

# REEICO

## Fixed Gas Detector



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REEICO FIXED GAS DETECTOR is a leader in advanced gas detection technology and industrial monitoring equipment, committed to enhancing safety across various applications. With a focus on innovation and rigorous testing, our products are designed with precision and reliability, ensuring the protection of lives and compliance with safety regulations.

The FGR1000L (T) gas detector exemplifies our dedication to quality, offering cutting-edge features for effective gas monitoring in diverse environments. As part of REEICO's commitment to delivering high-quality products that meet global standards, we play a vital role in enhancing safety and improving industrial performance. The whole machine is shown in Figure below:



II 2G Ex db IIC T6 Gb  
II 2D Ex tb IIIC T85C° Db

**FGR1000L (T) Gas Detector**

## FGR1000L (T) Gas Detector

The FGR1000L (T) gas detector is engineered with a robust housing composed of various high-quality alloys, including aluminum and stainless steel, to ensure durability and protection in hazardous environments. It features a state-of-the-art transmitter module, which includes a display master PCBA module and a power terminal PCBA module.

At its core, the FGSR 200 intelligent gas sensor provides unparalleled detection capabilities. This sophisticated gas detector combines safety, accuracy, and user-friendly design, making it ideal for a range of applications.

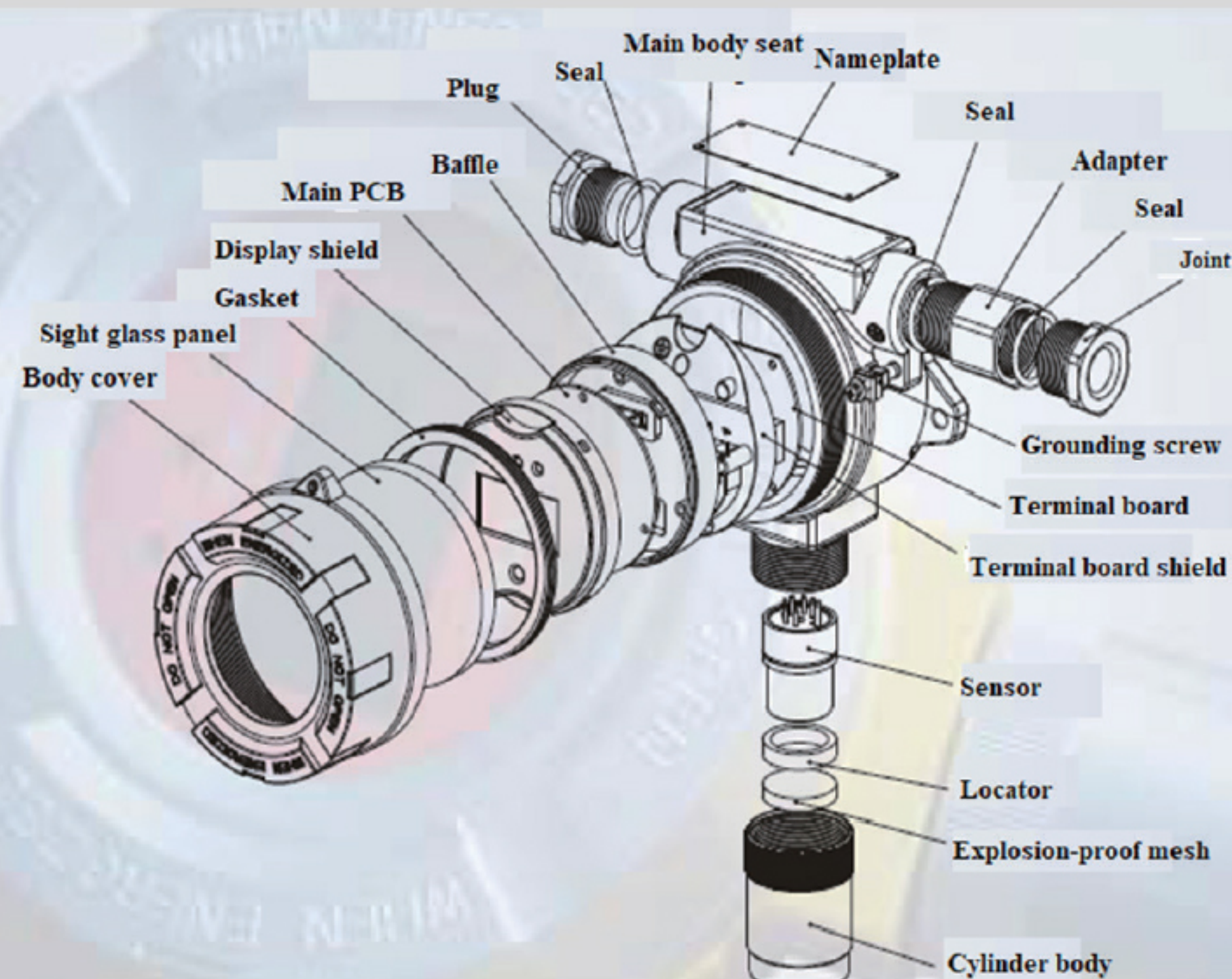
## Composition:

- **Shell:** robust housing composed of various high-quality alloys, including aluminum and stainless steel, display window cover, O-ring, and cable introduction components. The shell ensures explosion isolation and protection.
- **Transmitter Module:** Contains the display master PCBA and power terminal PCBA for enhanced functionality.
- **FGSR200 Intelligent Gas Sensor:** Features a gas-sensitive sensor circuit housed in a stainless-steel shell, ensuring durability and reliability.
- **Built-in Temp/Hum compensation circuit**
- **Output standards digital communication signal and analog voltage signal**
- **High-reliability signal processing circuitry**
- **Built-in microprocessor and memory**
- **Stores the gas parameters of the sensor, enabling remote calibration of the sensor and direct replacement**
- **Automatic calibration and zeroing technology**



FGSR200 Intelligent Gas Sensor

## Exploded diagram:





## Detectable Gas Types

The FGR1000L (T) gas detector is primarily designed to detect combustible gases as well as toxic gases. The types of gases and their range of detection are presented in the across table.

## Key Features

- **High Precision and Reliability:** Utilizes advanced technologies, including laser, electrochemical, and catalytic methods, which feature a long effective absorption light path for accurate gas measurements.
- **Low Power Consumption:** Designed for energy efficiency, reducing operational costs.
- **Infrared Remote-Control Operation:** Facilitates zeroing, calibration, and parameter settings without the need for physical access.
- **Modular Design:** Allows for easy maintenance and assembly, ensuring quick and efficient servicing.
- **Multiple Output Methods:**
  - 4-20 mA output interface
  - RS485 MODBUS digital communication
  - Programmable alarm relay contact output
  - Hart
- **Explosion-proof Certification:** Meets rigorous safety standards
  - II 2D Ex tb IIIC T85C° Db AND II 2G Ex db IIC T6 Gb
  - IP66
  - Temperature range: -20C°~+60C°
  - Sensor life: ≥2 Years

## Applications

The FGR1000L (T) gas detector is ideal for various sectors, including:

- Petroleum and Chemicals
- Mining Operations
- Coal Mine Safety Monitoring
- Underground Pipeline Monitoring
- Biogas Monitoring
- Other Safety Supervision and Testing Fields

# FGSR200 Intelligent Gas Sensor order information

Order Code	FGSR200-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sensor Type	Catalytic combustion	S1		
	Semiconductor	S2		
	Electrochemical	S3		
	Infrared	S4		
	PID photoionization	S5		
	Laser	S6		
Gas category	Combustibles		FLA	
	Carbon Dioxide		T01	
	Volatile Organic Compounds		T02	
	Benzene		T03	
	Oxygen		T04	
	Carbon Monoxide		T05	
	Hydrogen Sulfide		T06	
	Hydrogen		T07	
	Chlorine Gas		T08	
	Sulfide Dioxide		T09	
	Hydrochloric Acid		T10	
	Nitric Oxide		T11	
	Nitrogen Dioxide		T12	
	Vinyl Chloride		T13	
	Ethylene Oxide		T14	
	Acrylonitrile		T15	
	Formaldehyde		T16	
	Ammonia		T17	
	Hydrofluoric Acid		T18	
	Phosphine		T19	
	Acetaldehyde		T20	
	Methanol		T21	
	Ethanol		T22	
	Hydrogen Cyanide		T23	
	Formic Acid		T24	
	Phosgene		T25	
	Carbon Disulfide		T26	
Other		T27		
Range	0-100%LEL			R0000
	0-1ppm			R0001
	0-10ppm			R0010
	0-20ppm			R0020
	0-30ppm			R0030
	0-50ppm			R0050
	0-100ppm			R0100
	0-300ppm			R0300
	0-500ppm			R0500
	0-1000ppm			R1000
	0-2000ppm			R2000
	0-5%VOL			V0005
	0-25%VOL			V0025



<b>Range</b>	<p>R0000 0-100%LEL</p> <p>R0001 0-1ppm</p> <p>R0010 0-10ppm</p> <p>R0020 0-20ppm</p> <p>R0030 0-30ppm</p> <p>R0050 0-50ppm</p> <p>R0100 0-100ppm</p> <p>R0300 0-300ppm</p> <p>R0500 0-500ppm</p> <p>R1000 0-1000ppm</p> <p>R2000 0-2000ppm</p> <p>V0005 0-5%VOL</p> <p>V0025 0-25%VOL</p>	<p>R0000</p> <p>R0001</p> <p>R0010</p> <p>R0020</p> <p>R0030</p> <p>R0050</p> <p>R0100</p> <p>R0300</p> <p>R0500</p> <p>R1000</p> <p>R2000</p> <p>V0005</p> <p>V0025</p>	
<b>Electrical interface</b>	<p>G3/4</p> <p>NPT3/4</p> <p>NPT1/2</p> <p>M20x1.5</p> <p>M25x1.5</p>	<p>G34</p> <p>N34</p> <p>N12</p> <p>M20</p> <p>M25</p>	
<b>Output signal</b>	<p>2-wire 4-20mA(only applicable electrochemical sensors)</p> <p>2-wire 4-20mA</p> <p>RS485 BUS</p> <p>HART output</p> <p>zigbee wireless</p> <p>NB wireless</p> <p>bluetooth</p> <p>2-wire 4-20mA + RS485 BUS</p>	<p>2E</p> <p>2A</p> <p>MS</p> <p>HT</p> <p>BE</p> <p>NB</p> <p>BT</p> <p>2B</p>	
<b>Audio-visual</b>	<p>without audio-visual</p> <p>with audio-visual</p> <p>built-in audio-visual</p>	<p>0</p> <p>1</p> <p>3</p>	
<b>housing</b>	<p>Aluminum Alloy(Explosion-proof)</p> <p>industrial plastic(intrinsically safe)</p> <p>stainless steel(explosion-proof)</p> <p>sheet metal enclosure(non-explosion-proof)</p>	<p>K1</p> <p>K2</p> <p>K3</p> <p>K4</p>	
<b>Supply</b>	<p>DC24V power supply</p> <p>AC220V power supply</p>		<p>P1</p> <p>P2</p>

## About us

REEICO is a technology-based company renowned in the MENA region's Oil and Gas industry for our expertise in advanced sensor technologies and instrumentation. Our offerings include a wide range of vibration monitoring sensors such as Eddy current and piezo sensors, gas detection sensors utilizing semiconductor and electrochemical technologies, as well as pressure, temperature, and level transmitters and transducers, valve positioners, among others. Initially focused on manufacturing upstream products and services, we have expanded our capabilities to deliver world-class sensors and instrumentation for both upstream and downstream applications.

At REEICO, we are committed to delivering reliability and confidence to our customers across various industries. While we may not have been the first, but our goal is to keep continuity on the way to become the best in terms of reliability.

