DS18B20 Wireless Temperature Sensor XZ-DS01-TP2A

1. XZ-DS01-TP2AProduct Overview

1.1 Product Features

- Install and play, powered by dry battery;
- Period inspection, period is settable;
- Automatic registration, adapt to the gateway;
- Automatic routing to adapt to repeaters;
- Built-in Battery with 5-year lifespan;
- Wireless transmission up to 5 kilometers(LOS)
- Centralized acquisition, multi-mode output.

1.2 Application

- environmental and meteorological monitoring
- medical and health care
- energy and chemical industry
- storage and transportation
- cold storage and cold-chain transportation
- constant temperature and humidity production workshop

2.XZ-DS01-TP2AUsing Instruction

2.1 Work Process

XZ-DS01-TP2A installs 1 ER26500 battery, detect and transmit data every 5 minutes

2.2 Data Protocols

Example：GID:12345,TYPE:TMP,ID:1,STAT:11000000, T:14.5℃,ST:5M,

V:3.01v,SN:2,RSSI:-79dBm,E:160.2020,N:110.2020,Time:2018-2-4 14:20:39

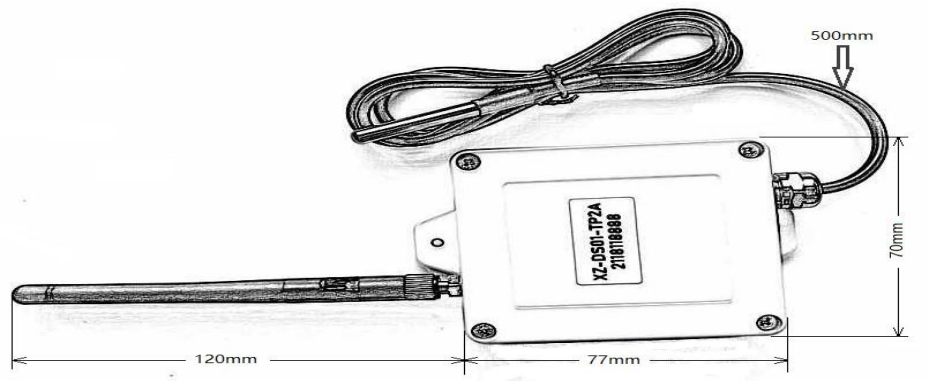
Explanation：

GID: Gateway ID （12345）	TYPE: TMP（Temperature Sensor）	ID: Sensor address（1）
STAT: Sensor Status word BIT7=1 Trigger reporting;BIT6= 0CH,1CH; BIT5=1Repeater; BIT4=1 invalid data; BIT3= Reserve;BIT2=1Searching Data; BIT1=0low speed,1high speed; BIT0=1Start		
T:Environmental temperature14.5℃		ST: Acquisition time interval 5mins
V: Battery Voltage3.01V	SN: Transmitting Sequence No.2	RSSI: Signal strength-79dBm
Eastern Longitude E: 160.2020, Northern Latitude N:110.2020		Time: 2018-2-4 14:20:39

2.3 Technical Parameters

General Parameters	
Transmitting power :<17dBm	Sensitivity:<-136dbm
Transmitting current :<120mA	Receiving current:<20mA
Transmission Distance :>5KM(LOS）	Average power consumption:<15uA
Working Temperature:-40～80℃	Battery life:>5years@8700mAH
Working frequency :476.505&488.505MHz（433/868/915/923mhz customized）	
Battery Life:5 years@8700mAH 1pc ER26500 3.6V (Li- -SOCI2) battery (replaceable and included)	
Sensor Parameters	
Sensing probe operating temperature:	-55℃～125℃
Temperature Accuracy: :<±0.5℃（-10℃～85℃）& < ±1℃（<-10℃,>85℃）	
Transmission interval: 5mins default,1-240mins settable by user	

2.4Dimension



3.Four Types Gateway for choosing

3.1 RJ45 Network Gateway XZ-DSG1

●Install and use; DC power supply;

●Dynamic and static IP, adaptive public network;

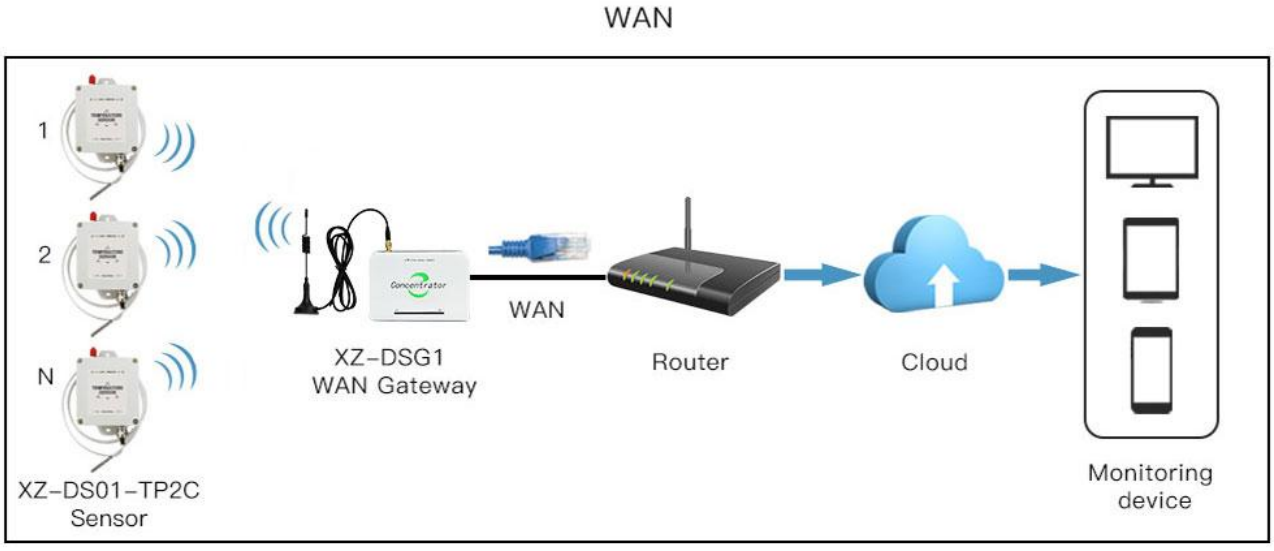
●Automatic routing to adapt to repeaters;

●Wireless transmission more than 5km;

●Centralized acquisition, multimode sensor.

●One gateway can work with more than 100pcs sensors

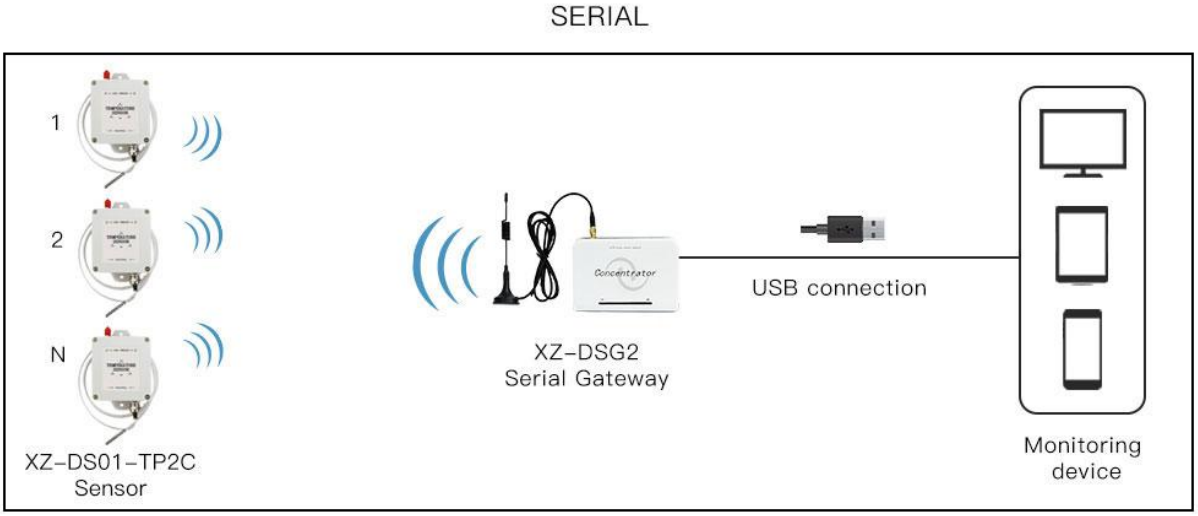
Basic parameters		Network Parameters		Wireless Parameters	
Working voltage	DC：5V	Wired network:	RJ45	Working frequency	Working frequency:470Mhz （433/868/915mhz customized）
Working current	<1A	Communication Method	TCP/IP	Receive sensitivity	-136dBm
Working Temperature	-40～80℃	Parameters Configuration	Serial port configuration IP or domain name	Transmission distance	5KM (LOS）



3.2 USB Serial Gateway XZ-DSG2

- Install and use; DC power supply;
- Micro USB to serial port,9600bps;
- Automatic routing to adapt to repeaters;
- Wireless transmission more than 5000m;
- Centralized acquisition, multimode sensor.
- One gateway can work with more than 100pcs sensors

Basic parameters		Serial Port Parameters	Wireless Parameters	
Working voltage	DC：5V	Micro USB to serial port	Working frequency	Working frequency:470Mhz （433/868/915mhz customized）
Working current	<1A	9600bps	Receive sensitivity	-136dBm
Working Temperature	-40～80℃	8N1	Transmission distance	5KM (LOS）

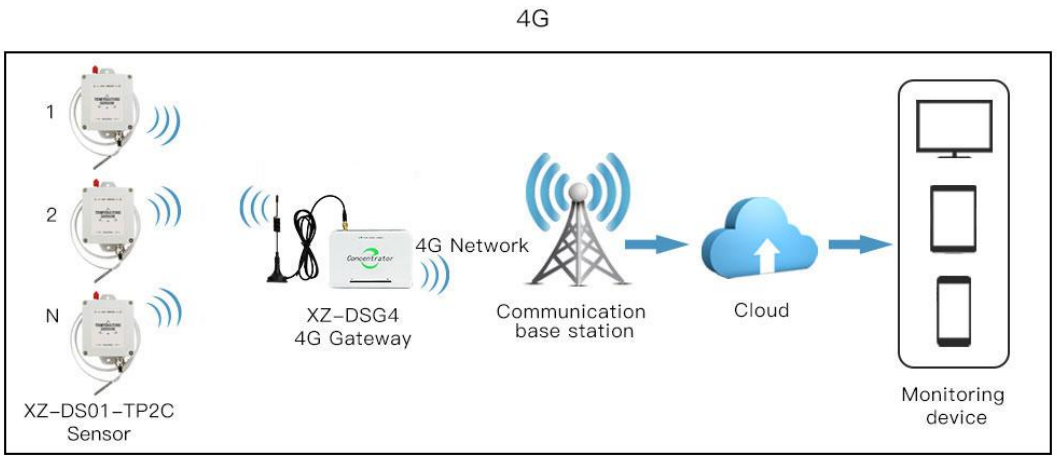


3.3 4G Gateway XZ-DSG4

- Install and use, DC power supply;
- Support full netcom,4G/3G/2G
- Automatic routing, adapting to repeaters;
- Wireless transmission, more than 5KM Line of sight;
- Centralized acquisition, multi-mode sensor.
- Working on hopping frequency, Strong anti-interference ability
- One gateway can work with more than 100pcs sensors

Product Parameters:

Basic parameters		Network Parameters		Wireless Parameters	
Working voltage	DC：5V	All Netcom	4G/3G/2G	Working frequency	Workingfrequency:470Mhz（433/868/915mhz customized）
Working current	<1A	Communication Method	TCP/IP	Receive sensitivity	-136dBm
Working Temperature	-40～80℃	Parameters Configuration	Serial port configuration IP or domain name	Transmission distance	5KM (LOS）



3.4 Modbus Gateway XZ-DS-MUS

XZ-DS-MUS can receive lora sensor data and store it into the corresponding configured space then read out from the serial port through the MODBUS protocol

One Modbus gateway can work with 30pcs sensors

Product parameter

Working Frequency	433MHz/470MHz/868MHz/915MHz
Transmit Power	<18dBm
Sensitivity	<-128dBm
Transmit current	<120mA
Receiving current	<40mA
Working Voltage	5~36V @ XZ-DS-MUS
Transmission distance	>2KM(Line of sight）
Working temperature	-40℃～+80℃
Interface	9600bps ， 8N1 ， RS485

XZ-DS-MUS Pin Definition

	Pins	XZ-DS-MUS	Remark
DB9male connector	1	VCC (+5V)	5 ～ 36V customized
	2	RS-232/RXD	
	3	RS-232/TXD	
	4	GND	Power Ground
	5	AGND	Signal grounding
	6	RS-485/A	
	7	RS-485/B	
	8		
	9