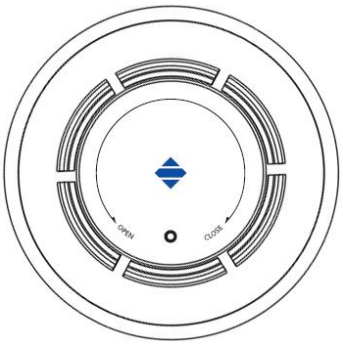
Please read this Manual carefully before installing and using the product .

JTY-GD-A30E Point-type Photoelectric Smoke Detector

1 Product overview

1.1 JTY-GD-A30E point-type photoelectric smoke detector (after this referred to as detector) is a photoelectric smoke detector. The detector has a built-in microprocessor, supports electrical coding, and accesses the compatible fire alarm control system through the two-wire bus. The detector can collect the smoke concentration data in real-time, and transmit the data to the fire alarm control system, and receive and execute the control command given by the fire alarm control system.



1.2 The detector is suitable for a significant quantity of smoke when a fire occurs and no smoke under normal circumstances.Such as restaurants, hotels, teaching buildings, office buildings, computer rooms, communication computer rooms, libraries, archives and other industrial and civil facilities. However, it is not suitable for places with a lot of dust and water mist retention, where the places may produce steam and oil mist and retain smoke under normal circumstances.

2 Product features

2.1 It can realize electronic coding and rewrite the address via coder in situ.

2.2 Within a single-chip microcomputer, it can process the sampling data in real-time, save the latest 144 historical data and realize a curve tracing for the field situation.

2.3 It has a temperature, humidity and dust accumulation drift compensation function and a sensor fault detection function (fault reporting to fire alarm control panel).

2.4 Non-polarity, two-bus connection that ensures convenient installation and maintenance.

2.5 Designed with an upper cover and a lower cover and installed on an independent base, it can be installed, debugged and maintained conveniently.

3 Technical parameters

3.1

Items	Parameters
Executive standard	GB 4715-2005
Wiring mode	Non-polarity two-bus system
Working current	inspection status＜300uA, alarming status＜1.5mA
Weight	about 75g
Product dimension	diameter: 105mm, height: 43mm(With base)
Installation Height	⩽12m
Temperature	-10°C～+55°C RH⩽95%(40 °C±2°C, without condensation)
Coding mode	It can realize electronic coding via coder in situ. Address codes 1 to 324 are available for selection.
Operating instruction	monitoring status: red indicator shining; alarm status: red indicator steady on
Protection area	about 60m², specific reference to the national standard GB 50116-2013 "Code for Design of automatic fire alarm system" relevant provisions

Connecting host	fire alarm control panel, fire linkage control panel

4 Product Appearance and Size (see Fig.1)

4.1

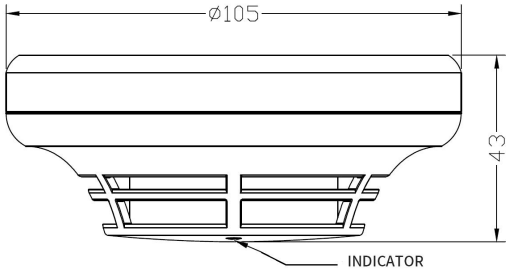
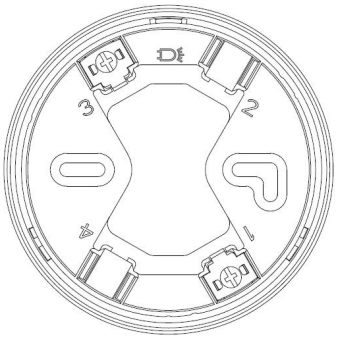


Fig.1（Unit: mm）

5 Use and engineering application

5.1 Schematic diagram of supporting mounting base (DZ-A16), as shown in Fig. 2:



Terminal definition: (Non-polarity two-bus system)

1 -- Signal terminal L1

2 -- Null

3 -- Signal terminal L2

4 -- Null

Fig.2

5.2 Wiring method: The detector can connect to the compatible fire alarm control system through the two-wire bus, and the non-polarity connection is adopted. The L1 and L2 of the two-wire bus should connect to the terminal 1 and 3 of the matched mounting base. Fig. 3 shows a schematic diagram of connecting multiple detectors and control panel.

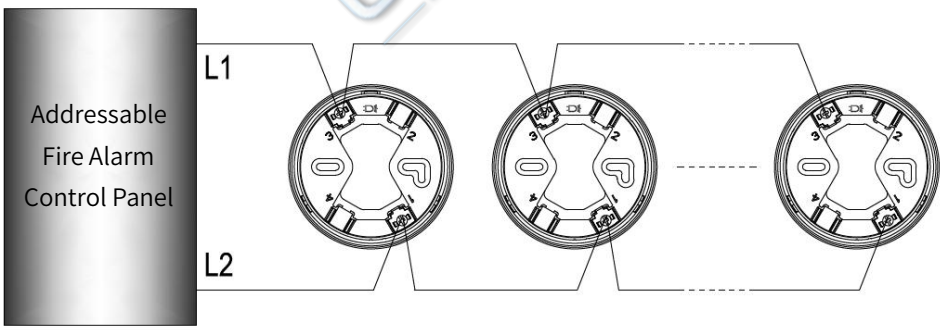


Fig. 3

5.3 Address code: As shown in Fig.4, connect the detector through the detector base on the encoder. L1 and L2 use a non-polarity connection, set the encoder as the coding function, prepare the correct address code, and press the "Run" key to complete the address code setting. (Note: Please refer to the encoder instruction manual for detailed operation)

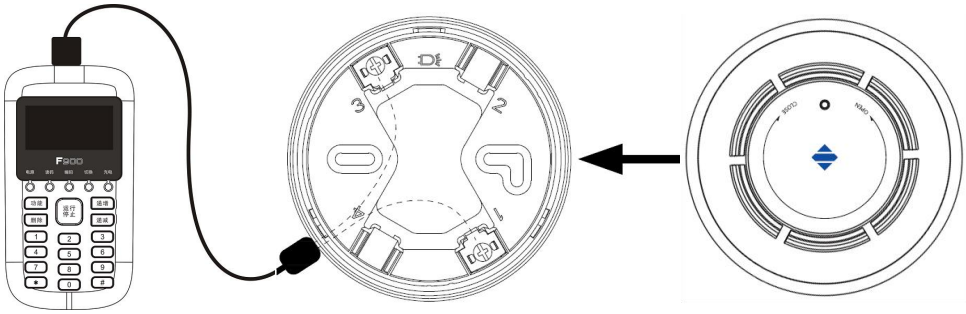


Fig.4

6 Installation and debugging

6.1 According to the national standard GB 50116-2013, "Code for Design of Automatic Fire Alarm System," and the national standard GB 50166-2019, "Standard for Construction and Acceptance of Automatic Fire Alarm System," the relevant provisions and requirements to determine the installation position, installation spacing and number of detectors in the protected area.

The installation of the detector requires the use of a supporting base, shown in Fig.5. The external dimension is 105mm × 13mm(diameter × thickness), the fixed hole diameter is 4.5mm, and the spacing of fixed holes is 45mm ~ 65mm.

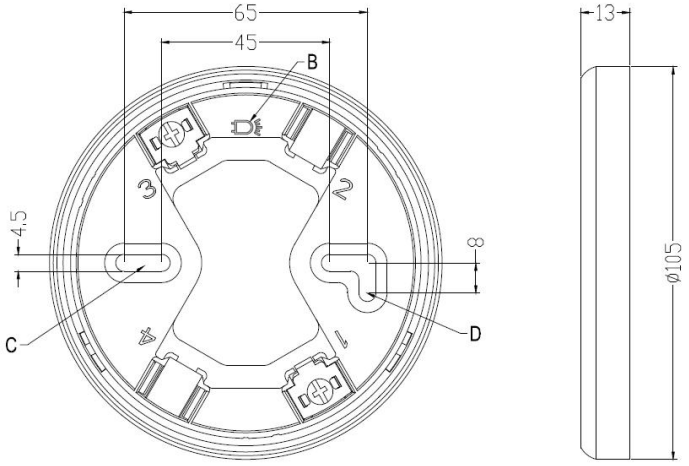


Fig.5

Wiring requirements:

It is proper to use RVS twisted pairs with a section area of equal to or larger than 1.0mm2 for the signal buses L1 and L2.

The specific methods of installation and debugging are as follows:

a. Make sure the type of the detector matches the type of the host machine of the fire alarm control panel;

b. Use two M4 screws to fix the matched mounting base on the designated position via the mounting holes C and D shown in Fig.5, as instructed in the construction drawing and make sure the matched mounting base has been firmly installed.

c. Use a coder to make the detector coded according to the detector address on the construction drawing.

d. Disconnect the power supply of the fire alarm control panel and connect the detector correctly according to the construction drawing;

e. Align the indicator light at detector A (as shown in Fig.1) with the pattern at base B (as shown in Fig.5), and then insert the detector into the base, turn the detector clockwise until the detector is locked in place;

f. After all the products are installed and checked, connect the power supply of the fire alarm control panel and conduct automatic login.;

g. When automatic login is success, the red indicator of the detector will blink once about every 12 seconds, which suggests that the detector has begun to operate normally.;

h. Finally conduct an alarm test for the detector through some special tools or direct smoke blowing. After the detector gives a fire alarm, the indicator will remain lit and the fire alarm control panel will simultaneously show corresponding alarm prompt information. After the alarm test, reset the fire alarm control panel and restore to the monitoring status.

7 Precautions ⚠

7.1 a. A detector can not share an address with other equipment in a single bus circuit, or else an address conflict may occur.

b. Do not remove the protective cover that comes with the detector before it is opened and used after the on-site installation to avoid the detector contamination.

c. The protected area and installed number of detectors shall comply with the relevant provisions of the national standard GB 50116-2013 "Code for Design of Automatic Fire Alarm System" and the national standard GB 50166-2019 "Standard for Construction and Acceptance of Automatic Fire Alarm System."

8 Maintenance and Upkeep

8.1 **⚠Warning: Before the detector is maintained, the relevant management department should be notified that the system will be maintained and the monitoring will be temporarily stopped. At the same time, the logical control function of the area or system to be maintained should be cut off, so as not to cause unnecessary alarm linkage. After the test is over, notify the management department to restore the system to normal..**

a. Ensure that each detector is checked for fire function at least once a year.

b. Operating environment has a great influence on the performance of the detector. If the detector is installed and used in a place where its normal use is easily affected by dust, high wind speed and other factors, its maintenance period should be shortened.

c. If a detector fails due to a material defect or a manufacturing process defect under normal conditions of use in one year following the date of its delivery, we shall repair or replace it for free. However, the faults of the detector due to artificial damage, improper use, or authorized adjustment, reconstruction or disassembly are not covered in the guarantee and we shall assume no responsibilities for any the consequence thereby caused.

d. We may provide paid repair service for products with any faults beyond the guarantee range. If you have such products that need repair, please contact us. When sending such a product to us for repair, you are expected to provide some important information about the product, such as the phenomenon and possible cause of the product fault, so that we can find out the cause of the fault in the shortest time and so the information may be used as a reference in our future product development and improvement.

9 Failure Analysis and Elimination

9.1

Fault phenomena	Analysis of Possible causes	Methods of elimination	Remarks
Can not be coded	The internal circuit is damaged.	Send the detector back to the factory for repair.	
Can ' t be logged into normally.	The detector has no address or has a coincident address.	Recode the detector address.	
Reports a fault after login	The sensor has failed.	Send the detector back to the factory for repair.	
	The labyrinth is seriously contaminated.	Clean the labyrinth of the detector.	
The detector reports a fire alarm after login.	There is a great deal of smoke dust or steam in the room.	Log in again after the smoke, dust or the steam is eliminated.	
	The internal circuit has failed.	Send the detector back to the factory for repair.	
	The labyrinth is seriously contaminated.	Clean the labyrinth of the detector.	
The detector cannot	The indicator or the internal circuit is damaged.	Send the detector back to the factory for repair.	

operate normally after being powered up.	The contact with the base is poor.	Inspect and reinstall the base.	
The detector can’ t send out fire alarm signal during an alarm test.	The internal circuit is damaged.	Send the detector back to the factory for repair.	

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