



## AGS1600F CONTROL PANEL

The AGS1600F control panel is designed with 1 to 4 channels, which can monitor the alarm in real time, and built-in relay output to realize the function of controlling the interlocking equipment. According to different needs, the product can be widely used in petroleum, chemical, energy, steel, metallurgy, gas, and other industries.

### Features

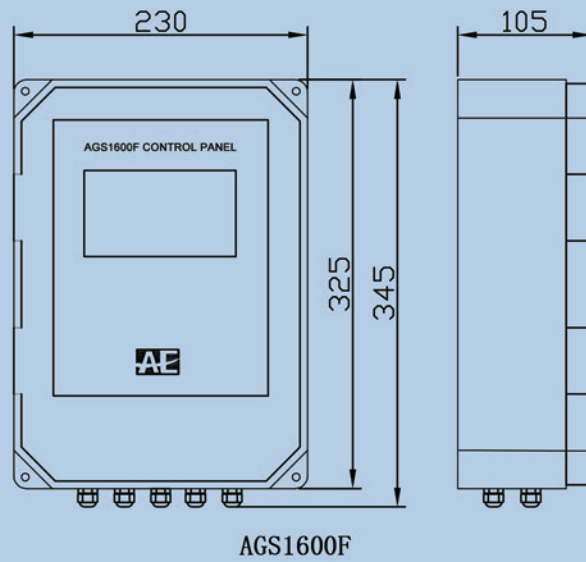
- Products passed the national CCCF certification.
- Large-screen LCD graphics display with rich content.
- Built-in 3 relays for multi-functional control.
- Built-in UPS power supply to prevent potential hazards caused by accidental power failure.
- Wall-mounted carbon steel casing, more durable.
- compatible with fixed gas detectors.



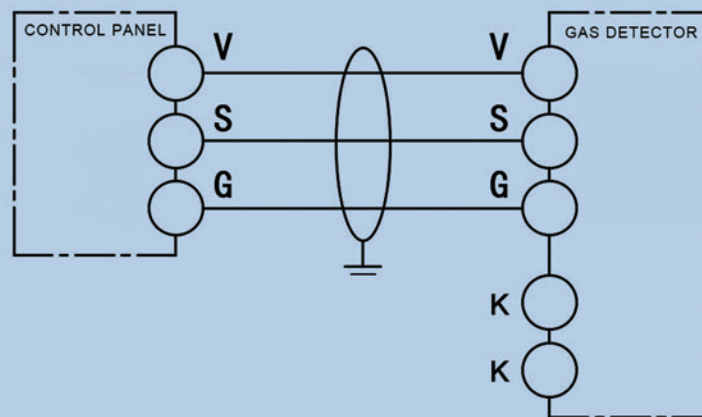
## Specifications

Description	Specifications	AGS1600F
<b>Function</b>		
channels	4	●
suitable detector	combustible gas detector in 4-20mA only	●
<b>Electric</b>		
power supply	220VAC	●
power consumption	≤6W	●
signal input	4-20mA	●
signal output	RS485	●
wiring	three-wire	●
suitable cable	RVVP3*1.5mm <sup>2</sup>	●
relay output	3 passive relay (250VAC/5A;30VDC/5A)	●
<b>Display &amp; Operation</b>		
display	color LCD screen, resolution 480*272	●
indicator light	alarm,fault,power,power fault,backup power fault	●
operation method	button	●
<b>Environment</b>		
operating temp.	0℃~40℃	●
operating humidity	10~95%RH non-condensing	●
operating pressure	80-120kPa	●
<b>Structure</b>		
body material	carbon steel with electrostatic spraying	●
weight	about 6kg	●
dimensions	345*230*105mm(H*W*D)	●
<b>Certificates</b>		
CCCF	073194850084R0M	●
SIL	SIL2	●

## Dimensions



## Wiring





## GAS DETECTION SYSTEM

Gas detection system can be widely applied in places such as petrochemical engineering, chemical engineering, steel, metallurgy, pharmaceuticals, electricity, food, and logistics where the monitoring of flammable and toxic gas is needed.

The system is made of gas detector, controller and sound-light alarm, and the gas concentration data will be uploaded to the control panel. The controller collectively displays the gas concentration data of different monitoring points, and the sound-light alarm will be set off in case that any concentration exceeds over the default value. Linkage feature can be realized and the data can be also uploaded to host systems such as DCS/IPC.



FUNCTION

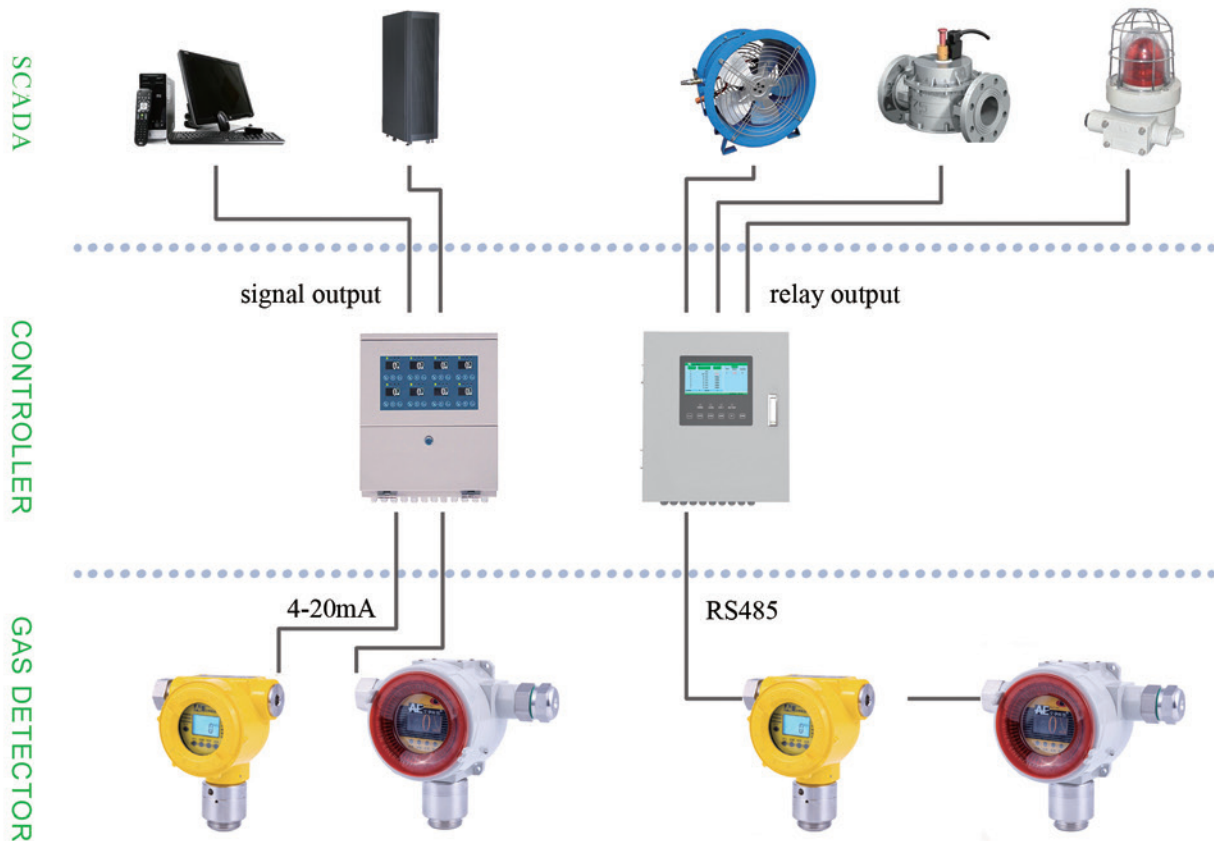


DIAGRAM of GAS DETECTION SYSTEM

1. gas detector

The gas detector is fixed in areas such as the workshop, warehouse, and storage tank for real-time monitoring of the concentration of flammable and toxic gases.

2. zone control

The controller collectively displays the gas concentration, and the sound-light alarm will be set off in case that any concentration exceeds over the default value.

3. The interlock control

It comes with relay output and fault output for the performing of automatic fan, spray, valve, and alarm.

4. The host computer

Standard 4-20mA and RS485 signal output, compatible with host computers such as DCS/PLC/IPC.



## SELECTION GUIDE

QUICK SELECTION TABLE 1 -- FIXED GAS DETECTOR

Description	AG310 series					AG210 series				AG200 series		
	GTQ-AF110	GTQ-AF111	AF110-R	AG310	AG311	AG210	AG211	GTQ-Anr-A	GTQ-Anr-D	AG200	Anr-N	Anr-S
<b>Gas detected</b>												
combustible gas-catalytic	●	●	-	-	-	-	-	●	●	-	●	●
combustible gas-infrared	-	-	●	-	-	-	-	-	-	-	-	-
toxic gas-electrochemical	-	-	-	●	●	●	●	-	-	●	-	-
toxic gas-PID	-	-	-	●	●	●	●	-	-	●	-	-
toxic gas-infrared	-	-	-	●	●	●	●	-	-	●	-	-
toxic gas-semiconductor	-	-	-	●	●	-	-	-	-	-	-	-
<b>Display</b>												
OLED	●	●	●	●	●	-	-	-	-	-	-	-
LCD	-	-	-	-	-	●	●	●	●	-	-	-
<b>Signal output</b>												
4-20mA	●	-	●	●	-	●	-	●	-	●	●	-
RS485	-	●	-	-	●	-	●	-	●	●	-	●
<b>Wiring</b>												
three-wire	●	-	●	●	-	●	-	●	-	●	●	-
four-wire	-	●	-	-	●	-	●	-	●	●	-	●

Note:

1. ● means available, - means unavailable;

2. both oxygen and toxic gas are detected in electrochemical principle, so the toxic gas includes oxygen in the above table.

QUICK SELECTION TABLE 2 -- CONTROL PANEL

Description	AGS1600F	AGS1000	AGS1000B	AGS1000D	JUDD	JUDD-S
<b>Gas detected</b>						
combustible gas	●	●	●	●	●	●
toxic gas	-	●	●	●	●	●
<b>Display</b>						
LCD	●	●	●	●	-	-
OLED	-	-	-	-	●	●
<b>Signal input</b>						
4-20mA	●	●	●	●	●	●
RS485	-	●	●	●	-	-
<b>Wiring</b>						
three-wire	●	●	●	●	●	●
four-wire	-	●	●	●	-	-
<b>Channels</b>	4	1-64	1-64	1-64	1-8	32-128
<b>Installation</b>						
wall-mounted type	●	●	●	●	●	-
cabinet type	-	-	-	-	-	●
<b>UPS</b>	-	-	●	-	-	-
<b>Explosion-proof</b>	-	-	-	●	-	-

Note: The channels of AGS1000, AGS1000B, AGS1000D, JUDD, JUDD-S can be customized.

QUICK SELECTION TABLE 3 -- GAS DETECTED

Gas	Measure Range	Principle	Resolution	GTQ- AF110	GTQ- AF111	GTQ- AF110-R	GTQ- Amr-A	GTQ- Amr-D	Amr-N	Amr-S	AG310	AG311	AG210	AG211	AG200
EX	0-100%LEL	Catalytic	1%LEL	●	●	-	●	●	●	●	-	-	-	-	-
Combustible gas	0-100%LEL	Catalytic	1%LEL	-	-	●	-	-	-	-	-	-	-	-	-
EX	0-100%LEL	Infrared	1%LEL	-	-	-	-	-	-	-	-	-	-	-	-
O <sub>2</sub>	0-30%VOL	Electrochemical	0.1%VOL	-	-	-	-	-	-	-	●	●	●	●	●
Oxygen	0-30%VOL	Electrochemical	0.1%VOL	-	-	-	-	-	-	-	●	●	●	●	●
Carbon monoxide	0-1000µmol/mol	Electrochemical	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
CO	0-1000µmol/mol	Electrochemical	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Hydrogen sulphide	0-100µmol/mol	Electrochemical	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
H <sub>2</sub> S	0-100µmol/mol	Electrochemical	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Chlorine	0-10µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
CL <sub>2</sub>	0-10µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Sulphur dioxide	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
SO <sub>2</sub>	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Ammonia	0-100µmol/mol	Electrochemical	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
NH <sub>3</sub>	0-100µmol/mol	Electrochemical	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Nitric oxide	0-250µmol/mol	Electrochemical	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
NO	0-250µmol/mol	Electrochemical	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Nitrogen dioxide	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
NO <sub>2</sub>	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Nitrogen chloride	0-30µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
HCL	0-30µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Ozone	0-1µmol/mol	Electrochemical	0.01µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
O <sub>3</sub>	0-1µmol/mol	Electrochemical	0.01µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Ethylene oxide	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
C <sub>2</sub> H <sub>4</sub> O	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Formaldehyde	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
CH <sub>2</sub> O	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Methanol	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
CH <sub>3</sub> OH	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Phosphine	0-5µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
PH <sub>3</sub>	0-5µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Hydrogen	0-1000µmol/mol	Electrochemical	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
H <sub>2</sub>	0-1000µmol/mol	Electrochemical	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Fluorine	0-1µmol/mol	Electrochemical	0.01µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
F <sub>2</sub>	0-1µmol/mol	Electrochemical	0.01µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Hydrogen fluoride	0-10µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
HF	0-10µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Hydrogen cyanide	0-50µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
HCN	0-50µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Phosgene	0-1µmol/mol	Electrochemical	0.01µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
COCL <sub>2</sub>	0-1µmol/mol	Electrochemical	0.01µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Arsenic hydride	0-1/20µmol/mol	Electrochemical	0.01µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
AsH <sub>3</sub>	0-1/20µmol/mol	Electrochemical	0.01µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Silane	0-50µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
SiH <sub>4</sub>	0-50µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Acrylonitrile	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
C <sub>3</sub> H <sub>3</sub> N	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Carbon disulfide	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
CS <sub>2</sub>	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Ethanol	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
C <sub>2</sub> H <sub>5</sub> OH	0-20µmol/mol	Electrochemical	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Sulfur hexafluoride	0-1000µmol/mol	Infrared	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
SF <sub>6</sub>	0-1000µmol/mol	Infrared	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Methane	0-5%/100%VOL	Infrared	0.1%VOL	-	-	-	-	-	-	-	●	●	●	●	●
CH <sub>4</sub>	0-5%/100%VOL	Infrared	0.1%VOL	-	-	-	-	-	-	-	●	●	●	●	●
Carbon dioxide	0-5%/100%VOL	Infrared	0.1%VOL	-	-	-	-	-	-	-	●	●	●	●	●
CO <sub>2</sub>	0-5%/100%VOL	Infrared	0.1%VOL	-	-	-	-	-	-	-	●	●	●	●	●
Toluene	0-20µmol/mol	PID	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
C <sub>7</sub> H <sub>8</sub>	0-20µmol/mol	PID	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Xylene	0-20µmol/mol	PID	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
C <sub>8</sub> H <sub>10</sub>	0-20µmol/mol	PID	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Benzene	0-20µmol/mol	PID	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
C <sub>6</sub> H <sub>6</sub>	0-20µmol/mol	PID	0.1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Acetic acid	0-1000µmol/mol	PID	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	0-1000µmol/mol	PID	1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Volatile organic compounds	0-20µmol/mol 0-1000µmol/mol	PID	0.1µmol/mol 1µmol/mol	-	-	-	-	-	-	-	●	●	●	●	●

Note: 1. Any gas that not mentioned above, just contact AIYI Technologies for further information; 2. 1µmol/mol=1ppm





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