



AG200 SERIES GAS DETECTOR

Anr-N, Anr-S, AG200 gas detector is a classic product of AIYI Technologies, which is suitable for most areas where it is necessary to detect flammable gas, oxygen, and toxic gas. The product responds quickly with an advanced gas sensor; ingress protection to IP65.

Features

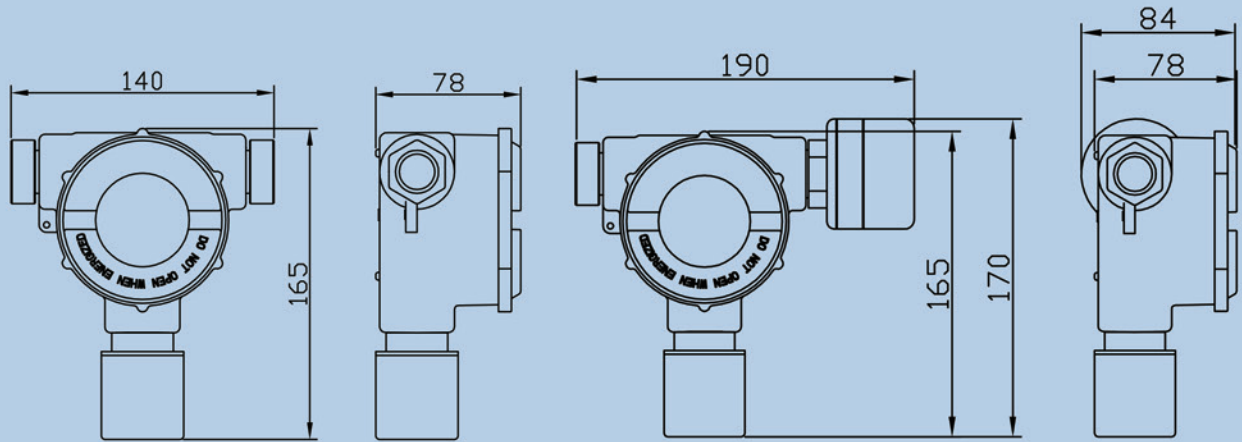
- Advanced gas sensors, fast response with a long lifespan, safer and more reliable.
- IP65 design with body material in stainless steel and aluminum alloy, suitable for harsh environments.
- 4-20mA/RS485 signal output that can upload the signal to the control panel.
- Built-in relay and compatible with sound light alarm
- Complete product certification (ATEX, SIL, CCCF, etc.)

Specification

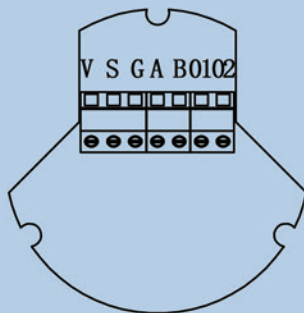
Description	Specifications	Anr-N	Anr-S	AG200
Gas Detected				
Ex	catalytic combustion	●	●	-
toxic	electrochemical	-	-	●
Function				
measure range	see QUICK-SELECTION-TABLE	●	●	●
response time*	T90≤30S	●	●	-
	T90≤60/180S	-	-	●
accuracy*	≤±5%F.S	●	●	●
repeatability*	≤2%F.S	●	●	●
Electric				
power supply	18-28VDC(standard 24VDC)	●	●	●
power consumption	≤2.5W	●	●	-
	≤1.5W	-	-	●
signal output	4-20mA	●	-	●
	RS485	-	●	●
wiring	three-wire	●	-	●
	four-wire	-	●	●
suitable cable	RVVP3*1.5mm ²	●	-	●
	RVVP4*1.0mm ²	-	●	●
relay output	1 passive relay (250VAC/5A 30VDC/5A)	●	●	●
Display				
OLED screen	N/A	●	●	●
Environment				
ingress protection	IP65	●	●	●
operating temperature	-40℃~70℃	●	●	-
	-20℃~60℃	-	-	●
operating humidity	10~95%RH non-condensing	●	●	●
operating pressure	80-120kPa	●	●	●
Structure				
body material	ADC12 aluminum alloy +316L stainless steel	●	●	●
close nipple	NPT1/2	●	●	●
weight	about 1.3kg	●	●	●
dimensions	165*140*78mm(H*W*D)	●	●	●
Certificates				
CPA	2009C170-32	●	●	●
EX	Exd II CT6 Gb	●	●	●
CCCF	073184850117ROM	●	-	-
	073184850119ROM	-	●	-
SIL	SIL2	●	●	●
ATEX	Exdb II CT6 Gb	●	●	●

Note: * refers to there's some difference vary from different gas, please contact the manufacturer for details.

Dimensions



Wiring



Terminals	Description
V	24V +
S	4-20mA signal output
G	24V -
A B	RS485 signal input
01 02	Relay output



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

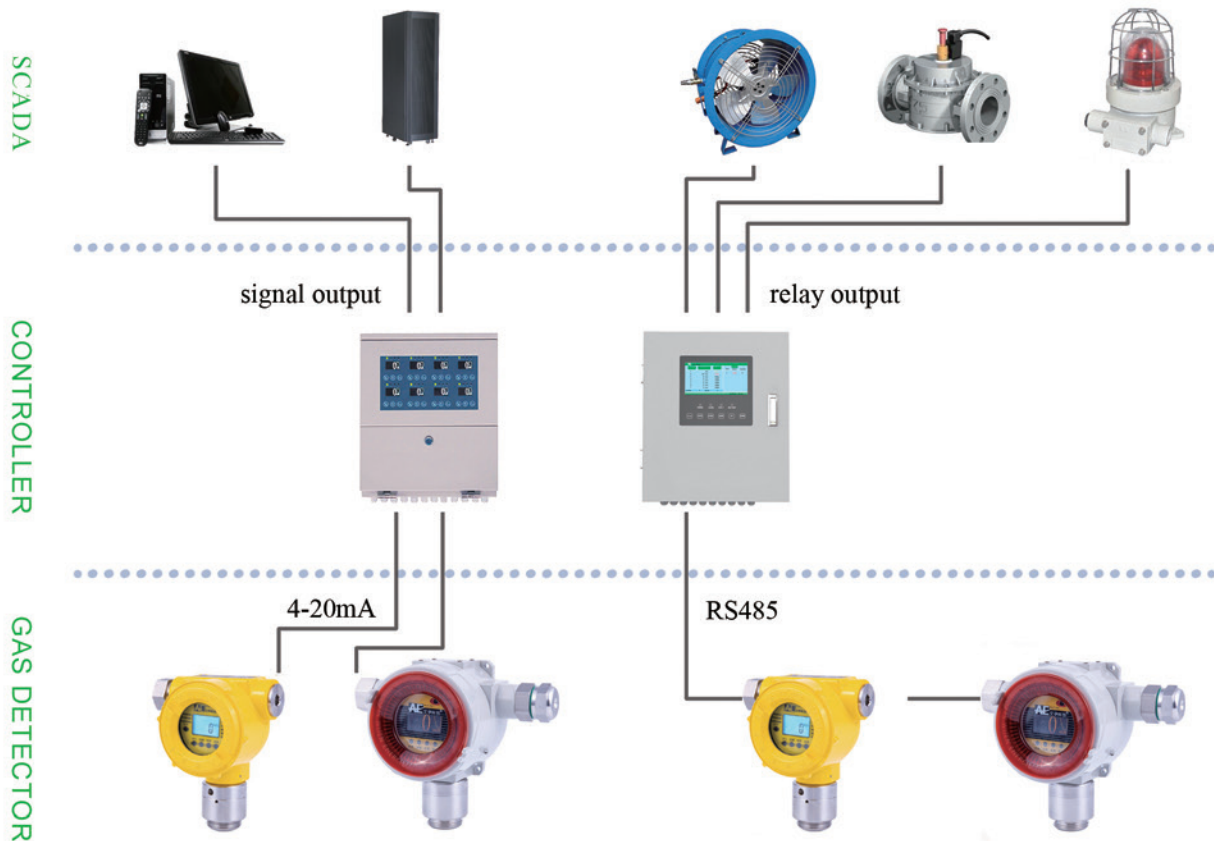


DIAGRAM of GAS DETECTION SYSTEM

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
Gas detected												
combustible gas-catalytic	●	●	-	-	-	-	-	●	●	-	●	●
combustible gas-infrared	-	-	●	-	-	-	-	-	-	-	-	-
toxic gas-electrochemical	-	-	-	●	●	●	●	-	-	●	-	-
toxic gas-PID	-	-	-	●	●	●	●	-	-	●	-	-
toxic gas-infrared	-	-	-	●	●	●	●	-	-	●	-	-
toxic gas-semiconductor	-	-	-	●	●	-	-	-	-	-	-	-
Display												
OLED	●	●	●	●	●	-	-	-	-	-	-	-
LCD	-	-	-	-	-	●	●	●	●	-	-	-
Signal output												
4-20mA	●	-	●	●	-	●	-	●	-	●	●	-
RS485	-	●	-	-	●	-	●	-	●	●	-	●
Wiring												
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
Gas detected						
combustible gas	●	●	●	●	●	●
toxic gas	-	●	●	●	●	●
Display						
LCD	●	●	●	●	-	-
OLED	-	-	-	-	●	●
Signal input						
4-20mA	●	●	●	●	●	●
RS485	-	●	●	●	-	-
Wiring						
three-wire	●	●	●	●	●	●
four-wire	-	●	●	●	-	-
Channels	4	1-64	1-64	1-64	1-8	32-128
Installation						
wall-mounted type	●	●	●	●	●	-
cabinet type	-	-	-	-	-	●
UPS	-	-	●	-	-	-
Explosion-proof	-	-	-	●	-	-

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-AFI10	GTQ-AFI11	AFI10-R	GTQ-AFI10-R	GTQ-AFI11	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	-	-	●	-	-	-	-	-	-	-	-	-
Oxygen	0-30%VOL	Electrochemical	0.1%VOL	-	-	-	-	-	-	-	●	●	●	●	●
Carbon monoxide	0-1000μmol/mol	Electrochemical	1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Hydrogen sulphide	0-100μmol/mol	Electrochemical	1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Chlorine	0-10μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Sulphur dioxide	0-20μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Ammonia	0-100μmol/mol	Electrochemical	1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Nitric oxide	0-250μmol/mol	Electrochemical	1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Nitrogen dioxide	0-20μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Hydrogen chloride	0-30μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Ozone	0-1μmol/mol	Electrochemical	0.01μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Ethylene oxide	0-20μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Formaldehyde	0-20μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Methanol	0-20μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Phosphine	0-5μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Hydrogen	0-1000μmol/mol	Electrochemical	1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Fluorine	0-1μmol/mol	Electrochemical	0.01μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Hydrogen fluoride	0-10μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Hydrogen cyanide	0-50μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Phosgene	0-1μmol/mol	Electrochemical	0.01μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Arsenic hydride	0-1/20μmol/mol	Electrochemical	0.01μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Silane	0-50μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Acrylonitrile	0-20μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Carbon disulfide	0-20μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Ethanol	0-20μmol/mol	Electrochemical	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Sulfur hexafluoride	0-1000μmol/mol	Infrared	1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Methane	0-5%/100%VOL	Infrared	0.1%VOL	-	-	-	-	-	-	-	●	●	●	●	●
Carbon dioxide	0-5%/100%VOL	Infrared	0.1%VOL	-	-	-	-	-	-	-	●	●	●	●	●
Toluene	0-20μmol/mol	PID	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Xylene	0-20μmol/mol	PID	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Benzene	0-20μmol/mol	PID	0.1μmol/mol	-	-	-	-	-	-	-	●	●	●	●	●
Acetic acid	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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