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Control Panel

Operator's Manual

AGS1600F

Version: 2.4. 2002

Dear customer:

Glad to have your trust and support on AIYI Technologies, we will provide you best product and service in return.

As an ISO certified manufacturer. AIYI Technologies has been focus on safety and environment many years, we provide you gas & dust detector and systems. The design and manufacture of product is strictly follow the international standard and company regulations, and each product get a normative QC control to ensure the best quality for you.

Please read and understand this operator's manual before operating instrument. Improper use of the gas monitor could result in bodily harm or death. Please don't hesitate to contact us if you have any questions or suggestions. Thanks!

We are honored to have the opportunity to serve you.

Yours sincerely,

Dongxu Zhang
Vice-General Manager
Nanjing AIYI Technologies Co., Ltd.

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Statement

This manual describes the hardware features, installation methods, and maintenance of the AGS1600F Control panel.

This manual is suitable for the following personnel: instrument maintenance engineers, field users.

In addition to this manual, for the latest product information, please visit <http://www.aiyitec.com> or call 0086-25-87756351.



Attention: Before connecting and operating your device, please be advised of the manual.

Contact Us

Nanjing AIYI Technologies Co., Ltd.

Address: Building 13, No. 1318 Qingshuiting East Road, Jiangning District,

Nanjing 210000, Jiangsu, China

Tel: 0086-25-87756351

Fax: 0086-25-87787362

Web: www.aiyitec.com

Email: sales@autequ.com



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1. 1. Brief Introduction

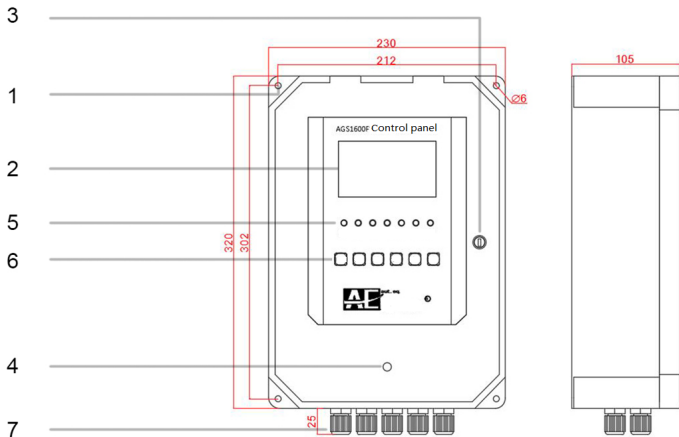
AGS1600F series flammable gas alarm control panel (hereinafter referred to control panel) is a new generation product independently developed by Nanjing AIYI Technologies Co., Ltd., which is specially equipped for point-type flammable gas detectors such as AF110, Anr and Anr-N.

The product uses advanced microprocessor technology. It is high measurement accuracy, stable and reliable operation and versatility. The color LCD displays the status of each channel in real time. Each channel can be set alarm value and range, etc. separately. It has various alarm modes such as indicator alarm, display alarm and sound alarm. The control panel also has functions such as calibration, time set, and password protection.

Main functions and features of the product:

- | The product is suitable for matching 4~20mA signal point type flammable gas detectors.
- | The panel has color LCD screen, which can display the gas concentration in real time and make sound and light alarm automatic ally when exceeds the standard.
- | It has multi functions, such as channel block, over-standard alarm, fault alarm and so on.
- | It has historical data query such as alarm records, fault records, and mask records.
- | There are 3 groups of relays to achieve multi-level chain control.
- | It has self-test function, which can realizing faults self-test and fault output.
- | It can keep normal work for ≥ 1 h main power cutoff with UPS power supply.

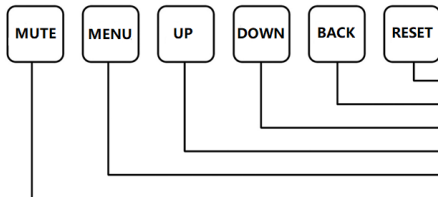
1. 2. Description



- | | |
|------------------|--|
| 1 Mounting holes | 5 Indicator light: main power on, main power fault, backup on, backup fault, alarm, fault, block |
| 2 Display | 6 Button: mute, menu, up, down, back, reset |
| 3 Panel lock | 7 Channel locking port |
| 4 Buzzer hole | |



MAIN POWER FAULT, BACKUP POWER FAULT: Normally extinguished, always bright when fault.
 MAIN POWER FAULT, BACKUP POWER FAULT: Normally extinguished, always bright when fault.
 ALARM, FAULT: Normally extinguished, always bright when fault.
 BLOCK: Normally extinguished, always bright when channel blocking.



- Clear alarms and faults records
- Return to previous menu and cancel save
- Screw down
- Screw up
- Enter menu and confirm
- Eliminate alarms sound

1.3 Specifications

Model	AGS1600F
Gas detected	Combustible gas
Measure range	0~100%LEL
Power supply	220VAC/50Hz
Channels	4
Output voltage	24VDC
Input signal	4~20mA
Output signal	RS485
Relays	3 relays (alarm-1, alarm-2, fault alarm)
Operating temperature	0°C~40°C
Operating humidity	≤95%RH
Response time	≤10S
Power consumption	6W
Suitable cable	RVVP3*1.5mm ²
Dimension	230mm*345mm*105mm
Installation method	Wall-mounted
Weight	about 6kg

2. 1. Packing list



Body *1



Operators manual *1



Certificate *1



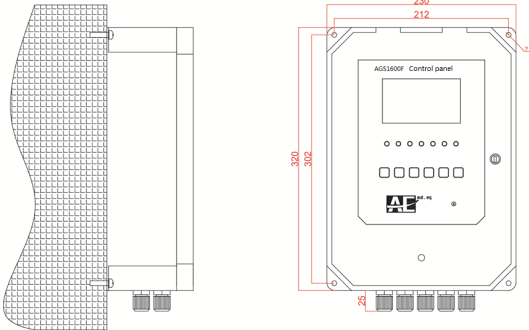
Accessories

2. 2. Cautions

- The control panel is non-explosion-proof and is only used in non-explosive atmospheres such as duty rooms and operating rooms. Do not use in hazardous areas.
- The control panel is 4~20mA input signal and the detector should be connected according to the distribution system.
- Do not use the same power source which supplies the large motor equipment.
- Wall-mounted control panel requires a flat, firm wall.
- The installation process must comply with national standards
- The installation position should ensure that the display is visible, and the reserved space is convenient for the operation of the door opening, wiring debugging, etc.
- If there is a lot of dust, high temperature, water splash, rain, corrosive gas, vibration, etc., the installation position should avoid exceeding the working temperature, humidity and protection level of the panel.

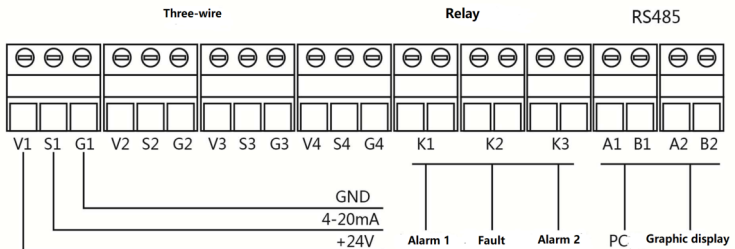
2. 3. Installation

- Select the suitable installation location.
- According to the hole above the controller, determine the place drill the hole. Use the M10 expansion screw to firmly fix the two mounting holes to the wall.



2. 4. Wiring

- Be sure to power off before wiring operation.
- Open panel with matching key
- Unscrew the locking port at the bottom and lead the RVVP3*1.5mm² cable into the control panel.
- Wiring according to the terminal port identification, pay attention to the one-to-one correspondence between the detector terminal and the control panel terminal.

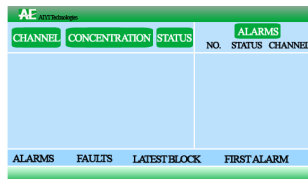


2. 5. Power-on test

- | Please confirm that the external wires and terminals are safe before power-on
- | The control panel needs to open the front panel with the key, the main and backup power switch is set to the "on" position
- | When a 220VAC power supply, the control panel power light is always on, and it enters the normal working state

Chapter 3 Operation and Maintenance

3. 1. Main interface



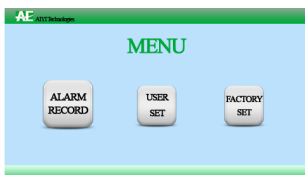
After power-on, the panel turns on the self-test page, and enters the main interface after the self-test is completed. The left side of the main interface is the channel status, showing the concentration and status of each channel. The alarm status is displayed on the right side, and historical alarm data is displayed. The bottom displays faults and blocks.

3. 2. Mute and reset

When the panel alarms or faults, press the “mute” button to remove the sound.

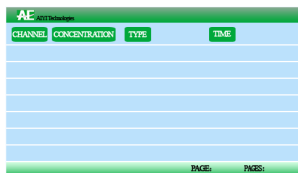
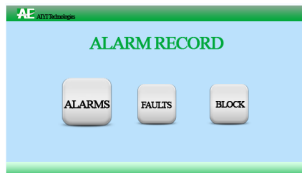
When you need to clear the channel alarm or fault status, press the “RESET” button and enter the “USER SET” password (the initial password is 6 “Up” keys), and the system will automatically reset.

3. 3. Enter menu



Press the “MENU” button to enter the main menu interface, and it displays “ALARM RECORDS”, “USER SET” and “FACTORY SET” respectively. Press the “Up” or “Down” button to select, press “MENU” to confirm, press “Back” to return to the main interface.

3. 4. Alarm records

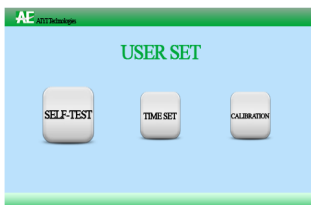


The history is divided into three types: "ALARMS", "FAULTS" and "BLOCKS". Enter the corresponding query type to view the history information.



The following USER SET and FACTORY SET are professional settings. Non-professionals should not operate. If you need to operate, please contact the manufacturer.

3. 5. User set



Press the "MENU" button, enter the password (the initial password is 6 "Up" keys) to enter the user set interface. It will display "SELF-TEST", "TIME SET" and "CALIBRATION" respectively. Press the "UP" or "DOWN" button to select, press "MENU" to confirm, press "BACK" to return to the main interface.

3. 6. Self-test



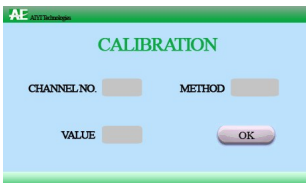
After selecting the self-test, the system automatically enters the self-test state. At this time, the system detects the screen, buzzer and indicator light in turn, and automatically returns to the user set menu after the self-test function ends.

3. 7. Time set



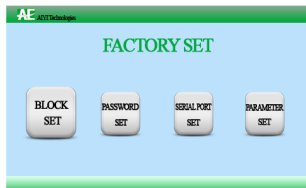
Press the “MENU” button to select the corresponding time option, press the “UP” button or the “DOWN” button to adjust the corresponding time. After the setting is completed, press the “BACK” button to save and exit.

3. 8. Calibration



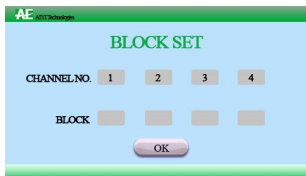
Press the “MENU” button to select the corresponding option, press the “UP” button or the “DOWN” button to adjust. After the adjustment is completed, move to the confirmation option and press the “MENU” button to save. If you do not need to save, press the “BACK” button to return to user set. To change other channel parameters, repeat the above steps.

3. 9. Factory set



Press the “MENU” button and enter the password (the initial password is 6 “Up” keys) to enter the factory set interface, displaying “BLOCK SET”, “PASSWORD SET”, “SERIAL PORT SET” and “PARAMETER SET” respectively. Press the “UP” or “DOWN” button to select, press the “MENU” button to confirm, press the “BACK” button to return to the main interface.

3. 10. Block set



Press the “MENU” button to select the corresponding channel, press the “UP” or “DOWN” button to select whether to block. After the adjustment is completed, move to the “OK” option and press the “MENU” button to save; if you do not need to save, press the “BACK” button to return to the user set. To change other channel parameters, repeat the above steps.

3. 11. Password set



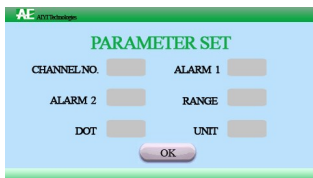
The system initial password is 6 "UP" keys. Press the "UP" or "DOWN" button to select the password level. After pressing the "MENU" button, the system automatically enters the "NEW PASSWORD" and "CONFIRM NEW PASSWORD" status. After re-entering the six-digit password, move the cursor to the OK button, press the "MENU" button to confirm the save, and press the "BACK" button to cancel.

3. 12. Serial port set



Press "MENU" button to enter the serial port set, pop-up setting window, press "UP" or "DOWN" to select the local address range 1~99, the baud rate is optional. 2400, 4800, 9600, 14400, 38400, 57600, 115200. After selecting it, press the "MENU" button to move the cursor to the OK button. Press the "MENU" button to confirm the save and press the "BACK" button to cancel.

3. 13. Parameter set



Press the "MENU" button to select the channel number, alarm value, range and other options in turn. Press the "UP" or "DOWN" button to adjust the selected option. After the adjustment is completed, press the "OK" button to confirm the setting.

3. 14. Maintenance

- The panel should avoid water splashing, dust etc. and keep it clean.
- Only trained person can kept the panel key, and it is forbidden to open it at will.
- The panel should operate the test periodically to ensure normal function.
- Pay close attention to controller faults, alarms and handle it in time.
- Repair of the instrument and replacement of the components must be carried out with original spare parts and by specially trained personnel.
- If the panel fails to solve the problem, please contact the manufacturer to solve it.



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Nanjing AIYI Technologies Co., Ltd.

Address: Building 13, No. 1318 Qingshuiting East Road, Jiangning District,
Nanjing 210000, Jiangsu, China

Tel: 0086-25-87756351

Fax: 0086-25-87787362

Web: www.aiyitec.com

Email: sales@autequ.com