Combustible Gas Explosimeter
YT-1200H-S-R290

User manual

LINSTRUMENT

NOTE BEFORE USING

• Before using the instrument, please read the product instruction manual carefully.

• IT IS STRICTLY FORBIDDEN TO OPEN THE COVER WITH POWER ON ON SITE.

• IT IS STRICTLY FORBIDDEN TO CHARGE THE DEVICE ON SITE.

• Do not replace the sensor while the device is powered on.

• The device must be calibrated regularly, at least once a year.

• The sensor's lifespan is 2 years. It must be replaced at the end of this period.

• Do not expose the sensor to concentrations exceeding its measurement range.

• Do not damage the device or subject it to shocks.

• It is strictly forbidden to use in high temperature and high humidity environment. If the environment humidity is high, a filter and dehumidification device must be added.

• Users are not allowed to start maintenance or replace parts without authorization.

• Damages caused by improper use are not covered by the warranty.

• WARNING : avoid ignition hazard caused by electrostatic charge during normal use, maintenance and cleaning of the instrument.

• When used in an explosive environment, the device should not be touched and wiped. If it must be wiped or touched, it should be done in a safe place, and wipe the casing with a wrung wet cloth. It is strictly forbidden to wipe the casing with a dry cloth !

• For portable products, before entering the dangerous area, the human body should discharge static electricity first, and then carry the instrument into the site.

• The charging must be carried out in a safe place, and use the special charger for this machine

• After charging, please insert the USB dust plug back into the USB charging port.

BUTTONS :

⏻ ON/OFF: Long press for 3s to turn on/off the device. In detection mode, short press to check battery power, and press again to go back to detection mode. In parameter setting mode, short press to confirm or save settings.

⬆ UP: In detection mode, long press the UP button to enter into Menu, and in Parameter setting mode, short press this button to move to upper item.

⬇ DOWN: In detection mode, long press to shift the unit. In parameter setting mode, short press it to go back to move to next item.

(NOTE: The long press function only work in detection interface. When you change or reset any data, please remember to click "ON/OFF" button to confirm and save the settings).

POWER ON

Press ON/OFF for 3 seconds to start the device. The screen will successively display the brand and logo, followed by a countdown of several seconds corresponding to the sensor preheating phase. Once the preheating is complete, the device enters detection mode.

OPERATION INTERFACE

Once the device has started and is ready to operate, the screen switches to detection mode. The concentration of combustible gas in %LEL is displayed. Time and battery power will be showed at the top right

① Alarm light
② Silicon rubber case
③ LCD display
④ USB charging port
⑤ UP
⑥ DOWN
⑦ ON/OFF
⑧ Sensor air chamber

ALARM STATUS

When the detected gas concentration is higher than the low alarm value, the low alarm is auto on, the relative gas value will be highlighted, and the alarm sound will be on, blue light will be flickered.
When the detected gas concentration is high than the high alarm value, the high alarm is auto on, the relative gas value will be highlighted, and the alarm sound will be on, red light will be flickered.

LOW BATTERY ALARM

When the battery is low, there will be sound, light low battery alarm. There will be sound and light every 5 seconds to remind the user to charge the device in time. When the battery is used up, the device will be turned off automatically.

ALARM POINT STTING

In detection model, long press "UP" button. Choose the "Alarm point", and start to set the alarm value.

Low alarm: Press the down arrow to select LOW and/or HIGH, then press ON/OFF to modify the value. Press UP or DOWN to increase or decrease the value, then press ON/OFF to move the cursor, and press it one last time to confirm the new value.

ALARM MODE

Select the desired alarm types between BUZ (buzzer), LED (light signal), and VIB (vibration).

DEVICE SETTINGS

In detection model, long press "UP" button to enter the menu, choose the "INST Setup". It is then possible to set the device's language, screen contrast, and backlight duration.

TIME SETUP

In detection mode, press and hold UP, then select Time setup. The user can then set the date and time as desired.

ZERO CALIBRATION

Zero calibration must be done in clean air. Put the detector in clean air for 5 minutes, under the detection mode, press the "UP" and "DOWN" buttons during 3s. The sensor value will then display 0% LEL.

PROCEDURE IN CASE OF EXPOSURE TO EXCESSIVE CONCENTRATION

Users should avoid using gases which exceed the measure range to impact the sensor, because it will affect the lifespan and sensitivity of the sensor. If exposed to a high concentration causing sensor saturation, immediately remove the detector from the area and leave it in fresh air for at least 1/2h. Observe whether the displayed value gradually decreases and returns to zero. If it does, turn off the device once the value reaches 0 and perform a zero calibration before the next use. However, if the value does not decrease and remains at its maximum, the sensor is likely damaged and needs to be replaced.

SPAN CALIBRATION

Prepare the standard gas before starting the Span calibration. Long press the UP button to enter the Settings menu. Select CALIBRATION and enter the password. In the next menu, select SPAN. The screen will display the following parameters: gas type, calibration value (ex. 0100), VA (current concentration value), AD, and EXIT/SET/OK.

Follow the steps below :

1. Connect the detector with standard gas cylinder by tube.

2. Set the calibration value to match the standard gas value (ex. 0020 for 20%).

3. Release the standard gas to the detector at a flow rate of 300 mL/min. The ''current concentration'' value will gradually increase and stabilize after approximately 30 seconds.

4. When the VA and AD values are stable, the «current concentration» value should match or be very close to the ''target point value''.

5. Use the UP and DOWN buttons to select OK, then press ON/OFF to confirm

6. The calibration is now complete, and the detector can be disconnected from the standard gas cylinder, which should be closed beforehand.

Pressure regulator & flow meter

Standard gas

Gas detector

Crystal tube