in real time on site;

Specification

functional	Functional	
category	Description	note
		Antenna connector type: SMA female
		Support 410.125~490.125MHz band
		Maximum 22dbm transmitter power,
communication interface	LORACommunication port	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 (fixation9600bps) and Modbus protocol
		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)
	1* keystroke	
UI	input	Refer to UI specification definition, multi-function buttons
	2* LED	
	indicator	
	light	System、LoRa Communication Indicator Light
		128*64 fractional colour print LCD
		Display of sensor values and status information
	screen	Setting up the interaction
	Lithium	
electricity	battery power	
supply	supply	19000mAh, lithium battery
	24VDC	
	electricity	
	supply	Wide voltage input, 9~30V
	working	working temperature: -20° ~70°
environments	environment	Working relative humidity: 5% ~ 95%

Protection level	Storage environment	Storage temperature: $-40^{\circ} \sim 85^{\circ}$ Storage Relative Humidity: $5\% \sim 95\%$
	waterproof and dustproof	IP67
physical property	ESD	4KV contact, 8KVnon-contact
	Exterior	
monitors	Dimensions	78 (width) *121 (height) *51.4 (depths) mm
	Installation	Wall-mounted, pole, hoop, rail mounted
monitors	Measurement type	gauge pressure
	Measurement range	strains: $0 \sim 1.6\text{MPa}$
	Detection accuracy	strains: $\pm 0.5\%FS$
	minimum	
	resolution	1kPa
	stability	$\pm 1\%FS$
	Probe mounting method	Threaded mounting, other mounting options available on request

Typical topology



Selection and ordering

Product base model:

WE-T100

Parameter Selection Table:

communication method	A Accuracy level	R Measurement range	P Power supply method	Sensor probe mounting method
LR: LoRa	A01: 0.1%	R10: 0~1MPa	P0: battery powered	M6: M6*1
4G: 4G/cat1	A25: 0.25%	R16: 0~1.6MPa	P1: 9~30VDC	M8: M8*1
RS: RS485	A05: 0.5%	R25: 0~2.5MPa	electricity supply	M10: M10*1
NB: NB2	A10: 1%	R40: 0~4MPa		M12: M12*1
				M14: M14*1.5
	Other	Other range		M16: M16*1.5
Other	accuracy	customisation	Other power supply	M20: M20*1.5
Communication	range		customisation	G18: G1/8
Customisation	customisation			G14: G1/4
				G12:G1/2
				ZG14:ZG1/4
				ZG12:ZG1/2
				PT14:PT1/4
				PT12:PT1/2
				NPT18:NPT1/8
				NPT14:NPT1/4
				NPT12:NPT1/2
				Other mounting
				customisation

example:

WE-T100-LR-A10-R10-P0-M6

LoRa Wireless Pressure Transmitter, 1% accuracy, 0~1MPa detection range, battery powered, M6*1 threaded installation