

GQ-CE8900

TOXIC GAS DETECTOR

Prioritise Performance

Protecting Life, Safe Guarding Asset



GASENSOR TECHNOLOGY

THE CHOICE FOR PERFORMANCE



INTRODUCTION

GQ-CE8900 is an intelligent toxic gas detector that adopts the smart sensor technology and features a safety function automatically identifies and determines the remaining usage life of the sensor.

GQ-CE8900 also features the detection of different gas concentrations and provides a real-time fault diagnosis to ensure safe and effective operations

GQ-CE8900 can monitor toxic gases presence consistently and continuously in installation sites. It provides 4-20mA current output and three sets of relay contacts for Warning/Alarm/Fault. In addition, there are dual redundant Modbus and HART communication interfaces for data transfer to third party systems.

Easy to use

- One person adjustment-free calibration
- Sensor hot-swapping, easy replacement

Multiple Output

- 4-20mA analog output
- Warning, Alarm and Fault Relay
- Redundant modbus and HART

Highly Reliable

- Event logging
- Real time fault diagnosis



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Our Gas Detector deserve the best quality

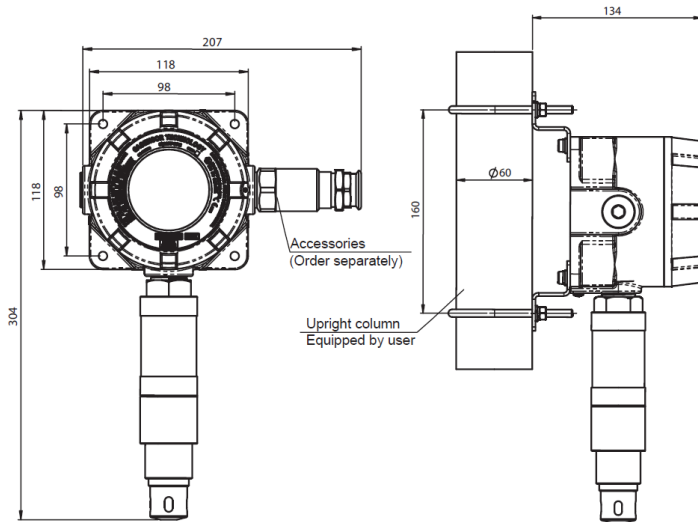


Figure 1: Outline and Mounting Dimensions

Electrical Specification	
Input Power	20-36VDC, 3.5W max
Analog Output	0-22mA (500 Ω max. load)
	<1 mA, Fault (1)
	1.5mA Calibration, Setup mode (2)
	4-20mA, Detection range
	21.5mA, Over-range
Baud Rate:	2400, 4800, 9600, or 19200BPS
HART:	HART7, HART Device Descriptor Language
(Optional)	available, AMS Aware
Relay Ratings:	8A @ 250 VAC / 8A @ 30 VDC res. max
(Optional)	Warning, Alarm, Fault
Status Indicators:	Digital Display with 4 LED indicators for Warning, Alarm, Fault, Run
EMC:	EN50081-2, EN50270
Mechanical Specification	
Base Unit:	Housing : Aluminum alloy or 316 Stainless steel
Interface Module:	Housing : Aluminum alloy or 316 Stainless steel
Cable Entry:	3/4 " NPT
Weight:	1.9Kg (Aluminum) / 4.8Kg (Stainless steel)
Other Specification	
Classification:	ATEX / IECEx Ex db ib IIC T6 Gb IP66
	(Tamb = -40 °C to + 70 °C)
	SIL 2 Certified
Warranty	Two years (electronics), One Year (Electrochemical cell)

Technical Data of the GQ-CE8900 series

Product Specification					
Sensor Type:	Electrochemical Cell				
Measuring Gas	Measuring Range (with 100% Full Scale gas applied)	Response Time	Accuracy	Zero Drift	
Ammonia (NH3)	0-50, 0-100, 0-500 ppm	T90 < 30s	±2ppm or ±5% of reading whichever is greater for all gas except:	< 5% per year	
Carbon Monoxide (CO)	0-100, 0-500 ppm	T90 < 30s			±5ppm or ±5% of reading, whichever is greater
Chlorine (CL2)	0-10, 0-20 ppm	T90 < 60s			±3% of Full Scale (0-500ppm)
Ethylene Oxide (C2H4O)	0-20, 0-30 ppm	T90 < 120s			
Hydrogen Chloride (HCL)	0-20, 0-30 ppm	T90 < 70s			
Hydrogen Cyanide (HCN)	0-20, 0-30 ppm	T90 < 30s			
Hydrogen Sulfide (H2S)	0-30, 0-50, 0-100 ppm	T90 < 25s			±5% of Full Scale (0-20ppm)
Oxygen (O2)	0-25% v/v	T90 < 15s			±1% v/v
Ozone (O3)	0-1 ppm	T90 < 45s			
Sulfur Dioxide (SO2)	0-20 ppm	T90 < 20s			
* Note: Please consult Gasensor Technology for other gas that is not listed in the above table					

Environmental Specifications	
Operating Temperature Range:	(For H2S) : - 40°C to + 50°C, - 30°C to + 70°C (optional)
	(For O2, C2H4O, CL2, SO2) : - 20°C to + 50°C)
	(For CO) : - 20°C to + 50°C, - 40°C to + 50°C (optional)
	(For NH3) : - 20°C to + 40°C
	* Note: Please consult Gasensor Technology for operating temperature of other sensors
Storage Temperature Range:	GQ-CE8900 (less Electrochemical Cell): - 40°C to + 85°C
	(For H2S) : - 40°C to + 50°C, - 30°C to + 70°C (optional)
	Electrochemical Cell: 0°C to + 20°C; (Except For CO, H2, NH3, and O2: 16°C to + 27°C)
Operating Humidity Range:	15% to 90% RH, non-condensing
Pressure Range:	Atmospheric ±10%

(1) Under HART, AO value can be either 3.5mA or 1.25mA, depending on user selection
 (2) Under HART, AO value can be either 3.5mA or 1.5mA, depending on user selection
 Specifications subject to change without notice.



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Ordering Information

GQ-CE8900 Toxic Gas Detector						
		A	B	C	D	E F
Customized CFG:	GQ-CE8900	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STD CFG:	GQ-CE8900	-1	-1	-8	-1	-1 -1
A: Sensor Type		Description				
1 std*		None				
2		CO	(Carbon Monoxide)			
3		H2S	(Hydrogen Sulfide)			
4		CL2	(Chlorine)			
5		O2	(Oxygen)			
6		NH3	(Ammonia)			
7		HCL	(Hydrogen Chloride)			
8		SO2	(Sulfur Dioxide)			
9		NO	(Nitric Oxide)			
10		NO2	(Nitrogen Dioxide)			
11		CLO2	(Chlorine Dioxide)			
12		H2	(Hydrogen)			
13		CH3OH	(Methanol)			
14		HCN	(Hydrogen Cyanide)			
15		H2 4%	(Hydrogen)			
16		C3H3CL	(Vinyl Chloride)			
17		C3H3N	(Acrylonitrile)			
18		HF	(Hydrogen Fluoride)			
19		CH2O	(Formaldehyde)			
20		O3	(Ozone)			
21		F2	(Fluorine)			
22		SiH4	(Silane)			
23		H2S Hi-temp	(Hydrogen Sulfide)			
24		ETO	(Ethylene Oxide: C2H4O)			
25		C8H10	(Xylene)			
26		C3H4O	(Acrylaldehyde)			
27		C4H6	(Butadiene)			
28		C8H8	(Styrene)			
29		C3H6O	(Propylene Oxide)			
30		PH3	(Phosphine)			
31		AsH3	(Arsine)			
32-99		Other				
B: Measuring Range		Description				
1 std*		None				
2		0 ~ 1ppm	(0.00 ~ 1.00ppm)			
3		0 ~ 5ppm	(0.00 ~ 5.00ppm)			
4		0 ~ 10ppm	(0.00 ~ 10.0ppm)			
5		0 ~ 20ppm	(0.00 ~ 20.0ppm)			
6		0 ~ 30ppm	(0.00 ~ 30.0ppm)			

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B: Measuring Range	Description
7	0 ~ 50 ppm
8	0 ~ 100 ppm
9	0 ~ 500 ppm
10	0 ~ 1000 ppm
11	0 ~ 1% (0.00 ~ 1.00%)
12	0 ~ 4% (0.00 ~ 4.00%)
13	0 ~ 25% (0.00 ~ 25.0%)
14-99	Other
C: Output	Description
1	4-20mA + Relay + Modbus + Hart
2	4-20mA + Relay + Modbus
3	4-20mA + Relay + Hart
4	4-20mA + Relay
5	4-20mA + Modbus + Hart
6	4-20mA + Modbus
7	4-20mA + Hart
8 std*	4-20mA
9-99	Other
D: Relay State CFG	Description
1 std*	WARN dEn dLA, ALRM dEn dLA
2	WARN dEn dLA, ALRM En dLA
3	WARN En dLA, ALRM dEn dLA
4	WARN En dLA, ALRM En dLA
5	WARN dEn dLA, ALRM dEn LA
6	WARN dEn dLA, ALRM En LA
7	WARN En dLA, ALRM dEn LA
8	WARN En dLA, ALRM En LA
9-99	Other
E: Enclosure	Description
1 std*	Base Unit AL + Sensor Interface Module AL
2	Base Unit SST + Sensor Interface Module AL
3	Base Unit SST + Sensor Interface Module SST
4-99	Other
F: Approvals	Description
1 std*	ATEX + IECEX
2	ATEX + IECEX + CPA
3-99	Other

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