INDUSTRIAL LINE
SMART3G-D2 gas detectors

Designed to meet with tough industrial requirements, SMART3G-D2 allow monitoring toxic and flammable contents in industrial environments. They offer a 4 Digits back-lit display and 5 mode status LEDs for the gas concentration reading.

Ideal in harsh environments, they feature non intrusive calibration for an accurate and easy adjustment via Hall-effect switches, without opening the instrument and declassifying the area.

SMART3G-D2 detectors can reliably monitor flammable compounds (%LEL), toxic compounds in ppm, Oxygen and CO2 contents in % by vol.
SMART3 G-D2 features

- Non-intrusive one man calibration via Hall effect switches
- 4-digit display and 5 mode status LEDs
- Standard 4-20 mA 3 wires output
- Optional 3 relay output
- Optional RS485 interface for Modbus communication to make the detectors communicate to MULTISCAN ++ and SENTOX IDI panels
- Optional RS485 interface for Proprietary communication protocol to make the detectors work connected to Sensitron's SIL 3 control panels Galileo 8/32/SMS
- Zero tracking to maintain the detector zero point from possible drifts
- Ongoing system self diagnosis
- ATEX II2G (GD) and SIL 1 certified (EN50402)
- Wide range of sensors and gases detectable
- Wide range of accessories for installation and maintenance
- Easy sensor replacement
SMART3G-D3 gas detectors

Designed to meet with tough industrial requirements, SMART3G-D3 allow monitoring toxic and flammable contents in industrial environments. They offer a 4 Digits back-lit display and 5 mode status LEDs for the gas concentration reading.

Ideal in harsh environments, they feature non intrusive calibration for an accurate and easy adjustment via Hall-effect switches, without opening the instrument and declassifying the area.

SMART3GD-3 detectors can reliably monitor flammable compounds (%LEL), toxic compounds in ppm, Oxygen and CO2 contents in % by vol.
SMART3 G-D3 features

- Non-intrusive one man calibration via Hall effect switches
- 4-digit display and 5 mode status LEDs
- Standard 4-20 mA 3 wires output
- Optional 3 relay output
- Optional RS485 interface for Modbus communication to make the detectors communicate to MULTISCAN ++ and SENTOX IDI panels
- Optional RS485 interface for Proprietary communication protocol to make the detectors work connected to Sensitron's SIL 3 control panels Galileo 8/32/SMS
- Zero tracking to maintain the detector zero point from possible drifts
- Ongoing system self diagnosis
- ATEX II3G (GD) and SIL 1 certified (EN60050402)
- Wide range of sensors and gases detectable
- Wide range of accessories for installation and maintenance
- Easy sensor replacement
SMART3 GG1 (Group 1)

Group 1 gas detector designed to offer the highest accuracy for flammable and toxic gas detection in tunnels and mines. SMART3 GG-1 can reliably monitor flammable compounds in %LEL, toxic compounds in ppm and Oxygen contents in % by vol. SMART GG-1 provides a 4-20mA 3 wire output and, on request, it can be connected to addressable systems via an RS485 interface that makes the detector communicate on Modbus protocol. The detector is ATEX I M2 certified.
SMART3G-C2 have been specifically designed to offer high performance products for light industrial applications. SMART3G-C2 series gas detectors are employed to detect either flammable compounds (%LEL), toxic compounds in ppm (parts per million), or Oxygen depletion and enrichment. The Pellistor cells (industrial grade Catalytic sensors) employed for the flammable Gas detection show an excellent output linearity up to 100 % LEL. For toxic gas detection, Sensitron has operated a reliable selection among the most performing electrochemical cells to supply units representing the state of the art in toxic gas detection. SMART3G-C2 are ATEX certified as II2G (GD) to be employed in zone 1 category 2 classified areas.
SMART3G-C3 have been specifically designed to offer high performance products for light industrial applications. SMART3G-C3 series gas detectors are employed to detect either flammable compounds (%LEL), toxic compounds in ppm (parts per million), or Oxygen depletion and enrichment. The Pellistor cells (industrial grade Catalytic sensors) employed for the flammable Gas detection show an excellent output linearity up to 100 % LEL. For toxic gas detection, Sensitron has operated a reliable selection among the most performing electrochemical cells to supply units representing the state of the art in toxic gas detection. SMART3G-C3 are ATEX certified as II3G (GD) to be employed in zone 2 category 3 classified areas.
The MULTISCAN++S1 is an innovative gas control unit used for monitoring and controlling up to 256 gas detectors. Extremely flexible and highly reliable, it allows monitoring SMART3G gas detectors connected with both 4-20 mA transmission and addressable loops. The MULTISCAN++ may be configured connecting different field modules to the RS485 loops in order to customize it to the various requests and needs of the field of application.

All devices connected to the loops feature galvanic isolation so that the loop will automatically close if any discontinuity occurs (mechanical cut-off, or open/short circuit).
SENTOX IDI+ has been designed for industrial applications and can be connected to 32 detectors connected to the control panel via an RS 485 bus. A high brightness display provides an ongoing reading of the concentration being measured and, in case of an alarm, the alarm threshold attained and the respective channel. Each threshold or Function is visualised by a double LEDs raw.

SENTOX IDI+ provides 4 output relays: three associated to the alarm thresholds and one to Fault. The panel also features the implementation of further 32 optional outputs via 2 ST.G/OUT16-S remote cards. The unit comes into a metal cabinet, complete with 24Vdc, 3A power supply and offers the possibility to allocate 2 back-up batteries max. 12V 7 Ah. SENTOX IDI+ is ATEX certified according to EN60079-29
The PL4+ microprocessor based gas control unit represents a reliable and cost effective solution for the flammable, toxic or Oxygen gas detection in small systems. The PL4+ has 4 analog 4-20 mA inputs built-in that can be extended to 8 by using an on-board 4 input extension module, easy to connect directly to the control unit. The panel is housed in a wall mount metallic cabinet complete with a 12Vdc 1.5A power supply. A backlit LCD display and mode status LEDs offer a real time gas concentration reading. PL4+ can be configured for a different range of gas detectors: flammable gas detectors (%LEL), toxic gas detectors in ppm (parts per million) and %vol range and Oxygen detectors where it is possible to select between its enrichment or depletion.
HIGH RISK
ATEX and SIL

gas detection systems
SMART SMS gas detectors

Designed to meet with the toughest industrial requirements, the SMART SMS allow monitoring flammable contents in harsh environments. They offer a 8 digits back-lit display and 5 mode status LEDs for the gas concentration reading. They feature non intrusive calibration for an accurate and easy adjustment either via Hall-effect switches or IrDA interface and keypad, without opening the instrument and declassifying the area. SMART SMS is a unique series of gas detectors with a capability of fitting two sensors inside a single sensor head. This gives the possibility to have two independent sensor output that can be confronted. The detectors are rated to SIL3 SW and SIL2 HW.
SMART SMS features

- Non-intrusive one man calibration (via 8-digit display or IrDA interface)
- Double sensor technology integrated in the same sensor head (Catalytic + Catalytic or Catalytic + Infrared)
- Double 4-20 mA 3-wire output and 3 relay output
- RS485 serial communication Modbus and Proprietary protocol dedicated to Galileo SIL 3 panels
- Implemented to work connected to Sensitron's SIL 3 control panels Galileo 8/32/SMS
- Optional HART communication interface with 2 relay output (under development)
- Back-lit 8-digit display and 5 mode status LEDs
- Wide range of accessories for installation and maintenance
- Ongoing system self diagnosis
- ATEX II2G and SIL 2 (3) certified (EN50402)
- Easy sensor replacement
SMART S-SS gas detectors

Designed to meet with the toughest industrial requirements, the SMART S-SS allow monitoring toxic and flammable contents in harsh environments. They offer a 8 Digits back-lit display and 5 mode status LEDs for the gas concentration reading and feature non intrusive calibration for an accurate and easy adjustment either via Hall-effect switches or IrDA interface and keypad, without opening the instrument and declassifying the area. SMART S-SS are rated to SIL3 SW and SIL2 HW.
SMART S-SS features

- Non-intrusive one man calibration (via 8-digit display or IrDA interface)
- Single 4-20 mA 3-wire output and 3 relay output.
- RS485 serial communication Modbus and Proprietary protocol dedicated to Galileo SIL 3 panels
- Implemented to work connected to Sensitron's SIL 3 control panels Galileo 8/32/SMS
- Optional HART communication interface with 2 relay output (under development)
- Back-lit 8-digit display and 5 mode status LEDs
- To fit Pellistor sensors flammable gases (%LEL) and electrochemical sensors for toxic gases (ppm)
- Wide range of accessories for installation and maintenance
- Ongoing system self diagnosis
- ATEX II2G and SIL 2 (3) certified (EN50402)
- Easy sensor replacement
SMART S-IR Detectors

SMART S-IR gas detectors employ a high performing Infrared sensor to detect either flammable gases in %LEL or Carbon Dioxide in % by volume. They offer a 8 digits back-lit display and 5 mode status LEDs for the gas concentration reading and feature non intrusive calibration for an accurate and easy adjustment either via Hall-effect switches or IrDA interface and keypad, without opening the instrument and declassifying the area. SMART S-IR series has been especially developed for aggressive atmospheres, where the Pellistor sensors functionality might be seriously compromised: Infrared sensors are poison free, thus granting a higher accuracy and a longer lifetime to the detector. The detectors are rated to SIL3 SW and SIL2 HW.

Also available with larger junction box
SMART S-IR features

- Non-intrusive one man calibration (via 8-digit display or IrDA interface)
- Single 4-20 mA 3-wire output and 3 relay output.
- RS485 serial communication Modbus and Proprietary protocol dedicated to Galileo SIL 3 panels
- Implemented to work connected to Sensitron's SIL 3 control panels Galileo 8/32/SMS
- Optional HART communication interface with 2 relay output (under development)
- Back-lit 8-digit display and 5 mode status LEDs
- To fit Industrial grade infrared sensors for flammable gases (%LEL) and CO2(% by vol.)
- Wide range of accessories for installation and maintenance
- Ongoing system self diagnosis
- ATEX II2G and SIL 2 (3) certified (EN50402)
- Easy sensor replacement
GALILEO SMS (SIL MULTISYSTEM) is an advanced multifunction gas detection control panel designed to comply with the SIL 3 requirements according to the European Standard EN 50402 on Functional Safety. The control unit’s main board is designed around 2 powerful microprocessors, that communicate each other the monitored data ensuring the complete availability of all main board functions, even in case of a failure in one microprocessor. A broad range of self-testing facilities are implemented to detect and localize possible faults. Extremely flexible and highly reliable, it allows monitoring SMART3 gas detectors connected with both 4-20 mA transmission and on addressable loops. The redundancy offered by every module being part of the system, added to the possibility to communicate with remote input/output modules via a redundant closed BUS, makes this system comply with the Functional Safety requirements of EN 50402 up to SIL3.
GALILEO SMS

The system will be connected in two digital RS485 (EIA-485) closed loops capable of accommodating:

- A maximum of 256 gas detectors which may be connected as:
  ● Addressable gas detectors type SMART3 connected through LOOP modules each featuring 32 addresses.
  ● Analogue 4-20mA detectors connected through AIM (analogue inputs modules) featuring 8 analogue inputs.

- A maximum of 520 relay outputs connected as follow:
  ● 512 programmable on the Relay Outputs modules (8-16 relays module, basic and extended respectively).
  ● 8 on the control unit’s board.

Remote Modules:
Galileo SMS may be configured by connecting different field modules to the RS485 loops to customize it to the various needs of the field of application. All loop devices are addressable, each address identifies uniquely one input or output, as follows:
Analogue inputs module (AIM) – 8 analogue (out of the 256 system inputs)
Loop module – programmable 32 addressable detectors on local loop + 2 digital inputs (out of the 256 system inputs)
Relay outputs module – 8 or 16 address points (out of the 512 relay outputs) - basic board or basic + extension respectively.
GALILEO SMS features

- ATEX and SIL 3 certified (EN50402)
- Fully redundant
- Extremely flexible and highly reliable
- Broad range of self-testing facilities
- Two digital RS485 (EIA-485) galvanic isolated loops
- Up to 256 inputs (both 4-20mA or addressable loop daisy-chained)
- Up to 520 relay outputs
- Broad high brightness graphic LC-Display
- 11 redundant mode status LEDs
- Real-time gas reading
- Event log
- PC Programmable
- Three user levels
- 19” 3U rack
- 24 Vdc 5 A power supply
GALILEO 8/32 are advanced gas detection multifunction control panels designed to control and monitor up to 8 analog 4-20 mA (Galileo 8) or up to 32 (Galileo 32) addressable gas detectors.

GALILEO 8/32 have been developed according to the European standards on functional safety: the redundancy offered by every module being part of the system makes these panels comply with the functional safety requirements up to SIL 3.

The control panels have an event log, which memorises all the alarm, fault and user operations.
To maximize the operating security, a hierarchical user and password system has been implemented, providing three user levels: OPERATOR, MAINTENANCE and ENGINEER.
GALILEO 8/32 features

- ATEX and SIL 3 certified (EN50402)
- Fully redundant
- Extremely flexible and highly reliable
- Broad range of self-testing facilities
- Broad high brightness graphic LC-Display
- 8 4-20mA inputs (GALILEO 8) or 32 loop daisy-chained inputs (GALILEO 32)
- 8 relay outputs
- 8 redundant mode status LEDs
- Real-time gas reading
- Event log
- PC Programmable
- Three user levels
- Metal cabinet
- 24 Vdc 5 A power supply
MULTISCAN ++S2 is an advanced multifunction gas detection control panel designed to comply with the SIL 2 requirements according to the European Standard EN 50402 on Functional Safety.

The control unit’s main board is designed around a powerful micro-processors with a broad range of self-testing facilities are implemented to detect and localize possible faults.

Extremely flexible and highly reliable, it allows monitoring up to 256 SMART3 gas detectors connected with both 4-20 mA transmission and daisy chained on 2 closed digital RS485 galvanic isolated loops.

This system complies with the Functional Safety requirements of EN 50402 up to SIL2.
MULTISCAN++SIL2 features

- ATEX and SIL 2 certified (EN50402)
- Extremely flexible and highly reliable
- Broad range of self-testing facilities
- Two closed digital RS485 (EIA-485) galvanic isolated loops
- Up to 256 inputs (both 4-20mA or addressable loop daisy-chained)
- Up to 256 outputs
- Broad high brightness graphic LC-Display
- 11 mode status LEDs
- Real-time gas reading
- Event log
- PC Programmable
- Three user levels
- 19” 3U rack
- 24 Vdc 5 A power supply