PRODUCT CATALOGUE

TALK SAFETY WITH US

 Consilium

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INTRO**DUCTION**

Consilium safety has been a specialist in the field of portable and stationary gas detectors for more than 30 years. Personal contact, 100% own production and excellent service make our gas detection unique. You can contact us for the development, assembly, rental and maintenance of portable and fixed gas detection systems according to the quality system ISO 9001.

PERSONAL SERVICE

We think it is important that we have a good relationship with our clients. If we know you and your company well, we can advise you better on the measures you can or should take in the field of gas detection.

RELIABLE

Because of our experience in many different sectors, we know what we are talking about; you can count on that. Our equipment is ATEX, IECEx and MED certified. We check and maintain the gas detection system annually. We look at the big picture: we do not only check whether all equipment is still working, but also whether there are any changes in the environment that we can anticipate.

TAILORED

Because we look at each job individually, we often find that a standard product cannot meet the expectations. We would then make a custom-made application that fits perfectly with the activities of your company.

PORTABLE **GAS DETECTION**

MULTI **GAS**

⊕ MGT PORTABLE MULTI GAS

The MGT-N / MGT-P offers the versatility of a multi-gas detector with the simplicity of a single button operation. This compact multi-gas detector is suitable for detecting oxygen, toxic and flammable gases. Before an unsafe situation arises, the detector alarms with a powerful acoustic signal, intense flashing red LED display including a vibration alarm. Hear, see and feel!

GENERAL INFORMATION

- Multi-gas detector up to 4 gases
- Compact/thin and lightweight (240 grams)
- Visual, acoustic and vibration alarm
- Ex certified
- Display with backlight
- Simple one button operation
- Shock resistant housing
- Rechargeable
- Mode setting and event logging possibility

APPLICATIONS

⊕ Chemical industry

⊕ Confined spaces

⊕ Waste water treatment

⊕ Boiler houses

⊕ Refineries

⊕ Food industry

⊕ Storage of dangerous goods

⊕ GASALERTMAX XT II

The GasAlertMax XT II is a compact confined space monitor with an internal pump for remote sampling, measuring up to 4 gases. The instrument can be used for the detection of Oxygen, Flammable gases, Carbon monoxide and Hydrogen Sulphide. Before a dangerous situation occurs, the detector alarms with a powerful acoustic alarm, two bright wide-angled alarm bars and vibrating alarm.

GENERAL INFORMATION

- Multigasdetector up to 4 gasses
- LEL / O_2 / H_2S / CO
- Internal pump for remote sampling
- Compact / light weight (330 gr.)
- Audio / Visual and vibrating alarm
- ATEX / IECEx certified
- One button operation
- Shock proof housing

APPLICATIONS

⊕ Confined spaces

⊕ Refineries

⊕ Water industry

⊕ Fire Brigade

⊕ Marine

⊕ Soil remediation

⊕ Food industry

⊕ Chemical industry

MULTI **GAS**

⊕ ULTRA PID

The Ultra PID is available as pump version. The Ultra PID can both, event log and data log. It can detect up to five gases. The Ultra PID identifies detectable VOCs. The Ultra PID can be equipped with an LEL, an O2, an H2S and a CO sensor to detect up to five gases simultaneously.

GENERAL INFORMATION

- Multi gas detector 1-5 gases
- Standard PID (VOC 's) version
- Simple one button operation
- Large matrix display for clear indication
- Visual, acoustic and vibration alarm
- Maintenance friendly
- Standard with pump
- Ex-certified
- Protection class IP 66/68
- Data and event logging

APPLICATIONS

- ⊕ Soil remediation
- ⊕ Refineries
- ⊕ Waste water treatment
- ⊕ Boiler houses
- ⊕ Storage of dangerous goods
- ⊕ Food industry

SINGLE **GAS**

⊕ ECOTOX CO$_2$

The ECOTOX CO2 is a portable gas detector for the detection ofCO2. The ECOTOX is compact, rugged and easy to use.The ECOTOX thanks its name to the combination of it's ECONOMICAL feature, "low cost of ownership" and TOXIC gases.After activating the power button, the detector will operate continuously for about 7 days on one charge. Before an unsafe situation arises, the detector alarms with a powerful acoustic signal, intense flashing red LEDs, display and a vibration alarm. Hear, see and feel!

GENERAL INFORMATION

- Lifetime with normal use approx. 5 years
- Low maintenance
- Powerful alarm
- Vibration alarm
- LED flash alarm
- LC Display
- Rechargeable

APPLICATIONS

- ⊕ Food industry
- ⊕ Waste water treatment
- ⊕ Steel and paper industry
- ⊕ Beer breweries
- ⊕ Cooling

➕ ECOTOX (24months lifetime)

The Ecotox is a portable "24months disposable" gas detector which detects Oxygen (O_2), Hydrogen Sulphide (H_2S) or Carbon Monoxide (CO). The Ecotox is compact, rugged and easy to use. The Ecotox thanks his name to the combination of it's ECONOMICAL feature: "low cost of ownership" and TOXIC gases. The detector is activated with a one-button action and will operate continuously during two years without maintenance. The remaining life span is continuously displayed in months, then days and then hours. When the user is exposed to a level of gas in excess of the alarm level, the Ecotox will demand attention. The detector alarms with a loud audible signal, a rapid flashing visual alarm as well as a vibration alarm.

GENERAL INFORMATION

- 24months disposable gas detector
- Low maintenance
- Power full alarm
- Vibration alarm
- Clear color coding for each gas type
- ATEX / IECEx certified
- LC Display

APPLICATIONS

- ➕ Chemical Industry
- ➕ Refineries
- ➕ Waste water treatment
- ➕ Boiler houses
- ➕ Steel Industry
- ➕ Emergency services (fire brigade, etc.)
- ➕ Food industry

➕ ECOTOX PLUS

The Ecotox Plus is a compact and extremely reliable single-gas detector. The Ecotox Plus with its robust construction is designed for harsh conditions such as refineries and the chemical industry. The very simple one-button operation offers optimal user convenience. The single control button switches the detector on and off and offers the possibility to easily perform a ZERO and SPAN calibration. The Ecotox Plus has an extra long lifetime as the sensor and the battery can be replaced after their life span. The Ecotox Plus is available for various types of gas such as O_2, H_2S, CO, Cl_2, ClO_2, HCN and H_2.

GENERAL INFORMATION

- Detection of toxic gases and oxygen
- ATEX / IECEx certified
- Compact and light weight
- Triple alarm function
- Graphic display for direct read out
- Full / Event data logging,
- Communication via Bluetooth

APPLICATIONS

- ➕ Chemical Industry
- ➕ Refineries
- ➕ Water Industry
- ➕ Enclosed and void spaced
- ➕ Steel Industry
- ➕ Laboratories / Universities
- ➕ Government and Utilities
- ➕ Food Industry

ACCESSORIES MGT

➕ MGT PORTABLE MULTI GAS

➕ CARRYING CASE MGT

Protetcive carrying case for the MGT-N / MGT-P

➕ CAR POWER ADAPTER

12-24 VDC vehicle power adaptor

➕ IR-LINK

Infrared connection module for setting set points, reading data and calibration setpoints, read out data and calibration

➕ DOCKING CASE

Case intended for bump and or callibration

➕ MULTI-UNIT POWER ADAPTOR

Simultaneously charges 5 detectors

➕ DOCKING CASE

Case intended for bump and or callibration for 4 devices

➕ SAMPLING PUMP

Sampling pump, to be connected to the calibration cap of the MGT

ACCESSORIES ECOTOX & ECOTOX PLUS

✚ BU-LINK

USB Bluetooth Dongle for communication with the Ecotox Plus

✚ GASTEST-STATION

Full automatic test and calibration of the Ecotox Plus
Full automatic bump test of the Ecotox

✚ CALIBRATIE ADAPTER

Flow / calibration adapter for the Ecotox and Ecotox Plus

✚ ON DEMAND FLOW REGULATOR

To be used in combination with the Gastest-Station

✚ FIXED FLOW REGULATOR

Regulator with fixed flow to be used on a test gas cylinder to calibrate or bump test the Ecotox and Ecotox Plus

✚ TEST GAS CYLINDERS

Full range of test gas cylinders available for testing and calibration

✚ GAS HOSE

Tygon gas hose (mtr) for calibration

GENERAL ACCESSORIES

FIXED FLOW REGULATOR

Regulator with fixed flow to be used on a test gas cylinder to calibrate or bump test potable gas detectors

ON DEMAND FLOW REGULATOR

To be used in combination with the Gastest-Station

TEST GAS CYLINDERS

Test gas cylinder (mixture) CH_4, H_2S, CO, O_2 in N_2, 58 gas litres

GAS HOSE

Tygon gas hose (mtr) for calibration

ACCESSORIES ULTRA PID

✚ FILTER
Water/dust filter, inline (in tube)

✚ PROBE PLASTIC
Probe Plastic GA-Probe 1-1 (30cm)

✚ PROBE STAINLESS STEEL
Stainless steel probe 50 cm, 1x hose connection

✚ FLOAT
Float GA-Float (for detection in wells)

✚ CASE
Plastic carrying case, suitable for detector and accessories

ACCESSORIES GASALERT MAX XT II

MULTI-UNIT POWER ADAPTOR
Simultaneously charges 5 detectors

CAR POWER ADAPTER
12-24 VDC vehicle power adaptor

AUXILIARY PUMP FILTER
Filter for high dust environments

CONNECTOR
Quick connector to connect the gas hose on the GasAlertMicro5 and GasAlertMax XT II

PROBE
Plastic probe for remote sampling (length 30cm) with replaceable integrated filter for the GasAlertMax XT II

PROBE
Stainless Steel probe for remote sampling (length 50cm) GasAlertMax XT II

FIXED **GAS DETECTION SYSTEMS**

➕ CGD50

CGD50 is a standard gas detection control system with an integrated Control Panel. It is designed for stationary gas detection installations for the monitoring of explosive and/or toxic gases and oxygen with 4, 8 or 12 gas detectors. In case you have a more demanding requirement please ask for our CGD50 Custom (up to 254 gas detectors, additional outputs, interfaces, special cabinets, etc.).

GENERAL INFORMATION

- 4 to 12 inputs for gas sensors
- 5 to 15 relay outputs
- LCD Control panel
- Wall mounting cabinet
- Powder coated steel / Stainless Steel

APPLICATIONS

- ➕ Chemical industry
- ➕ Refineries
- ➕ Waste water treatment
- ➕ Boiler houses
- ➕ Laboratory / Universities
- ➕ Storage dangerous goods
- ➕ Food industry

CGD500 TOUCH

➕ The CGD500 Touch is a gas detection control system which differentiates itself with an intuitive Touch screen HMI. With this touch screen it is possible to easily get an overview of the systems status, event logging and make changes to it. Remote access is possible via VNC. The CGD500 Touch is designed for stationary gas detection installations for the monitoring of explosive and/or toxic gases and oxygen with 8, 16 or 24 gas detectors. In case you have a more demanding requirement please ask for our CGD500 Touch Custom (up to 254 gas detectors, additional outputs, custom interfaces, special cabinets, etc.).

GENERAL INFORMATION

- 9.7" TFT TOUCH HMI
- 8 to 24 inputs for gas sensors
- 29 relay outputs
- Wall mounting cabinet
- Powder coated steel / Stainless Steel

APPLICATIONS

- ➕ Chemical industry
- ➕ Refineries
- ➕ Waste water treatment
- ➕ Laboratory / Universities
- ➕ Storage dangerous goods
- ➕ Food industry

⊕ ## ALARM DEVICES EX AND NON EX

A combined alarm device (sounder / beacon) is mounted centrally and is clearly visible in or near the area where danger can arise. The alarm device will be activated when the alarm value is exceeded. During an alarm it will provide a clear audible acoustic alarm combined with a flashing beacon.

The beacon is mounted near entrance doors and will provide a clear, visible signal during an unsafe situation. A person will be alerted before entering a potentially dangerous room.

A multi colour LED signal tower continuously indicates the (alarm) status. Green indicates a safe situation, orange indicates a low alarm (first alarm value is exceeded) and red indicates a high alarm situation (second alarm value is exceeded).

TYPES OF ALARM DEVICES

- Combined Sounder & Beacon
- Beacon
- Sounder
- Multi-colour LED Signal tower
- Multi tone alarm sounder with beacon

APPLICATIONS

⊕ Chemical industry

⊕ Refineries

⊕ Waste water treatment

⊕ Boiler houses

⊕ Laboratory / Universities

⊕ Storage dangerous goods

⊕ Food industry

ACCESSORIES & ALARM DEVICES

✚ ALARM MESSENGER
Alarm messenger (SMS / Email)

✚ SIGNAL TOWER
Multi colour LED signal tower (green, orange & red), incl. buzzer, 230VAC and 24VDC

✚ SOUNDER + BEACON
Combined sounder (110dB) and beacon (red flash light), 230VAC and 24VDC

✚ BEACON
Beacon (red flash light), 230VAC and 24VDC

✚ SIGNAL TOWER "FLATSIGN"
Multi colour LED signal tower (green, orange & red), incl. buzzer 230VAC

✚ TEXT SIGN
Text sign "GASALARM – LEAVE AREA"

+ TEXT SIGN
Text sign "GASALARM – DO NOT ENTER"

+ EMC CABLE GLAND
PG11 and PG13,5 for entry of sensor cable

+ EMC CABLE NUT
PG11 and PG13,5 in combination with PG11 and PG13,5 for entry of sensor cable

CUSTOM **MADE**

+ CUSTOM MADE

Every (production) area or business location is different, sometimes making it impossible to apply a standard solution. Therefore we offer the possibility to develop custom-made gas detection systems together with the customer, which meets the required safety standards and situation of your specific location.

GENERAL INFORMATION

- Ex and Non-Ex
- Semi-portable
- Quick and easy to install
- Integrated audible and visble alarm
- Remote sampling solution

APPLICIATION

+ Shutdown / Turnaround
+ Chemical industry
+ Refineries
+ Waste water treatment
+ Temporary deployment

FIXED **GAS DETECTORS**

MED: ST650EX-3 (CAT) CH₄ / C₃H₈ 100%LEL
MED: ST650EX-NDIR CH₄ / C₃H₈ 100%LEL

➕ GAS DETECTOR ST650EX

The ST650EX is an all-round gas detector which functions well under the most difficult circumstances. The heart of the detector is a replaceable gas sensor. This sensor is available in various versions, such as a **Catalytic bead gas sensor (CAT)**, **Infrared (NDIR)**, **Molecular Property Spectrometer sensor (MPS)** and a **Thermal Conductivity sensor (TCD)**. The sensor has a long life-span, which achieves an optimal cost of ownership. The ST650EX is available with or without a graphic display. The version with a graphic display, shows the measured value and various status notifications locally. The capacitive key control gives you an experience similar to a touchscreen and enables easy navigation through the user/calibration menu. The user menu is secured with a password; unauthorized users cannot access the gas detector. The control of the user/calibration menu does not require additional tools (for example magnets). Simple, easy and user friendly!

GENERAL INFORMATION

- Detection of combustible gases and vapours
- ATEX / IECEx / MED certified / Type Approval
- Touch screen experience, control without additional tools
- Self-diagnostics
- Reliable sensor technology
- Available as remote version

APPLICATIONS

- ➕ Chemical industry
- ➕ Refineries
- ➕ Water industry
- ➕ Boiler rooms
- ➕ Marine
- ➕ Storage of packed dangerous substances
- ➕ Food industry
- ➕ Gasturbines
- ➕ Automotive

ATEX / IECEx : ST350EX-PID

➕ GAS DETECTOR ST150-PID / ST350EX-PID

The ST150 / ST350EX PID is a fixed PID gas detector suitable for the detection of volatile organic components (VOC's). The ST150 / ST350 EX PID utilise the Photo Ionization measuring principle and is equipped with a 10.6eV PID lamp with a patented fence electrode. Because of this "fence", the sensor has a better protection against atmospheric humidity and pollution. The PID sensor has a very fast response and a high sensitivity due to this gasses with an ionisation potential <10.6eV are quickly detected. The ST350EX-PID is Ex certified, the ST150-PID is a non-Ex.

GENERAL INFORMATION

- Photo Ionisation Detection (PID)
- Detection of +600 volatile organic compounds (VOC's)
- 10,6 eV lamp
- Patented Fence Electrode Technology
- Touch screen experience, i.e. control without tools
- Reliable sensor technology

APPLICATIONS

- ➕ Health Safety & Environment (HSE)
- ➕ Soil remediation and research
- ➕ Arson investigation
- ➕ Air Quality
- ➕ Storage of dangerous goods
- ➕ Chemical Industry

GAS DETECTOR ST480xi

The ST480xi is a stationary gas detector which is developed to detect a numerous of **toxic** gasses, **Oxygen** and **Hydrogen** with a high reliability. This all-round gas detector can be applied at virtually every type of industrial application. Functionality and maintenance of this new generation of gas detector meets today's essential demands for reliability, accuracy and cost reduction.

The **ST480xi** comes standard with a high-quality electrochemical sensor. This type of sensor is available for many different gasses and is perfectly suitable for the detection of the target gas with high precision. This proven sensor technology has demonstrated to function perfectly under the toughest conditions. The **ST480xi** relies on a specially developed **intrinsic safe sensor connection**, allowing an easy and quick sensor replacement within an Ex-zone.

Ex i sensor

GENERAL INFORMATION

- Sensor hot swappable in Ex Zone
- Detection of toxic gases, Oxygen, Hydrogen
- ATEX / IECEx approved
- Zone 1/21 without barrier
- Touch screen experience, control without additional tools
- Reliable sensor technology
- 3-wire system

APPLICATIONS

- Water Industry
- Refineries
- Oil & Gas Industry
- Food Industry
- Marine
- Pharmaceutical Industry
- Steel Industry
- Laboratory / Universities

GAS DETECTOR ST150xi

The ST150xi is a non-Ex stationary gas detector which is developed to detect a numerous of toxic gasses, Oxygen and Hydrogen with a high reliability. This all-round gas detector can be applied at virtually every type of industrial application. Functionality and maintenance of this new generation of gas detector meets today's essential demands for reliability, accuracy and cost reduction.

The ST150xi comes standard with a high-quality electrochemical **(EC)** sensor. This type of sensor is available for many different gasses and is perfectly suitable for the detection of the target gas with high precision. This proven sensor technology has demonstrated to function perfectly under the toughest conditions. The ST150xi relies on a specially developed sensor connection, allowing an easy and quick sensor replacement.

GENERAL INFORMATION

- Detection of toxic gasses
- All-round industrial gas detector
- Touch screen experience, control without additional tools
- Self-diagnostics
- Reliable sensor technology
- non-Ex 2-wire system

APPLICATIONS

- Food industry
- Water Industry
- Medical Industry
- Fermentation processes
- Universities
- Laboratories

MED: ST450EC-O₂

+ GAS DETECTOR ST450EC

The ST450EC is an all-round gas detector which functions well under the most difficult circumstances. The heart of the detector is a replaceable gas sensor, which is available for **Oxygen, toxic** gases and **Hydrogen**. The measuring principle is based on an electrochemical sensor, which is developed to meet the highest standards. The sensor has an outstanding stability, which achieves long-term reliability. The high selectivity of the sensors minimalizes "false" readings.

GENERAL INFORMATION

- Detection of toxic gases, Oxygen, Hydrogen
- All-round industrial gas detector
- ATEX / IECEx / MED certified / Type Approval
- Touch screen experience, control without additional tools
- Self-diagnostics
- Reliable sensor technology
- 2-wire system

APPLICATIONS

+ Water Industry
+ Refineries
+ Oil & Gas Industry
+ Food Industry
+ Marine
+ Pharmaceutical Industry
+ Steel Industry
+ Laboratory / Universities

GAS DETECTOR ST350EX

The ST350EX is an all-round gas detector and useful for many applications. The heart of the detector is a replaceable gas sensor. The ST350EX can be equipped with a Semi Conductor sensor (**SC**), also known as metal oxide sensor, or an infrared sensor (**NDIR**).

The **SCV** sensor is suitable for the detection of **Aromatic Hydrocarbons** at ppm level (for example **Toluene** or **Xylene**) and also for **Carbon disulfide (CS$_2$)**. The **SCF** sensor is suitable for the detection of synthetic refrigerants (H)CFK's and HFK's. These are well known Freon's such as **R134a**, **R407c** and the **R1234yf**. The **NDIR** sensor is suited for the detection of **CO$_2$** or **N$_2$O.**

GENERAL INFORMATION

- Detection of Aromatic Hydro-Carbons (ppm)

- Detection of Synthetic refrigerant gases (H)CFK's and HFK's

- Detection of CO$_2$ or N$_2$O.

- ATEX / IECEx certified / Type Approval

- Touch screen control without additional tools

- Self-diagnostics

- Reliable sensor technology

APPLICATIONS

- Refrigeration

- Soil remediation

- Painting industry, printing ink industry

- Spraying booths and dry cabins

- Shipping

- Storage of dangerous goods

- Chemical industry

+ GAS DETECTOR PG11

The consilium PG11 is an explosion-proof rugged point gas detector developed for detection of flammable gases and carbon dioxide in harsh environments. Built-in condition monitoring reduces unplanned stops and unnecessary downtime. The use of Optical Solid State Infra sensor technology means there is no need for oxygen to be present to detect an explosive gas, meaning this detector can also be used in fully inert (0% O_2) environments. This sensor technology does not require a diffusion barrier (sinter) which makes it very suitable for applications with a high risk of pollution such as airducts (incl. airflows), etc. Also it makes this detector suitable for extremely corrosive environments, for example when there is a presence of Sulphide and Chlorine. The PG11 gas detector is a high-end world class gas detector with an innovative design and a game changer for digitalization, modular design and realizing tomorrow's standards. Available as point-, probe- and duct gas detector.

PG11

The PG11 optical point gas detector is developed for detection of flammable gases and carbon dioxide in harsh environments. Built-in condition monitoring reduces unplanned stops and unnecessary downtime.

PGE11

Consilium PGE11 is an explosion-proof rugged optical point gas detector developed for detection of flammable gases and carbon dioxide. The PGE11 is available in three different lengths and is recommended for use in ventilation ducts, in front of fire dampers, and in double skin pipes.

PG11 /PGE11 DUCT KIT

The PG11 & PGE11 Duct Kits are designed for mounting of PG11 & PGE11 detectors in ventilated double skin pipes and HVAC installations. The duct kit flange is designed for DIN PN6 and JIS 5K

ACCESSORIES ST-SERIES

SIGNAL CABLE FOR GAS SENSORS
2 or 4 core shielded cable, 2 or 4 x 0,75 mm^2 (flexible cores), per meter

DUCT MOUNTING SET
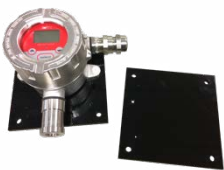Duct mounting set for mounting gas sensors in ventilation ducts

SPLASH GUARD
Environment sensor protection, incl. splash water

INLINE FLOW ADAPTER
Inline flow adapter for sample applications, connection 2x6mm, SS

PROTECTIVE HOOD
Protective hood SS, for optimal sensor protection in "wet" production areas, 315x300x138 mm

ISOLATION SET EMC/RFI
Isolation plate EMC/RFI, 160x160 mm

PROTECTIVE BRACKET
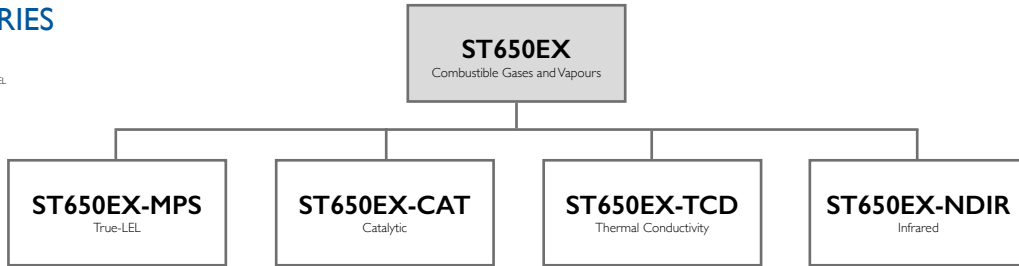SS bracket, extra protection for use in e.g. warehouses

CONICAL COLLECTOR HOOD
Conical hood for ascending gases

OVERVIEW ST-SERIES

ST650EX SERIES

MED: ST650EX-3 (CAT) CH₄ / C₃H₈ 100%LEL
MED: ST650EX-NDIR CH₄ / C₃H₈ 100%LEL

ST650EX
Combustible Gases and Vapours

ST650EX-MPS	ST650EX-CAT	ST650EX-TCD	ST650EX-NDIR
True-LEL	Catalytic	Thermal Conductivity	Infrared

ST450EC

MED: ST450EC-O₂

ST450EC
Electrochemical

Toxic gases, Oxygen and Hydrogen

ST480xi
Electrochemical

Toxic gases, Oxygen and Hydrogen

ST480xi

Ex i sensor

ST350EX SERIES

ST350EX

ST350EX-PID	ST350EX-SCV ST350EX-SCF	ST350EX-NDIR
Photo-ionisation	Semi-Conducter	Infrared
Volatile organic compounds	CₓHᵧ en Refrigerants	Toxic gases, CO₂ and N₂O
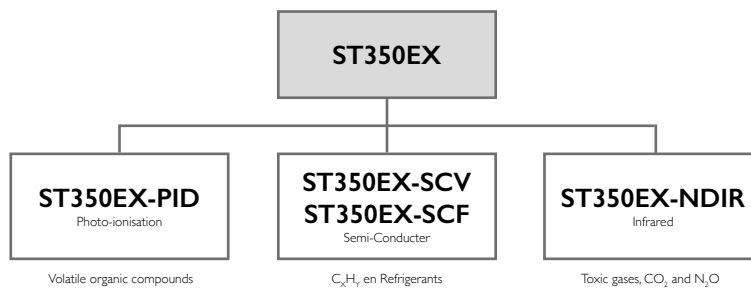
ST150 SERIES

Not ATEX/IECEx certified

ST150-PID
Photo-ionisation

Volatile organic compounds

ST150xi
Electrochemical

Toxic gasses and Oxygen
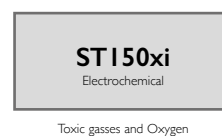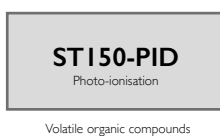
TALK SAFETY WITH US

Consilium Safety has been a specialist in the field of portable and stationary gas detectors for more than 40 years. Personal contact, 100% own production and excellent service make our gas detection unique. You can contact us for the development, assembly, rental and maintenance of portable and fixed gas detection systems according to the quality system ISO 9001.

Consilium