

# Fixed Gas Detectors



## AI100-A series

For TOXIC/ OXYGEN / COMBUSTIBLE GASES

 Ex d IIC T6 Gb Certified

### Features

- Uses top brand sensors, and advanced micro-process technology and with data display, fast response, high precision and good stability, our fixed gas detectors are ideal for TOXIC/ OXYGEN/ COMBUSTIBLE GASES detection.
- 24h continuously monitoring, data with real-time display.
- Non-contacted control the device, With infrared ray controller, which can remote control alarm point settings, zero calibration, and address modification.
- Diversified output signals with standard 4-20mA current signal and RS485 digital signal outputs.
- Can be installed with computer software, to transmit the data to computer
- With Self-calibration and zero calibration functions, makes the detection more accurate and reliable.
- High and Low Alarm LED interface indication
- Simple & User friendly setup which allow simplest servicing and low maintenance

# Specifications

Parameter	Specification
Detection Principle	Catalytic combustion, Electrochemical, Infrared, PID, Semiconductor
Detection Gas	Toxic, Flammable & Explosive, Oxygen, TVOC, etc.
Sampling Method	Free diffusion
Test Range	0–1000 ppm; 0–100% LEL; 0–100% VOL
Resolution	0.01 / 0.1 / 1
Accuracy	≤3% FS
Debugging Method	Button & Remote Control (optional)
Response Time	Combustible < 30s; Toxic gas < 60s
Recovery Time	Combustible < 30s; Toxic gas < 60s
Environment Temperature	-20°C ~ 55°C
Relative Humidity	≤95%
Explosion-proof Mode	Explosion-proof type
Explosion-proof Grade	II 2G Ex db IIC T6 Gb; II 2G Ex db IIB T6 Gb
Standard	Standard: EN/IEC 60079-0:2018, EN/ IEC 60079-1:2014 related to CE Directive(s): 2014/34/EU (Equipment for Explosive Atmospheres)
Protection Level	IP66
Power Supply	DC 24V ± 12V
Output Signal	(4–20) mA, RS485
Power Consumption	≤3W
Fix Screw	M20 × 1.5 or G1 / 2
Use Cables	≥1.5 mm <sup>2</sup> × 3 (dividing line), ≥1.5 mm <sup>2</sup> × 4 (BUS wiring), ≥2.5 mm <sup>2</sup> × 2 (two-bus wiring)
Max Transmission Distance	≤1000 m
Overall Weight	≤1000 g
Pressure Limit	86 kPa ~ 106 kPa

## External structure:



## External Dimensions:



## Targeted Gasses

Target Gas	Range	Accuracy	Least Count	Response Time
O <sub>2</sub>	0–30% Vol	≤±2% (F.S)	0.01% Vol	≤15 s
H <sub>2</sub> S	0–1000 ppm	≤±2% (F.S)	1 ppm	≤15 s
CO	0–1000 ppm	≤±2% (F.S)	1 ppm	≤25 s
H <sub>2</sub>	0–100% Vol	≤±2% (F.S)	0.01% Vol	≤15 s
CO <sub>2</sub>	0–10000 ppm	≤±2% (F.S)	1 ppm	≤40 s
LEL	0–100% Vol	≤±2% (F.S)	0.01% Vol	≤15 s
C <sub>2</sub> H <sub>4</sub>	0–100 ppm	≤±2% (F.S)	0.01 ppm	≤60 s
NO <sub>2</sub>	0–20.0 ppm	≤±2% (F.S)	0.1 ppm	≤25 s
N <sub>2</sub>	0–100% Vol	≤±2% (F.S)	0.01% Vol	≤40 s
VOC/TVOC	0–1000 ppm	≤±2% (F.S)	1 ppm	≤60 s
NH <sub>3</sub>	0–100 ppm	≤±2% (F.S)	0.01 ppm	≤40 s
LPG	0–100% LEL	≤±2% (F.S)	0.01% Vol	≤15 s
AsH <sub>3</sub>	0–10.0 ppm	≤±2% (F.S)	0.01 ppm	≤30 s
C <sub>3</sub> H <sub>3</sub> N	0–200 ppm	≤±2% (F.S)	0.1 ppm	≤40 s
F <sub>2</sub>	0–10 ppm	≤±2% (F.S)	0.01 ppm	≤25 s
O <sub>3</sub>	0–5.0 ppm	≤±2% (F.S)	0.01 ppm	≤50 s
Cl <sub>2</sub>	0–10 ppm	≤±2% (F.S)	0.01 ppm	≤60 s
BF <sub>3</sub>	0–10 ppm	≤±2% (F.S)	0.01 ppm	≤60 s



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