

INOSENT
GASWARNTECHNIK AG

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#### FIRMA

#### 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

#### 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:

NH<sub>3</sub> | SOLVENTS | C<sub>3</sub>H<sub>8</sub> CH<sub>4</sub> | H<sub>2</sub> | 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 | 16 BUS-Inputs for gas detectors and alarm lights | 4 x 4-20mA-Input | LCD-Display | 8 Digital outputs | Output 0-10VDC, Modbus RTU



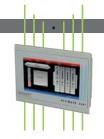
#### CLASSIC





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 mulit-gas devices, extremely robust, smallest and lightest five-gas meter in the world.

## |<sub>||..|</sub>| |NOSENT **ULTIMATE**



Toxic, inert and explosive gases are frequently used in laboratories. The need to mitigate the risk of a gas leak and for the protection of personnel and equipment necessitates the use of fixed gas detection within the laboratory environment.



## INOSENT RECOMMENDS THE «ULTIMATE» PRODUCT LINE FOR LABORATORY GAS DETECTION.

With the **\*ULTIMATE\***, gas leaks can be detected at an early stage and dangerous concentrations of gas prevented: In addition to optical and acoustical alarms, the gas flow will be shut off, utilising a solenoid valve. Visual presentation of the gas detectors, measured gas values and alarm status are presented on the Ultimate touch screen, achieving an excellent overview over the events and measurement data. Logging of the gas concentrations, alarms and malfunctions, as well as a web server and a MODBUS output for communication with the building control system, are all integrated into the system.

The gas detectors can also be used without a gas monitor. As an option, the BUS- detectors are available in a neutral white plastic housing; allowing for a visually acceptable device within the laboratory space. For fast checking of gas monitoring data, suitable displays can be set up at the entrance to the laboratory.

## EASY TO INTEGRATE, WITH AN IDEAL DESIGN FOR LABORATORIES: THE «ULTIMATE» PRODUCT LINE



- RELIABLE MONITORING OF VARIOUS
   GASES, SUCH AS CARBON MONOXIDE CARBON
   DIOXIDE, HYDROGEN SULPHIDE, PROPANE,
   AMMONIA, PROPANE, AND MANY MORE.
- ULTIMATE CONTROL PANEL
- GAS DETECTORS FOR MONITORING
   O2, CO, H2, CO2, NH3, C3H8, O3, SIH4,
   PH3, H2S; OTHERS CAN BE CONNECTED
- LED-LIGHT WITH INTEGRATED ALARM HORN
- FLASHING LIGHT
- ALARM HORN



#### INOSENT ULTIMATE

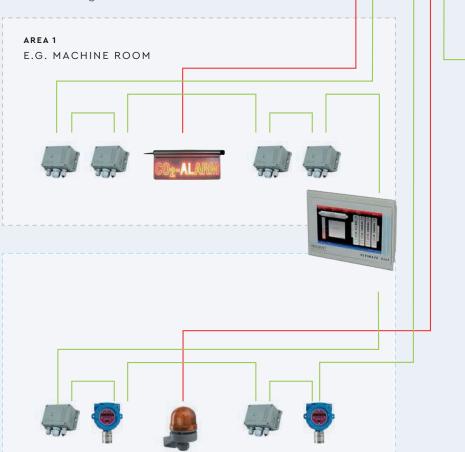
WITHOUT DIGITAL ALARM UNITS

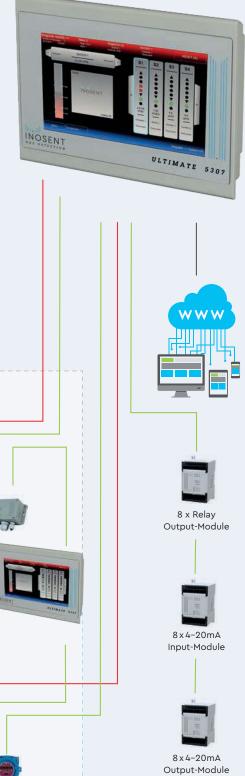
SIGNAL:

#### MODBUS

MAX. QUANTITY GAS DETECTORS: 9 0

- SUPPLY TO ALARM UNITS 24 VDC or 230 VAC
- SUPPLY TO GAS DETECTORS: INOSENT MODBUS-CABLE LI HCH: Cable 2 × 2 x 0,75 mm², shielded, coloured, max. 1200 m
- ETHERNET-CONNECTION: 8-pin RJ45, 10/100 Mbps, Auto MDI/MDIX, Auto-Negation







NOSENT

#### INOSENT ULTIMATE

WITH DIGITAL ALARM UNITS

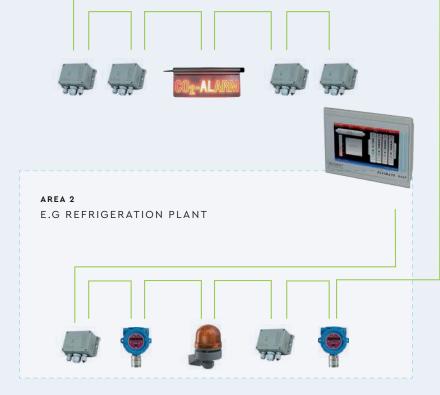
SIGNAL:

#### MODBUS

MAX. QUANTITY GAS DETECTORS: 90

- SUPPLY TO GAS DETECTORS AND ALARM UNITS:
  INOSENT MODBUS-CABLE LI HCH:
  Cable 2 × 2 x 0,75 mm², shielded, coulored,
  max. 1200 m
- ETHERNET-CONNECTION: 8-pin RJ45, 10/100 Mbps, Auto MDI/MDIX, Auto-Negation



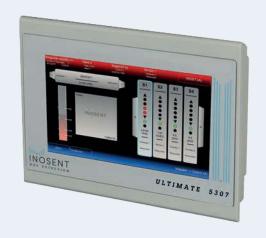






## ULTIMATE 5307

The Ultimate product line has been designed specifically for monitoring the concentration of gases. The gas monitor has an integrated 7-inch touch screen for the graphical display, for operation and for programming. In addition, logging of gas concentration levels, alarms and malfunctions, as well as a web server and a MODBUS RTU output for communication with the building control system, are all integrated into the Ultimate system.



#### OVERVIEW:

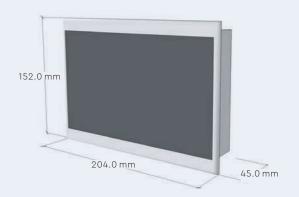
- 2 YEARS WARRANTY
- PRACTICAL BUILT-IN INSTALLATION
- 7-INCH TOUCH-SCREEN DISPLAY
- ADDITIONAL TOUCH DISPLAYS CAN BE CONNECTED ON THE SAME BUS
- SIMPLE PROGRAMMING DIRECTLY ON THE TOUCH-SCREEN
- UP TO 50 BUS COMPONENTS

- EMBEDDED WEB SERVER
- INTEGRATED LOGGING OF GAS CONCENTRATIONS, ALARMS AND MALFUNCTIONS
- DISPLAY OF MEASURING RANGES,
   ALARM LEVELS AND ALARM GROUPS
- MAK VALUE MODE FOR NATIONAL DIRECTIVE-COMPLIANT LABORATORY MONITORINGS

#### TECHNICAL SPECIFICATIONS

**SUPPLY VOLTAGE:** 24 VDC | Status display for operation and malfunctions on a well-organised conlour display | USB- and SD-Card-interface | RJ-45 connector for the web viewer | **DIGITAL SIGNAL INPUT:** 90 x digital via RS485 BUS-ports | 8 external relay contacts on the expansion module | 8 × 4-20mA analogue signal inputs on the expansion module | **AVAILABLE ACCES-SORIES:** Modbus-enabled LED alarm light with integrated horn, Expansion modules for additional relay outpouts or analogue inputs

#### **DIMENSONS AND CONNECTIONS**







# RELAY OUTPUT MODULE TYPE 17110-8R

The Modbus I7110-8R relay output module controls eight independent electromagnetic relays according to incoming digital data:

- 8 output relays 4A 250 VAC OR 24 VDC
- Universal 230 VAC / 24 VDC power supply
- RS485 Modbus RTU-Interface
- DIN-rail or wall mount



#### RELAY OUTPUT MODULE (SPECIFICATIONS)

**SUPPLY VOLTAGE:** 90...264 VAC/ 20...375 VDC

**POWER CONSUMPTION:** <6 VA WIRING: 2×2×0,75 mm2, shielded

number of outputs: 8

OUTPUT TYPE: Electromagnetic relay, 4A 250 VAC or 24 VDC

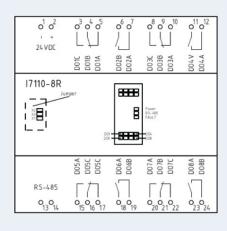
PROTECTION CLASS: IP 20

operating conditions: -10...+55  $^{\circ}$ C, < 80  $^{\circ}$ RH

**WEIGHT:** 400 gr **CERTIFICATIONS:** CE

#### DIMENSIONS AND CONNECTIONS







# OVERVIEW OF AVAILABLE GAS DETECTORS PRODUCT LINE «EASY»

12608-NH3-E	NH3	Ammonia	0-100/300/1000 PPM
12608-NH3-S	NH3	Ammonia	0-1000 PPM
12608-C <sub>2</sub> H <sub>2</sub> -S	C <sub>2</sub> H <sub>2</sub>	Acteylen	0-100 % UEG
12608-C4H10-S	C4H10	Butane	0-100 % UEG
12608-CO <sub>2</sub> -I	CO2	Carbon dioxide	0-5000/10'000/50'000 PPM
12608-CO-E	СО	Carbon monoxide	0-300 PPM
12608-Cl <sub>2</sub> -E	Cl2	Chlorine	0-20 PPM
12608-C <sub>2</sub> H <sub>4</sub> -E	C <sub>2</sub> H <sub>4</sub>	Ethylen	0-10/200/1500 PPM
12608-C <sub>2</sub> H <sub>4</sub> -S	C <sub>2</sub> H <sub>4</sub>	Ethylene	0-100 % UEG
12608-ETO-E	ETO	Ethylene oxyde	0-20/100 PPM
12608-HFC-S	HFC	Freon	0-1000 PPM
12608-H <sub>2</sub> -S	H <sub>2</sub>	Hydrogen	0-100 % UEG
12608-H₂S-E	H <sub>2</sub> S	Hydrogen sulfide	0-50/100/1000 PPM
12608-CH <sub>4</sub> -S	CH <sub>4</sub>	Methane	0-100 % UEG
12608-CH <sub>4</sub> -P	CH <sub>4</sub>	Methane	0-100 % UEG
12608-NO-E	NO	Nitric oxide	0-30 PPM
12608-NO <sub>2</sub> -E	NO <sub>2</sub>	Nitrogen dioxide	0-20 PPM
12608-O <sub>2</sub> -E	O <sub>2</sub>	Oxygen	0-25 VOL. %
12608-O3-E	Оз	Ozone	0-5 PPM
12608-C3H8-S	СзН8	Propane	0-100 % UEG
12608-C3H8-P	СзН8	Propane	0-100 % UEG
12608-SO <sub>2</sub> -E	SO <sub>2</sub>	Sulfur dioxide	0-50/100 PPM
12608-VOC-S	VOC	VOC	0-100 % UEG









### PROPANE-DETECTOR 12608-C3H8-P

The Gas detector is designed for the detection of Propan C3H8 and provides 2 internal relay outputs for ventilation control and alarm, a 85 dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue (4-20mA and 0-10VDC) and digital (Modbus RTU) output signals. The supply of the gas detector is 24 VDC or 230 VAC and can also be operated "standalone" without any gas monitor. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. Optionally the Gas detector is also available with an remote sensor, integrated display or in a neutral IP20 enclosure for Indoor-Installation.



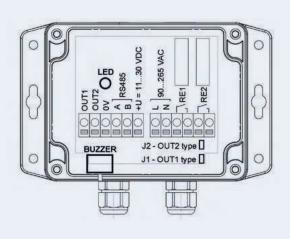
#### SPECIFCATIONS ELECTRONICS

SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA | WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Pellistor | MEASURING RANGE: 0...100 % LEL | ACCURACY: +/- 3 % of measuring range | RESPONSE TIME: t 90: < 15 sec | OPERATION TEMPERATURE: -40 °C ...+70 °C HUMIDITY: 0...95 % (non condensing) | SIGNAL DRIFT: < 1 % Signal/Month | APPROX. LIFETIME AT 20°C: > 5 years, depending on application | CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.













## CARBON DIOXIDE-DETECTOR I2608-CO2-I

The Gas detector is designed for the detection of Carbon Dioxide CO2 and provides 2 internal relay outputs for ventilation control and alarm, a 85 dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue (4-20mA and 0-10VDC) and digital (Modbus RTU) output signals. The supply of the gas detector is 24 VDC or 230 VAC and can also be operated "standalone" without any gas monitor. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. Optionally the Gas detector is also available with an remote sensor, integrated display or in a neutral IP20 enclosure for Indoor-Installation.



#### SPECIFCATIONS ELECTRONICS

SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Infrared | MEASURING RANGE: 0...40'000 ppm

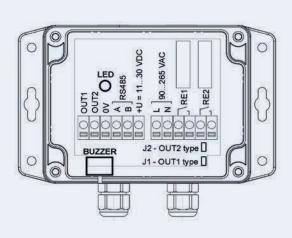
ACCURACY: +/- 3 % of measuring range | RESPONSE TIME: t 60: < 60 sec | OPERATION

TEMPERATURE: -40 °C ...+60 °C | HUMIDITY: 0...95 % (non condensing) | SIGNAL DRIFT:

< 1% Signal/Month | APPROX. LIFETIME AT 20°C: > 10 years, depending on application

CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.













### AMMONIA-DETECTOR 12608-NH3-E

The Gas detector is designed for the detection of Ammonia NH3 and provides 2 internal relay outputs for ventilation control and alarm, a 85 dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue (4-20mA and 0-10VDC) and digital (Modbus RTU) output signals. The supply of the gas detector is 24 VDC or 230 VAC and can also be operated "standalone" without any gas monitor. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. Optionally the Gas detector is also available with an remote sensor, integrated display or in a neutral IP20 enclosure for Indoor-Installation.



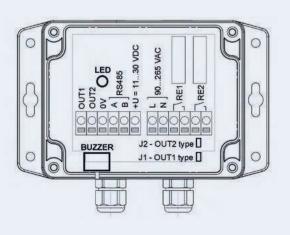
#### SPECIFCATIONS ELECTRONICS

SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA | WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Electrochemical | MEASURING RANGE: 0...100/300/1'000 ppm ACCURACY: +/- 2 % of measuring range | RESPONSE TIME: t 90: < 30 sec | OPERATION TEMPERATURE: -40 °C ...+50 °C | HUMIDITY: 15...90 % (non condensing) | SIGNAL DRIFT: < 2 % Signal/Month APPROX. LIFETIME AT 20°C: > 2 years, depending on application | CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.













# CARBON MONOXIDE-DETECTOR I2608-CO-E

The Gas detector is designed for the detection of Carbon Monoxide CO and provides 2 internal relay outputs for ventilation control and alarm, a 85 dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue (4-20mA and 0-10VDC) and digital (Modbus RTU) output signals. The supply of the gas detector is 24 VDC or 230 VAC and can also be operated "standalone" without any gas monitor. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. Optionally the Gas detector is also available with an remote sensor, integrated display or in a neutral IP20 enclosure for Indoor-Installation.



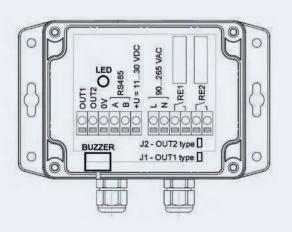
#### SPECIFCATIONS ELECTRONICS

SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Electrochemical | MEASURING RANGE: 0...300/1'000 ppm ACCURACY: +/- 1 % of measuring range | RESPONSE TIME: t 90: < 60 sec | OPERATION TEMPERATURE: -20 °C ...+50 °C | HUMIDITY: 0...90 % (non condensing) | SIGNAL DRIFT: < 1% Signal/Month APPROX. LIFETIME AT 20°C: > 10 years, depending on application CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.













### METHANE-DETECTOR 12608-CH4-S

The Gas detector is designed for the detection of Methane CH4 and provides 2 internal relay outputs for ventilation control and alarm, a 85 dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue (4-20mA and 0-10VDC) and digital (Modbus RTU) output signals. The supply of the gas detector is 24 VDC or 230 VAC and can also be operated "standalone" without any gas monitor. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. Optionally the Gas detector is also available with an remote sensor, integrated display or in a neutral IP20 enclosure for Indoor-Installation.



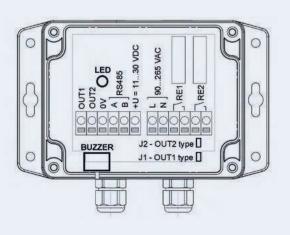
#### SPECIFCATIONS ELECTRONICS

SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10 VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Semiconductor | MEASURING RANGE: 0...100 % LEL | ACCURACY: +/- 3 % of measuring range | RESPONSE TIME: t 90: < 15 sec | OPERATION TEMPERATURE: -40 °C ...+70 °C HUMIDITY: 0...95 % (non condensing) | SIGNAL DRIFT: < 1 % Signal/Month APPROX. LIFETIME: > 5 years, depending on application | CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.













### HYDROGEN-DETECTOR I2608-H2-E

The Gas detector is designed for the detection of Hydrogen H2 and provides 2 internal relay outputs for ventilation control and alarm, a 85dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue (4-20mA and 0-10VDC) and digital (Modbus RTU) output signals. The supply of the gas detector is 24VDC or 230VAC with the optional available power supply. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. The Gas detector operates also "standalone", without any gas monitor. The Gas detector is also available with an incorporated dispay, a remote sensor probe, as a duct-mount version or in a neutral IP20 enclosure for Indoor-Installation.



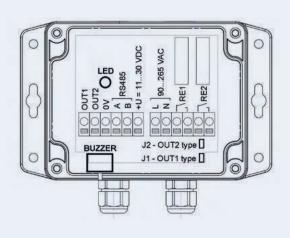
#### SPECIFCATIONS ELECTRONICS

SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA | WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Electrochemical | MEASURING RANGE: 0...2'000/10'000/40'000 ppm ACCURACY: +/- 2 % of measuring range | RESPONSE TIME: t 90: < 45 sec | OPERATION TEMPERATURE: -20 °C ...+50 °C | HUMIDITY: 50...95 % (non condensing) | SIGNAL DRIFT: < 2 % Signal/Month APPROX. LIFETIME AT 20°C: > 4 years, depending on application | CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.













### METHANE-DETECTOR 12608-CH4-S

The Gas detector is designed for the detection of Methane CH4 and provides 2 internal relay outputs for ventilation control and alarm, a 85 dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue (4-20mA and 0-10VDC) and digital (Modbus RTU) output signals. The supply of the gas detector is 24 VDC or 230 VAC and can also be operated "standalone" without any gas monitor. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. Optionally the Gas detector is also available with an remote sensor, integrated display or in a neutral IP20 enclosure for Indoor-Installation.



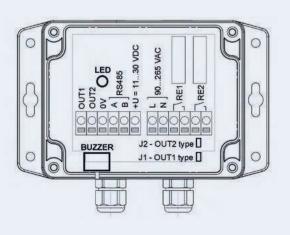
#### SPECIFCATIONS ELECTRONICS

SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10 VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Semiconductor | MEASURING RANGE: 0...100 % LEL | ACCURACY: +/- 3 % of measuring range | RESPONSE TIME: t 90: < 15 sec | OPERATION TEMPERATURE: -40 °C ...+70 °C HUMIDITY: 0...95 % (non condensing) | SIGNAL DRIFT: < 1 % Signal/Month APPROX. LIFETIME: > 5 years, depending on application | CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.













### OZONE-DETECTOR I2608-O3-E

The Gas detector is designed for the detection of Ozone O3 and provides 2 internal relay outputs for ventilation control and alarm, a 85 dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue (4-20mA and 0-10VDC) and digital (Modbus RTU) output signals. The supply of the gas detector is 24 VDC or 230 VAC and can also be operated "standalone" without any gas monitor. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. Optionally the Gas detector is also available with an remote sensor, integrated display or in a neutral IP20 enclosure for Indoor-Installation.



#### SPECIFCATIONS ELECTRONICS

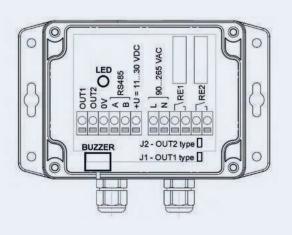
SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Electrochemical | MEASURING RANGE: 0...5 ppm

ACCURACY: +/- 2 % of measuring range | RESPONSE TIME: t 90: < 60 sec | OPERATION TEMPERATURE: -40 °C ...+50 °C | HUMIDITY: 15...90 % (non condensing) | SIGNAL DRIFT: < 2 % Signal/Month APPROX. LIFETIME AT 20°C: > 2 years, depending on application | CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.













## HYDROGEN SULPHIDE-DETECTOR I2608-H2S-E

The Gas detector is designed for the detection of Hydrogen Sulphide H2S and provides 2 internal relay outputs for ventilation control and alarm, a 85dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue (4-20mA and 0-10VDC) and digital (Modbus RTU) output signals. The supply of the gas detector is 24VDC or 230VAC with the optional available power supply. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. The Gas detector operates also "standalone", without any gas monitor. The Gas detector is also available with an incorporated dispay, a remote sensor probe, as a duct-mount version or in a neutral IP20 enclosure for Indoor-Installation.



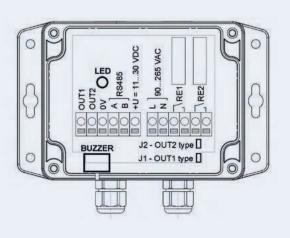
#### SPECIFCATIONS ELECTRONICS

SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA | WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Electrochemical | MEASURING RANGE: 0...50/100/10'000 ppm ACCURACY: +/- 2 % of measuring range | RESPONSE TIME: t 90: < 45 sec | OPERATION TEMPERATURE: -30 °C ...+50 °C | HUMIDITY: 15...95 % (non condensing) | SIGNAL DRIFT: < 2 % Signal/Month APPROX. LIFETIME AT 20°C: > 2 years, depending on application | CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.













## REFRIGERANT-DETECTOR 12608-HFC-S

The Gas detector is designed for the detection of (H)FKW's (R134a, R404a, R407c, etc) and provides 2 internal relay outputs for ventilation control and alarm, a 85dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue (4-20mA and 0-10VDC) and digital (Modbus RTU) output signals. The supply of the gas detector is 24VDC or 230VAC with the optional available power supply. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. The Gas detector operates also "standalone", without any gas monitor. The Gas detector is also available with an incorporated dispay, a remote sensor probe, as a duct-mount version or in a neutral IP20 enclosure for Indoor-Installation.



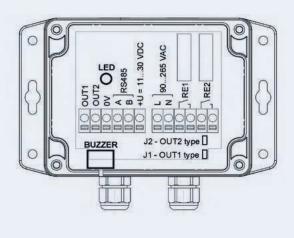
#### SPECIFCATIONS ELECTRONICS

SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA | WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Semiconductor | MEASURING RANGE: 0...1'000/2'500 ppm ACCURACY: +/- 3 % of measuring range | RESPONSE TIME: t 90: < 15 sec | OPERATION TEMPERATURE: -30 °C ...+60 °C | HUMIDITY: 0...95 % (non condensing) | SIGNAL DRIFT: < 1 % Signal/Month APPROX. LIFETIME AT 20°C: > 10 years, depending on application | CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.













## REFRIGERANT-DETECTOR I2608-HFC-S-LCD

The Gas detector is designed for the detection of (H)FKW's (R134a, R404a, etc) and provides 2 internal relay outputs for ventilation control and alarm, a 85dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue and digital output signals. The supply of the gas detector is 24VDC or 230VAC with the optional available power supply. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. The Gas detector operates also "standalone", without any gas monitor. The Gas detector is also available with an remote sensor or in a neutral IP20 enclosure for Indoor-Installation.



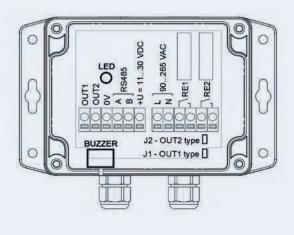
#### SPECIFCATIONS ELECTRONICS

SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA | WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Semiconductor | MEASURING RANGE: 0...1'000/2'500 ppm ACCURACY: +/- 3 % of measuring range | RESPONSE TIME: t 90: < 15 sec | OPERATION TEMPERATURE: -30 °C ...+60 °C | HUMIDITY: 0...95 % (non condensing) | SIGNAL DRIFT: < 1 % Signal/Month APPROX. LIFETIME AT 20°C: > 10 years, depending on application | CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.













## REFRIGERANT-DETECTOR I2608-HFC-S-RP33

The Gas detector is designed for the detection of (H)FKW's (R134a, R404a, etc) and provides 2 internal relay outputs for ventilation control and alarm, a 85dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue and digital output signals. The supply of the gas detector is 24VDC or 230VAC with the optional available power supply. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. The Gas detector operates also "standalone", without any gas monitor. The Gas detector is also available with an incorporated display, or in a neutral IP20 enclosure for Indoor-Installation.



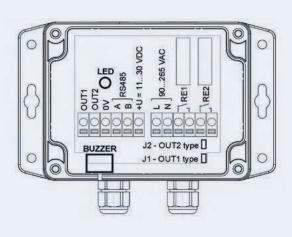
#### SPECIFCATIONS ELECTRONICS

SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA | WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Semiconductor | MEASURING RANGE: 0...1'000/2'500 ppm ACCURACY: +/- 3 % of measuring range | RESPONSE TIME: t 90: < 15 sec | OPERATION TEMPERATURE: -30 °C ...+60 °C | HUMIDITY: 0...95 % (non condensing) | SIGNAL DRIFT: < 1 % Signal/Month APPROX. LIFETIME AT 20°C: > 10 years, depending on application | CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.













## REFRIGERANT-DETECTOR I2608-HFC-S-RP33-LCD

The Gas detector is designed for the detection of (H)FKW's (R134a, R404a, etc) and provides 2 internal relay outputs for ventilation control and alarm, a 85dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue and digital output signals. The supply of the gas detector is 24VDC or 230VAC with the optional available power supply. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. The Gas detector operates also "standalone", without any gas monitor. The Gas detector is also available in a neutral IP20 enclosure for Indoor-Installation.



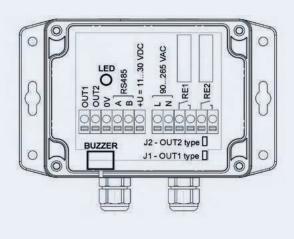
#### SPECIFCATIONS ELECTRONICS

SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA | WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Semiconductor | MEASURING RANGE: 0...1'000/2'500 ppm ACCURACY: +/- 3 % of measuring range | RESPONSE TIME: t 90: < 15 sec | OPERATION TEMPERATURE: -30 °C ...+60 °C | HUMIDITY: 0...95 % (non condensing) | SIGNAL DRIFT: < 1 % Signal/Month APPROX. LIFETIME AT 20°C: > 10 years, depending on application | CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.













## REFRIGERANT-DETECTOR I2608-HFC-S-RLCD

The Gas detector is designed for the detection of (H)FKW's (R134a, R404a, etc) and provides 2 internal relay outputs for ventilation control and alarm, a 85dB Alarm buzzer and an LED alarm indicator. The Gas detector provides analogue and digital output signals. The supply of the gas detector is 24VDC or 230VAC with the optional available power supply. The light grey ABS plastic enclosure is IP 65 protected and the internal sensor can be easily replaced when its life time is over. The Gas detector operates also "standalone", without any gas monitor. The Gas detector is also available with an incorporated display, a remote sensor probe or in a neutral IP20 enclosure for Indoor-Installation.



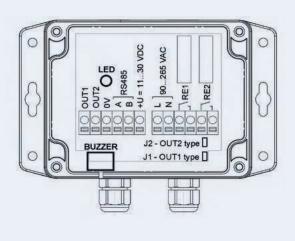
#### SPECIFCATIONS ELECTRONICS

SUPPLY: 11...30 VDC/VAC (optional 90...265 VAC) | POWER CONSUMPTION: max. 60 mA | WIRING ANALOGUE/DIGITAL: 3×0,75 mm2, shielded, 2×2×0,75 mm2, shielded | SIGNAL-OUTPUT ANALOGUE/DIGITAL: 4...20 mA, 0...10VDC, Modbus RTU | RELAY OUTPUTS: 2 SPST (250 VAC/ 30 VDC, 5A max) WEIGHT: 500 gr | CERTIFICATES: CE

#### SPECIFCATIONS SENSOR

MEASURING PRINCIPLE: Semiconductor | MEASURING RANGE: 0...1'000/2'500 ppm ACCURACY: +/- 3 % of measuring range | RESPONSE TIME: t 90: < 15 sec | OPERATION TEMPERATURE: -30 °C ...+60 °C | HUMIDITY: 0...95 % (non condensing) | SIGNAL DRIFT: < 1 % Signal/Month APPROX. LIFETIME AT 20°C: > 10 years, depending on application | CALIBRATION: It is necessary to recalibrate the gas detector at least once a year.







# LED-WARNING SIGN WITH HORN TYPE 130 (BUS-COMPATIBLE)

The 30 cm long LED-Sign with bright red LED's may be used for most types of Gas Alarm. The LED-Sign can be used with a flashing or a continuous light and includes the option to pre-select text or pictograms in different colours, depending on the client's request. The supply voltage of the LED-Sign is 24VDC and it incorporates a 92dB Alarm horn, which can be controlled separately from the LED's.

The LED-Sign in combination with the INOSENT BUS-compatible 'Ultimate' or 'Compact' controller allows for independent programming of the LED's and sounder in different alarm modes. This design function facilitates a simple installation on the same BUS-Cable as the gas detectors, eliminating the need for additional cable. The LED-Sign is also available with 60 cm length one sided (standard) or double-sided.



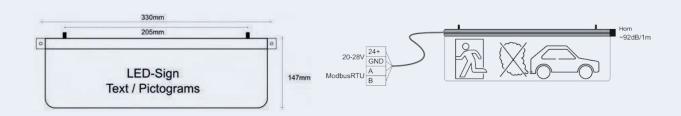
#### LED-SIGN (ELECTRONICS)

supply voltage: 24~VDC~| power: max. 2~W~| supply analogue (24V)/digital: 2x~0,75~mm,

2×2×0,75 mm2, shielded | PROTECTION CLASS: IP 52 | VOLUME: ca. 92 dB |

LIFETEIME LEDS: 50'000 h | WEIGHT: 400 gr | CERTIFICATIONS: CE

#### DIMENSIONS AND CONNECTION





# ALARM LIGHT WITH HORN TYPE 194-230

Horn with flashing light in current technology without mechanical wear parts. 2 different sound variants selectable by means of a toggle switch. Separate control of the light and the horn possible. Standard colour yellow.

#### SPECIFICATIONS

**WIRING**: 2×0,75 mm

SUPPLY VOLTAGE: 230 VAC POWER: max. 60mA

PRODTECTION CLASS: IP 66 (ABS-CASE)

VOLUME: 95 dB

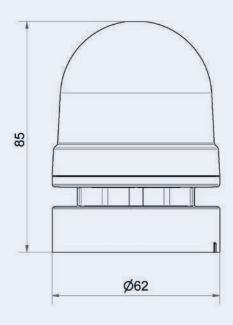
**SOUNDS:** 2 sounds variants **LIGHTNING:** 0,7Ws 1 Hz

**OPERATING TEMPERATURE:** -30...+60 °C **DIMENSIONS:** height 85mm, diameter 62mm

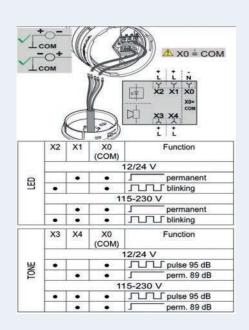
**WEIGHT:** 78 gr **CERTIFICATIONS:** CE



#### DIMENSIONS



#### CONNECTIONS





# INOSENT MODBUS-CABLE $2 \times 1 \, \text{M} \, \text{M}^2 / 2 \times 0.75 \, \text{M} \, \text{M}^2 \, \text{IM} \, \text{K} \, 21275$

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, shieldedCORES:twisted in pairs halogen free

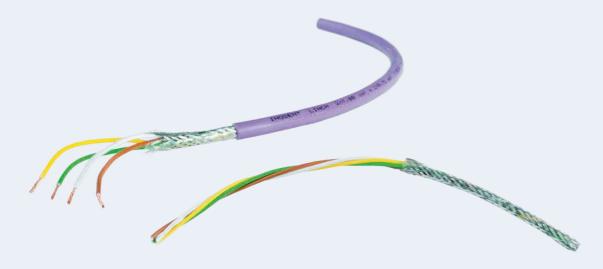
POWER SUPPLY CROSS-SECTION:  $2 \times 1 \, \text{mm}^2$ 

**COLOURS POWER SUPPLY:** Brown = V- / White = V+

**DATA CABLE CROSS-SECTION:**  $2 \times 0.75 \text{ mm}^2$ 

**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

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