



# Flammable and Toxic Gas Detector

**Model: SGD-2000**



## General Characteristics:

Infra-red, Catalytic, Electrochemical and PID sensor

Measuring Type: Diffusion Type

Ingress Protection: IP65 (EN60529)

Housing Material: Aluminum die-cast or Stainless steel casing material

Stainless steel sensor casing

Dimension: 180x140x80 mm

Weight: Appx. 1.5 Kg

Cable Entry: 2xM20

Cable Type: 3x1.5 mm<sup>2</sup>

Humidity: 95% RH

Operating Temperature: -20 °C to +60 °C

Operating Temperature (CombcataHT sensor with Remote Sensor): -20 °C to +150 °C

Power Supply: 400 mA max @ 16-30 VDC

Visual alarm rotating LEDs with different frequencies and colors for normal and alarms indication

Normal, Fault and Alarm local LED indication

1 line, 4 characters LCD display screen

Easy Calibration by means of Remote Control or Magnet Bar

2 Adjustable Alarm level relay contacts

Output Signals:

4-20 mA Analog (Source)

1 Alarm High Relay

1 Alarm High High Relay (or Programmable for Fault)



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<b>Sensor:</b>	According to Sensor List
<b>Range:</b>	According to Sensor List
<b>Response Time</b>	According to Sensor List
<b>Repeatanility</b>	< ± 1% of full scale
<b>Accuracy</b>	< ± 1% of full scale
<b>SIL Rating according to IEC 61508:</b>	SIL2
<b>Explosion Proof: IEC 60079</b>	ATEX: II 2G Exdb IIC T6 Gb
<b>EMC:</b>	IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6

## Ordering Number

### SGD-2000- X (Sensor)- Y (SIL Rated)- T (Material)

According to List

A: SIL2  
B: No-SIL

A: Aluminum  
S: Stainless Steel

## Accessories:

- Sunshade: SGD2SS
- Pipe mount 2" U Bolt: SGD2PM
- Remote Control: SGD2RC
- Magnet Bar: SGD2MB

# Flammable and Toxic Gas Detector

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**Gas List/Models:**

	Sensor Model	Target Gas	Range	Optional Range	Optional Range	T90 Time
1	CombCata	Hydrocarbon and Hydrogen	0-100 %LEL	100 %LEL 100 %VOL	Catalytic	<10
2	CombIR	Hydrocarbon	0-100 %LEL	0-2000 ppm	Infrared	<20
3	VOC	VOC	0-1000 ppm	0-25 %VOL	PID	<5
4	O2	O2	0-30 %VOL	0-2000/3000/5000 ppm	Electro-Chemical	<15
5	CO	CO	0-1000 ppm	0-50/100/200/2000 ppm	Electro-Chemical	<25
6	SO2	SO2	0-20 ppm	0-50/100 ppm	Electro-Chemical	<45
7	NO2	NO2	0-20 ppm	0-50/100 ppm	Electro-Chemical	<30
8	Cl2	Cl2	0-20 ppm	0-200/500/1000 ppm	Electro-Chemical	<60
9	H2S	H2S	0-100 ppm	0-200/300/500/1000 ppm	Electro-Chemical	<35
10	NH3	NH3	0-100 ppm	0-200 ppm	Electro-Chemical	<90
11	H2	H2	0-1000 ppm	0-500 ppm	Electro-Chemical	<70
12	O3	O3	0-100 ppm	0-500 ppm	Electro-Chemical	<45
13	NO	NO	0-250 ppm	0-50/100 ppm	Electro-Chemical	<30
14	HCl	HCl	0-20 ppm	100 ppm	Electro-Chemical	<70
15	HCN	HCN	0-100 ppm	0-50/100 ppm	Electro-Chemical	<20
16	HF	HF	0-20 ppm	0-50/100 ppm	Electro-Chemical	<120
17	ClO2	ClO2	0-20 ppm		Electro-Chemical	<60
18	COCl2	COCl2	0-1 ppm	0-200/1000 ppm	Electro-Chemical	<120
19	CH2O	CH2O	0-100 ppm	0-200 ppm	Electro-Chemical	<120
20	ETO	ETO	0-100 ppm	0-100 % Vol	Electro-Chemical	<120
21	CO2	CO2	0-5000 ppm		Infrared	<20
22	N2O	N2O	0-1000 ppm		Infrared	<20
23	CombCataHT		0-100 %LEL		Catalytic High Temp.	<10



# Hight Temperature Catalytic Gas Detector



## Model: SGD-2000-CombCataHT

### Sensor Part

Model: SGD-2000-CombCataHT  
 Sensor: Catalytic sensor (NCP-170S-H)  
 Measuring type: Diffusion type  
 Range: 0 – 100% LEL  
 Response Time: T90 < 15 sec  
 Temperature: -40 ° to +150 °C, Humidity: < 95% RH (w/o condensate)  
 Type of cable output to remote transmitter: max 5×1.5 mm<sup>2</sup> (Max Lenght 5 meters)  
 Entry: 2 x M20  
 Connection Box Body: on SGD-2000 Body Aluminum Epoxy Coated  
 Sensor casing: SS 316  
 Filter Type: Sintered Stainless Steel  
 Certification: II 2G Ex db IIC T6 Gb ATEX Approved  
 Ingress Protection: IP65

### Remote Transmitter Part

Model: SGD-2000 Transmitter  
 Output signal: 4 to 20 mA standard signal, 3-wire  
 Power supply: 16 V DC to 30 V DC @ 400 mA max  
 Temperature: -20 ° to +60 °C, Humidity: < 95% RH (w/o condensate)  
 Type of cable: 3×1.5 mm<sup>2</sup> for 4-20 mA signal, Entry: 2 x M20  
 Material: Aluminum Epoxy Coated, Sensor casing: SS 316  
 Certification: II 2G Ex db IIC T6 Gb ATEX Approved  
 Ingress Protection: IP65  
 Connected to Remote Sensor Via 5-core Cable

# Hight Temperature Catalytic Gas Detector

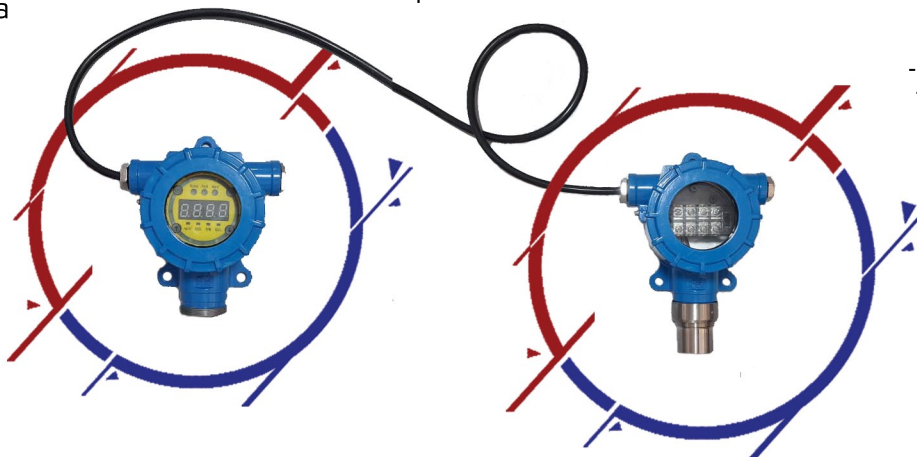
<b>Sensor:</b>	Hight Temperature Catalytic
<b>Range:</b>	0-100 %LEL
<b>Response Time</b>	T90 < 15sec
<b>Repeatanility</b>	< ±1% of full scale
<b>Accuracy</b>	< ±1% of full scale
<b>SIL Rating according to IEC 61508:</b>	SIL2 (Optional)
<b>Explosion Proof: IEC 60079</b>	ATEX: II 2G Exdb IIC T6 Gb
<b>EMC:</b>	IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6

Fire and Gas  
Detection System  
03

Transmitter Part  
- Installed at Ambient  
Temperatyre Area  
- upto +60 °C

Remote Cable  
upto 5 meters

Sesnor Part with  
Connection Box  
- Installed at high  
Temperatyre Area



## Accessories:

- Sunshade: SGD2SS for Transmitter Part x1
- Pipe mount 2" U Bolt: SGD2PM x 3
- Remote Control: SGD2RC x1
- Magnet Bar: SGD2MB x1