



INOSENT
G A S D E T E C T I O N



INDUSTRY

INOSENT the brand for
reliable gas detection systems.

INOSENT
GASWARNTÉCHNIK AG

Eichwatt 5 | CH - 8105 Regensdorf / Switzerland
Telephone: +41 (0)44 556 83 00 | Fax: +41 (0)44 556 83 01
info@inosent.ch | www.inosent.ch

COMPANY

WE ARE INOSENT

Our products are defined by creativity along with constant development. Our goal is to always deliver our customers the best solution while striving to create an excellent enduring working relationship. Trust, fairness and dependability are our highest priorities. At Inosent, we are firmly convinced that the best solutions can only be found through loyal, courteous consultation and collaboration. At the same time, we are always open to new ideas and we enjoy exciting challenges. INOSENT is authentic, fair – and always there for you.

OUR CUSTOMERS ARE IMPORTANT TO US

Our constant enthusiasm for our work is also the result of our belief in the value of genuine cooperation with our customers. We will give you honest advice that makes it possible for you to profit from our knowledge of the latest technical possibilities. Because, at the end of the day, even a technical field like gas detection technology is about human beings who are working with each other and for each other. And because of that, the honest relationship to our customers and the serious interaction with our customers is the most important thing for Inosent. INOSENT has time for you – and is always there for you.

WE LIKE TO FIND NEW PATHS

The world is in constant change – and, in technical fields above all, it is important to meet new possibilities with enthusiasm and creativity. When safety is the primary objective, the continual development of systems and solutions work in tandem with this goal. That is why we, at Inosent, keep our enthusiasm for innovation, and work both creatively and carefully on new solutions that can better satisfy our customers' requirements. INOSENT has time for you – and is always there for you.

AREAS OF APPLICATION

INOSENT the brand for reliable gas detection systems.

In the workplace, gas detection systems are an indispensable safety asset across a spectrum of industrial processes. Consider the routine daily use of gases in heating and refrigeration equipment in addition to the dangerous gaseous produced from processes such as, fermentation, incineration, engine combustion to name but a few. These gases can be explosive or toxic as

well as colourless, odourless and tasteless. Gases and their presence in ambient air must therefore, be accurately and professionally monitored continuously on a 24-hour basis.

INOSENT offers you intelligent, comprehensive solutions within a wide scope of industrial applications. We will support you with constructive and competent advice so that you can plan for the highest levels of safety.

COOLING SYSTEMS



IN GENERAL, THE FOLLOWING GASES WILL BE MONITORED:

(H)FKW | HFO | C₃H₈ | CO₂ | NH₃

WE RECOMMEND:

- INOSENT EASY
- INOSENT ULTIMATE
- INOSENT COMPACT

UNDERGROUND CAR PARK



IN GENERAL, THE FOLLOWING GASES WILL BE MONITORED:

CARBON MONOXIDE CO
NITROGEN DIOXIDE NO₂

WE RECOMMEND:

- INOSENT COMPACT
- INOSENT ULTIMATE

GAS HEATING



IN GENERAL, THE FOLLOWING GASES WILL BE MONITORED:

METHANE CH₄ | PROPANE C₃H₈

WE RECOMMEND:

- INOSENT CLASSIC

LABORATORY



IN GENERAL, THE FOLLOWING GASES WILL BE MONITORED:

O₂ | CO | H₂ | CO₂ | NH₃ | C₃H₈
O₃ | SiH₄ | PH₃ | ECT.

WE RECOMMEND:

- INOSENT ULTIMATE

INDUSTRY ATEX ZONE 1 & 2 SIL 1 & SIL 2



IN GENERAL, THE FOLLOWING GASES WILL BE MONITORED:

NH₃ | SOLVENTS | C₃H₈
CH₄ | H₂ | ECT.

WE RECOMMEND:

- INOSENT PREMIUM
- INOSENT ULTIMATE

PRODUCT LINES



EASY



A simple, very high-quality, stand-alone compact solution for small systems:

24 VDC/AC or 230 VAC | LED status display | 85 dB-Alarm Horn
2 Relay outputs | 4-20mA, 0-10VDC, Modbus RTU | IP 65 Protected



COMPACT



The ideal solution for monitoring CO and NO₂ as well as humidity in underground garages:

24 VDC | 32 BUS-Inputs for gas detectors and alarm lights | 4 digital signal inputs | LCD-Display | 8 relays outputs | Modbus RTU | WIFI interface



CLASSIC



Efficient gas monitoring monitor in a wall-mounted housing for 2, 4 or 6 gas detectors:

24 V DC/AC or 230 VAC | 2, 4 or 6 × 4-20mA-Input | LCD-Display
4 Relay outputs | IP 65 Protected | incorporated data logger



ULTIMATE



A versatile, intelligent gas detection system with an innovative visual display of parameters on a touch screen:

24 VDC | 90 Inputs for gas detectors, alarm lights and accessories | 7" Touch-Display | USB/ RJ45-Connection | 8 Relay outputs, expandable
Modbus RTU/TCP outputs, optional 0-10VDC or 4-20mA



PREMIUM



A powerful, multi-functional gas detection system specially designed for SIL1 or SIL2 systems:

24 VDC | 256 Inputs for gas detectors (BUS or 4-20mA)
LCD-Display | 8 Relay outputs, expandable | 19"-Rack or metal box
incorporated data logger



PORTABLE



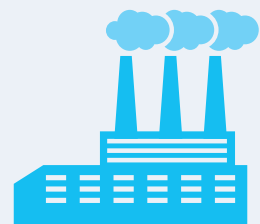
Blackline Safety: Wide range of gas sensors and accessories.
Alarm forwarding with location information by e-mail and SMS.

Riken Keiki: Mobile single-gas and multi-gas devices, extremely robust, smallest and lightest five-gas meter in the world.



INDUSTRY

In industrial workplaces, gases are omnipresent. To protect personnel and plant, the endangered areas must always be carefully monitored as dangerous concentrations of gas can arise at any time. Gas leaks caused by wear and vibration present a clear risk. The danger can be mitigated by using the correct gas detection system.



INOSENT RECOMMENDS THE «**PREMIUM**» PRODUCT LINE FOR INDUSTRIAL USE

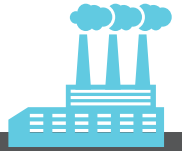
These powerful, multi-functional gas detection systems can fulfil the great demand for highly flexible systems. At the same time, they can manage up to 256 detectors, and offer many analogue or BUS-capable detectors as well as an integrated alarm memory that also can be accessed from a PC. Thanks to a powerful microprocessor, the self-diagnostic methods for detection and localisation of operational malfunctions are on a very high level. The system is designed for SIL1

or SIL2 systems and can also be used with explosion zones 1 and 2. The gas detectors are available both with and without display and can also be delivered in a metal housing. For the highest security requirements, we have developed gas detectors that fulfil SIL2 requirements. If there is no requirement for SIL2 levels, we recommend that the gas detector be used with the product lines Ultimate or Classic.

MEETS THE INDUSTRY'S HIGHEST STANDARDS:
THE «**PREMIUM**» PRODUCT LINE



- RELIABLE MONITORING OF AMMONIA, SOLVENTS, PROPANE, METHANE AND HYDROGEN
- PREMIUM CONTROL MONITOR
- GAS DETECTORS FOR MONITORING NH₃, SOLVENTS, C₃H₈, CH₄ AND H₂; OTHERS CAN BE CONNECTED
- STANDARD AND EXPLOSION-PROTECTED FLASHING LIGHT
- STANDARD AND EXPLOSION-PROTECTED ALARM HORN



INOSENT PREMIUM

(SIL 1 OR SIL 2)
STANDARD - ANALOGUE SYSTEM

SIGNAL:

4 - 20 M A

MAX. QUANTITY GAS DETECTORS:

256



— SUPPLY TO GAS DETECTORS:
3 × 0,75 mm², shielded,
max. 1000 m

— SUPPLY TO ALARM UNITS:
24 VDC

AREA:
E.G. PRODUCTION

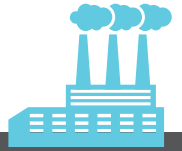


STG/8REL
internal 8 x Relay
Output-Module



STG/IN8-S
internal 8 x 4-20mA
Input-Module





INOSENT PREMIUM

(SIL 1 OR SIL 2)

STANDARD – DIGITAL SYSTEM

SIGNAL:

MODBUS

MAX. QUANTITY GAS DETECTORS:

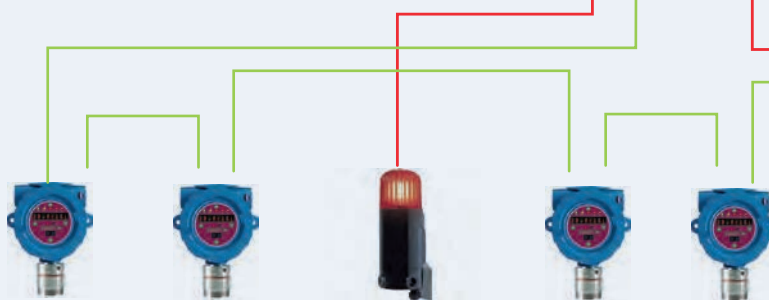
256



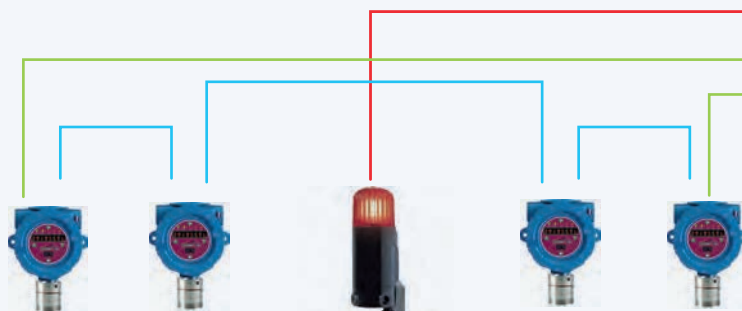
STG/8REL
internal 8 x Relay
Output-Module

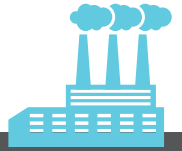
- SUPPLY TO ALARM UNITS:
24 VDC
- SUPPLY TO GAS DETECTORS:
INOSENT MODBUS-CABLE LI HCH:
Cable $2 \times 2 \times 0,75 \text{ mm}^2$, shielded, coloured,
max. 1200 m

AREA 1
E.G. SOLVENTS-DETECTION
ZONE 1

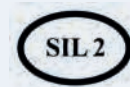


AREA 2
E.G. SOLVENTS-DETECTION
ZONE 2





PREMIUM



The INOSENT Premium product line is a high-performance, multi-functional gas detection system that is able to satisfactorily fulfil the increasingly demanding requirements for highly flexible systems. It is designed for SIL1 or SIL 2 systems and can also be used with Explosion Ex-Zone 1 or 2. The Premium product line features are 256 analogue or BUS-capable detectors and an integrated alarm memory that can be accessed from a PC.

A built-in microprocessor makes it possible to create self-tests, so that the system can easily be adjusted to the given conditions. The connection of gas detectors and remote

input and output modules is possible using two closed loops. In addition, this state-of-the-art gas detection system has 8 potential-free relay outputs as well as the possibility of expanding the gas monitor with additional relay outputs or open-collectors, up to 256 outputs.

The INOSENT Premium product line is available in a metal enclosure or as a 19-in rack unit.

OVERWIE:

- 2 YEARS WARRANTY
- ROBUST WALL MOUNT
- PROGRAMMING USING PC
- EVEN LOG VISIBLE ON FRONT DISPLAY OR PC
- DISPLAY OF THE MEASURING RANGES, ALARM LEVELS AND ALARM GROUPS

SPECIAL FUNCTIONS:

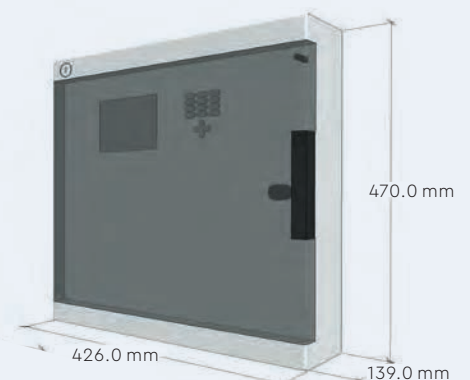
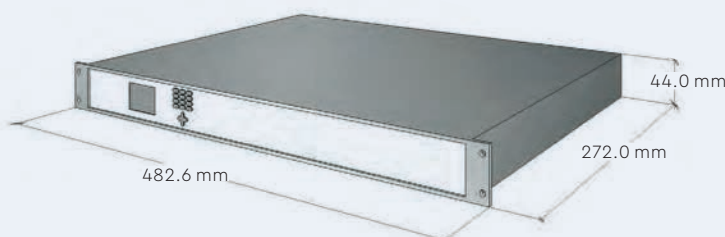
- PERFORMANCE TEST OF RELAY AND INHIBIT FUNCTIONS
- BUILT-IN LOGGING FUNCTION (USING KEYS OR ACCESSIBLE USING SOFTWARE)



TECHNICAL SPECIFICATIONS

SUPPLY VOLTAGE: 24 VDC | LED status display for operational status and malfunctions | LED alarm display for pre-alarm and main alarm | **SIGNAL INPUT:** 4-20mA, Modbus RTU | 8 relay outputs can be expanded to up to 256 outputs | Up to 256 open-collector outputs

DIMENSIONS



PROPANE DETECTOR S4003PR FOR ATEX/SIL2

Designed to meet with tough industrial requirements, the Smart-Detector allow monitoring toxic and flammable contents in harsh environments and classified areas. They offer a 8-digit back-light display and 5 mode status LED for the gas concentration reading. Ideal in harsh environments, the Smart-Detector feature non intrusive calibration for an accurate and easy adjustment via Hall-effect switches, without opening the instrument and declassifying the area. The detectors are IP 65 protected (optional IP67) and complying with SIL3 SW and SIL2 HW. As an option, the sensor is available with dual-head concept and in stainless steel construction.



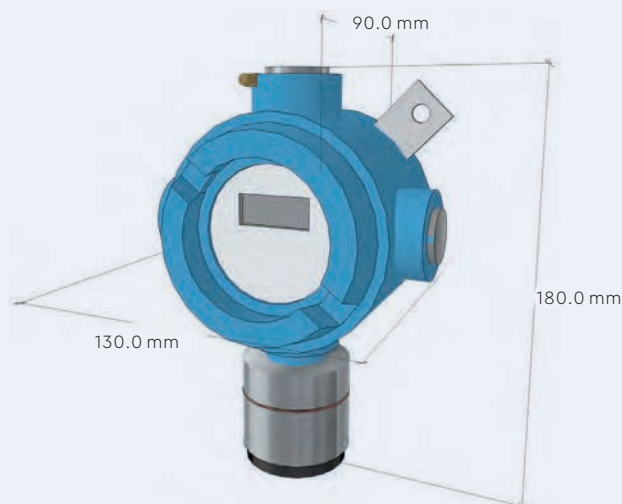
SPECIFICATIONS ELECTRONICS

SUPPLY: 24 VDC | **POWER CONSUMPTION:** max. 130 mA | **WIRING ANALOGUE/DIGITAL:** 3×0,75 mm² up to 100 m, shielded, 2×2×0.75 mm², shielded | **SIGNAL-OUTPUT ANALOGUE/DIGITAL:** 4...20 mA, Modbus RTU | **OPTIONAL RELAY OUTPUTS:** 1 or 3 | **WEIGHT:** 950...1700 gr | **CERTIFIED FOR:** SIL 2 (3) after EN50402, ATEX Group II 2G, 2GD, 3G & GD, HART-Protocol (optional)

SPECIFICATIONS SENSOR

MEASURING PRINCIPLE: Pellistor | **MEASURING RANGE:** 0...100 % LEL C₃H₈ | **ACCURACY:** +/- 2 % of measuring range | **RESPONSE TIME:** t₉₀: < 30 sec | **OPERATION TEMPERATURE:** -40 °C ...+60 °C | **HUMIDITY:** 20...90 % (non condensing) | **APPROX. LIFETIME AT 20°C:** > 5 years, depending on application | **CALIBRATION:** It is necessary to inspect the gas detector every 3 months and to recalibrate it only if needed.

DIMENSIONS AND CONNECTIONS



24VDC Bus1	○	BUS A	○	BUS B	○	0VDC	○	+ Analog	○	S Analog	○
Ex-Gas Detector											

AMMONIA-DETECTOR S4022AM FOR ATEX/SIL2

Designed to meet with tough industrial requirements, the Smart-Detector allow monitoring toxic and flammable contents in harsh environments and classified areas. They offer a 8-digit back-light display and 5 mode status LED for the gas concentration reading. Ideal in harsh environments, the Smart-Detector feature non intrusive calibration for an accurate and easy adjustment via Hall-effect switches, without opening the instrument and declassifying the area. The detectors are IP 65 protected (optional IP67) and complying with SIL3 SW and SIL2 HW. As an option, the sensor is available with dual-head concept and in stainless steel construction.



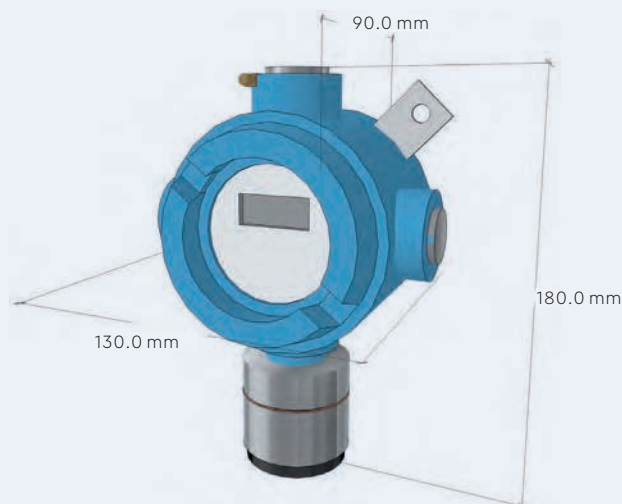
SPECIFICATIONS ELECTRONICS

SUPPLY: 24 VDC | **POWER CONSUMPTION:** max. 70 mA | **WIRING ANALOGUE/DIGITAL:** 3x0,75 mm² up to 100 m, shielded, 2x2x0,75 mm², shielded | **SIGNAL-OUTPUT ANALOGUE/DIGITAL:** 4...20 mA, Modbus RTU | **OPTIONAL RELAY OUTPUTS:** 1 or 3 | **WEIGHT:** 850...1200 gr | **CERTIFIED FOR:** SIL 2 (3) after EN50402, ATEX Group II 2G, 2GD, 3G & GD, HART-Protocol (optional)

SPECIFICATIONS SENSOR

MEASURING PRINCIPLE: Electrochemical | **MEASURING RANGE:** 0...100 ppm (Type S4008AM 0...1'000 ppm) | **ACCURACY:** +/- 2 % of measuring range | **RESPONSE TIME:** t₉₀: < 30 sec | **OPERATION TEMPERATURE:** -20 °C ...+50 °C | **HUMIDITY:** 20...90 % (non condensing) | **APPROX. LIFETIME AT 20°C:** > 2 years, depending on application | **CALIBRATION:** It is necessary to inspect the gas detector every 3 month and to recalibrate it only if needed.

DIMENSIONS AND CONNECTIONS



24VDC Bus1	○	2	○	3	○	4	○	5	○	6	○
BUS A											
BUS B											
0VDC											
+ Analog											
S Analog											
Ex-Gas Detector											

METHANE DETECTOR S4003ME FOR ATEX/SIL2

Designed to meet with tough industrial requirements, the Smart-Detector allow monitoring toxic and flammable contents in harsh environments and classified areas. They offer a 8-digit back-light display and 5 mode status LED for the gas concentration reading. Ideal in harsh environments, the Smart-Detector feature non intrusive calibration for an accurate and easy adjustment via Hall-effect switches, without opening the instrument and declassifying the area. The detectors are IP 65 protected (optional IP67) and complying with SIL3 SW and SIL2 HW. As an option, the sensor is available with dual-head concept and in stainless steel construction.



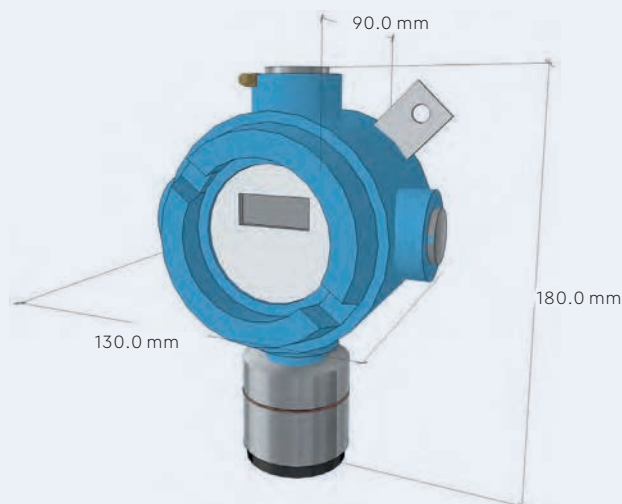
SPECIFICATIONS ELECTRONICS

SUPPLY: 24 VDC | **POWER CONSUMPTION:** max. 130 mA | **WIRING ANALOGUE/DIGITAL:** 3x0,75 mm² up to 100 m, shielded, 2x2x0,75 mm², shielded | **SIGNAL-OUTPUT ANALOGUE/DIGITAL:** 4...20 mA, Modbus RTU | **OPTIONAL RELAY OUTPUTS:** 1 or 3 | **WEIGHT:** 950...1700 gr | **CERTIFIED FOR:** SIL 2 (3) after EN50402, ATEX Group II 2G, 2GD, 3G & GD, HART-Protocol (optional)

SPECIFICATIONS SENSOR

MEASURING PRINCIPLE: Pellistor | **MEASURING RANGE:** 0...100 % LEL CH₄ | **ACCURACY:** +/- 2 % of measuring range | **RESPONSE TIME:** t₉₀: < 30 sec | **OPERATION TEMPERATURE:** -40 °C ...+60 °C | **HUMIDITY:** 20...90 % (non condensing) | **APPROX. LIFETIME AT 20°C:** > 5 years depending on application | **CALIBRATION:** It is necessary to inspect the gas detector every 3 month and to recalibrate it only if needed.

DIMENSIONS AND CONNECTIONS



24VDC Bus1	○	2	○	3	○	4	○	5	○	6	○
BUS A											
BUS B											
0VDC											
+ Analog											
S Analog											
Ex-Gas Detector											

HYDROGEN DETECTOR S4003H2 FOR ATEX/SIL2

Designed to meet with tough industrial requirements, the Smart-Detector allow monitoring toxic and flammable contents in harsh environments and classified areas. They offer a 8-digit back-light display and 5 mode status LED for the gas concentration reading. Ideal in harsh environments, the Smart-Detector feature non intrusive calibration for an accurate and easy adjustment via Hall-effect switches, without opening the instrument and declassifying the area. The detectors are IP 65 protected (optional IP67) and complying with SIL3 SW and SIL2 HW. As an option, the sensor is available with dual-head concept and in stainless steel construction.



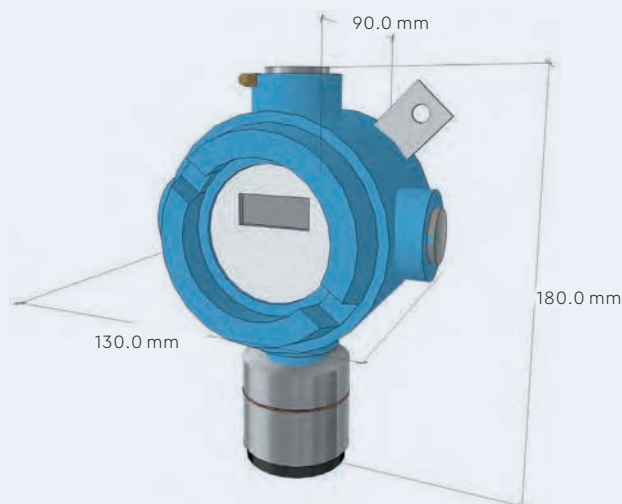
SPECIFICATIONS ELECTRONICS

SUPPLY: 24 VDC | **POWER CONSUMPTION:** max. 130 mA | **WIRING ANALOGUE/DIGITAL:** 3x0,75 mm² up to 100 m, shielded, 2x2x0,75 mm², shielded | **SIGNAL-OUTPUT ANALOGUE/DIGITAL:** 4...20 mA, Modbus RTU | **OPTIONAL RELAY OUTPUTS:** 1 or 3 | **WEIGHT:** 950...1700 gr | **CERTIFIED FOR:** SIL 2 (3) after EN50402, ATEX Group II 2G, 2GD, 3G & GD, HART-Protocol (optional)

SPECIFICATIONS SENSOR

MEASURING PRINCIPLE: Pellistor | **MEASURING RANGE:** 0...100 % LEL
ACCURACY: +/- 2 % of measuring range | **RESPONSE TIME:** t₉₀: < 30 sec | **OPERATION TEMPERATURE:** -40 °C ...+60 °C | **HUMIDITY:** 20...90 % (non condensing) | **APPROX. LIFETIME AT 20°C:** > 5 years depending on application | **CALIBRATION:** It is necessary to inspect the gas detector every 3 month and to recalibrate it only if needed.

DIMENSIONS AND CONNECTIONS



24VDC Bus1	2	3	4	5	6
BUS A	BUS B	0VDC	+ Analog	S Analog	
Ex-Gas Detector					

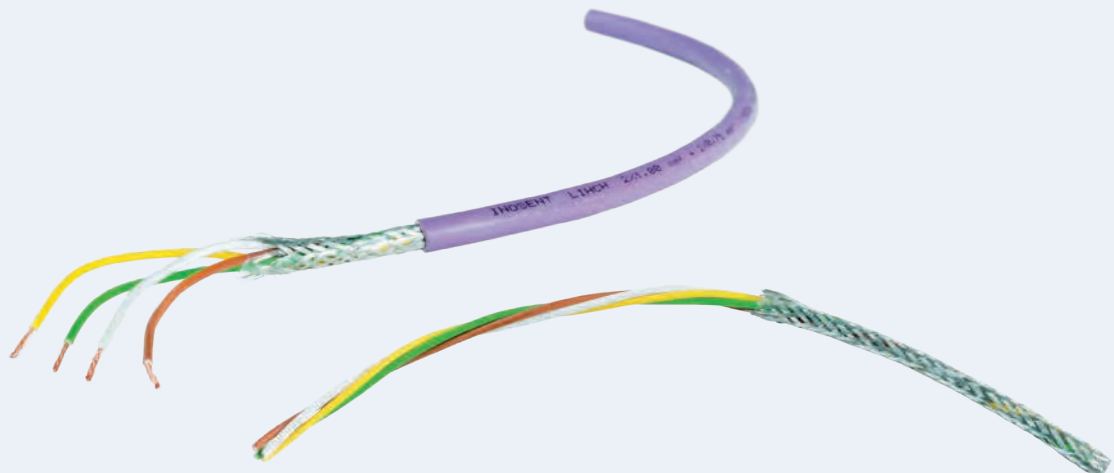
INOSENT MODBUS-CABLE 2 x 1 MM² / 2 x 0.75 MM² IMK 21275

The INOSENT Modbus-cable IMK 21275 was designed for our BUS system. The colored cores allow easy and correct connection of the components.

The shield and the paired wires protect our data cable from external influences. Our cable meets the fire protection class CPR B2ca and is halogen-free



CABLE TYP:	IMK 21275
OUTSIDE DIAMETER:	7.80 mm
OUTHER SHEATH:	violet, halogen-free, shielded
CORES:	twisted in pairs halogen free
POWER SUPPLY CROSS-SECTION:	2 x 1 mm ²
COLOURS POWER SUPPLY:	Brown = V- / White = V+
DATA CABLE CROSS-SECTION:	2 x 0.75 mm ²
SUPPLY COLOURS:	Green = A / Yellow = B
FIRE PROTECTION CLASS:	CPR B2ca



CONTACT

INOSENT IS THERE FOR YOU

Regardless of the reason for your interest in the area of gas detection technology: Contact us and we will do our best to find the optimum solution for you.

We will be happy to go into detail with you and address your specific ideas and concerns – because you can always depend on INOSENT.

INOSENT Gaswarntechnik AG

Eichwatt 5
CH-8105 Regensdorf / Switzerland

Telephone: +41 (0)44 556 83 00

Fax: +41 (0)44 556 83 01

E-Mail: info@inosent.ch