Product datasheet



WE-T130

Brief introduction of the product

WE-T130 is a series of explosion-proof pressure monitoring transmitters, including LoRa, RS485, 4G, etc., and battery power supply and 24V power supply. The pressure transmitter uses high-stability digital sensors to realize real-time monitoring and calculation of on-site pressure, and uses LoRa, RS485, 4G and other communications to achieve long-distance communication.

The integrated design of the transmitter body and the probe provides a variety of pressure ranges and installation specifications for the different needs of the measured medium, pressure range, and installation method on site, which can be widely used in construction buildings, industrial sites, municipal and other application scenarios.

The explosion-proof type is a flameproof transmitter, which complies with the provisions of GB3836.1-2010 and GB3836.4-2010, and the explosion-proof mark is Exib IIBT4.

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 real-time reporting of on-site pressure and status detection data.
- External pressure probe, pressure detection range and installation method can be selected and customized;

A wide range of pressure probe specifications

- Support 0~1.6MPa conventional pressure range, other ranges can be customized;
- Support different levels of accuracy pressure probes to meet different accuracy requirements;
- Support straight pipe, thread and other installation methods;

Robust, industrial-grade design

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

Comprehensive installation and construction and after-sales maintenance

- Support installation methods such as guide rails, wall mounting, snap rings, hoops, etc.;
- 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 fault detection such as pressure threshold overrun, abnormal pressure value change, low battery, etc., 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 pressure value and alarm information in real time on site;

Functional categories	Description of the function	remark
		Antenna interface type: SMA female
		Support 410.125~490.125MHz frequency band
	LoRa	Maximum 22dBm transmit power,
Communicatio	communication	The maximum receiving sensitivity of -147dbm, the signal coverage capacity of
n interface	port	5KM in open line-of-sight
		MQTT, HTTP, AND WES cloud service protocols
		LTE FDD B1/3/5/8
		LTE TDD B34/38/39/40/41 (full band).
		Rate (Mbps) LTE FDD: 10.3(DL)/5.1(UL)
	4G	LTE TDD：9.1(DL)/3.1(UL)
		Communication protocol: Compatible with WES-IO (fixed 9600bps) and Modbus protocol
		Baud rates 2400, 4800, 9600, 19200, 34800, 57600, 115200
		Data bits 7 bits, 8 bits
		Stop bits: 1 bit, 1.5 bit, 2 bit
	RS485	Check digits None, Odd, Even
UI	3* Key input	Refer to the UI specification definition, multi-function buttons
	2* LED indicator	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
	Working	
environment	environment	Operating Temperature: -20~70 Operating Relative Humidity: 5% ~ 95%
	Storage	
	environment	Storage Temperature: -40° ~85° Storage Relative Humidity: 5%~95%
Degree of	Waterproof and	
protection	dustproof	IP67
	ESD	4KV contact, 8KV non-contact
	Explosion-proo	
	f type	Flameproof Exib IIBT4
Physical	Exterior	
properties	dimensions	96.8*120*141.5mm
	Installation:	Threaded mounting

monitoring	Type of measurement	Gauge pressure
	Measuring range	Pressure: 0~1.6MPa
	Detection accuracy	Pressure: ±0.5% FS
	Minimum resolution	1kPa
	stability	<0.25% RH/year
	Installation:	Threaded installation, other installation methods can be customized

Specifications

Typical topology

Selection & Ordering

The base model of the product is WE-T130

Parameter selection table:

Methods of Communication	A accuracy class	R range	P power supply mode	Sensor probe mounting

LR: LoRa4G: 4G/cat1RS: RS485MB: RS485/Modbus other communication methods customized	A01: 0.1%A25: 0.25%A05: 0.5%A10: 1% Other accuracy range customized	R10: 0~1MPaR16: 0~1.6MPaR25: 0~2.5MPaR40: 0~4MPaOther range customization	P0: Battery power supply P1: 9~30VDC power supply, other power supply methods are customized	M6: M6*1M8: M8*1M10: M10*1M12: M12*1M14: M14*1.5M16: M16*1.5M20: M20*1.5G18: G1/8G14: G1/4G12:G1/2ZG14:ZG1/4 ZG12:ZG1/2PT14:PT1/4PT 12:PT1/2NPT18:NPT1/8NP T14:NPT1/4NPT12:NPT1/ 2. Other installation methods are customized

Example:

WE-T130-LR-A10-R10-P0-M6

LoRa wireless explosion-proof pressure transmitter, 1% accuracy, 0~1MPa detection range, battery power, M6*1 threaded installation