DR4464 Wireless Temperature Transmitter -LoRaWAN

1 Introduction

DR4464 is a low-power digital thermometer with wireless LoRaWAN function. it adopts explosion-proof cast aluminum shell and stainless-steel main structure, using high-precision PT100 as temperature measuring element, plug-in structure, and cooperates with national standard or British standard thread for tightening and sealing. In the design of the circuit, a low power consumption design is adopted, the circuit is temperature compensated, the highest precision is better than 0.1 °C. Because of the advantages of low power consumption, long transmission distance (better than 3km), strong signal penetration, ad hoc network, etc., this wireless digital thermometer is especially suitable for the needs of local area networks in industrial parks.

Due to the rapid progress of LoRa communication technology, LoRa has been used more and more in the Internet of Things. We can provide LoRa-based pressure, level and temperature sensor, according to the international standards, customized development of LoRa frequency bands in different countries, CN470, AU915, US915, EU868, RU868, etc.

2 Application

- Petroleum, chemical,
- Smart factory
- Boiler monitoring
- Heating pipes
- Other occasions that require temperature monitoring

3 Features

- LoRaWAN wireless transmission;
- Both the probe length and the installation thread can be customized;
- Temperature range: -50...0...50...100...400°C;
- Low-power design, battery-powered, long battery life;
- IP66 rating for both indoor and outdoor applications;
- Easy programming, all parameters can easily be programmed on site or remote configuration;
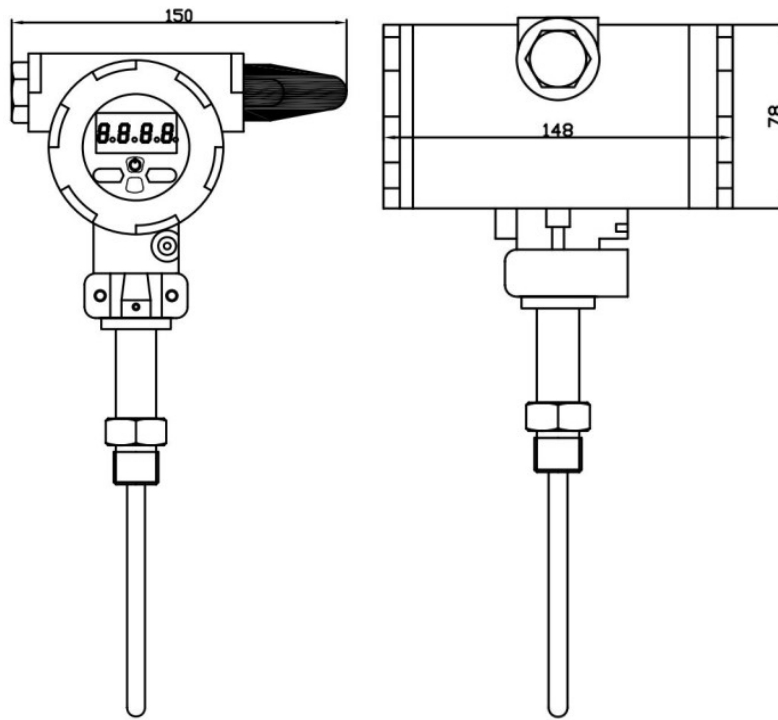- Switch function;

4 Specification

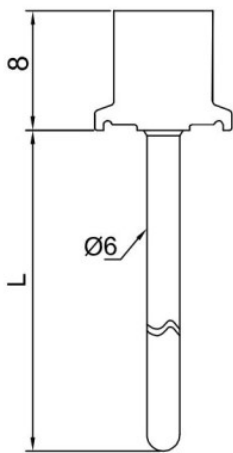| Measurement range	-50...0...50....100...400oC
Measuring element	Pt100
Transfer method	LORaWAN
Accuracy level	1.0%FS / 0.5%FS
Power supply	3.6VDC battery, battery life two years
Long-term stability	±0.25%FS/year (Typical value)
Display and backlight	4digit LCD display, White backlight
Working temperature	-20~60°C
Electrical protection	Anti-electromagnetic interference
Transmission distance	>5km (Areas without obstacles)
Sampling frequency	1~600 times/sec
Transmission intervals	1 minute to 1440 minutes (can be set)
Shell material	Aluminum alloy
Protection	IP66
Wetted material	316L
O-ring	HNBR
Explosion proof	Ex ib IIC T4

LCD display may not be readable and LCD display updates will be slower at temperatures below –22 °F (–30°C).

When the ambient temperature is lower than -20°C, the capacity of the battery will drop significantly, resulting in shortened battery life.
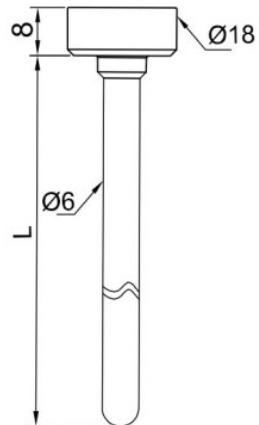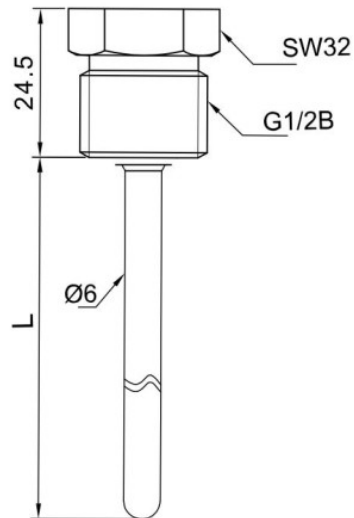
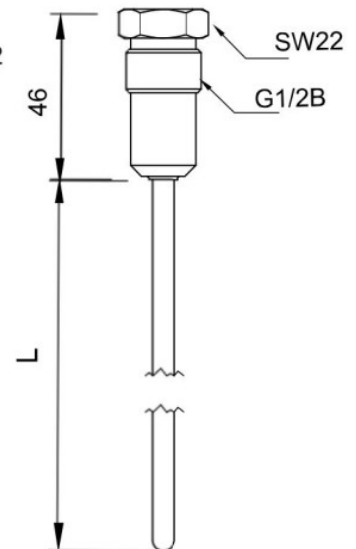# 5 Outline Dimension Specification

(Unit: mm)

Clamp   Plug-in   Standard thread   Hygienic thread

Optional Installation Method

6 Order Guide

DR4464	Wireless Temperature Transmitter							
	Range	[X ~ Y°C] X, Y is the temperature upper limit and lower limit, unit ℃						
	X~Y°C	(-50~ 50)°C						
		(-50-100)°C						
		(-50-150)°C						
		(-50~ 200)°C						
		(0 ~100)°C						
		(0~ 200)°C						
		(0 ~ 300)°C						
		(0~400)°C						

Code	Output signal
LW	LoRaWAN communication protocol

Code	Thread interface
M20	M20*1.5
G14	G1/4"
G12	G1/2"
N12	NPT1/2"
N14	NPT1/4"
ZG14	ZG1/4"
M9	Customized

Code	Probe Diameter
6mm	6mm diameter
8mm	8mm diameter
10mm	10mm diameter

Code	Insertion Depth
X	X mm

Code	Other
L	LCD Display
I	Intrinsically safe explosion-proof

Code	Thermowell diameter
F00	No
F10	10mm
F12	12mm
F16	16mm

DR4464	(-50-100)°C	LW	G14	8mm	100mm	LI	F10 the whole spec.