The
NOVA-Sensor *ELITE*™
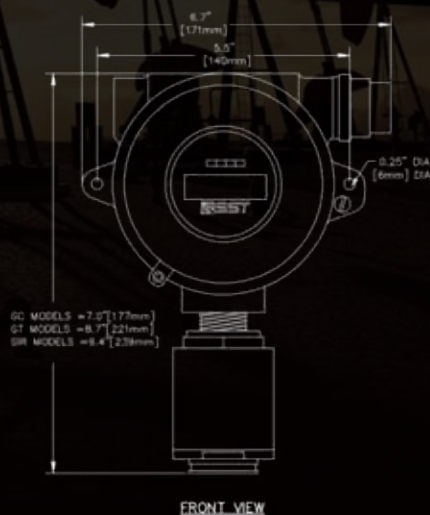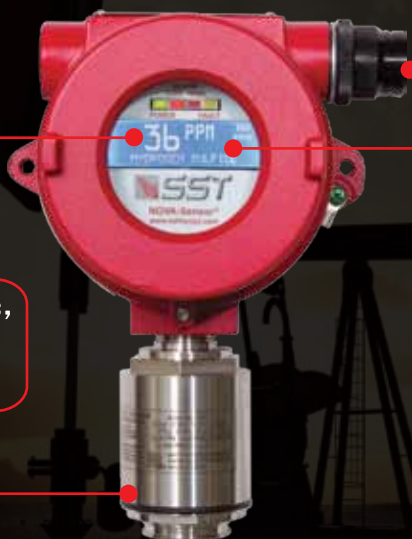# Series

Introducing NOVA-Sensor *ELITE*™

Engineered for quality and reliability, the intelligent and innovative NOVA-Sensor *ELITE*™ provides the most cost effective fixed gas detection solution combining ease of installation and use, industrial rugged design, and reliability in hazardous locations.

Continuous display of gas name and concentration

Push button switch initiates test or calibration sequence (no magnet required)

Selection of catalytic, infrared, or fuel cell gas sensing element

On-screen calibration instructions ensure error-free results

FRONT VIEW

Innovative features all built-in into a single gas detector – the NOVA-Sensor *ELITE*™ includes a high reliability microprocessor based transmitter/controller in the associated explosion-proof housing; provides 4-20 mA output for connection to external equipment; two alarm set points with voltage-free contact outputs for local control; pushbutton switch initiates test or calibration sequence with no magnet required; controller and sensor both have available in ratings up to IP 66. Suitable for Class I Division 1 Groups B, C, D locations. **Simple to install, simple to operate, and simple to maintain** – the NOVA-Sensor *ELITE*™ is shipped fully assembled and pre-calibrated. The detector can be installed and fully operational in less than 1 hour and provides on-screen calibration instructions to insure error-free results for routine maintenance. **Flexible installation** – each NOVA-Sensor *ELITE*™ detector can be installed as a stand-alone device or connected to external equipment, including SST's NOVA-5000 fire alarm control panel, PLC's, SCADA or distributed control systems and are pre-assembled with specific accessories to meet specific requirements for its application. **Eco-Friendly** – our NOVA-Sensor *ELITE*™ is made in the USA and manufactured using environmentally-friendly materials and processes.

Typical Applications

Biogas Applications	Carbon Capture and Storage
Coal Gasification	Dry Ice Plants
Fertilizer Plants	Food and Beverage Industry
Hazardous Waste Facilities	Gas Turbines
LNG and LPG Processing and Storage Facilities	Hospital and Medical Facilities
Off-Shore Platforms	Mining
Petrochemical Industry	Oil and Gas Industry
Refrigeration	Refineries
Steel Industry	Semiconductor Manufacturing
Water Treatment Plants	Tunnels

COMBUSTIBLE GAS DETECTORS

Combustible or flammable gases can ignite a fire and may cause an explosion when brought in contact with heat or flame. The use of a combustible gas detector will alert personnel when a flammable gas or vapor is accumulating in a protected area. To warn of such danger, the gas detector can be set to alarm at levels considerable below the point where the gas can be ignited (the lower explosive limit or LEL). This permits corrective action while the protected area is still safe. The NOVA-Sensor *ELITE*™ is available with the traditional catalytic or the new infrared sensor technology.

GIR902 NOVA-Sensor *ELITE*™ IR Combustible Gas Detector
Infrared (IR) Sensing Element

Remote sensor with junction box

Shown with remote sensor for mounting in inaccessible locations

ABOUT GIR902

LEARN MORE

Key Features

- Uses Infrared (IR) detection principle to accurately measure hydrocarbon combustible gases and vapors with digital readout of target gas concentration in % LEL
- Immune to poisoning
- Requires fewer calibrations and less maintenance
- No Oxygen required to detect hydrocarbons
- Gas reading immune to wind velocity
- 24 volt DC nominal operating voltage
- Calibration can be verified without declassifying the area
- Suitable for Class I Division 1 Groups B, C, D locations

GC802 NOVA-Sensor *ELITE*™
Combustible Gas Detector
Catalytic Sensing Element

Remote Sensor with Gas Collection Cone

Shown with remote sensor and gas collection cone

Rain Shield Accessory

Dust Cover Accessory

Remote Calibration Adapter

ALARM
LOW HIGH

POWER   FAULT

0 %LEL
METHANE

SST
NOVA-Sensor®
www.safetysys.com

ABOUT GC802

LEARN MORE

Key Features

- Uses "poison resistant" Catalytic Oxidation technique to accurately measure most combustible gases and vapors
- Provides accurate measurements in atmospheres where traces of silicone or other poisoning agents may be present and readings are unaffected by humidity.
- Explosion-proof
- Suitable for on-shore and off-shore use
- Continuous display in a digital readout of target gas concentration in % LEL
- Epoxy coated copper-free aluminum electronics enclosure with viewing window
- 4-20 mA output for connection to external equipment including SST's NOVA-5000 gas alarm control panel, PLC's, SCADA or distributed control systems
- 24 volt DC nominal operating voltage
- Shipped fully assembled and pre-calibrated and can be installed and fully operational in less than 1 hour
- Suitable for Class I Division 1 Groups B, C, D locations

GT812 NOVA-Sensor *ELITE*™ Toxic Gas Detector
Electrochemical Cell Sensing Element

Shown with Rain Shield accessory

Key Features

- Uses maintenance-free electrochemical cell sensing element in stainless steel housing
- Completely self-contained device that measures and displays the concentration of gas in parts per million by volume accumulated in a protected area
- Suitable for on-shore and off-shore use with up to IP66 rating
- 4-20 mA output for connection to external equipment including SST's NOVA-5000 gas alarm control panel, PLC's, SCADA or distributed control systems
- Two alarm set points with voltage-free contact outputs for local control

Available for these and other toxic gases:

Ammonia (NH_3)	Hydrogen Sulfide (H_2S)	Carbon Monoxide (CO)	Nitric Oxide (NO)
Chlorine (CL_2)	Nitrogen Dioxide (NO_2)	Ethylene Oxide (C_2H_4O)	Propolene Oxide (OCH_2CHCH_3)
Hydrogen Chloride (HCL)	Sulfur Dioxide (SO_2)	Hydrogen Fluoride (HF)	

Infrared (IR) Sensing Element

Shown with
dust cover

Shown with
Calibration Adapter

ABOUT GIR912

LEARN MORE

Key Features

- Uses Infrared (IR) detection principle to accurately measure life-threatening Carbon Dioxide gas in stainless steel housing
- Completely self-contained device that measures and displays the concentration of Carbon Dioxide gas accumulated in a protected area in % concentration
- Accurately detects gas in locations with no Oxygen present
- No moving parts or mirrors used
- Maintains calibration even after exposure to high gas concentrations or continuous background of gas
- Explosion-proof
- Suitable for on-shore and off-shore use with up to IP66 rating
- Epoxy coated copper-free aluminum electronics enclosure with viewing window
- 4-20 mA output for connection to external equipment including SST's NOVA-5000 gas alarm control panel, PLC's, SCADA or distributed control systems
- Two alarm set points with voltage-free contact outputs for local control
- On-screen step-by-step calibration instructions
- Shipped fully assembled and pre-calibrated and can be installed and fully operational in less than 1 hour
- Designed to UL, CSA, FM, ATEX and IECEx standards
- Suitable for Class I Division 1 Groups B, C, D locations

OXYGEN DEFICIENCY/ENRICHMENT DETECTORS

Approximately 20.9% of the earth's air is composed of oxygen. Air that is "deficient" of oxygen is a threat to life, leading to unconsciousness and even death. In industrial facilities where nitrogen or other inert gases are in use, a gas leak could go undetected, and the resulting displacement of oxygen from the air would result in death. The use of an oxygen sensor will alert personnel of an oxygen deficiency in the air. In areas where pure oxygen is in use, an oxygen leak is equally dangerous. As the percentage of oxygen in the air increases above the normal 20.9%, the air is said to be "enriched." Oxygen enrichment causes a fire to burn more readily than normal, causing many materials to burn with almost explosive force. The use of an oxygen sensor will alert personnel of extreme fire danger should there be an oxygen leak.

GT822 NOVA-Sensor *ELITE*™ Oxygen Sensor
Electrochemical Cell Sensing Element

ABOUT GT822

LEARN MORE

Key Features

- Uses maintenance-free electrochemical cell sensing element in stainless steel housing
- Completely self-contained device that measures and displays the concentration of oxygen accumulated in a protected area
- Explosion-proof
- Suitable for on-shore and off-shore use with up to IP66 rating
- Continuous display in a digital readout of target oxygen concentration in percentage
- Epoxy coated copper-free aluminum electronics enclosure with viewing window
- 4-20 mA output for connection to external equipment including SST's NOVA-5000 gas alarm control panel, PLC's, SCADA or distributed control systems
- Two alarm set points with voltage-free contact outputs for local control
- On-screen step-by-step calibration instructions
- Shipped fully assembled and pre-calibrated and can be installed and fully operational in less than 1 hour
- Suitable for Class I Division 1 Groups B, C, D locations

SST
SAFETY SYSTEMS TECHNOLOGY

Safety Systems Technology through its founders has been a pioneer in the engineering, design, and manufacture of fire and gas detection systems for over 25 years. SST's product lines include flame detectors, fixed combustible and toxic gas detectors, oxygen sensors, smoke detectors, heat detectors, fire and gas alarm control panels, and fire suppression systems. Our full lines of fire and gas detection systems and equipment are made in the U.S.A. and built with the highest quality and reliability for safety and performance to help protect lives.

1988 - 2013
25
YEARS OF EXCELLENCE
Safety Systems
Technology

General Inquiries, Quote Requests, and Catalog Requests
Customer Service: customerservice@safetysys.com

Safetysys.com

Technical Support and Inquiries
Technical Support: techalert@safetysys.com

SST's full-line of fire and gas detection systems are supported by a worldwide network of authorized sales representatives.