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DF36LD

Product Datasheet



Version V1.02

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About This Document

This document mainly describes LoRa independent smoke detector DF36LD the specification parameters.

Product Selection

Model	Region	Frequency band	Bluetooth
DF36LD REV.B(CN490LC22V-1B)	Chinese Mainland	CN490	Yes
DF36LD REV.B(IN865HS22V)	Regions of India	IN865	nothing
DF36LD REV.B(EU868HS22V)	Regions of Europe	EU868	nothing
DF36LD REV.B(AU915HD22V)	Regions of Australia	AU915	nothing
DF36LD REV.B(US915HD22V)	Americas region	US915	nothing
DF36LD REV.B(AS923HS22V)	Asia Pacific	AS923	nothing

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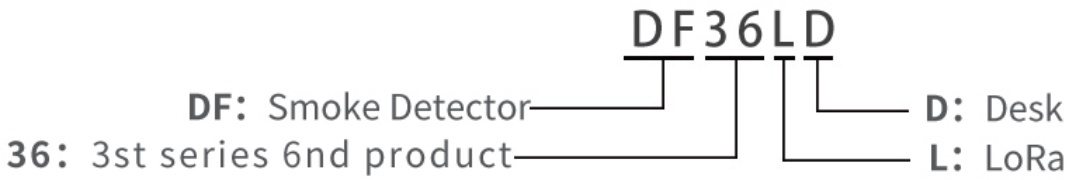
1. Version information

Date	Version	Update content
2023.12.07	V1.00	Create Chinese document
2023.12.11	V1.01	New Product Selection
2024.08.23	V1.02	Create this document

2. Product overview

LoRa independent smoke detector is based on optoelectronic technology, more sensitive to detect white smoke, black smoke and smoldering smoke that has not become an open flame, and can detect smoke generated in the fire in time and issue an alarm in time; Supports environmental temperature and humidity measurementWireless communication adopts the international standard LoRaWAN communication technology, which can support the global ISM band, run in Class A low-power mode, and can report the fire alarm information to the smart fire monitoring platform in real time.

2.1. Model Dxplaination



2.2. Basic functions

- Standard LoRaWAN 1.0.2 Communication Protocol
- Support OTA air upgrade
- Near Field Bluetooth Configuration
- Low voltage alarm
- Dust and insect prevention

● Local manual button silencing
● Smoke detection sound and light alarm
● Anti-demolition alarm and recovery instructions
● Manual self-test alarm test
● Environmental temperature and humidity measurement
●State Cycle Reporting
●Product Fault Warning
● Buzzer On and Off (Default On)

2.3. Technical indicators

● Alarm volume: ≥85dB, 3 meters
● Working voltage: DC3V
● Operating temperature: -10 ~ + 50 °C
● Working humidity: ≤95%
● Storage temperature: -40 ~ + 85 °C
● Working principle: photoelectric type
● Silent time: < 100 seconds
● Alarm current: < 200 mA
● Implementation standard: GB20517-2006
● Buzzer: Piezoelectric
● Alarm sensitivity: 0.13 ~ 0.19 dBm
● Protection area: ≥60 square meters
● Outline size: f104 * 39.9mm
● Temperature measurement accuracy: ± 0.1 °C
● Temperature measurement range:-40 ~ 125℃
● Humidity measurement accuracy: ± 1.5% RH
● Humidity measurement range:0 ~ 100%RH
● LoRa frequency range: 470 ~ 510 MHz / 862 ~ 960MHz
● LoRa Transmit Power: + 22 dBm
● LoRa reception sensitivity: -133 dBm (SF10 @ BW125KHz)
● LoRa emission current: < 130 mA
● Bluetooth frequency: 2.4 ~ 2.485 GHz
● Bluetooth transmit power: + 3 dBm
● Static Power Consumption: Typical 8 μA

● Battery Specification: CR17450 Lithium Manganese Battery

● Power pool capacity: 2200 mAh

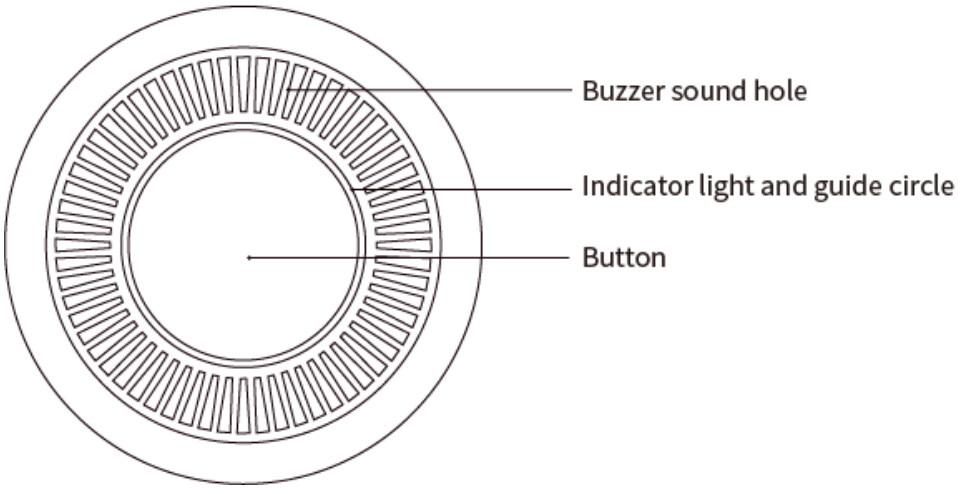
● Battery life: 3 years (@ Factory default configuration, 8 hours cycle to report a heartbeat package)

● Housing material: ABS

● Net weight of product: about 140 g

● Reporting period: approximately 20 h

3. Hardware parameters



Name	Function
Buzzer outlet	Alarm Sound Prompt
Indicator light and guide aperture	Alarm and power indication
button or key	Sound, Light Alarm Test or Mute Setting

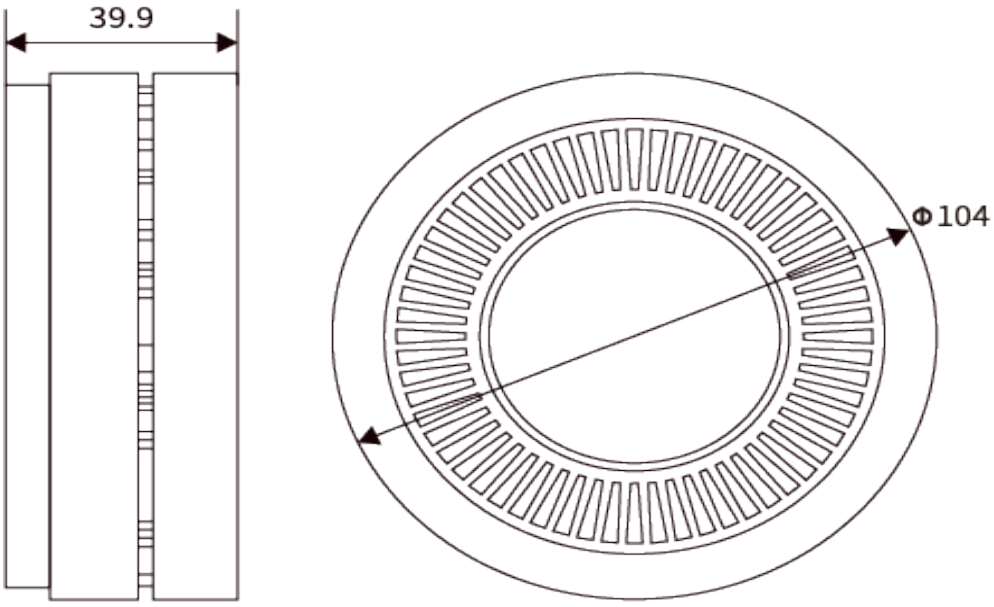
4. Status indication

Equipment status	Response condition	Acoustic and optical indication
Power on	Load the battery, turn on the power	Red LED flash 1 time when power on
Network	Power on or 2 test alarm report	Network success: red LED

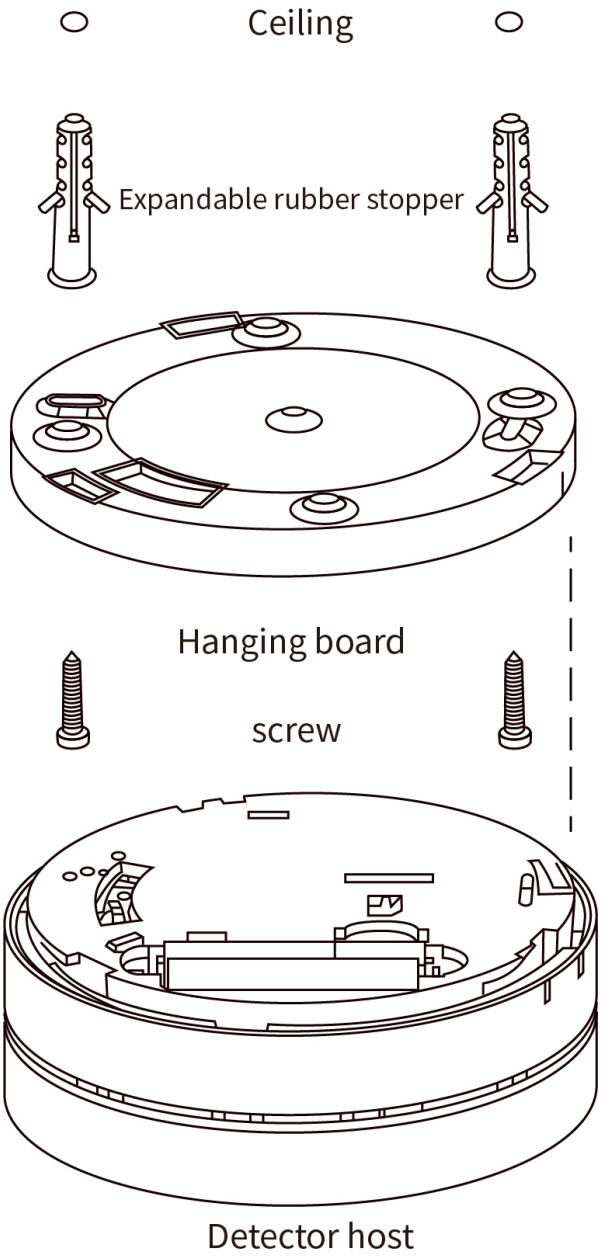
access	failure	often bright 5 seconds network failure: red LED slow flash 5 seconds
Standby	Standby under normal condition	Red LED flashes every 50 seconds
Low voltage alarm	Battery voltage below 2.7 ± 0.05 V	Yellow LED light flashes once every 50 seconds, flash yellow light at the same time beep 1
Test alarm	Normal standby, press the test key	Red LED flashes 1 time per second, accompanied by a pulse type gradient alarm sound
Test alarm	Low voltage state, press the test key	The yellow LED flashes 1 time, while beep 1, then the red LED flashes 1 time per second, accompanied by a pulse type gradient alarm sound
Smoke alarm	Smoke concentration reaches alarm value to trigger alarm	Red LED flashes 1 times per second with pulse alarm sound
Silencing mode	Press the button manually for more than 2 seconds for a smoke alarm	Silence time < 100 seconds, red LED flashes every 8 seconds during the silence
Sensor failure	Sensor short circuit, open circuit, detection signal attenuation	Yellow LED lights flash twice every 50 s

5. Mechanical dimensions

Unit: mm, tolerance: ± 0.2 mm.



6. Installation instructions



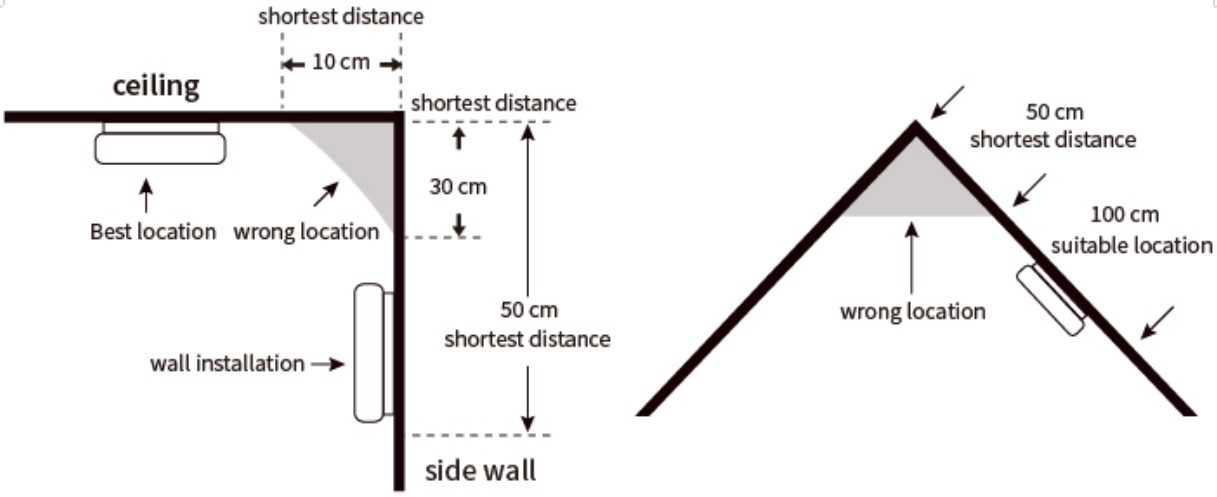
7. Installation steps

1. Select the appropriate installation location.

2. Locate the two fixing screws on the detector hanging plate and drill two holes of 5 mm in diameter.

3. Insert two expansion adhesives in the part package into the holes.

4. Fix the hanging plate with a 3mm diameter screw in the parts package, and install the detector according to the corresponding position and direction shown in Figure 4, paying attention to ensure that it is firm and not loose. Install the alarm on the bracket and rotate until it fits well.



8. Installation position

1. Make sure that the person in the bedroom can hear the alarm when sleeping at night.

2. The angle of inclination should not be more than 45.

3. Under horizontal ceilings: The detector should be installed in a central position with no shelter within 50 cm. If it cannot be installed in the center position, then the horizontal distance from the wall and beam edge should not be less than 10cm.

4. Under the inclined ceiling: the distance of the detector from the highest point is not less than 50cm. When installing the detector on the roof of the inner walkway with a width less than 3 m, it is appropriate to arrange it in the middle. The installation distance of the detector should not exceed 10m, and the distance between the detector and the end wall should not be greater than half of the installation distance of the detector.