

specification



WE-T132

Product Overview

The WE-T132 series consists of explosion-proof temperature monitoring transmitters, offering transmission options including LoRa, RS485, and 4G, as well as power supply options of battery-powered or 24V-powered. These temperature transmitters utilize high-stability digital sensors to enable real-time monitoring and calculation of field temperatures; they employ communication protocols such as LoRa, RS485, and 4G for long-distance data transmission. When integrated with Shidian Technology's industrial edge computing gateway products, these transmitters upload data to Shidian Technology's equipment management platform, enabling the real-time collection, analysis, computation, storage, and visualization of field temperature-related physical parameters.

The transmitter unit features an integrated design with the probe; tailored to various requirements — including the measured medium at the field site, temperature range, and installation method — this solution offers a wide range of temperature probes with different measurement ranges and installation specifications, ensuring optimal compatibility with specific application scenarios. These products are widely applicable in building construction, industrial sites, municipal infrastructure, and other similar environments.

The explosion-proof product is an explosion-proof transmitter, compliant with the provisions of GB 3836.1-2010 and GB 3836.4-2010, with the explosion-proof marking Exib IIB T4.

main features

Split-type design

- The transmitter unit features a LoRa module supporting the 410 MHz–490 MHz frequency band range and an SMA antenna interface; the 4G version supports full-network communication.
- The transmitter communicates with the Shidian Technology edge computing gateway via the WES-WIO wireless terminal communication protocol, enabling the real-time reporting of field temperature and status detection data;
- External temperature probe; the temperature measurement range and installation method can be selected or customized;

Extensive selection of temperature probe specifications

- Supports a standard temperature range of -50°C to 200°C; other ranges can be customized.
- Supports temperature probes with various precision levels to meet different accuracy requirements;
- Supports various installation methods, including direct mounting and threaded mounting;

Robust industrial-grade design

- IP67 protection rating;
- Supports a storage temperature range of -40°C to 85°C, a operating environment temperature

range of -20°C to 70°C, and a relative humidity range of 5% to 95%;

Comprehensive installation services and after-sales maintenance

- Supports installation methods such as guide rails, wall mounting, clamps, and clamping rings;
- The P0 model features a 19,000 mAh high-capacity lithium-ion battery; with a 5-minute reporting interval, its typical battery life is 5 years; while with a 1-hour reporting interval, the battery life can extend to 15 years.
- Supports comprehensive fault detection capabilities, including monitoring for temperature threshold exceedances, abnormal temperature fluctuations, low battery levels, and other faults; through the Shidian Technology Equipment Management Platform, after-sales maintenance personnel are notified via SMS or email;
- Supports high-definition LCD displays, integrated with LED indicators and buttons, enabling real-time monitoring of temperature values, alarm information, and other data on-site;

functional	functional	
category	description	remarks
communication interface		Antenna interface type: SMA female connector
	LORA	Supports the 410.125~490.125 MHz frequency band
	Communication	Maximum transmit power: 22 dBm
	Port	Maximum-147 dBm receiver sensitivity; signal coverage capability over an open line-of-sight distance of 5 km.
		MQTT, HTTP, WES Cloud Service Protocols
		LTE FDD B1/3/5/8
	4G	LTE TDD B34/38/39/40/41 (Full spectrum)
		Data rate (Mbps): LTE FDD: 10.3 (DL) / 5.1 (UL)
UI		LTE TDD: 9.1(DL)/3.1(UL)
		Communication protocol: Compatible with WES-IO (fixed 9600 bps) and Modbus protocols
		Baud rates: 2400,4800,9600,19200,34800,57600,115200
	RS485	Data bits: 7-bit, 8-bit
		Stop bits: 1 bit, 1.5 bits, 2 bits
		Checksum: None, Odd, Even
	3* Key Input	According to the UI specification definition, multi-function button
	2× LED	
	indicator lights	System & LoRa Communication Indicator Lights
	screen	128×64 dot-matrix monochrome LCD Displays sensor values and status information

Configure Interaction		
supply	Lithium-ion	
	battery power	
	electricity	19,000 mAh, lithium-ion battery
environment	24VDC power	
	supply	Wide voltage input: 9–30 V
	work	Operating temperature: -20 to 70
	environment	Relative humidity during operation: 5% – 95%
Protection	Storage	Storage temperature: -40°C to 85°C
	Environment	Relative humidity: 5% – 95%
	waterproof and	
Rating	dustproof	IP67
	ESD	4 kV contact; 8 kV non-contact
	Explosion-proof	
physical	type	Intrinsically safe type Exib IIBT4
	External	
	characteristics	
monitor	dimensions	96.8*120*141.5mm
	way to install	Threaded Installation
	Measurement	
monitor	Type	temperature
	measuring range	temperature : -50~200°C
	Detection	
	accuracy	Temperature: 0.1 °C (typical value)
	minimum	
	resolution	0.1
	stability	<0.25% RH/year
	way to install	Threaded installation; other installation methods can be customized.

Specifications

Typical topology



Selection and Ordering

Product base model: WE-T132

Parameter Selection Table:

communication mode	A accuracy class	R Range	P power supply mode	Sensor probe installation method
LR: LoRa				M6: M6*1
4G: 4G/cat1				M8: M8*1
RS: RS485				M10: M10*1
MB: RS485/Modbus				M12: M12*1
			P0: Battery-powered	M14: M14*1.5
				M16: M16*1.5
				M20: M20*1.5
	A1: 1/3B	R1: -50~200°	P1: 9~30 VDC power supply	G18: G1/8
Customized other communication methods	A2: A			G14: G1/4
	A3: B	R2: 200~500°	Other customized power supply solutions	G12: G1/2
	A4: C			ZG14: ZG1/4
				ZG12: ZG1/2
				PT14: PT1/4
				PT12: PT1/2
				NPT18: NPT1/8
				NPT14: NPT1/4
				NPT12: NPT1/2
				Other custom installation methods

instance :

WE-T132-LR-A2-R1-P0-M6

LoRa wireless explosion-proof temperature transmitter, Class A accuracy, measurement range

of-50–200 °C, battery-powered, M6×1 threaded installation.