WxS9900-333031

NB-IoT Fire smoke Smart Sensor & RTU 2-in-1 Terminal

Product Highlights

❖ NB-IoT Fire smoke Smart Sensor & RTU 2-in-1 Terminal
❖ 2-in-1 smart sensor(s) and RTU terminal product
❖ Optional DC 12V power supply
❖ Optional Battery power supply (ER34615H 19,000mAh/ER34615M 13,500mAh)
❖ Fire smoke sensor, trigger alarm, built-in buzzer
❖ Up to 8 working simultaneously including sensors and controllers; Customization needed if more than 8 working at the same time
❖ RTU controlling signal and interfaces OD/PWR triggered by sensor(s) data or OTA command for solenoid valve or other devices
❖ Terminal and sensor parameters configurable with Configuration Tool running on PC

   o NB-IoT Global Bands Supported and SW Configurable
   o NB-IoT Uplink Transmission Cycle Configurable
   o Sensor Parameters Configurable
   o Sensor Data Report Cycle Configurable

❖ FOTA (Over The Air) firmware upgrade, including to upgrade loader and application images
❖ OTA (Over The Air) terminal running parameters supported
❖ Integrated internal antenna, or optional external SMA/IPEX antenna
❖ Optional (Public/Private) IoT cloud platform PolySuite iView
❖ NB-IoT Compliance

Specifications

Parameters	Value
Smart Terminal	
Data Report	Cross-threshold report, plus periodic report (the threshold and the periodic report cycle are both user-configurable)
Wireless	
Frequency band	LTE-FDD: B1/2/3/4/5/8/12/13/18/19/20/25/26(Cat M1 Only)/27(Cat M1 Only)/28/31/66/71(Cat NB2 Only)/ 72/73/85/86(Cat NB2 only)/87/88 ; EGPRS: 850/900/1800/1900MHz
Rate	LTE Cat M1:Max. 588 (DL), Max. 1119 (UL) LTE Cat NB1:Max. 32(DL), Max. 70(UL) LTE Cat NB2:Max. 127 (DL), Max. 158.5 (UL) EDGE:Max. 296 (DL), Max. 236.8 (UL) GPRS :Max. 107 (DL), Max. 85.6 (UL)
Protocols	PPP/TCP/UDP/SSL/TLS/FTP(S)/HTTP(S)/NITZ/PING/ MQTT(S)/MQTT-SN/LwM2M/CoAP(S)/IPv6/DNS/NTP

SMS	Point-to-point MO and MT/SMS Cell Broadcast/Text and PDU Mode
Current consumption	3.9µA@PSM
Antenna	Integrated internal antenna or external 1/2 wavelength whip antenna (SMA)
Mechanical	
Dimension	Diameter 128mm * height 50mm
Operating Temperature	-40C to +85C
IP protection	IP55
Electrical	
Supply Voltage	12VDC
Power Type	Battery power supply ER34615H/ER34615M or DC12V

Products includes following parts:

❖ PST-333031 Fire smoke sensor (IR) & RTU 2-in-1 Smart Terminal
❖ WxS99xx WxS Terminal NB-IoT Communications Board(Global)

Configuration Tool

❖ iEdge4.0 WxS IoT Terminal products can be configured with PolySuite software-visual based Configuration Tool or CLI interface command or OTA via IoT platform, such as PolySuite PaaS platform iView.
❖ Download link http://ota.polysense.online/wincc/ConfigurationTool.rar

Product Image

PST-333031

Fire smoke sensor & RTU 2-in-1 Smart Terminal

Related Products

Product No.	Interf.	Descriptions
PST-333031	MPI(SWITCH)	Fire smoke sensor & RTU 2-in-1 Smart Terminal
PST-333032	MPI(SWITCH)	Fire smoke sensor+CO Sensors & RTU 2-in-1 Smart Terminal

Product introduction

PST-333031 is a smoke sensing fire detection alarm. It adopts advanced semiconductor components and excellent production technology. It has stable operation and simple installation. It can detect the smoke generated during the fire and send out an alarm in time.

Detection principle

Photoelectric sensor measures the concentration of smoke through a beam of light and a light sensor. When the device is designed, the light beam deviates from the sensor. When the smoke enters the sensing chamber, the smoke particles will scatter part of the light beam onto the sensor. When the smoke concentration increases gradually, more light beams will be scattered to the sensor. When the light beam reaching the sensor reaches a certain level, the buzzer will sound.

Product features

❖ The unique optical maze design can detect the smoke generated by the combustion of a variety of substances and has high sensitivity to black smoke
❖ Built in buzzer makes a strong sound after alarm
❖ Photoelectric sensing, anti-interference
❖ Metal mesh window design, dust and insect proof
❖ Ceiling mounted

Product parameters

Sensor	
Monitoring area	25 m^2 ~ 40 m^2
Working current	<5uA(The quiescent current)
Working current	20 ~ 40mA
Output rated power	12VDC 1A、24VDC 2A
Temperature alarm	57 ℃ (International)
Smoke concentration	≥0.6%
Gas interface temperature	10%~90%
Beep volume level	85 dB at 10 feet
Interface	
Interface	Switch
Warranty	
Warranty period	1year
Mechanics	
Working temperature	- 10℃~50℃
Working humidity	45%~85%RH

Degree of protection	IP55
Size	Diameter 128mm * height 50mm
Power	
Power	DC12V / DC24V / DC9V (battery powered)

Application

The independent smoke detector can detect the smoke generated during fire and give an alarm in time. It can be widely used in computer room, instrument room, cable trench, tunnel, Internet cafe, song and dance hall, coffee shop, leisure hall, residence and other places for fire safety monitoring.

Ordering Guide

❖ PST-333031 needs to be used together with WxS series communication boards (WxS78xx, WxS88xx, WxS98xx, WxS99xx, WxSC8xx, WxSC9xx, WxSD8xx and CxS18xx) to form intelligent IoT terminals with different communication modes

❖ According to the specific scenario of use case, the enclosure and antenna of intelligent IoT terminal will be replaced to ensure the product quality and performance.

❖ Example of products are as follows:

- WxS7800-333031 WiFi Series Fire smoke Smart Sensor & RTU 2-in-1 Terminal
- WxS8800-333031 LoRaWAN Series Fire smoke Smart Sensor & RTU 2-in-1 Terminal
- WxS9800-333031 NB-IoT (China) Series Fire smoke Smart Sensor & RTU 2-in-1 Terminal
- WxS9900-333031 NB-IoT (Global) Series Fire smoke Smart Sensor & RTU 2-in-1 Terminal
- WxSC800-333031 LTE Cat1 Series Fire smoke Smart Sensor & RTU 2-in-1 Terminal
- WxSC900-333031 LTE Cat1 w/GPS Series Fire smoke Smart Sensor & RTU 2-in-1 Terminal
- WxSD800-333031 LTE Cat4 Series Fire smoke Smart Sensor & RTU 2-in-1 Terminal
- CxS1800-333031 Ethernet (RJ45) Series Fire smoke Smart Sensor & RTU 2-in-1 Terminal