

➤ **Must read**

1. Before using and installing the detector, please read the quick operation guide carefully. If you need product details, please go to the company's official website to download or call the company's customer service department;
2. This product is an explosion-proof product, and the explosion-proof mark is ExdIICT6Gb. The applied environment of the product should be consistent with the product environmental parameter range. It is forbidden to open the cover with electricity in hazard environment;
3. It is recommended that the instrument be calibrated every three to six months or maintained according to the verification regulations;
4. The advanced menu can be used to configure parameters and modify the system. Authorization is required. For details, please contact the customer service department;
5. The relevant figures involved in the guide are for reference only, and the actual product shall prevail.

➤ **Technical data**

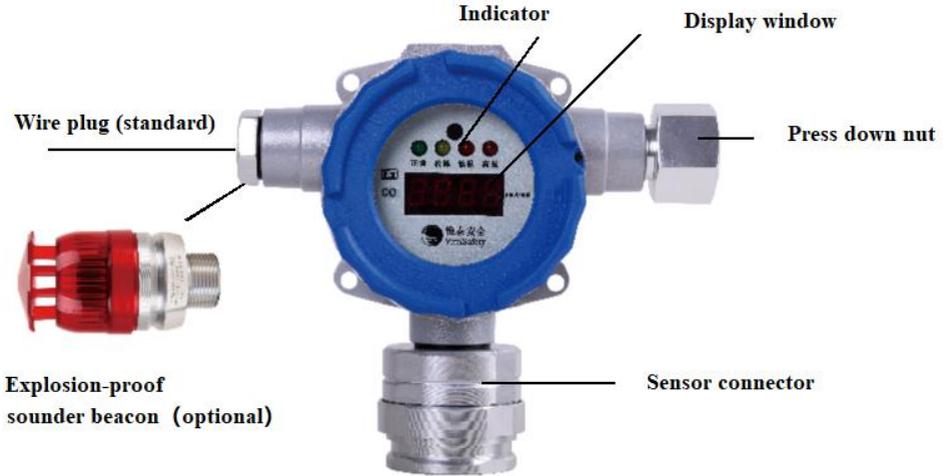
Detection principle	Electrochemical formula	Sampling method	Diffusion
Rated voltage	DC (10-30) V	Power consumption	≤2W
Contact capacity	DC24V, 2A	Alarm	Explosion-proof sound and light alarm (optional)
Output signal	CAN communication, A set of passive switch output	Installation method	Pipe-holding/Wall mounting
Protection grade	IP66	Electrical Interface	3/4 " NPT internal thread
Display	4-digit LED digital tube concentration display	Operate	Infrared remote control operation
Working temperature	(-20~+55) °C	Weight	1.38kg
Environment humidity	(10 to 95) % RH (non-condensing)	Dimensions	163mm×187mm×82mm (HWD)

**Company website: [www.vitalsafe.com.cn](http://www.vitalsafe.com.cn) After-sales service telephone: 010-88850858**

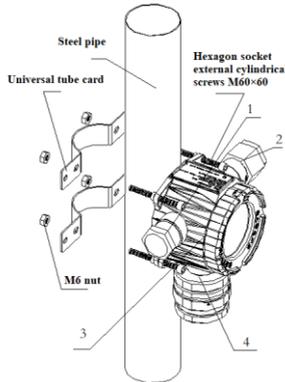
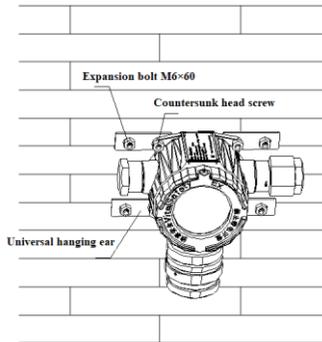
**Production address: Zhuoxia Road Industrial Park, Zhuolu County, Zhangjiakou City, Hebei Province (in the courtyard of Jade Bird Fire Protection Co., Ltd.)**

Environmental pressure	( 86~106 ) kPa	Explosion-proof mark	ExdIICT6Gb
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➤ **Appearance**



➤ **Product installation**

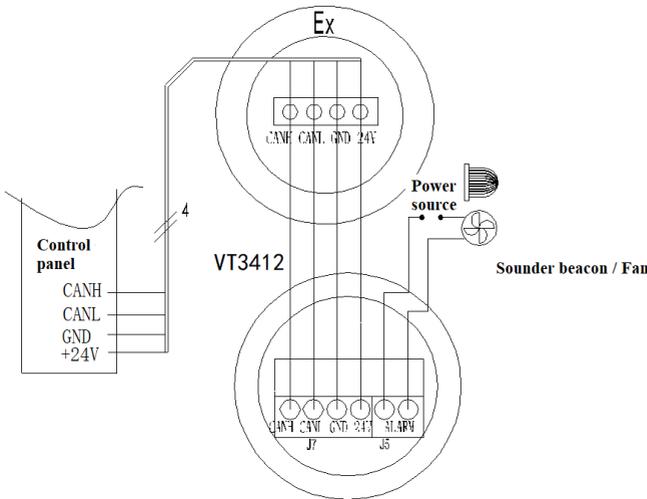


The detector can be installed by holding pipe or wall hanging. It can fit the steel pipe with the size of 0.75 to 2 inches. When installing by wall-mounted, ensure that the wall has enough strength to support and firmly fix the detector. Figure 1.2.3.4 shows the thread flameproof surface. Please pay attention to safety when disassembling. Note: other installation requirements can be implemented according to GB/T 50493-2019 “Standard for design of combustible gas and toxic gas detection and alarm for petrochemical industry”

➤ **Wiring diagram**

J7: four-wire access, connected with the controller; J5: Relay output interface. If the current of the driving device exceeds the rated current or the AC device driven, please connect the intermediate relay or consult customer service department. If the detector comes with a 4-core test cable, it is only used for testing. Please connect the cable according to the product installation design specification when installing the device on site.

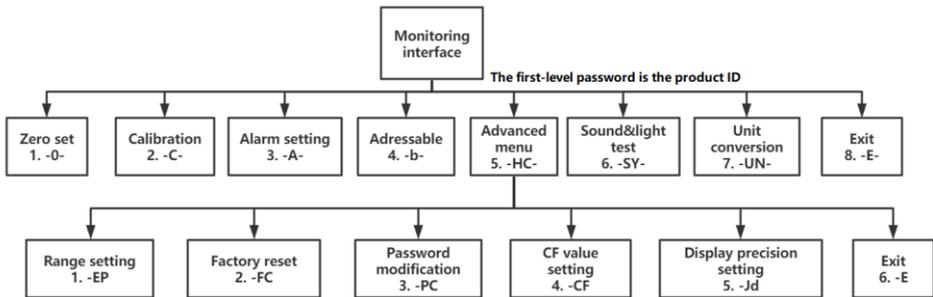
### Explosion-proof tee-junction



The connection cable of the detector should be selected according to the protection requirements of the site environment and local laws and regulations. Considering explosion-proof, protection and electromagnetic interference factor to ensure the stable operation of the system. RVVP or KVVP (1.0 mm<sup>2</sup>-2.5 mm<sup>2</sup>) 2-core cable is recommended; the total outer diameter of the cable is (8-10) mm.

In order to ensure the stable operation of the detector, the power supply voltage must be kept between DC(10-30)V when it is supplied for a long distance. The longest transmission distance of the detector can be determined according to the technical parameters of the cable.

### ➤ Detector menu



### ➤ Power on and Commissioning

Check whether the wiring is correct before the detector is powered on → the detector starts self-test after power-on, and enters the measurement interface after the self-test is completed → press the [Menu] key on the remote control, enter the machine ID, and enter the main menu. When operating the menu of the

detector, it is necessary to confirm that the detector is in a safe environment.

### ➤ **ID reading and addressing**

ID reading: Press the shortcut key [Address] on the remote control once → the screen displays the ID of the machine, and the ID is also the first-level password of the machine.

Addressing: Press the shortcut key [Address] on the remote control twice or enter the menu and select "4.-b-" → input the password (ID) and press the confirmation key → input the preset address → display "PASS" indicating that the addressing is successful .

### ➤ **Alarm setting**

Press the shortcut key [Alarm value] on the remote control once → input the password with the up and down keys and the enter key to enter the alarm setting or enter the detector menu and select " 1.AL" (low limit alarm), and enter the preset low limit alarm value, press the OK key → if "PASS" is displayed, the setting is successful; if "FAIL" is displayed, the setting is failed.

**Note: Select "2-AH" (high limit alarm) for high alarm, and the setting method is consistent with the operation of low limit alarm.**

### ➤ **Zero calibration**

Press the shortcut key [Zero set] on the remote control once, input the password with the up and down keys and enter the key to enter the zero point calibration or enter the detector menu and select " 1.-0-" to enter the zero point calibration, press the enter key to count down → if it displays " PASS" indicates that the calibration is successful, and if "FAIL" is displayed, it indicates that the calibration has failed.

**Note: 1. The detector must be in normal working condition to perform zero calibration, and the warm-up time for the first power-on must be greater than 2 hours. After the detector displays a stable value, the zero point calibration must be performed in pure air or through pure nitrogen.**

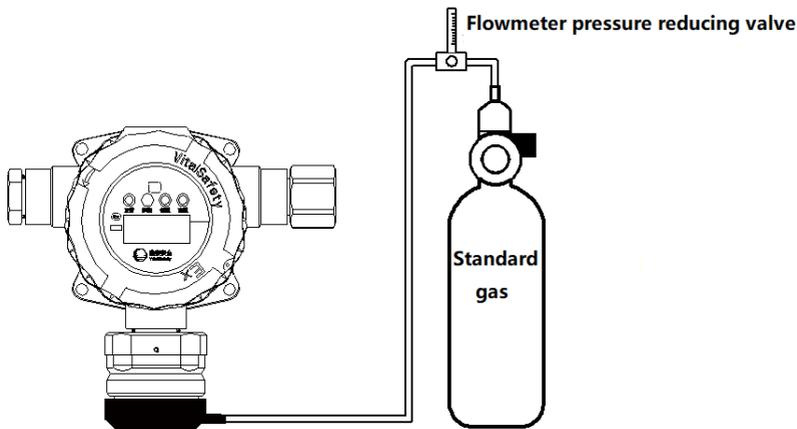
**2. The zero point calibration of the oxygen detector must be carried out under the condition of feeding pure nitrogen.**

### ➤ **Gas calibration**

Prepare a known concentration standard gas cylinder, flow meter pressure reducing valve, gas conduit, and calibration gas cover, assembles as shown in the figure → use the shortcut key [Calibration] on the remote control or enter the detector menu and select 2.-C- to enter the gas calibration interface →Open the

bottle valve, adjust the pressure reducing valve of the flowmeter, and control the output flow rate of the standard gas at about 500mL/min. Countdown after the valve → If "PASS" is displayed, the calibration is successful, if "FAIL" is displayed, the gas calibration has failed

**Note: The oxygen detector can be calibrated under pure air, and the calibration gas concentration value needs to be set to 20.9.**



Calibration housing

➤ **Trouble shooting**

Symptoms	Causes	Solutions
No display on the detector	Power cable wiring problem	Confirm that the line sequence is correct and connection firm.
	Defected circuit	Send it back to our company for repair
Low reading	Zero not adjusted	Reset zero, calibration
	Sensor failure	Replace
High reading	Zero not adjusted	Reset zero, calibration
	Sensor failure	Replace
Unstable readings	Not enough time for the sensor to warm up	Warm up for more than two hours
	Sensor failure	Replace
	Circuit failure	Send it back to our company for repair

Slow response	Improper detection range	Recalibration
	Gas not suitable	Choose the right gas
	Sensor failure	Send it back to our company for repair
Report fault	Calibration error	Recalibration
	Zero too low or too high	Re-zero, calibration
	Sensor failure	Replace sensor
Cannot set zero	Sensor failure	Replace
	Circuit board failure	Send it back to our company for repair



For more instructions, please use WeChat to scan the QR code and enter the official website for inquiries!