

**CAUTION:**  
Please read and understand this user manual carefully before using the product.



**1. Safety-related information**

**1.1 Overview of Safety Tips**

- Strictly follow the instructions for use, and the user must fully understand and strictly follow the instructions.
- The product can only be used within the prescribed scope of application. No alterations may be made to the product.

**1.2 Description of Warning Symbols**

The following warning symbols are used in this document to mark and emphasize the corresponding text content and thus attract the attention of the user.  
Warning symbols are defined as follows:

**CAUTION:**  
Indicates a potentially hazardous situation that, if not avoided, could result in property damage, injury, or equipment damage.

**Notes:**  
Indicates notes, helpful tips, suggestions, or information.

**1.3 Product-Specific Safety Instructions**

- No oil or grease should be used

**CAUTION:**  
Oils, greases, and other materials that are not suitable for oxygen may cause explosive combustion and pose a danger to the user when combined with oxygen.

Possible dangers when using oxygen

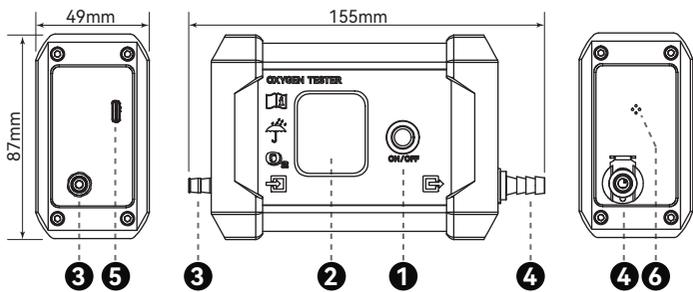
**CAUTION:**  
Oxygen leakage can cause an explosion or serious fire, and oxygen has good flammability. Smoking and open flames are prohibited in the surrounding environment where oxygen is used! If there is a suspicion of an oxygen leak, turn off your oxygen supply equipment immediately.

Special requirements for the medium to be measured

**CAUTION:**  
This device is only suitable for testing dry oxygen. Any form of liquid entering the device will result in irreparable damage to the device. The maximum inlet pressure is 700kPa, the maximum inlet flow is 20L/min, and the oxygen temperature to be tested must be greater than 5°C and not higher than 70°C. Excessive inlet pressure or excessive inlet flow will directly lead to damage to the equipment or poor test accuracy.

**2. Introduction**

**2.1 Product Overview**



Item number	Name	Item number	Name
1	Switch button with an indicator light	4	outlet connector with globe valve(POM)
2	Color display	5	USB Type-C charging interface
3	Inlet connector(brass)	6	Alarm tone output hole

**2.2 Symbol Description**

- Consult the instruction manual
- Only for oxygen measurement
- Switch
- Manufacture
- Serial Number
- Disposal of electronic devices
- Keep dry, protect the device from moisture
- Oxygen input direction
- Oxygen output direction
- Catalog Number
- Caution!Consult accompanying documents

**2.3 Function Description**

YTD005 oxygen tester (hereinafter referred to as oxygen tester) is a personal oxygen testing equipment containing a variety of functions. Through the built-in sensor, it can test the

oxygen-making or oxygen-storage equipment in real time of their oxygen concentration (% volume percentage), flow rate (L/min), oxygen pressure in the tube and altitude(m), oxygen temperature (°C), as well as the single release volume (mL), single release time (ms), release times per minute(bpm) and the release volume per minute(scm) in the pulse mode. The oxygen tester has the function of sound and visual alarm output. If there is gas flowing through the tester, the indicator light is on and it is detected that it does not meet the oxygen requirements for personal oxygen therapy, the equipment will sound an alarm and indicate on the display screen.

**Notes:**  
For personal oxygen, please follow your doctor's prescription . The test results of YTD005 oxygen tester are for reference only and cannot be used as the most effective data for oxygen therapy.

**2.4 Scope of application**

The oxygen tester can be used to test the performance of the oxygen made by molecular sieve oxygen generator or the medical oxygen cylinder, including oxygen concentration, flow rate, output pressure and oxygen temperature.

The oxygen tester can also be used as a test for inductive pulse oxygen supply equipment, such as portable oxygen concentrators, mechanical oxygen conserver. The main test metrics are oxygen concentration, , single release amount and single release time, output amount and time per minute,and sensing sensitivity(observation only).

**CAUTION:**  
The incoming gas must comply with the "Special requirements for the medium to be measured" described in this manual!

**2.5 Restrictions on Use**

Any use other than those described in the "Scope of Application" section is considered non-compliant use. The oxygen tester cannot be used as an unattended monitoring device for personal oxygen therapy.

**3. Usage**

**CAUTION:**  
Special care should be taken to reduce the fire hazard when using oxygen. Any material that is flammable and non-flammable in the air with high oxygen concentration, it will be extremely easy to burn quickly. For safety reasons, all flammable materials should be kept away from oxygen generator ,oxygen storage devices , oxygen testers and the pipes connected to them, at the same time "no smoking".

**CAUTION:**  
Oils, greases or oily substances are highly susceptible to spontaneous combustion when exposed to oxygen under pressure. These substances must be kept away oxygen generators, oxygen storage devices and oxygen testers, as well as the pipelines connected to them.

**CAUTION:**  
It is strictly forbidden to have any foreign objects (including dust or liquid) enter the hole of the air inlet 3 or outlet connector 4 of the oxygen tester to avoid clogged tubing or damage to internal components

**CAUTION:**  
It is strictly forbidden to press and puncture with sharp objects in the color display area, which will directly cause the oxygen tester to fail normal operation or damage to the display.

**3.1 Conditions of Use**

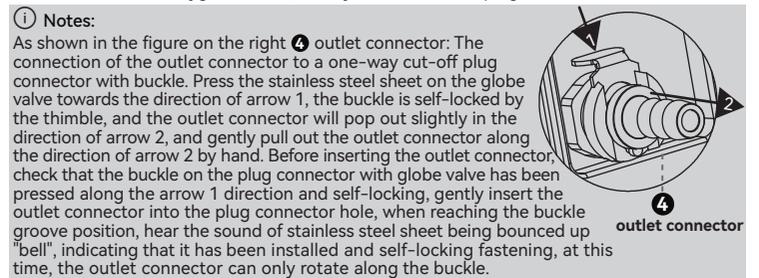
- Conditions for the use of the oxygen tester:
  - Before or after using the oxygen tester, please make sure that there is no water or foreign objects at the inlet 3 and outlet connector 4 and the soft rubber protective sleeve on the connector is well installed.
  - Visually inspect the display screen of the oxygen tester without damage, the shell without deformation, and the inlet/outlet connector in good condition

**Notes:**  
Please select the appropriate connection tube, the inlet connector of the oxygen tester 3 is a brass barb with a minimum diameter of 6mm, the outlet connector 4 is a POM barb with a minimum diameter of 6.5mm.

In order to avoid the internal battery of the oxygen tester from being low and not working normally, please make sure that you have a power adapter or other similar forms of energy storage devices and cables that can provide Type-C charging capability, and connect the charging interface 5 with the Type-C that can provide power for a long time, so as to achieve continuous external power supply.

**3.2 Preparation for use**

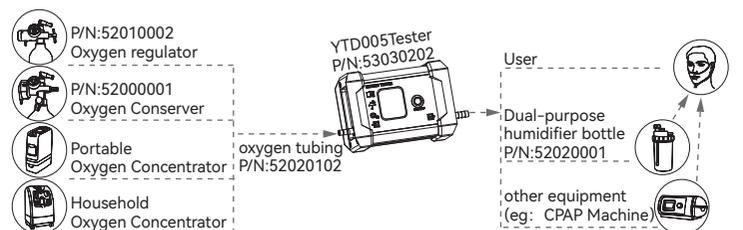
- Make the following preparations for the oxygen test before use:
  - Remove the soft rubber protective sleeve on the inlet 3 /outlet connector 4 .
  - Check that the oxygen outlet 4 is fully installed on the plug connector



**CAUTION:**  
Make sure the buckle has been pressed before removing or inserting the outlet connector. When the buckle is not in the pressed position, it will not be possible to install or remove the outlet connector, otherwise it will cause damage to the one-way cut-off plug connector or outlet connector!

**3.3 Tubing connection of the oxygen tester**

As shown in the following figure: the tubing connection of the oxygen generator, the post valve of the gas cylinder and the inlet connector of the oxygen tester 3, and the connection of the outlet connector of the oxygen tester 4 with other equipment or users.



### CAUTION:

The incoming gas must comply with the "Special requirements for the medium to be measured" described in 1.3 of this manual!  
It is strictly forbidden to connect the humidifier bottle or any form of humidification device to the front end of the oxygen tester inlet connector ③, which will directly cause water or water vapor to be brought into the instrument and cause irreparable damage!  
Avoid using the oxygen tester if the device which connected to the rear end of the outlet connector ④ has the potential to be humidified and generates a reverse pressure that will bring water or water vapor into the tester (reflow).

### Notes:

Avoid choosing a length of more than 500mm and an inner diameter of less than 2.8mm tube connects the oxygen to the oxygen tester inlet connector ③. Connections that are too long or have too small inner diameters can lead to poor real-time performance or errors in the test values.

### 3.4 Power on

Press and hold the switch button ① do not release until the display shows "Release the button to run the device!", then release the button ①, and the oxygen tester will turn on and enter the pending test state.

### Notes:

If the built-in rechargeable battery of the oxygen tester is too low or loses power, after pressing the switch button ①, the green indicator on the button ① will not glow, please connect the charging interface ⑤ to the live charging line and press the button ① again. After powering on, the charging connection symbol and battery level icon will be displayed in the upper left corner of the display.  
The in-display icon for the energy indicates: ⚡ that it is charging (not shown indicates that it is not connected).

▢ The battery is low, please pause the use and connect the charging line until the low battery is no longer displayed.

▣ The battery is not less than 30%, please connect the charging line and can use the oxygen tester normally.

▤ The battery is not less than 60%. ▥ Fully charged or Sufficient power

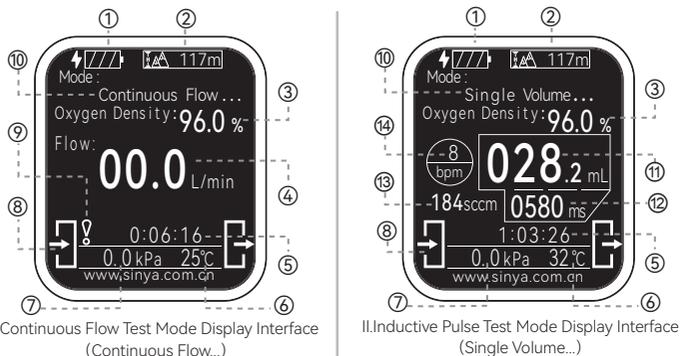
After the tester is turned on, the screen is displayed as shown in the following figure:  
"I.Continuous Flow Test Mode Display Interface"

### 3.5 Test Process

The oxygen tester will intelligently detect the input oxygen supply mode and switch between the following interfaces I and II.

Typical applications for continuous flow output test model are household molecular sieve oxygen concentrators, the oxygen output of an oxygen cylinder after passing through a pressure reducing valve. Typical applications for inductive pulse output mode II are portable oxygen concentrators, mechanical oxygen conserver. When there is oxygen circulating in the oxygen tester, the green indicator ring on the switch ① will light up, otherwise it will go off.

The content of the display interfaces is described as follows:



- ① Electricity status display    ②altitude    ③Oxygen concentration
- ④Oxygen flow rate    ⑤Statistics of single start-up time
- ⑥the oxygen temperature in tested tube    ⑦the oxygen pressure in the tested tube
- ⑧The air flow direction prompt and alarm sound start and stop signs
- ⑨Alarm prompt icon    ⑩ Test mode prompt area    ⑪Oxygen volume of single release
- ⑫Single release time    ⑬Release volume per minute    ⑭Release times per minute

The oxygen tester in I.Continuous Flow Test Mode, the refresh rate of oxygen concentration③, flow rate④, pressure⑦is not higher than 0.2 seconds. In the II. inductive pulse test mode, the volume⑩and time⑫are the readings of the previous release result, the refresh rate of pressure⑦and concentration③is not higher than 0.2 seconds, release volume⑬and times⑭per minute are the test results refreshed per minute.

### Notes:

Application note on the pressure⑦test in the tube: the outlet connector ④ of the oxygen tester is plugged into a plug connector with a one-way cut-off globe valve, see 3.2 description, when the outlet connector ④ is taken out, the pressure in the tube tested at this time is the pressure value adjusted by the pressure regulator valve of the oxygen output equipment!

### 3.6 Handling of alarm

The oxygen tester starts the alarm output program after it is turned on, and its detection content includes: battery level, high temperature alarm, low flow alarm, and low concentration alarm. The trigger conditions of an alarm are described as follows:

Alert items	Trigger time	Trigger conditions	Cancellation of conditions
The battery is OV	15s	The battery level display①is red	Plug in the charging line
High temperature alarm	2s	Pipe temperature⑦>55°C	Check that their supply temperature is below the threshold
Low flow alarms	120s	Input flow④<6	Make the input flow greater than the threshold
Low oxygen concentration	120s	③<82% Oxygen concentration③<82%	Make the input gas concentration greater than the threshold

all alarm items are triggered (activated), the oxygen tester will emit periodic alarm sound ⑥, and the alarm prompt icon⑨and the alarm item test value (if any) in the display screen will flash periodically until the alarm item is lifted.

### Notes:

After the alarm sound ⑥ is activated, i.e. when the icon⑨flashes, press the switch button ① for about 2 seconds while observing the screen. When the alarm sound start and stop signs⑧ changes from white to light blue, immediately release the switch button ①, and the alarm sound will be suppressed, and the alarm sound will no longer sound. (When the alarm sound start-stop sign⑧is light blue, press the button ① for about 2 seconds to switch to white, and when the alarm item is activated, the alarm sound ⑥ is activated at the same time.)

### 3.7 Shutdown

press the switch button ① do not release until the screen displays "About to shut down device.", release the button ①, then the oxygen tester is turned off and the power is in a

shutdown state.

### Notes:

When the oxygen tester is turned off and still connected to the charging line, it is still in the charging state. And when fully charged, the charging mode will be automatically disconnected.

wipe the inlet connector ③ and outlet connector ④ and install the soft rubber protective sleeve.

oxygen tester should be placed in a dry room without strong sunlight.

## 4. Troubleshooting

Fault	Cause	Resolution
Frequently switch between the two screens	The output frequency of continuous flow or pulsed oxygen supply equipment does not meet the requirements of oxygen consumption	Check the pulse oxygen supply equipment for continuous flow due to air leakage
No gas is connected but the flow rate shows run out	The sensor self-test failed	Restart the device after shutting it down
Readings are not refreshed in real time	The data transfer failed	
The indicator light does not light up after pressing the switch button ①, There is no content display on the display, and no alarm sound ⑥.	The indicator is faulty The display is faulty	Contact your equipment provider
	The sound hole is blocked or the speaker is faulty	Clear blockage (if any)
There is oxygen inlet ③ but no oxygen outlet ④	The internal tubing of the device is damaged, The oxygen outlet plug connector is not properly connected	Contact your equipment provider See 3.2

## 5. Technical parameters

Product Dimensions	L155xW49xH87 (mm)	Net weight	340 grams
Battery parameters	Nominal 3.7V 2000mAh	power supply	5V 500mA
Standby time	12 hours or less (fully charged)	Screen size	1.69" LCD color
Concentration range	30%~95%	Concentration accuracy	±1.5%
Flow range	0.5~20L/min	Flow accuracy	±0.2L/min or 10%
Pressure range	0~700kPa	Pressure accuracy	±2.0kPa
Volumetric accuracy	±10% of reading		
Test medium	Oxygen (anhydrous and non-condensate)	Temperature range	+5°C~+60°C
Other functions	Single power-on timing, Altitude m, BPM/SCCM		

## 6. Maintenance and upkeep

The oxygen tester's built-in sensor has been calibrated before leaving the factory, and the user does not need to calibrate again within 5 years of expected service life.

wipe the equipment clean with a dry, lint-free cloth after each use, and seal the inlet connector ③ and outlet connector ④ with a soft rubber protective sleeve to prevent water, dust or debris from entering the oxygen tester and affecting the test accuracy.

### CAUTION:

The oxygen tester does not have user-friendly parts, so please do not attempt to disassemble and repair the device during use.

## 7. Warranty Statement

The oxygen tester has undergone strict manufacturing process and inspection to ensure that the end user will not have defects in the materials and workmanship of this product within one year.

warranty does not apply to the following situations, and the evaluation of such conditions is at the sole discretion of Danyang Xinya Valve Co., Ltd:

- Accessories are consumables and are not covered by the warranty;
- subject to negligence, accident and incorrect operation, maintenance or storage;
- Failure or damage caused by unauthorized dismantling and repair, or unauthorized modification or abuse;
- Failure or damage caused by natural disasters (e.g. earthquakes, floods, etc.).

## 8. Design standard citation

Standard	Reference Design Project
IEC 60601-1-8	alarm output 3.6
ISO 80601-2-69	Monitoring of Oxygen Indicators for Personal Use

## 9. Order list

Order No.	Name	Remarks
53030202	YTD005 Oxygen Tester	includes accessories
52020102	500mm PVC oxygen tubing	Transparent Oxygen tester Accessory
21010021	*615mm connector soft rubber protective sleeve	black oxygen tester accessory
21030054	Outlet connector ④ with seal washer	POM oxygen tester accessory

## 10. The order list of the products linked to this manual

Order No.	Name	Remarks
52020001	Multi-purpose 250cc humidifier bottle	continuous flow/pulse
52000001	Pneumatic Oxygen Conservor (CGA870)	6 levels of pulse and 2 levels of continuous flow
52010002	Standard Oxygen Regulator (CGA870)	1~15L PM
51010005	1.8L Lightweight Aluminium Alloy Oxygen Cylinder (DOT)	with CGA870 connector

### Notes:

You can contact your product provider for more related products and applications.

Manufacturer: Danyang Xinya Valve Co., Ltd  
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Tel: 0086-511-86915318  
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Paper

# OXYGEN TESTER

## Multifunctional Oxygen Tester

A multifunctional personal oxygen testing device



Household molecular sieve oxygen concentrator



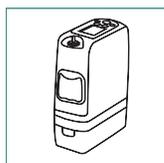
Oxygen that is output after passing through a regulator

### Continuous flow output mode

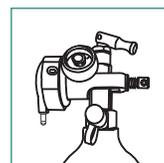
- Household molecular sieve oxygen concentrator
- The oxygen output of an oxygen cylinder after passing through a regulator

### Inductive pulse oxygen supply single output mode

- Portable oxygen concentrator
- Pneumatic oxygen conserver



Portable oxygen concentrator



Pneumatic oxygen conserver



## Product parameters

Product dimensions	L155xW49xH87 (mm)
Net weight	340 grams
Battery parameters	Nominal 3.7V 2000mAh
Power supply	5V 500mA
Standby time	12 hours or less (fully charged)
Screen size	1.69" LCD color
Concentration range	30%~95%
Concentration accuracy	±1.5%
Flow range	0.5~20L/min
Flow accuracy +0.2L/min or 10%	±0.2L/min or 10%
Pressure range	0~700kPa
Pressure accuracy	±2.0kPa
Volumetric accuracy	±10% of reading
Test medium	Oxygen (anhydrous and non-condensate)
Temperature range	+5°C~+60°C
Other functions	Single power-on timing Altitude m, bpm/sccm



# Multifunctional Oxygen Tester

YTD005 Oxygen Tester  
P/N:53030202

**Scope of application:** the test of the oxygen output performance of the molecular sieve oxygen generator or the output of the medical oxygen cylinder, and the measurement of the inductive pulse oxygen supply equipment.

## Aluminum alloy shell

Lightweight and sturdy, anti-drop soft rubber protection

## Detachable one-way plug connector

It is easy to connect to other oxygen equipment, such as oxygen refill station

## Standard USB Type-C charging port

It lasts up to 12+ hours on a full charge

## Ten types of data are displayed in real time

Single output time ms (pulse mode only)  
oxygen concentration%, battery level%, oxygen pressure kPa  
temperature °C, output times per minute bpm (pulse mode only)  
volume mL (pulse mode only), Cumulative time of single power on H:M:S  
altitude m, oxygen flow rate L/min (continuous flow mode only)

## Intelligent run prompt function

Operation prompt, alarm when oxygen concentration is less than 82% ,  
temperature is higher than 55°C or flow rate is less than 0.3L/min

## Button with an indicator

One-button operation, power on/off One-click minimalist operation

## Product introduction

- Performance testing and real-time monitoring of oxygen-making and oxygen-using equipment during home oxygen therapy.
- The output oxygen concentration, flow rate and pressure test of medical molecular sieve oxygen generator.
- Respiratory sensitivity test and concentration, single-release oxygen volume, single-release oxygen time test of portable oxygen concentrator.
- The sensitivity, single-release volume, single-release time test, statistics of using time and breathing training of oxygen-saving device in use.