

PolyXeta® 2

Gas warning systems for industrial plants

MSR-Electronic protects health and equipment under extreme industrial conditions. In the chemical and petrochemical industry, permanent monitoring of rooms and plants in which explosive atmospheres can form is required. The protection of persons requires constant monitoring of toxic and combustible gases and vapors. Furthermore, permanent monitoring for oxygen deficiency and excess must be

carried out. MSR-Electronic offers a wide range of methods for the permanent detection of gases. On this basis, MSR-Electronic develops individual gas sensors for industrial applications where extreme environmental conditions prevail. Safety, economic efficiency and competitiveness are the main priorities at MSR-Electronic.

+ BENEFITS

- **More safety**
More than all national standards require
- **Exchangeable sensor with X-Change technology**
Significantly lower maintenance costs
- **Accurate planning with overall lower costs**
- **Integration in BMS**
(e.g. Modbus)





.MSR
**SAFETY
FIRST**

Certificates and Approvals

Safety for all applications

The products of MSR-Electronic comply with more than the general standards and regulations and can therefore guarantee the safety of the system.

When handling hazardous substances, special safety precautions are mandatory. This is especially true in the chemical industry, where many different hazardous substances are used. MSR-Electronic provides innovative sensors and controllers to detect and immediately indicate life-threatening gases. The products, services and training courses are based on many years

of experience and were compiled with a lot of know-how and tailored to individual customer requirements.

The sensors from MSR-Electronic permanently monitor the ambient air for combustible and toxic gases as well as oxygen. Of course, also in Ex-Zones 1 and 2.



Industry: Approvals for PolyXeta®2

Electrical explosion protection of sensors and devices according to ATEX/IECEx, EN 60079-0/-1

(DEKRA Testing and Certification GmbH)

Device series types: PX2, SX1, SSAX1

Metrological testing of sensors and devices according to EN 60079-29-1 / EN 50104

(DEKRA Testing and Certification GmbH)

Device series types: PX2, SX1, SSAX1

Functional test (SIL2) of sensors and devices according to IEC / EN 61508-1 -2 -3, EN 50271

(DEKRA Testing and Certification GmbH)

Device series types: PX2, SX1, SSAX1

Other conformities: EU Directive 2014 / 34 / EU, 2014 / 30 / EU und 2014 / 35 / EU,
EN 61010-1, EN 50270, EN 378, EN 50402, EN 14624, ISO 9001, EAC-Metrological approval

Device series types: PX2, SX1, SSAX1



Biogas Plants

Safe protection against CH_4 / H_2S / CO_2 / O_2

By early detection in the Ex-area you can prevent damage or contain existing damage.

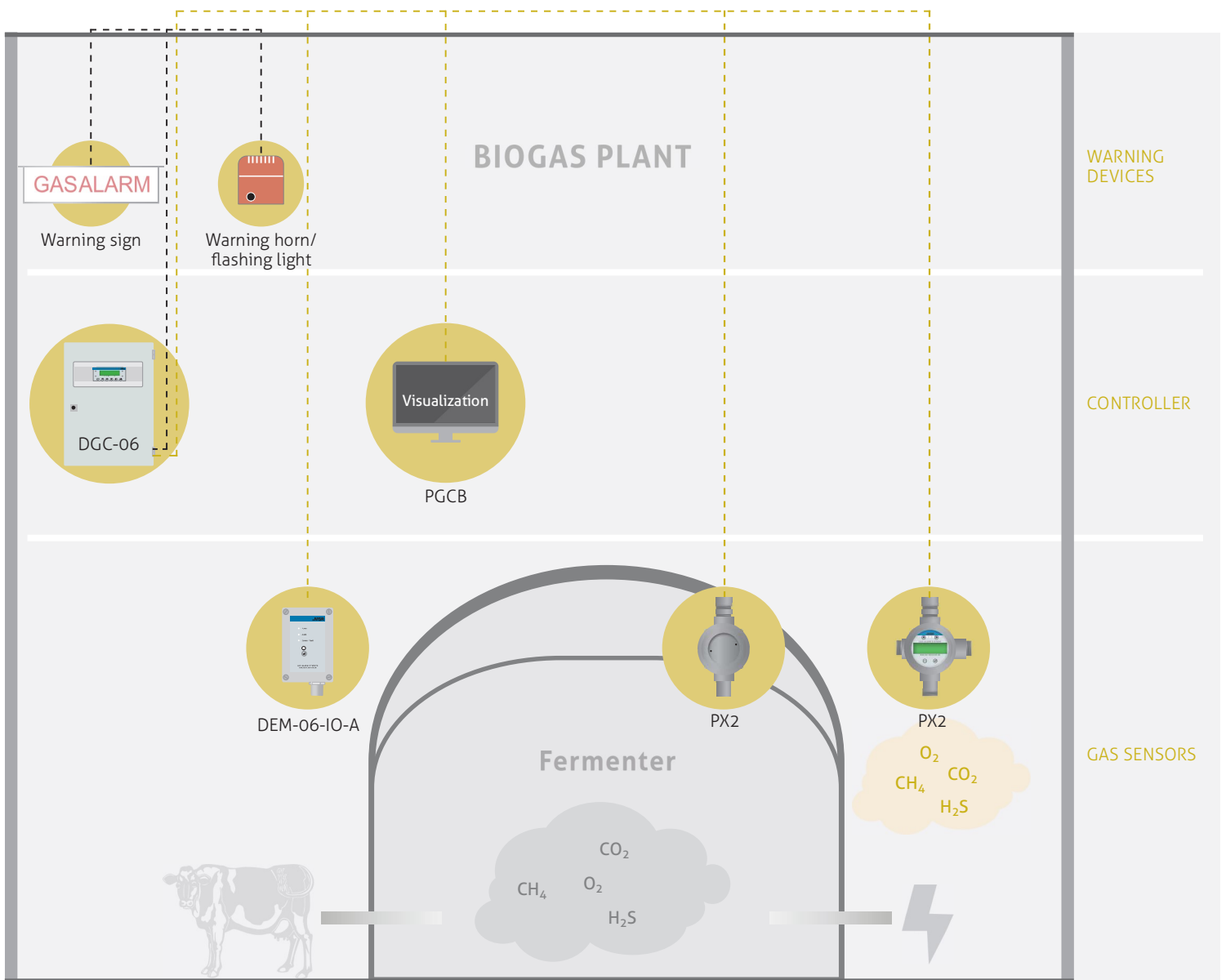
When operating biogas plants, besides process optimization and process monitoring of the fermentation process, personal protection and plant safety are of crucial importance. MSR-Electronic offers intelligent devices to extend the process optimization and operational safety of your biogas plant.

With the products of MSR-Electronic you work against dangers preventively. By monitoring in pump rooms to protect people from dangerous leaks or in the double diaphragm (biogas exhaust air hood) to ensure tightness and thus freedom from losses.

+ BENEFITS

- Devices pre-parameterized for your application (with pre-calibrated sensors)
- Easy connection to existing systems (analog, Modbus)
- 2 potential-free relays, e.g. to control warning devices
- Easy mounting by means of mounting bracket
- Modular design, individual configuration
- Various options like serial bus
- With and without display or keyboard





MSRSHOP24

Configure your product here: www.msr-24.com

Petrochemical Industry

Safe protection against CH_4 / C_5H_{12} / C_3H_8 / H_2S / O_2 / CO / NH_3

MSR-Electronic offers safe monitoring of combustible and toxic gases in petrochemical plants.

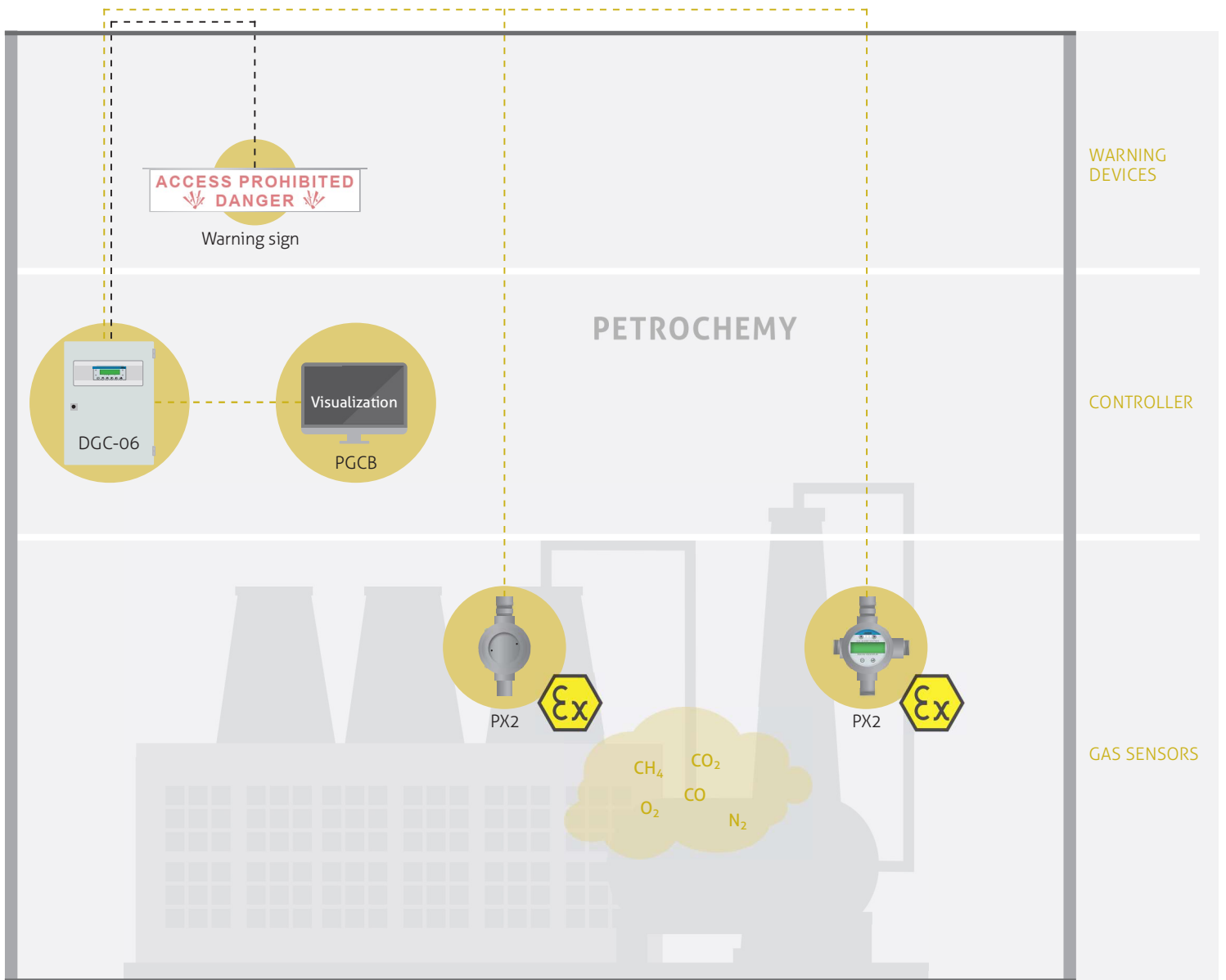
In the chemical and petrochemical industry, permanent monitoring of rooms and plants in which explosive or toxic atmospheres can form is required. Personal protection requires the monitoring of hazardous gases in accessible areas, on the one hand to prevent accidents, and on the other to comply with

MAK values and thus guarantee the health and safety of employees. In addition, MSR-Electronic offers solutions for the protection of your plant against unwanted gas leakage and thus financial loss. Furthermore, process safety can be further optimized with gas detectors from MSR-Electronic.

+ BENEFITS

- Protected according to IP66
- Preconfigured devices on request
- Easy integration into existing systems
- 2 potential-free relays per device
- Modular design and individual configuration
- Various options like relay, display, keyboard or housing variations





MSRSHOP24

Configure your product here: www.msr-24.com

H₂-Gas Monitoring

for research, production, logistics and mobility

The permanent gas monitoring serves the primary explosion protection and thus also the plant safety.

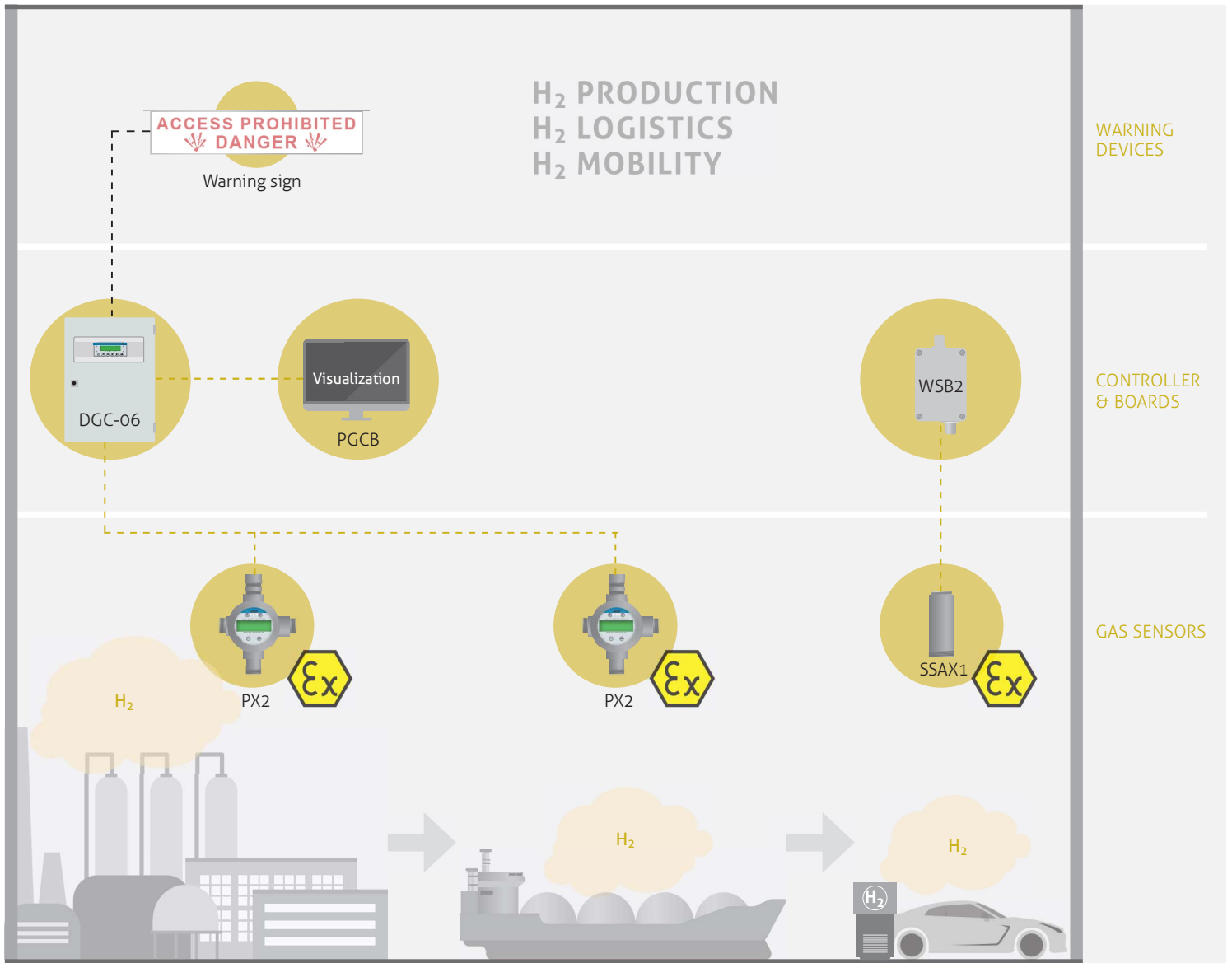
There are numerous applications for hydrogen as the energy carrier of the future. Apart from its use in welding or as fuel for rockets, the focus is currently mainly on the automotive sector. Hydrogen combustion engines or fuel cells are expected to replace fossil fuels in the foreseeable future. No local exhaust gases are produced when hydrogen is burned, only water. H₂ is a very reactive gas, which makes constant monitoring by a gas warning system throughout

its life cycle absolutely essential. During research work, on test benches and during the production of the gas, leaks can occur at any time and cause catastrophic damage in case of ignition. Warning systems must also be installed during transport and at filling stations to protect people and equipment from this highly flammable gas. The SIL2-certified PolyXeta®2 sensor with X-Change technology is used for successful gas monitoring.

+ BENEFITS

- A solution for individual requirements such as production as well as transport and storage
- Sensors are delivered calibrated and individually preconfigured on request
- Easy connection to existing systems (analog, Modbus)
- 2 potential-free relays, e.g. to control warning devices
- Easy assembly using a mounting bracket
- Modular design for any adaptation of the system
- Various options, such as relay, display, keyboard or housing variations
- SIL2 certified PolyXeta®2 sensors for ATEX zones 1 and 2





MSRSHOP24

Configure your product here: www.msr-24.com

Further Applications

Safe applications for zone 1 and zone 2

MANUFACTURING INDUSTRY

Protection against these gases: O_2 / H_2S / CO / CO_2

Health-endangering gases are used in many manufacturing industrial companies. To effectively protect workers in these areas, the ambient air must be continuously monitored for the concentration of toxic gases or the threatening drop in oxygen level.

MINING

Protection against these gases: CH_4 / C_5H_{12} / C_3H_8 / H_2S / O_2 / CO / NH_3

Mines are dangerous environments for people and mining equipment and the risk of fire, explosion and oxygen deficiency is always present. All gases released during mining should be continuously monitored. MSR-Electronic provides the products to minimize this risk potential and can thus contribute to the health and safety of the mining industry.

OFFSHORE

Protection against these gases: CH_4 / C_5H_{12} / C_3H_8 / H_2S / O_2 / CO / NH_3

In offshore facilities, gas warning systems can immensely reduce fire and explosion risks, as they warn of dangerous situations at a very early stage. MSR-Electronic develops and produces reliable stationary gas detectors that permanently monitor the ambient air for methane, propane and hydrocarbons and thus protect human lives and material assets.



GAS INDUSTRY

Protection against these gases: CH_4 / H_2S / CO_2 / O_2

All companies involved in the production and processing of gases need safe protection against explosions or poisoning of the people working there. Permanent monitoring and recording of the measured values serve primary explosion protection and thus plant safety.

DISPOSAL

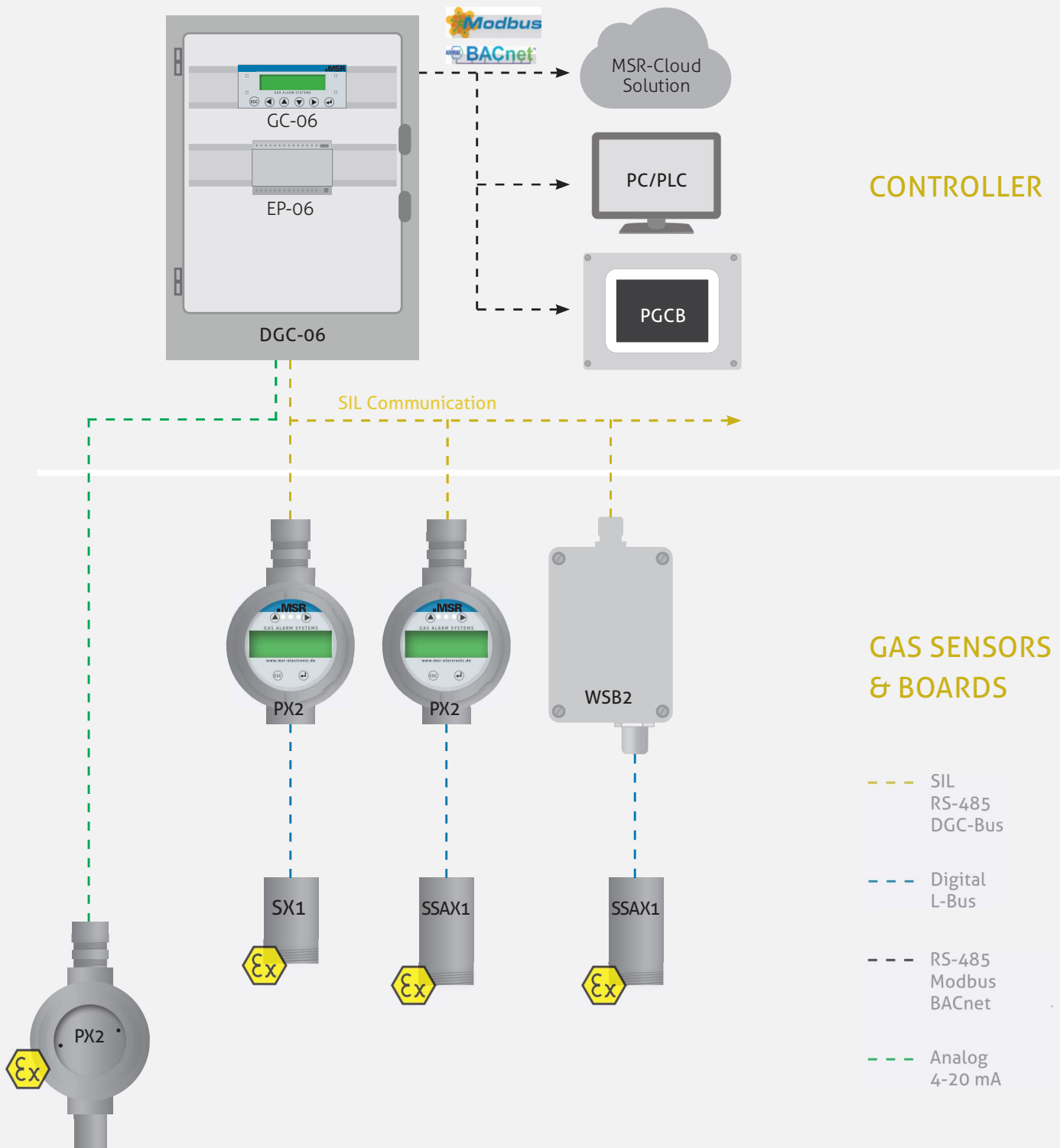
Protection against these gases: CO_2 / H_2S / Hexane / Benzene / Toluene

Employees in the utility and waste management industry are exposed to gas hazards in many areas. In sewers there is the possibility that the oxygen content of breathing air can be reduced, in waste disposal sites however toxic or explosive gases are produced. In addition, it may be necessary to detect damage or leaks in pipelines.



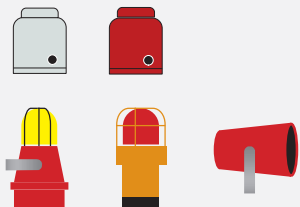


PolyXeta[®] 2



STOP MOTOR

GASALARM



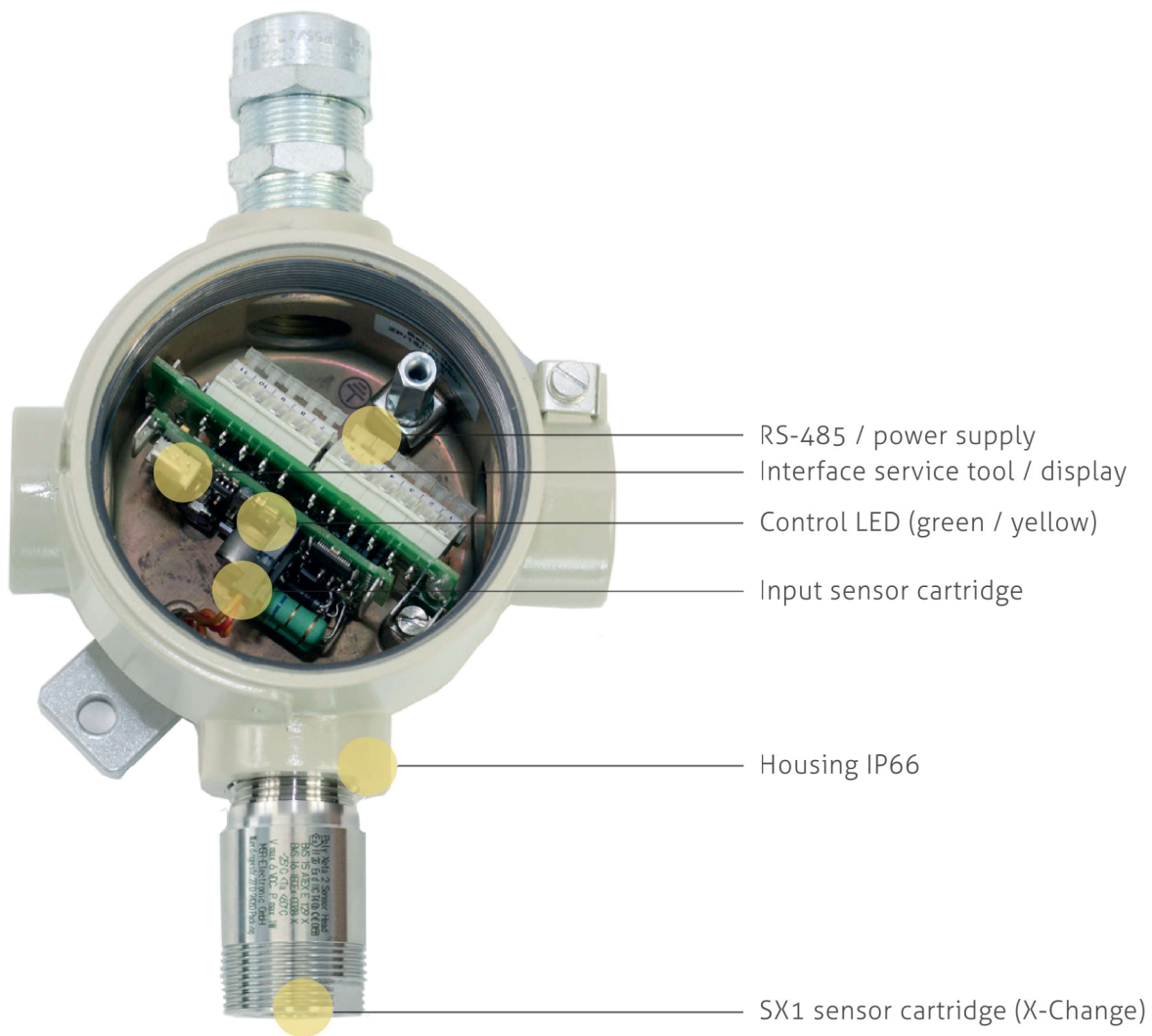
**WARNING
DEVICES
& ACCESSORIES**





HOW-TO VIDEO

Watch the video of the PolyXeta®2 commissioning



RS-485 / power supply

Interface service tool / display

Control LED (green / yellow)

Input sensor cartridge

Housing IP66

SX1 sensor cartridge (X-Change)



MSRSHOP24

Configure your product here: www.ms-24.com

PolyXeta[®]2 Sensor SSAX1

Sensor for remote applications

The ATEX sensor for combustible and toxic gases.

In addition to the high-quality sensor element and the measuring amplifier, the sensor cartridge SSAX1 contains a μ Controller for processing the measured values. All relevant data and measured values of the sensor element are stored in the μ Controller in a fail-safe manner and are transmitted digitally via the local bus

to the WSB2 or output as PWM signal (pulse width modulation). The calibration management is also integrated in the μ Controller of the sensor cartridge. Calibration can be carried out by simply changing the sensor cartridge or by the integrated, convenient calibration routine directly at the system.

+ BENEFITS

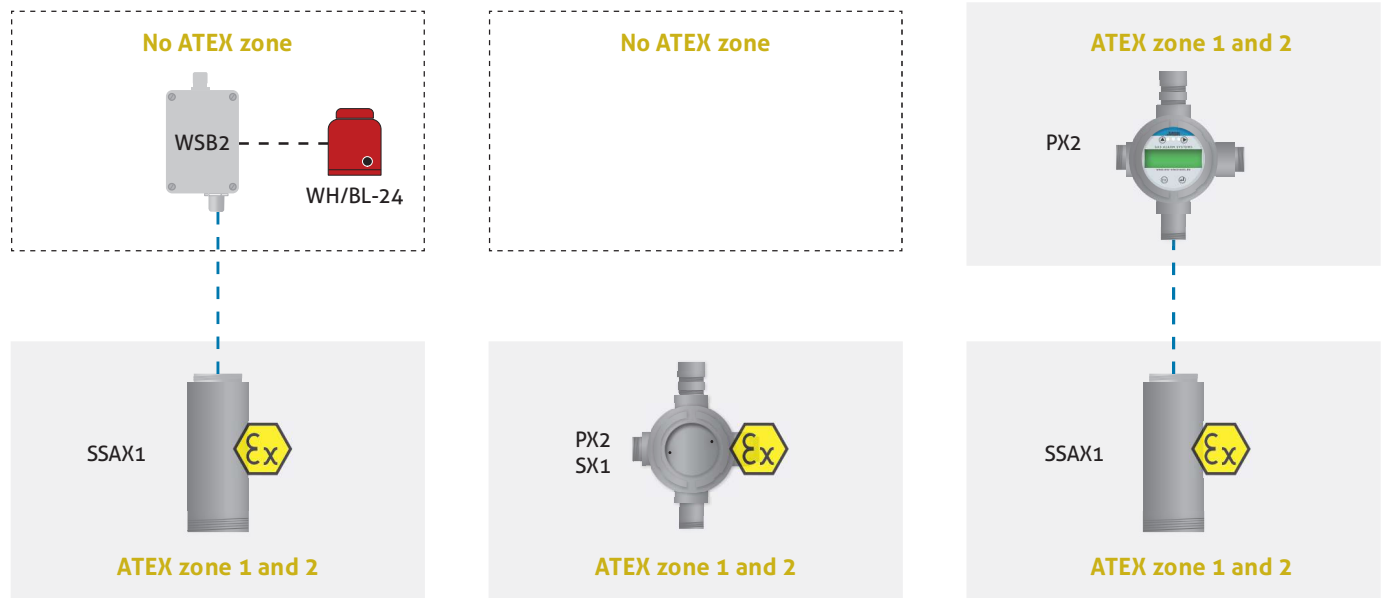
- ATEX and IECEx certificates for electrical explosion protection
- SSAX1 for zone 1 (also applicable in zone 2):
Version "Ex d" with flameproof enclosure
- Continuous monitoring of toxic and flammable gases and oxygen
- Different measuring principles depending on customer requirements and application (infrared, electrochemical sensor, pellistor)
- High accuracy, selectivity and reliability
- Easy calibration
- Reverse polarity protected
- Overload protection
- 5 m cable length



The new SSAX1 enables the ATEX certified sensor head to be placed alone in the danger zone and to be led out of the danger zone to a WSB2 with the corresponding ATEX cable in

order to carry out the evaluation of the sensor there. The SX1 is connected directly to the PX2 and can therefore be used as a complete device in the ATEX zone.

PolyXeta® 2 devices and sensors in the ATEX area



MSRSHOP24

Configure your product here: www.msr-24.com

X-Change Technology

Der PolyXeta®2 exchangeable sensor SX1 and SSAX1

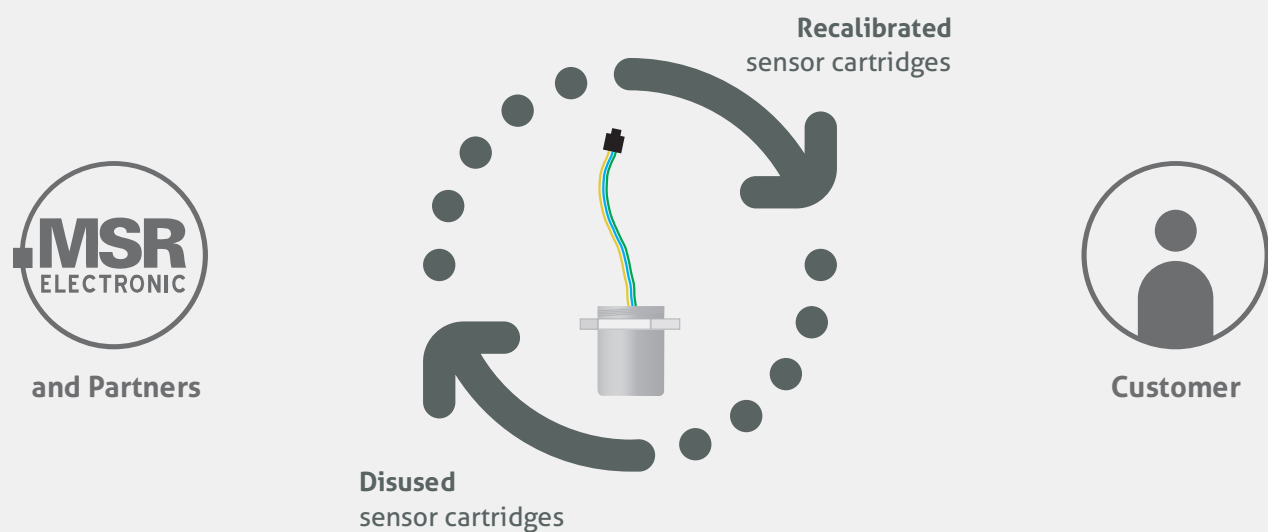
Time-saving calibration of MSR gas alarm sensors.

Until now, the necessary calibration of the sensors was a complex procedure and dependent on an external certified company. This involved a lot of time and money. The sensors had to be opened, checked and calibrated with great care at the construction site. If an error occurred, it was necessary to take the complete

sensor with you and replace it afterwards. With the new X-Change system this effort can be saved. The exchangeable cartridge can be replaced on site at any time. The transmitter therefore remains untouched. This saves time and costs.

+ SIMPLE AND INDEPENDENT RECALIBRATION

- Significant time and cost savings
- Simple change process
- Delivery of newly calibrated sensor cartridges
- Increasing the safety of your system



HOW-TO VIDEO

Take a look at the simple exchange process in the video.



Quick and safe sensor exchange



Loosen the locking screw with an Allen key (1.5 mm) and open the housing.



Loosen the sensor cable and unscrew the used sensor head. **The yellow LED lights up.**



Replace the sensor cartridge and connect the cable of the recalibrated cartridge to the board. **The yellow LED goes off again.**



Close the housing again and recalibrated sensor is immediately ready for use.

Gas Controller

Freely extendable for your requirements

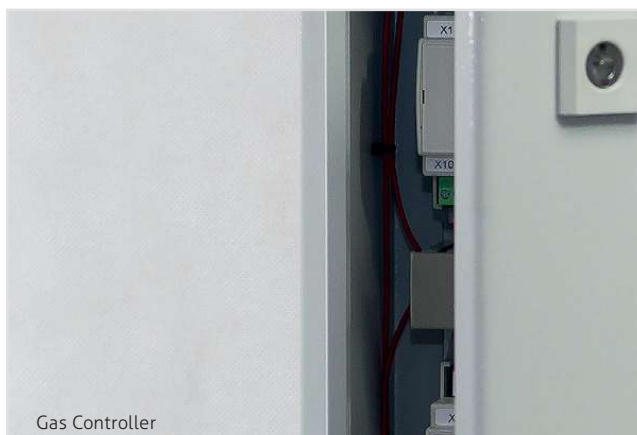
System for toxic, combustible gases and vapors.

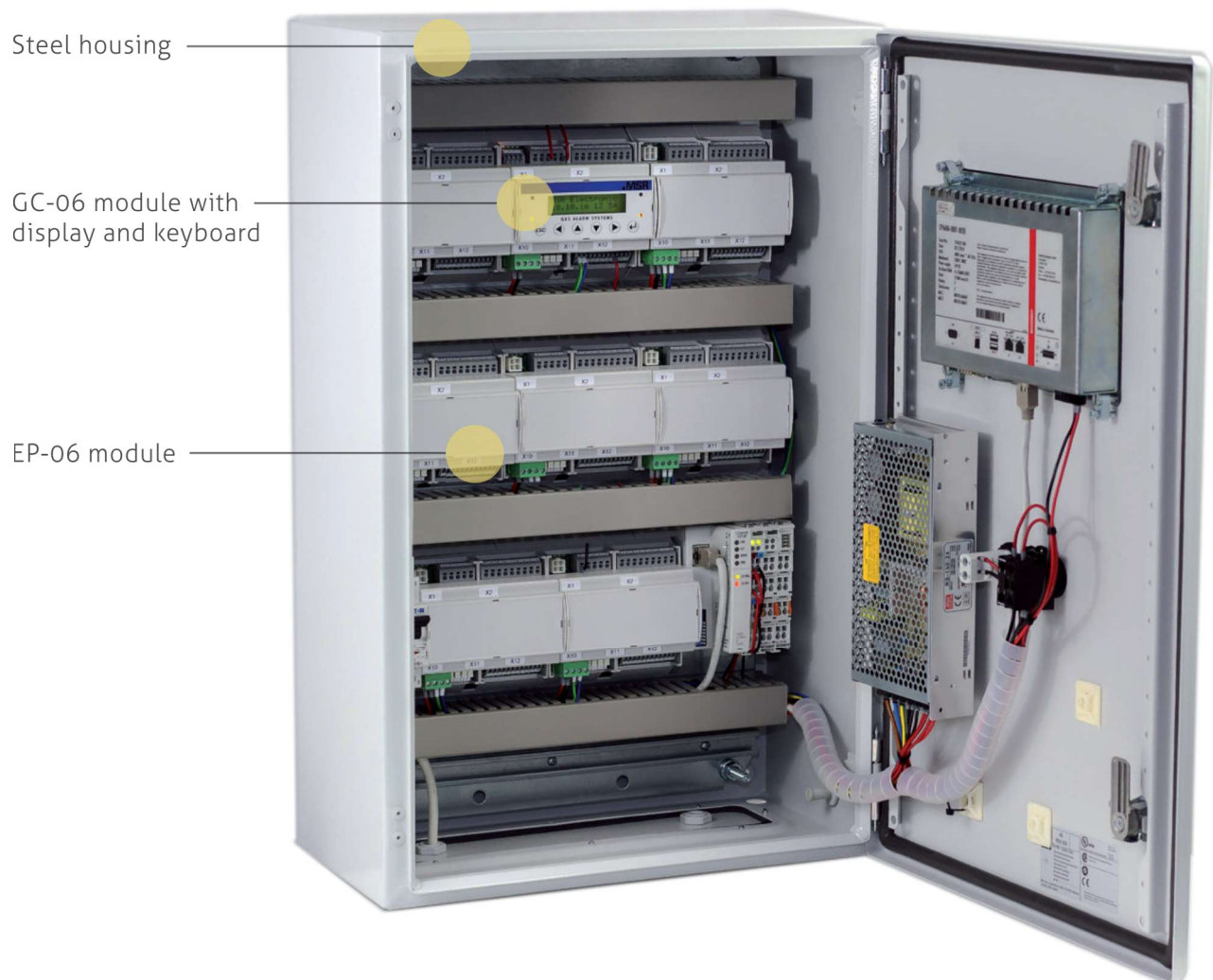
The industrial controller DGC-06 is designed for extreme environmental conditions in combination with the PolyXeta®2 line. The controller can monitor and evaluate up to 128 gas sensors, including 96 digital PolyGard®2 or PolyXeta®2 and/or 32 analog (4-20 mA) sensors. For alarm signals, the innovative controller system has up to

32 alarm relays with potential-free change-over contact and up to 16 analog outputs with 4-20 mA signal. Freely adjustable parameters and setpoints allow flexible use in gas measurement technology. However, simple and convenient commissioning is also possible through configuration with standard parameters.

+ BENEFITS

- 128 sensors
- Relay expandable with EP-80 modules
- Extra large, easy to read and illuminated touch display (optional)
- Service Tool for configuration
- Direct connection to the building control system
- GC module integrated
- UPS / datalogger (optional)
- Can be installed in switch cabinet
- Safety product
- Available in different versions on request





MSRSHOP24

Configure your product here: www.msr-24.com

Modules

Measurement, warning and control controller

Extend the control.

The modules are designed to perfectly complement the centralization of the overall PolyXeta®2 system. The controllers, such as the GC-06, are the core elements of the systems. Extension modules, like the EP-06, provide additional inputs and outputs. Since MSR-Electronic has extensive certifi-

cation and many years of experience in the manufacture of controllers, professional preparation for complex acceptance tests is guaranteed. The modular technology allows for compact yet flexible and highly efficient systems.

+ BENEFITS

- Extension module with
 - 4 analog inputs (4-20 mA)
 - 4 alarm relays with potential-free changeover contact
 - 2 analog outputs (4-20 mA)
- For connection to the PolyXeta®2 gas controller GC-06
- Modular design of the system possible
- Individual configuration
- A wide range of options
- Serial Bus



MSRSHOP24

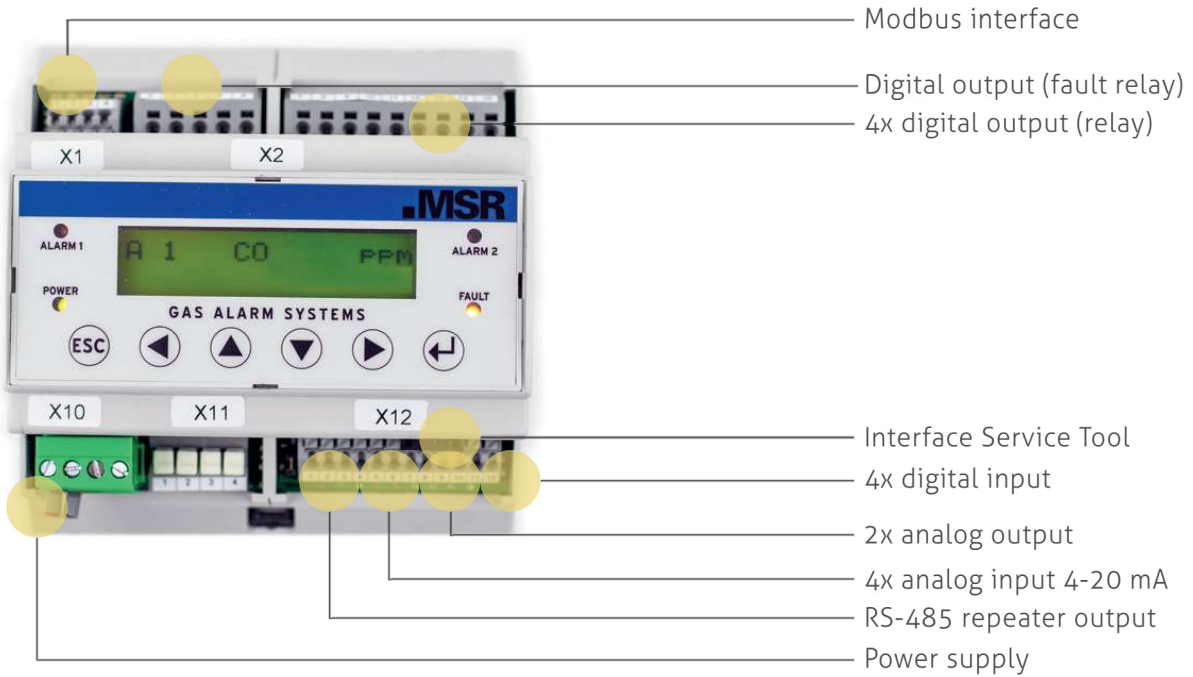
Configure your product here: www.msr-24.com



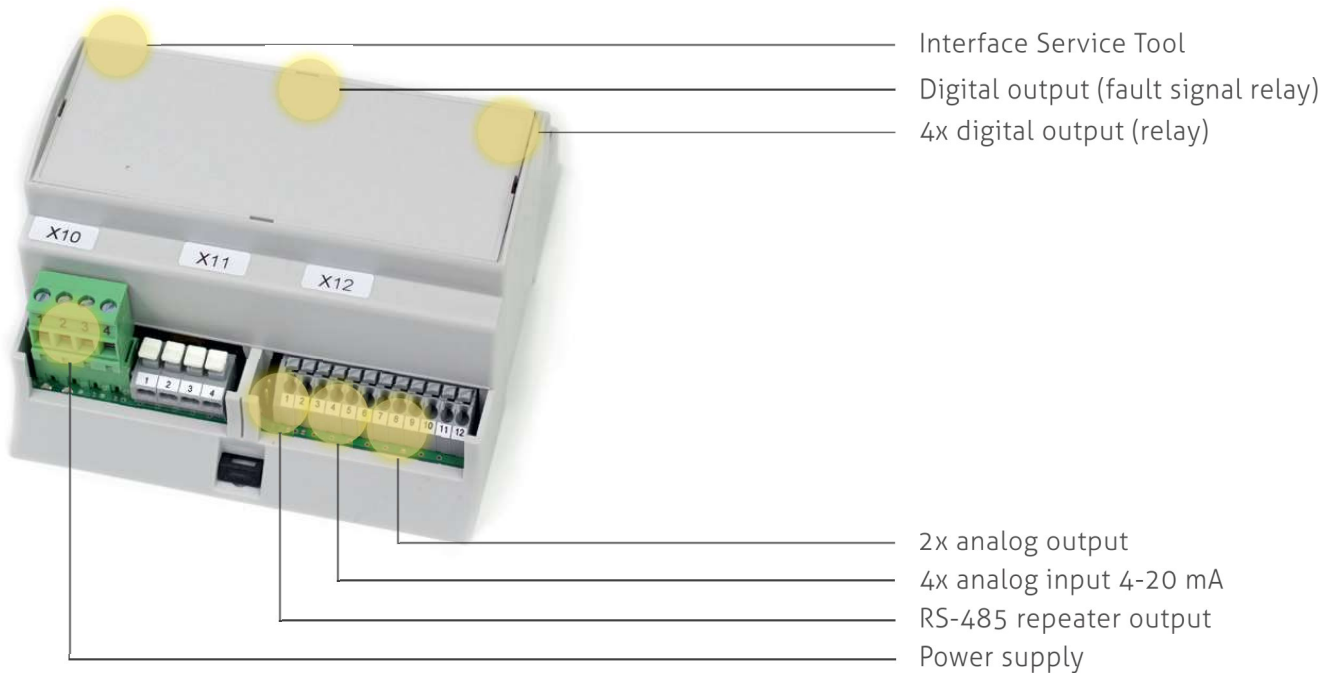
Module EP-06



Module GC-06



Extension module EP-06 for GC-06



Warning Devices

Reliable warning in ATEX zone 1 / 2

For areas where special requirements exist due to explosive substances.

MSR-Electronic offers an extensive repertoire of acoustic and optical signaling devices with various approvals for use in hazardous areas. The signal transmitters of the Ex series are characterized by a particularly robust design and insensitivity to environmental influences and chemicals. These are information, warning and emergency signals for safety, hazard and

fire alarm systems, building, industrial and commercial automation, disaster warning and danger areas. The products are suitable for use in gas and steam atmospheres as well as in dust atmospheres. MSR-Electronic offers Ex signal towers, optical, acoustic and optical-acoustic Ex signal devices.

+ BENEFITS

- Compatible to all controllers from MSR-Electronic
- For use in zone 1 and zone 2
- Durable and robust





WARNING HORN AND XENON FLASHING LIGHT

- Explosion-proof LED multifunctional light
- Double / triple door opener flash



OMNIDIRECTIONAL XENON FLASHING LIGHT

- Xenon flashing light
- Suitable for zone 1 and 2
- Approved according to IECEx, ATEX, Ex EAC



WARNING HORN

- Suitable for zone 1 and 2
- Flame retardant ABS



MSRSHOP24

Configure your product here: www.msr-24.com

PolyMarine®

Gas warning systems for ships

Ships are risk areas, as there is no possibility to escape. This means that dangers must be recognized early on in order to avert higher hazards. With PolyMarine® products from MSR-Electronic you are on the safe side on board. The line offers perfect protection

against gas leakage on board. These leaks are often imperceptible to the sense of smell or only when an accident can no longer be avoided. The gas warning systems and warning devices of PolyMarine® offer reliable safety.

+ BENEFITS

- **More safety**
More than all national standards require
- **Exchangeable sensor X-Change technology**
Significantly lower maintenance costs
- **Accurate planning with lower overall costs**
- **Integration into the ship system**
(e.g. Modbus)





MSR
**SAFETY
FIRST**

PolyMarine®

Leakage protection for private shipping

Reliable and durable protection against gas leaks on board.

Gas leaks on board can quickly lead to fire and poisoning. Many of these gases are often odorless. The human sense of smell can no longer recognize this danger and is therefore dependent on help. In addition, the escape of combustible gases can quickly cause a fire or even an explosion.

PolyMarine® products

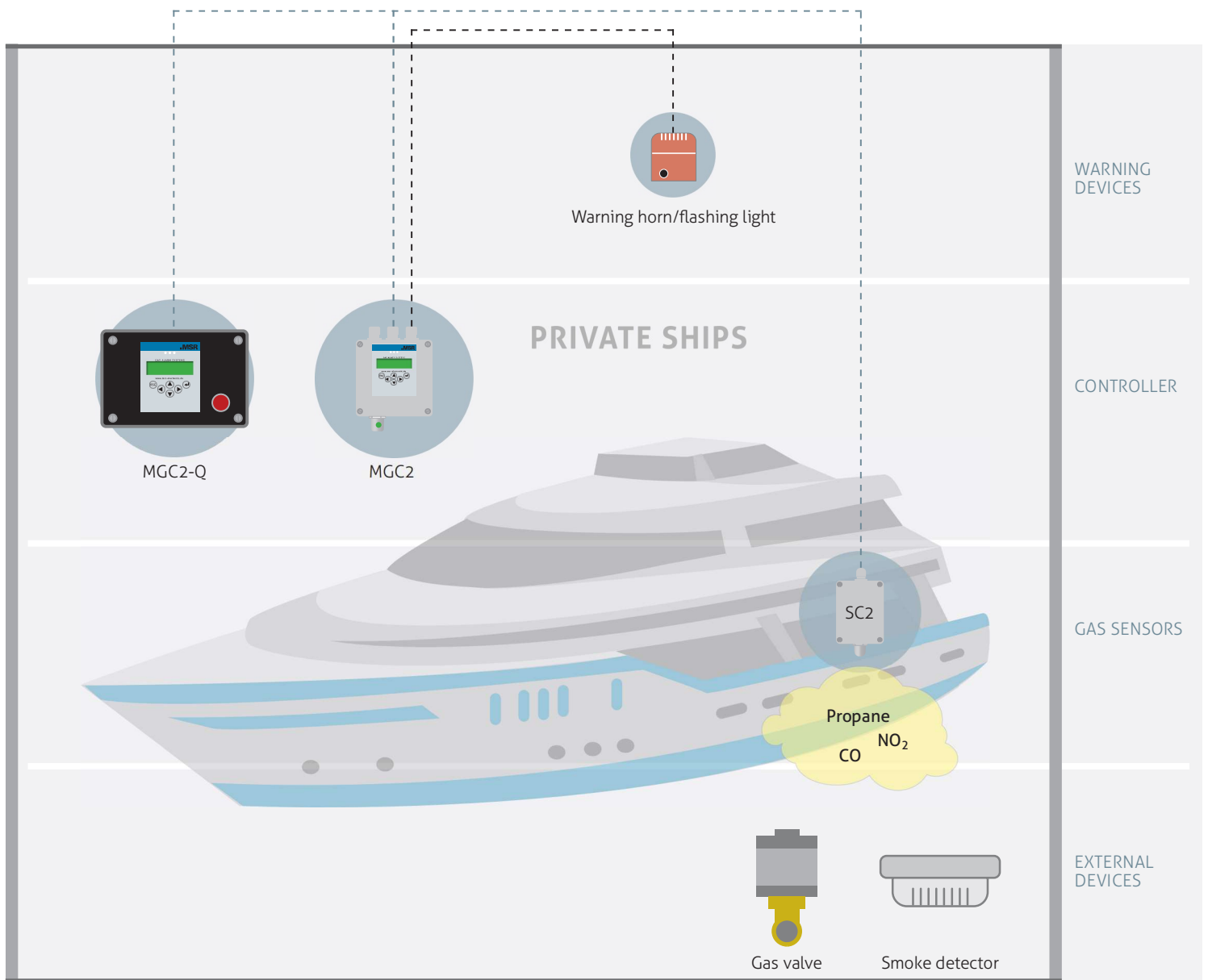
- Gas controller: up to 3 different gas sensors possible
- Gas sensors for CO / NO₂ / gasoline vapors or Propane, incl. sensor with X-Change technology
- Warning device: warning horn with signal lamp and alarm acknowledgement
- Control unit for the cockpit with buzzer, lamp, button and display
- Smoke detector, magnetic gas valve



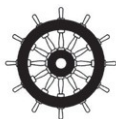
BENEFITS

- High accuracy and reliability
- Guaranteed safety and worldwide support
- Significant increase in value





APPROVALS
(pending)



PolyMarine®

Leakage protection for commercial shipping

Gas alarm systems for commercial shipping.

Depending on the type of ocean-going vessel and its cargo, dangerous gas concentrations can form on board at any time. According to the guidelines, fixed gas detection systems must be installed in most ships. In addition, a reliable gas warning system from MSR-Electronic not only protects the life of the crew, but can also protect the cargo of the ship and even the ship itself from damage.

LPG – alternative marine fuel

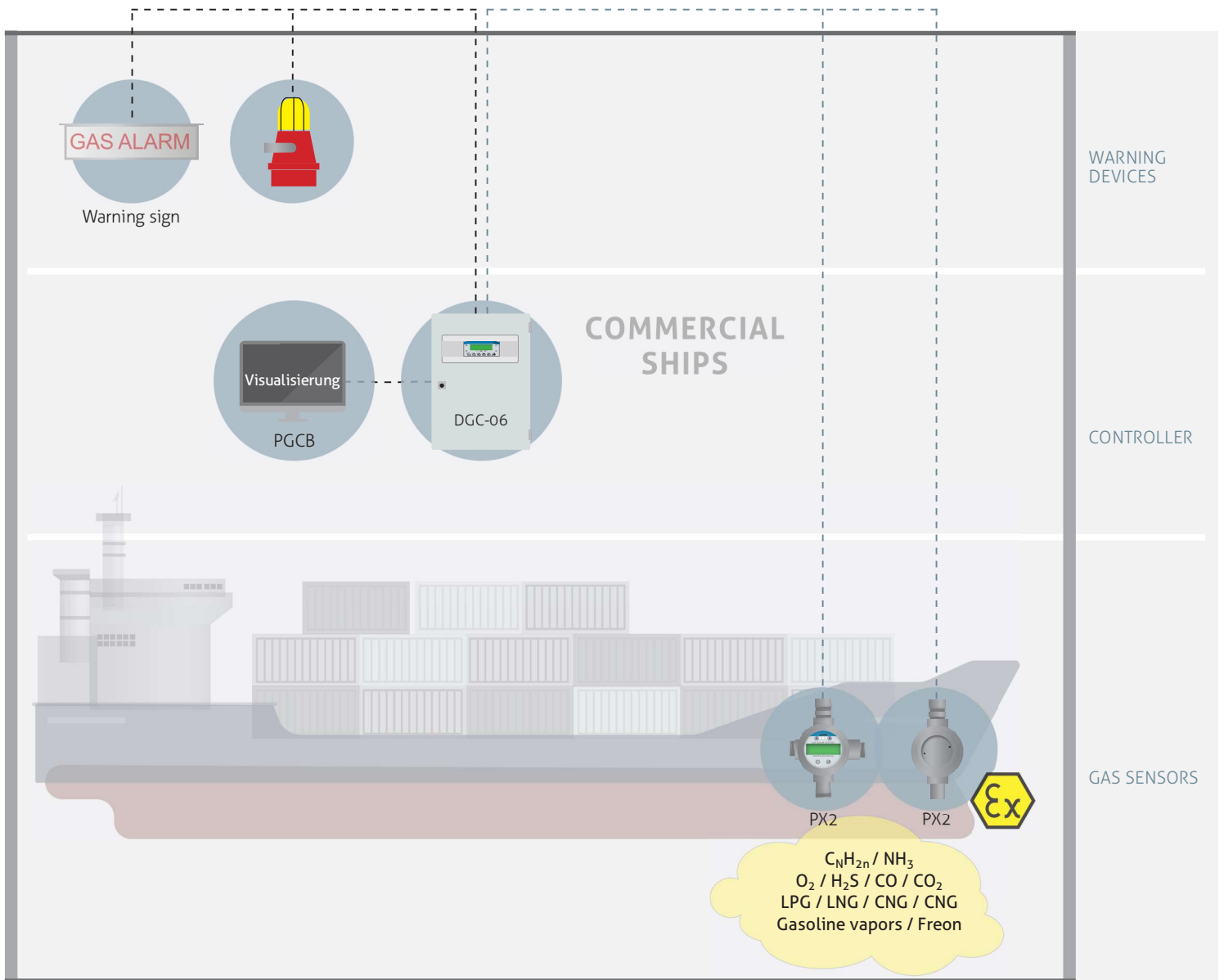
The use of liquid gas as a fuel is increasing rapidly worldwide. The properties of LPG and especially its low exhaust fumes and virtually particle-free emissions, can have an immediate

positive effect on air quality. When liquid gas leaks unnoticed on a ship, it finds its way into the engine room or bilge. Reliable and powerful stationary LPG gas detectors from MSR-Electronic will make the future of shipping safer here.

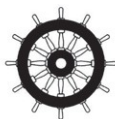
Other gas hazards in ships

- Explosion risk with liquefied gas, chemicals and other fossil fuels
- Toxic gases: Carbon monoxide from exhaust gases and hydrogen sulfide from the decomposition of organic compounds
- Risk of suffocation: Lack of oxygen during oxidation processes





APPROVALS
(pending)



On
request

PolySam®

Gas analysis system for process optimization

With PolySam® MSR-Electronic offers individual solutions for complex applications. You benefit from comprehensive analyses and optimize your energy generation yield. In addition to gas conditioning, the system offers an extensive interface function. You can go

to further control panels via Modbus, analog output or relay. These systems are individually designed together with the customer. Here each application is a separate project. However, the modular X-Change technology and the complete controller line can always be used.

+ BENEFITS

- **More safety**
More than all national standards require
- **Exchange sensor X-Change technology**
Significantly lower maintenance costs
- **Accurate planning with lower overall costs**





MSR
**SAFETY
FIRST**

PolySam® Gas Analysis

Gas analysis system for process optimization

System for gas analysis - self-regulating gas intake system with integrated controller.

With the gas analysis system, it is possible to monitor a wide variety of processes in which gases are released. The system prepares the gas mixture so that it can be analyzed independently. This is often necessary with hot exhaust gases or oxygen-free atmospheres. The analysis system also makes integration

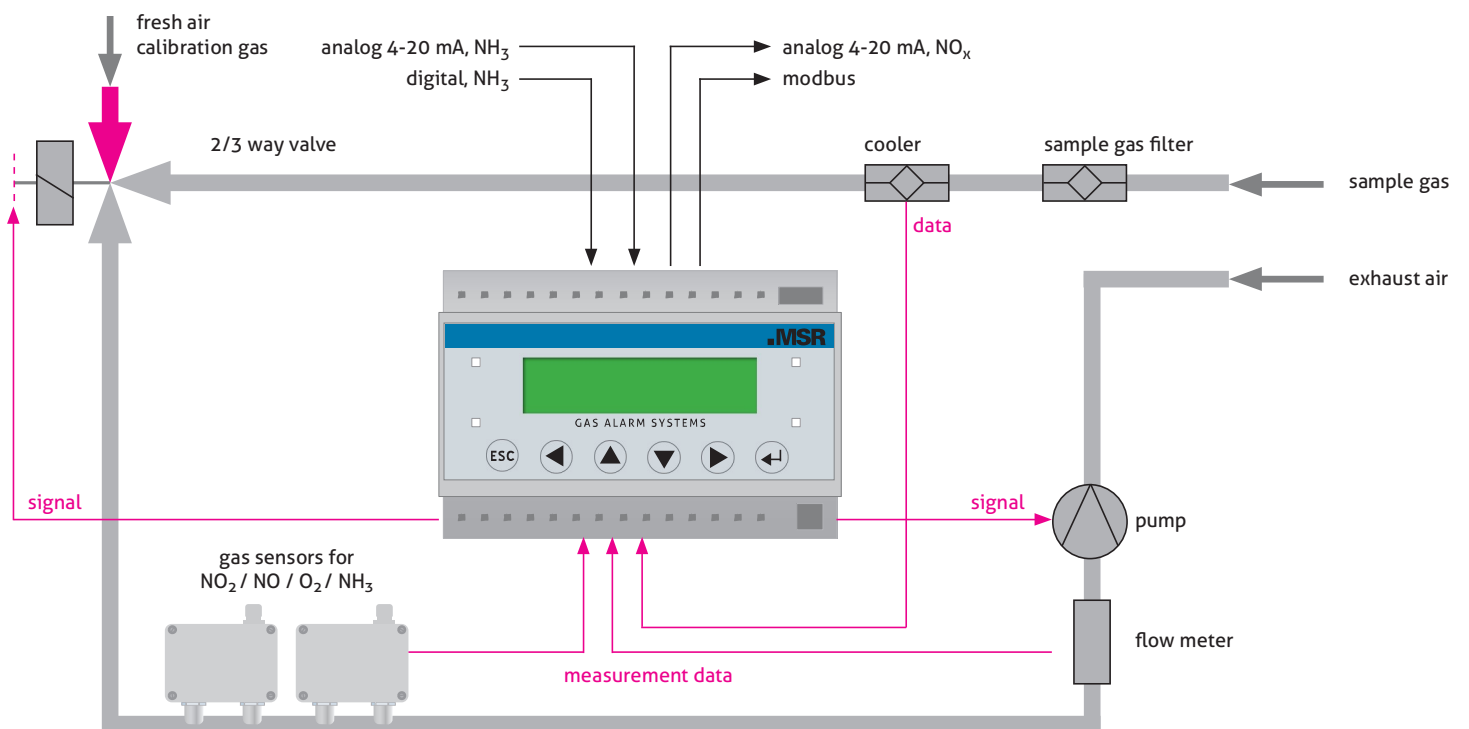
into existing systems easy. Because of different digital (Modbus, BACnet, TCP/IP) and analog (4-20 mA, 2-10 V, or various relays) connections the installation is very easy and flexible. This allows the system to be remotely monitored and controlled.

+ BENEFITS

- Ultra flexible gas analysis system
- Up to 4 gas sensors per string can be installed for evaluation
- Adjustable flow rate of the sample gas
- Automatic detection of clogged filters
- By using sample gas coolers, filters, heaters and much more, you can react to all conditions with the matching PolySam®
- Integration into process control systems possible
- Selection of different interfaces
- Also available as compact system for 1 gas



PolySam® ANALYSIS DEVICE



Appendix

| | |
|-----|------------------------------|
| 124 | MSR-Academy |
| 126 | The MSR-Product Configurator |
| 128 | OEM Customizing/Branding |
| 130 | HOW TO: The Video World |
| 132 | Products and Options |
| 156 | Housings |
| 160 | Product Matrix |
| 162 | Product Directory |
| 164 | Subsidiaries + Support |
| 166 | MSR-Group |



MSR-Academy

User knowledge directly from the manufacturer

MSR-Electronic is a supplier of the latest safety technology in the gas detection sector. To ensure that the systems meet the high requirements of the customers, in-depth knowledge of applications, products, maintenance and legal regulations is necessary.

Customers of MSR have the opportunity to experience the technology up close while participating in a **BASIC webinar** and a further 2-day **ADVANCED training course** in Pocking and to get to know the gas detection system

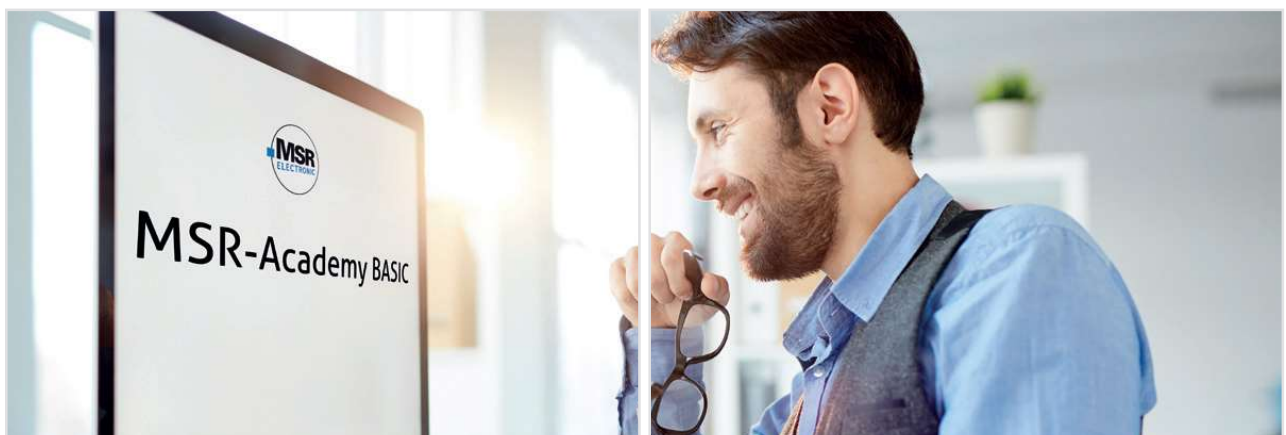
in detail in close collaboration with the technology and development experts. This means that errors can be avoided during the design of the system and the customer can be offered a reliable gas alarm system.

The training will cover our new Product line PolyGard®2, PolyXeta®2, the existing line µGard®, PolyGard®, as well as legal innovations such as the European standard EN 50545 for garages and tunnels.



MSR-ACADEMY

Your MSR contact person will be happy to inform you of current dates or you can find out more at www.msr-electronic.de/en/academy/



The MSR-Academy supports the establishment of professional customer service and thus offers the possibility of faster processing of day-to-day business.

+ Benefits

- Free premium support code* with regular training participation
- Precise product knowledge from the MSR product family
- News from the gas warning technology
- Mediation of complex application examples
- Close exchange with MSR development department and support
- After successful training, fault messages are recognized and eliminated more quickly

* Every participant receives a premium support code: By regularly participating in the MSR-Academy, you will receive free support from our technicians for a period of 18 months.



MSR-Product Configurator

With Webshop www.msr-24.com

The webshop of MSR-Electronic with more than 1 000 products and unique product configurator.

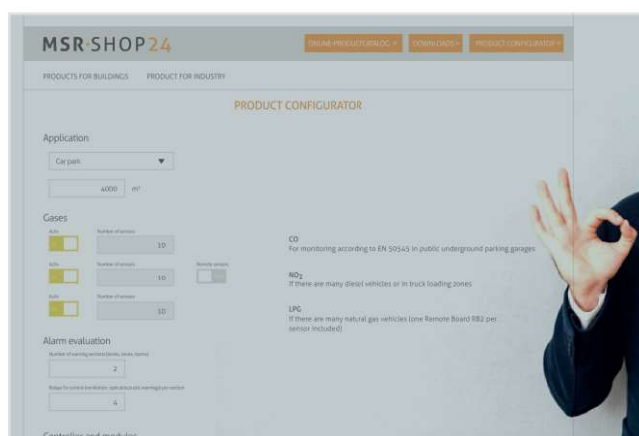
With this variety of applications and requirements it is not always easy to find the right product.

At www.msr-24.com customers can enter the key data (e.g. application and room size) of the project in the product configurator. Then

they immediately receive a proposal with the required products and the appropriate number of items, in accordance with the currently applicable standards. This can be adapted to individual requirements.

+ BENEFITS

- Use as configurator and/or Webshop
- All products are easy to find
- Different versions of articles can be configured individually
- The selected article is displayed with product photos, a data sheet and the respective unit price



PRODUCT CONFIGURATOR

Application

Car park ▼

4000 m²

Gases

Activ

Number of sensors 10

CO

For monitoring according to EN 50545 in public underground parking garages

Activ

Number of sensors 10

Remote sensors Yes

NO₂

If there are many diesel vehicles or in truck loading zones

Activ

Number of sensors 10

LPG

If there are many natural gas vehicles (one Remote Board RB2 per sensor included)

Alarm evaluation

Number of warning sections (levels, zones, rooms)

2

Relays for control (ventilation, optical/acoustic warnings) per section

4

Controller and modules

Digital sensors Yes

Analog sensors No

Number of controllers 1

Number of extension modules 1

Controller DGC06

Add to Shopping cart



MSRSHOP24

Configure your product at
www.msr-24.com

OEM Customizing/Branding

Based on the modular principle

MSR-Electronic is a manufacturer of stationary gas warning systems with decades of experience in the field of building automation and gas measurement technology.

From a certain quantity for a product, customizing of the sensors and controllers is possible. This starts with individual lasering and labeling and extends to special requests for configuration and extensions.

In addition to the implementation of customer-specific requirements with regard to device approval, we support our clients in numerous

industries in complying with all current national and international regulations on product safety and technical market safety requirements.

Contact us and learn more about the possibility of personalization.

info@msr-electronic.de

YOUR PROJECT TEAM

Initiation, planning, execution, monitoring and control

A specially coordinated project team will work with you to create the product requirement profile based on the modular principle. During the individual development stages, monitored

by the MSR quality management, up to the release sample (PPAP) and subsequent series production, we are in close contact with you.



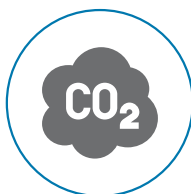
Applications

- Tunnel
- Parking garage
- Building
- Industry
- Petrochemistry
- Biogas Plant
- Shipping
- and more



Gases

- CO₂
- NH₃
- CH₄
- and more



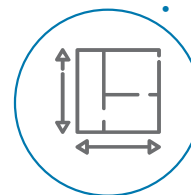
Sensor Principles

- Infrared
- Electrochemical
- Semiconductor
- Catalytic



Housing

- Design
- Form
- Color
- Logo
- Lettering
- IP protection class
- and more



Accessories

- Acoustic: horn, buzzer
- Optical: Flashing light
- Warning sign
- and more



Assembly

- Standard in housing
- Remote with cable



More Features

- Relay
- Display
- Analog / digital outputs
- Analog / digital Inputs
- Modbus, BACnet
- and more

Approvals

- EN 378
- EN 14624
- EN 50545
- EN 60079-29-1
- ATEX
- EN 60079
- and more



HOW TO: The Video World

MSR-Explanatory Videos on YouTube

Explore the MSR-Electronic product world digitally.

How-to is the keyword on YouTube. MSR explanatory videos provide brief and concise information on important details for the commissioning of selected products. Knowledge can thus be conveyed quickly. Basically,

e-learning is location-independent. Usually only a laptop, tablet or smartphone and an Internet connection are required. Complex things simply explained.



MSR-Electronic YouTube Channel



Commissioning

Warning and Sensor Board WSB2



Recalibration

MSR sensors with Service Tool STL06



Commissioning

Multi Sensor Controller MSC2



X-Change technology

Simple exchange process PolyXeta®2 sensor cartridge



Commissioning

PolyXeta®2



X-Change technology

Simple exchange process PolyGard®2 sensor cartridge



Recalibration

MSR sensors with display version



MSR-Electronic

Fixed gas alarm systems,
Made in Germany



LinkedIn

Network with MSR-Group at www.linkedin.com and receive regular news from MSR-Electronic.

Analog Sensor Cartridge MC2

Toxic Gases

| Item No. | Gas | | Measuring Range |
|-------------------------|-------------------|---------------------------------|-----------------|
| El. Chem. Sensor | | | |
| MC2-A-E1110-BX | Carbon monoxide | CO | 0-100 ppm |
| MC2-A-E1110-CX | Carbon monoxide | CO | 0-150 ppm |
| MC2-A-E1110-EX | Carbon monoxide | CO | 0-250 ppm |
| MC2-A-E1110-FX | Carbon monoxide | CO | 0-300 ppm |
| MC2-A-E1110-HX | Carbon monoxide | CO | 0-500 ppm |
| MC2-A-E1125-AX | Ammonia* | NH ₃ | 0-100 ppm |
| MC2-A-E1125-BX | Ammonia* | NH ₃ | 0-300 ppm |
| MC2-A-E1125-CX | Ammonia* | NH ₃ | 0-500 ppm |
| MC2-A-E1125-DX | Ammonia* | NH ₃ | 0-1000 ppm |
| MC2-A-E1125-EX | Ammonia* | NH ₃ | 0-5000 ppm |
| MC2-A-E1130-AX | Nitrogen dioxide | NO ₂ | 0-10 ppm |
| MC2-A-E1130-BX | Nitrogen dioxide | NO ₂ | 0-20 ppm |
| MC2-A-E1130-CX | Nitrogen dioxide | NO ₂ | 0-30 ppm |
| MC2-A-E1130-EX | Nitrogen dioxide | NO ₂ | 0-100 ppm |
| MC2-A-E1183-BX | Hydrogen cyanide | HCN | 0-50 ppm |
| MC2-A-E1183-CX | Hydrogen cyanide | HCN | 0-100 ppm |
| MC2-A-E1185-BX | Formaldehyde | CH ₂ O | 0-10 ppm |
| MC2-A-E1186-DX | Hydrogen chloride | HCL | 0-20 ppm |
| MC2-A-E1187-AX | Phosphine | PH ₃ | 0-5 ppm |
| MC2-A-E1188-AX | Silane | SiH ₄ | 0-50 ppm |
| MC2-A-E1189-CX | Ethylene | C ₂ H ₄ | 0-200 ppm |
| MC2-A-E1190-AX | Ozone | O ₃ | 0-5 ppm |
| MC2-A-E1190-BX | Ozone | O ₃ | 0-10 ppm |
| MC2-A-E1193-CX | Chlorine | Cl ₂ | 0-10 ppm |
| MC2-A-E1193-DX | Chlorine | Cl ₂ | 0-20 ppm |
| MC2-A-E1195-A2 | Oxygen, 2 years | O ₂ | 0-25 % Vol |
| MC2-A-E1195-A3 | Oxygen, 3 years | O ₂ | 0-25 % Vol |
| MC2-A-E1195-A5 | Oxygen, 5 years | O ₂ | 0-25 % Vol |
| MC2-A-E1195-A7 | Oxygen, 7 years | O ₂ | 0-25 % Vol |
| MC2-A-E1196-BX | Sulphur dioxide | SO ₂ | 0-20 ppm |
| MC2-A-E1197-AX | Hydrogen sulphine | H ₂ S | 0-50 ppm |
| MC2-A-E1197-BX | Hydrogen sulphine | H ₂ S | 0-100 ppm |
| MC2-A-E1197-CX | Hydrogen sulphine | H ₂ S | 0-200 ppm |
| MC2-A-E1197-DX | Hydrogen sulphine | H ₂ S | 0-500 ppm |
| MC2-A-E1199-AX | Ethylene oxide | C ₂ H ₄ O | 0-10 ppm |
| Infrared Sensor | | | |
| MC2-A-I-51164-BX | Carbon dioxide | CO ₂ | 0-5 % Vol |
| MC2-A-I-51164-CX | Carbon dioxide | CO ₂ | 0-2 % Vol |
| MC2-A-I464-BX | Carbon dioxide | CO ₂ | 0-5 % Vol |
| MC2-A-I464-DX | Carbon dioxide | CO ₂ | 0-5000 ppm |

* On request

Analog Sensor Cartridge MC2

Combustible Gases and Freons

| Item No. | Gas | | Measuring Range |
|--|---------------------|---|-----------------|
| Pellistor Sensor | | | |
| MC2-A-P3400-AX | Methane | CH ₄ | 0-100 % LEL |
| MC2-A-P3402-AX | LPG ¹⁾ | LPG | 0-100 % LEL |
| MC2-A-P3408-AX | Ammonia * | NH ₃ | 0-100 % LEL |
| MC2-A-P3410-AX | Ethylene | C ₂ H ₄ | 0-100 % LEL |
| MC2-A-P3415-AX | Cyclohexane, Hexane | C ₆ H ₁₂ | 0-100 % LEL |
| MC2-A-P3420-AX | Ethane, R170 | C ₂ H ₆ | 0-100 % LEL |
| MC2-A-P3425-AX | Ethanol | C ₂ H ₅ OH | 0-100 % LEL |
| MC2-A-P3427-AX | Ethyl acetate | C ₄ H ₈ O ₂ | 0-100 % LEL |
| MC2-A-P3430-AX | Benzol, Benzene | C ₆ H ₆ | 0-100 % LEL |
| MC2-A-P3435-AX | Hexane | C ₆ H ₁₄ | 0-100 % LEL |
| MC2-A-P3440-AX | Hydrogen | H ₂ | 0-100 % LEL |
| MC2-A-P3448-AX | Butyl acetate | C ₆ H ₁₂ O ₂ | 0-100 % LEL |
| MC2-A-P3450-AX | Methanol | CH ₃ OH | 0-100 % LEL |
| MC2-A-P3458-AX | MEK | C ₄ H ₈ O | 0-100 % LEL |
| MC2-A-P3460-AX | Butane | C ₄ H ₁₀ | 0-100 % LEL |
| MC2-A-P3468-AX | Isobutyl alcohol | C ₄ H ₁₀ O | 0-100 % LEL |
| MC2-A-P3470-AX | Octane | C ₈ H ₁₈ | 0-100 % LEL |
| MC2-A-P3472-AX | Cyclopentane | C ₅ H ₁₀ | 0-100 % LEL |
| MC2-A-P3473-AX | Methyl acetate | C ₃ H ₆ O ₂ | 0-100 % LEL |
| MC2-A-P3475-AX | Pentane | C ₅ H ₁₂ | 0-100 % LEL |
| MC2-A-P3480-AX | Propane | C ₃ H ₈ | 0-100 % LEL |
| MC2-A-P3480-BX | Propane | C ₃ H ₈ | 0-30 % LEL |
| MC2-A-P3480-CX | Propane | C ₃ H ₈ | 0-5000 ppm |
| MC2-A-P3482-AX | Isopropyl alcohol | C ₃ H ₈ O | 0-100 % LEL |
| MC2-A-P3485-AX | Acetone | C ₃ H ₆ O | 0-100 % LEL |
| MC2-A-P3490-AX | Toluene | C ₇ H ₈ | 0-100 % LEL |
| MC2-A-P3491-AX | Heptane | C ₇ H ₁₆ | 0-100 % LEL |
| MC2-A-P3494-AX | Butadiene | C ₄ H ₆ | 0-100 % LEL |
| MC2-A-P3495-AX | Nonane | C ₉ H ₂₀ | 0-100 % LEL |
| MC2-A-P3496-AX | Gasoline vapors | | 0-100 % LEL |
| Refrigerant Sensor | | | |
| MC2-A-S20XX-XX-A-X | Freon | R134a, etc. | 20-2000 ppm |
| Refrigerant Sensor in LEL range | | | |
| MC2-A-S2020-01-AX | Freon | R32 | 0-50 % LEL |
| MC2-A-S2020-02-AX | Freon | R455a | 0-50 % LEL |
| MC2-A-S2020-03-AX | Freon | R454b | 0-50 % LEL |
| MC2-A-S2020-04-AX | Freon | R1234yf | 0-50 % LEL |
| MC2-A-S2020-05-AX | Freon | R1234ze | 0-50 % LEL |
| Infrared Sensor | | | |
| MC2-A-I400-X-X | Methane | CH ₄ | 0-100 % LEL |
| MC2-A-I480-X-X | Propane | C ₃ H ₈ | 0-100 % LEL |

* On request

1) Liquid Petroleum Gases

Digital Sensor Cartridge SC2

Toxic Gases

| Item No. | Gas | | Measuring Range |
|-------------------------|-------------------|-------------------------------|-----------------|
| El. Chem. Sensor | | | |
| SC2-E1110-BX | Carbon monoxide | CO | 0-100 ppm |
| SC2-E1110-CX | Carbon monoxide | CO | 0-150 ppm |
| SC2-E1110-EX | Carbon monoxide | CO | 0-250 ppm |
| SC2-E1110-FX | Carbon monoxide | CO | 0-300 ppm |
| SC2-E1110-HX | Carbon monoxide | CO | 0-500 ppm |
| SC2-E1125-AX | Ammonia * | NH ₃ | 0-100 ppm |
| SC2-E1125-BX | Ammonia * | NH ₃ | 0-300 ppm |
| SC2-E1125-CX | Ammonia * | NH ₃ | 0-500 ppm |
| SC2-E1125-DX | Ammonia * | NH ₃ | 0-1000 ppm |
| SC2-E1125-EX | Ammonia * | NH ₃ | 0-5000 ppm |
| SC2-E1130-AX | Nitrogen dioxide | NO ₂ | 0-10 ppm |
| SC2-E1130-BX | Nitrogen dioxide | NO ₂ | 0-20 ppm |
| SC2-E1130-CX | Nitrogen dioxide | NO ₂ | 0-30 ppm |
| SC2-E1130-EX | Nitrogen dioxide | NO ₂ | 0-100 ppm |
| SC2-E1183-BX | Hydrogen cyanide | HCN | 0-50 ppm |
| SC2-E1183-CX | Hydrogen cyanide | HCN | 0-100 ppm |
| SC2-E1185-BX | Formaldehyde | CH ₂ O | 0-10 ppm |
| SC2-E1186-DX | Hydrogen chloride | HCL | 0-20 ppm |
| SC2-E1187-AX | Phosphine | PH ₃ | 0-5 ppm |
| SC2-E1188-AX | Silane | SiH ₄ | 0-50 ppm |
| SC2-E1189-CX | Ethylene | C ₂ H ₄ | 0-200 ppm |
| SC2-E1190-AX | Ozone | O ₃ | 0-5 ppm |
| SC2-E1190-BX | Ozone | O ₃ | 0-10 ppm |
| SC2-E1193-CX | Chlorine | Cl ₂ | 0-10 ppm |
| SC2-E1193-DX | Chlorine | Cl ₂ | 0-20 ppm |
| SC2-E1195-A2 | Oxygen, 2 years | O ₂ | 0-25 % Vol |
| SC2-E1195-A3 | Oxygen, 3 years | O ₂ | 0-25 % Vol |
| SC2-E1195-A5 | Oxygen, 5 years | O ₂ | 0-25 % Vol |
| SC2-E1195-A7 | Oxygen, 7 years | O ₂ | 0-25 % Vol |
| SC2-E1196-BX | Sulphur dioxide | SO ₂ | 0-20 ppm |
| SC2-E1197-AX | Hydrogen sulphine | H ₂ S | 0-50 ppm |
| SC2-E1197-BX | Hydrogen sulphine | H ₂ S | 0-100 ppm |
| SC2-E1197-CX | Hydrogen sulphine | H ₂ S | 0-200 ppm |
| SC2-E1197-DX | Hydrogen sulphine | H ₂ S | 0-500 ppm |
| SC2-E1199-AX | Ethylene oxide | ETO | 0-10 ppm |
| Infrared Sensor | | | |
| SC2-I-S1164-BX | Carbon dioxide | CO ₂ | 0-5 % Vol |
| SC2-I-S1164-CX | Carbon dioxide | CO ₂ | 0-2 % Vol |
| SC2-I464-BX | Carbon dioxide | CO ₂ | 0-5 % Vol |
| SC2-I464-DX | Carbon dioxide | CO ₂ | 0-5000 ppm |

* On request

Digital Sensor Cartridge SC2

Combustible Gases and Freons

| Item No. | Gas | | Measuring Range |
|--|---------------------|---|-----------------|
| Pellistor Sensor | | | |
| SC2-P3400-AX | Methane | CH ₄ | 0-100 % LEL |
| SC2-P3402-AX | LPG ¹⁾ | LPG | 0-100 % LEL |
| SC2-P3408-AX | Ammonia * | NH ₃ | 0-100 % LEL |
| SC2-P3410-AX | Ethylene | C ₂ H ₄ | 0-100 % LEL |
| SC2-P3415-AX | Cyclohexane, Hexane | C ₆ H ₁₂ | 0-100 % LEL |
| SC2-P3420-AX | Ethane, R170 | C ₂ H ₆ | 0-100 % LEL |
| SC2-P3425-AX | Ethanol | C ₂ H ₅ OH | 0-100 % LEL |
| SC2-P3427-AX | Ethyl acetate | C ₄ H ₈ O ₂ | 0-100 % LEL |
| SC2-P3430-AX | Benzol, Benzene | C ₆ H ₆ | 0-100 % LEL |
| SC2-P3435-AX | Hexane | C ₆ H ₁₄ | 0-100 % LEL |
| SC2-P3448-AX | Butyl acetate | C ₆ H ₁₂ O ₂ | 0-100 % LEL |
| SC2-P3440-AX | Hydrogen | H ₂ | 0-100 % LEL |
| SC2-P3450-AX | Methanol | CH ₃ OH | 0-100 % LEL |
| SC2-P3458-AX | MEK | C ₄ H ₈ O | 0-100 % LEL |
| SC2-P3468-AX | Isobutyl alcohol | C ₄ H ₁₀ O | 0-100 % LEL |
| SC2-P3460-AX | Butane | C ₄ H ₁₀ | 0-100 % LEL |
| SC2-P3470-AX | Octane | C ₈ H ₁₈ | 0-100 % LEL |
| SC2-P3472-AX | Cyclopentane | C ₅ H ₁₀ | 0-100 % LEL |
| SC2-P3473-AX | Methyl acetate | C ₃ H ₆ O ₂ | 0-100 % LEL |
| SC2-P3475-AX | Pentane | C ₅ H ₁₂ | 0-100 % LEL |
| SC2-P3480-AX | Propane | C ₃ H ₈ | 0-100 % LEL |
| SC2-P3480-BX | Propane | C ₃ H ₈ | 0-30 % LEL |
| SC2-P3480-CX | Propane | C ₃ H ₈ | 0-5000 ppm |
| SC2-P3482-AX | Isopropyl alcohol | C ₃ H ₈ O | 0-100 % LEL |
| SC2-P3485-AX | Acetone | C ₃ H ₆ O | 0-100 % LEL |
| SC2-P3490-AX | Toluene | C ₇ H ₈ | 0-100 % LEL |
| SC2-P3491-AX | Heptane | C ₇ H ₁₆ | 0-100 % LEL |
| SC2-P3494-AX | Butadiene | C ₄ H ₆ | 0-100 % LEL |
| SC2-P3495-AX | Nonane | C ₉ H ₂₀ | 0-100 % LEL |
| SC2-P3496-AX | Gasoline vapors | | 0-100 % LEL |
| Refrigerant Sensor | | | |
| SC2-S20XX-XX-AX | Freon | R134a, etc. | 20-2000 ppm |
| Refrigerant Sensor in LEL range | | | |
| SC2-S2020-01-AX | Freon | R32 | 0-50 % LEL |
| SC2-S2020-02-AX | Freon | R455a | 0-50 % LEL |
| SC2-S2020-03-AX | Freon | R454b | 0-50 % LEL |
| SC2-S2020-04-AX | Freon | R1234yf | 0-50 % LEL |
| SC2-S2020-05-AX | Freon | R1234ze | 0-50 % LEL |
| Infrared Sensor | | | |
| SC2-I400-A-X | Methane | CH ₄ | 0-100 % LEL |
| SC2-I480-A-X | Propane | C ₃ H ₈ | 0-100 % LEL |

* On request

1) Liquid Petroleum Gases

Analog Relay Board ARB2

| Item No. | Description |
|-----------------|---|
| STANDARD | |
| ARB2-N-20010 | Analog Relay Board, N-housing, 24 V DC, sensor unit installed |
| OPTIONS | |
| ARB2-N-20000 | Analog Relay Board 24 V |
| ARB2-A-XXXXX | A-Housing |
| ARB2-C-XXXXX | C-Housing |
| ARB2-E-XXXXX | E-Housing |
| ARB2-G-XXXXX | G-Housing |
| ARB2-N-XXXXX | N-Housing |
| ARB2-X-5XXXX | 100-240 V AC |
| ARB2-X-X1XXX | With display |
| ARB2-X-XX1XX | Visual/audible indicator, mounted on the housing |
| ARB2-X-XXX2X | Accessory kit for remote sensor |
| ARB2-X-XXXXA | Version UL/CSA 61010-1 (not in N-housing) |

Multi Sensor Board MSB2

| Item No. | Description |
|---------------------|--|
| STANDARD | |
| MSB2-A-230323000 | Multi Sensor Board, A-Housing, 24 V |
| OPTIONS | |
| MSB2-0-XXXXXXXXXX | Without housing |
| MSB2-A-XXXXXXXXXX | A-Housing |
| MSB2-C-XXXXXXXXXX | C-Housing |
| MSB2-E-XXXXXXXXXX | E-Housing |
| MSB2-X-7XXXXXXXXXX | 100-240 V AC / 24 V DC, 15 VA |
| MSB2-X-XX4XXXXXXXX | Visual/audible indicator, mounted on the housing |
| MSB2-X-XXX5XXXXXXXX | Analog output and RS-485 with Modbus protocol |
| MSB2-X-XXXXXX2XX | With display/keypad |
| MSB2-X-XXXXXXXXXA | Version UL/CSA 61010-1 |

Sensor Board SB2

| Item No. | Description |
|------------------|---|
| STANDARD | |
| SB2-A-200200000 | Sensor Board, A-Housing, 24 V DC, RS-485 with DGC-06 protocol |
| RB2-A-100000000 | Remote Board for 1x SC2 for remote connection at the SB2, A-Housing |
| RB2-0-100000000 | Remote Board for 1x SC2 for remote connection at the SB2, without housing |
| OPTIONS | |
| SB2-C-XXXXXXXXXX | C-Housing |
| SB2-X-XX3XXXXXX | Visual/audible indicator, mounted on the housing |
| SB2-X-XXX4XXXXXX | RS-485 with Modbus protocol |
| SB2-X-XXX8XXXXXX | MSR_D_Bus |
| SB2-X-XXXXXX2X0 | With display/keypad |
| SB2-K-XXXXXXXXXX | ATEX housing |
| SB2-5-XXXXXXXXXX | Stainless steel housing |
| SB2-X-XXXXXXXXXA | Version UL/CSA 61010-1 (only housing type A & C) |

Warning and Sensor Board WSB2

| Item No. | Description |
|--------------------|--|
| STANDARD | |
| WSB2-A-220311000 | Warning and Sensor Board WSB2, A-Housing, 2 relays |
| WSB2-A-200311000 | Warning and Sensor Board WSB2, A-Housing, without alarm relay/fault signal relay |
| OPTIONS | |
| WSB2-C-XXXXXXXXXX | C-Housing |
| WSB2-E-XXXXXXXXXX | E-Housing |
| WSB2-N-XXXXXXXXXX | N-Housing |
| WSB2-X-7XXXXXXXXXX | 100-240 V / 15 VA / 24 V |
| WSB2-X-XX3XXXXXX | Visual/audible indicator, mounted on the housing |
| WSB2-X-XXXX2XXXX | 1x digital input with acknowledgement button on the housing |
| WSB2-X-XXX3XXXXXX | 1x analog output and RS-485 with DGC-06 and Modbus protocol |
| WSB2-X-XXX4XXXXXX | Only RS-485 with DGC-06 and Modbus protocol |
| WSB2-X-XXXXX2XX | With display/keypad |
| WSB2-X-XXXXXX1X | 3x SC2 mounting slot |
| WSB2-X-XXXXXX2X | 2x SC2 mounting slot and remote input terminal |
| WSB2-X-XXXXXX3X | 2x SC2 mounting slot for same gas type and remote input terminal |
| WSB2-X-XXXXXX5X | 1x SSAX1 mounting slot (for ATEX compliant sensor) |
| WSB2-X-XXXXXXXXXA | Version UL/CSA 61010-1 (housings A, C, E) |

Multi Sensor Controller MSC2

| Item No. | Description |
|--------------------|--|
| STANDARD | |
| MSC2-C-230322000 | Multi Sensor Controller, 24 V, C-Housing, 24 V |
| MSC2-C-530322000 | Multi Sensor Controller, C-Housing, 230 V, 5 VA |
| MSC2-C-230322200 | Multi Sensor Controller, C-Housing, 12V / 24 V, with display/keypad |
| MSC2-C-530322200 | Multi Sensor Controller, C-Housing, 230 V, 5 VA, with display/keypad |
| OPTIONS | |
| MSC2-A-XXXXXXXXXX | A-Housing |
| MSC2-C-XXXXXXXXXX | C-Housing |
| MSC2-E-XXXXXXXXXX | E-Housing |
| MSC2-E-7XXXXXXXXXX | 100-240 V AC / 24 V DC, 15 VA |
| MSC2-E-9XXXXXXXXXX | UPS 100-240 V AC / 24 V DC, 15VA, 0.8 Ah |
| MSC2-X-XX4XXXXXXXX | Visual/audible indicator, mounted on the housing |
| MSC2-X-XX5XXXXXXXX | 1x analog output and RS-485 with Modbus protocol |
| MSC2-X-XXXX4XXXXXX | 1x digital input and 1x acknowledgement button on the housing |
| MSC2-X-XXXXXX2XXX | With display/keypad |
| MSC2-X-XXXXXXXXXA | Version UL/CSA 61010-1 (only housing types A, C, E) |

Compactcontroller

| Item No. | Description |
|--------------------|--|
| STANDARD | |
| MSC2-C-23032020K | Compactcontroller, C-Housing, 24 V DC, with display/keypad |
| MSC2-C-23032020C | Compactcontroller, C-Housing, 24 V DC, with display/keypad, version UL/CSA 61010-1 |
| OPTIONS | |
| MSC2-C-XXXXXXXXXX | C-Housing |
| MSC2-E-XXXXXXXXXX | E-Housing |
| MSC2-E-7XXXXXXXXXX | 100-240 V AC / 24 V DC, 15 VA |
| MSC2-E-9XXXXXXXXXX | UPS 100-240 V AC / 24 V DC, 15VA, 0.8 Ah |
| MSC2-X-XX4XXXXXXXX | Visual/audible indicator, mounted on the housing |
| MSC2-X-XXXXXXXXXA | Version UL/CSA 61010-1 (housing types A, C, E) |

Multi Gas Controller MGC2

| Item No. | Description |
|--------------------|---|
| STANDARD | |
| MGC2-C-230323000 | Multi Gas Controller, C-Housing, 24 V |
| MGC2-C-530323000 | Multi Gas Controller, C-Housing, 230 V-5 VA |
| MGC2-C-230323200 | Multi Gas Controller, C-Housing, 24 V, with display/keypad |
| MGC2-C-530323200 | Multi Gas Controller, C-Housing, 230 V, 5 VA, with display/keypad |
| OPTIONS | |
| MGC2-A-XXXXXXXXXX | A-Housing |
| MGC2-C-XXXXXXXXXX | C-Housing |
| MGC2-E-XXXXXXXXXX | E-Housing |
| MGC2-X-7XXXXXXXXXX | 100-240 V AC / 24 V DC, 15 VA |
| MGC2-X-9XXXXXXXXXX | UPS 100-240 V AC / 24 V DC, 15 VA, 0.8 Ah |
| MGC2-X-XX4XXXXXXXX | Visual/audible indicator, mounted on the housing |
| MGC2-X-XX5XXXXXXXX | 1x analog output and RS-485 with Modbus protocol |
| MGC2-X-XXXX4XXXXX | 1x digital input and acknowledgement button on the housing |

Door Entrance Module DEM-06

| Item No. | Description |
|----------------|---|
| DEM-06-C-S100 | Door Entrance Module, slave version, internal buzzer & 1x open collector output |
| OPTIONS | |
| DEM-06-A-XXXX | A-Housing |
| DEM-06-X-S200 | 2x open collector output with reset input |
| DEM-06-X-S300 | Mounting together in the MSB2-Housing |

Digital Gas Controller DGC-06

| Item No. | Description |
|-------------------------|--|
| STANDARD | |
| DGC-06-2-0-1-01000000 | Power supply unit: 230/110 V AC <-> 24 V DC, 6.5 Ah, 4 relays, 1-row housing |
| DGC-06-2-0-2-01000000 | Power unit: 230/110 V AC <-> 24 V DC, 6.5 Ah, 4 relays, 2-row housing |
| DGC-06-2-0-3-01000000 | Power unit: 230/110 V AC <-> 24 V DC, 6.5 Ah, 4 relays, 3-row housing |
| DGC-06-2-0-4-01000000 | Power unit: 230/110 V AC <-> 24 V DC, 6.5 Ah, 4 relays, 4-row housing |
| DGC-06-3-0-X-XXXXXXXXXX | UPS: 230/110 V AC <-> 24 V DC, 2.2 Ah |
| DGC-06-4-0-X-XXXXXXXXXX | UPS: 230/110 V AC <-> 24 V DC, 6.5 Ah |
| DGC-06-0-0-X-XXXXXXXXXX | Supply 24 V DC |
| OPTIONS | |
| DGC-06-2-0-1-XXX1XXXXX | Interface Modbus RTU RS-485 |
| DGC-06-2-0-1-XX1XXXXXX | Data Logger incl. USB flash drive |
| DGC-06-2-0-1-XXXXX1XXX | Control of external warning devices |
| DGC-06-X-X-X-XXXXXX1XX | Cable entry from below |
| DGC-06-X-X-X-XXXXXX2XX | Cable entry from below and above |
| DGC-06-X-X-X-XXXXXXX1X | Lockable housing |
| DGC-06-2-0-1-1XXXXXXX | Power failure flashing light |

Analog Gas Controller AGC-05

| Item No. | Description |
|---------------|--|
| AGC-05-04-024 | 24 V / 4 analog inputs, 2 analog outputs, 1-row housing, 5 relays |
| AGC-05-04-230 | 230 V / 4 analog inputs, 2 analog outputs, 1-row housing, 5 relays |
| AGC-05-08-024 | 24 V / 8 analog inputs, 4 analog outputs, 2-row housing, 10 relays |
| AGC-05-08-230 | 230 V / 8 analog inputs, 4 analog outputs, 2-row housing, 10 relays |
| AGC-05-12-024 | 24 V / 12 analog inputs, 6 analog outputs, 2-row housing, 15 relays |
| AGC-05-12-230 | 230 V / 12 analog inputs, 6 analog outputs, 2-row housing, 15 relays |
| AGC-EP-05-01 | EP modules |
| AGC-05-X-USV | 110-230 V incl. UPS 7.2 Ah (separate housing) |

Gas Controller Module GC-06

| Item No. | Description |
|-----------------|-----------------------------------|
| GC-06-000000-XX | Gas Controller Module |
| GC-06-X2XXXX-XX | Door mounting with mounting panel |
| GC-06-1XXXXX-XX | Power failure flashing light |
| EP-06-X00 | Extension module |

PolyGard[®]2 Control Box and Tools

| Item No. | Description |
|-----------------------------|--|
| PGCB | |
| PGCB-GC06-07-0 | PolyGard [®] Control Box, 7" Touchscreen, without power supply, without housing |
| PGCB-GC06-07-A | PolyGard [®] Control Box, 7" Touchscreen, with power supply and housing |
| STL06 - Service Tool | |
| STL06-PGX2-P7 | Partner tool for display, calibration, addressing and parameter changes |
| STL06-PGX2-A7 | System tool for display, calibration, addressing and parameter changes * |
| STL06-MC2-A1 | Tool for the product line μ Gard2 (MC2) for display and calibration |
| PCE06 - EasyConfig | |
| PCE06-PGX2-PF | Partner tool for display, calibration, addressing, parameter changes and history |
| PCE06-PGX2-AF | System tool for display, calibration, addressing, parameter changes and history * |

* Is ordered by the partner for end customers

Warning Devices

| Item No. | Description |
|-----------------|---|
| BL-24 | Flash light |
| WH-24 | Warning horn, 24 V DC |
| WH-230 | Warning horn, 230 V AC |
| WH/BL-24 | Warning horn/flashing light combination, 24 V DC |
| WH/BL-24-Tast | Warning horn/flashing light combination, 24 V DC + button |
| WH/BL-230 | Warning horn/flashing light combination, 230 V AC |
| WT-D3-30-222-GW | LED warning sign D3 – EN 50545 |
| WT-G1-30-111-RW | LED warning sign G1 – VDI 2053 GAS ALARM |
| WT-A1-30-127-RR | LED warning sign A1 – standard Austria |
| WT-A2-30-214-RR | LED warning sign A2 – standard Austria |
| WT-A3-30-122-RR | LED warning sign A3 – standard Austria |
| WT-ES-Version | LED warning sign (Extended Safety) |
| OPTIONS | |
| WT-XX-XX-XXX-XX | Warning sign in IP54 |
| WT-ST-XX-XXX-XX | Special labelling |
| WT-XX-31-XXX-XX | Power supply 24 V AC/DC, with horn |
| WT-XX-40-XXX-XX | Power supply 230 V AC |
| WT-XX-41-XXX-XX | Power supply 230 V AC, with horn |

Accessories

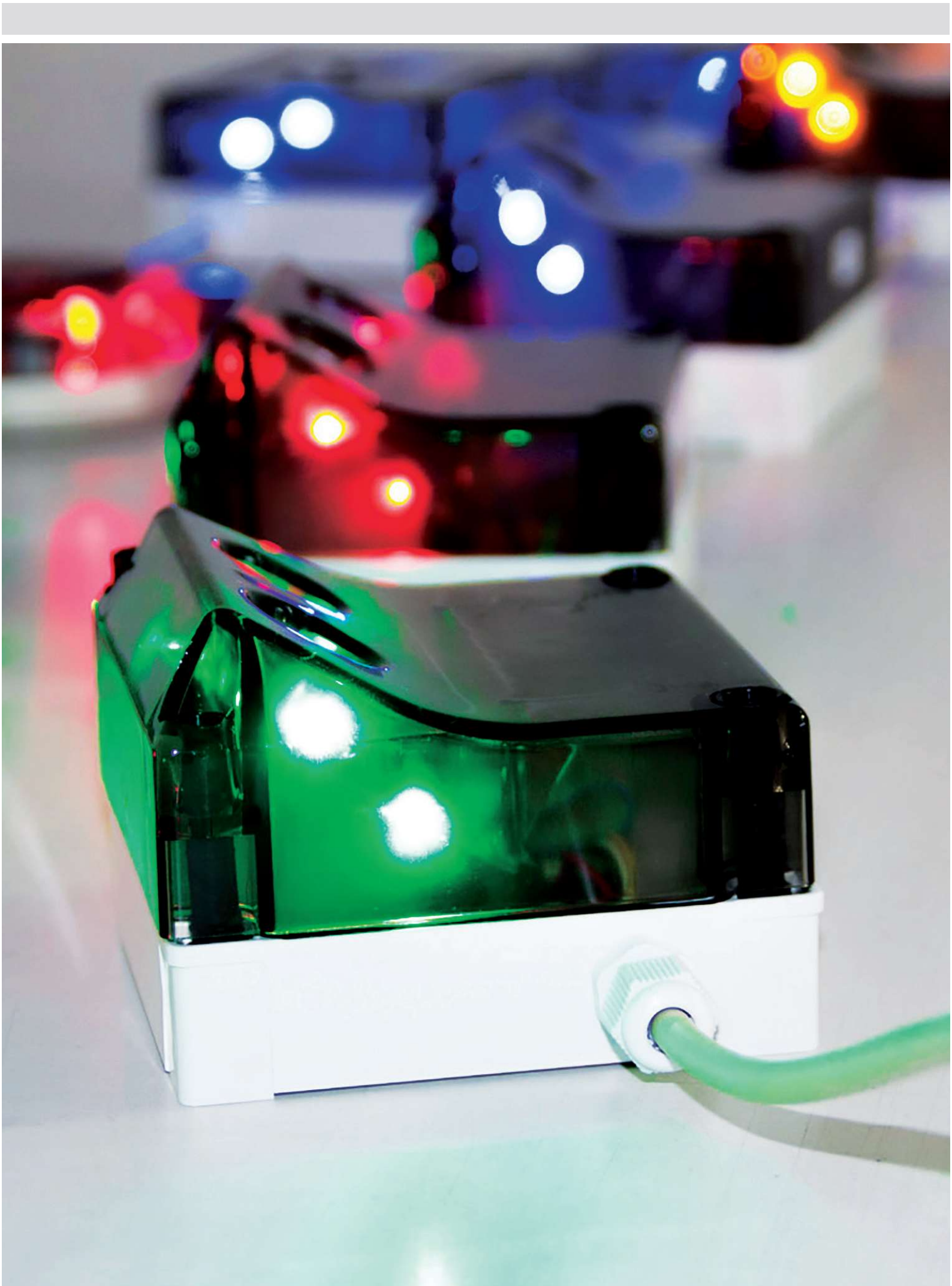
| Item No. | Description |
|--------------------|---|
| ADAPTER | |
| STA06-MC2 | Converter for PCE06-PGX2 tool for communication with the MC2 line |
| ACCESSORIES | |
| C2-Z2 | Duct mounting set |
| C2-Z4 | Calibration adapter for MC2, SC2 (plastic sleeve without lateral gas inlet) |
| C2-Z6 | Calibration adapter MC2, SC2 (plastic sleeve with lateral gas inlet) |
| C2-Z5 | SplashGuard |
| SP6-00 | Sensor protection / guard rail, stainless steel, 6 mm |
| OT-01 | Tool for opening the stainless steel housing |

Extended Safety

| Item No. | Description |
|--------------|---------------------------|
| MSB2-ES | Sensor Board line MSB2-ES |
| EP-06-ES_MOT | Motor module |
| EP-06-ES_MCM | System module |
| GC-06-ES | Gas controller |
| EP-06-ES_FCM | Fire control module |
| EP-06-ES_FDM | Fire detection module |

Intelligent Parking Guidance Systems

| Item No. | Description |
|--------------------------|---|
| PC SYSTEMS | |
| PC | Server interface > 500 sensors |
| PC-Comfort-1 | Server for small systems incl. 3 RS-485 ports < 500 sensors |
| T-Box-Ethernet | Modbus - TCP/IP converter for virtual machines |
| PC SOFTWARE | |
| PG-CC | ParkGard® control center - SCADA software |
| SENSORS | |
| PU-02-2 | Ultrasonic indoor sensor (design) |
| PU-02-4 | Ultrasonic indoor sensor (cross) |
| PU-02-PK | USS with pot. free contact |
| PU-02-5 | Status LED parking space indicator, with extension |
| PU-02-8 | Status LED parking space indicator, in plastic housing |
| PU-02-3 | Ultrasonic indoor counting sensor, 1.900 x 65 x 90 mm (L x W x D) |
| CONTROLLER | |
| PCL-MU-1 | MSR level controller 1, can control up to 32 ultrasonic sensors |
| PCL-MU-2 | MSR level controller 2, can control up to 64 ultrasonic sensors |
| PCL-MU-3 | MSR level controller 3, can control up to 96 ultrasonic sensors |
| PCL-MU-4 | MSR level controller 4, can control up to 128 ultrasonic sensors |
| DISPLAYS | |
| ParkGard® centi | LED display 2-row, 5x1 digit, 450 x 450 x 32 mm |
| ParkGard® milli | LED display 1-row, 1x4 digit, 560 x 269 x 32 mm |
| ParkGard® micro | LED display 1-row, 1x3 digit, 450 x 269 x 32 mm |
| ParkGard® nano | LED display 1-row, 1x2 digit, 340 x 269 x 32 mm |
| ParkGard® pico | LED arrow, green, IP 43, 269 x 269 x 32 mm |
| ParkGard® micro-o | LED display 1 row, 1x3 digit, 374 x 249 x 185 mm |
| Display EXIT | 1-row, 642 x 203 x 22 mm, aluminium |
| ParkGard® LED - Matrix-I | Freely programmable matrix LED display indoor IP45 |
| ParkGard® LED - Matrix-O | Freely programmable matrix LED display outdoor IP54 |



Sensor PolyXeta[®] 2

Toxic Gases for Zone 1 and Zone 2

| Item No. | Item No. | Gas | Measuring Range |
|-------------------------|-------------------------|-----------------------|-----------------|
| Zone 1 | Zone 2 | | |
| El. Chem. Sensor | El. Chem. Sensor | | |
| PX2-1-X-E1110-BX | PX2-2-X-E1110-BX | Carbon monoxide CO | 0-100 ppm |
| PX2-1-X-E1110-CX | PX2-2-X-E1110-CX | Carbon monoxide CO | 0-150 ppm |
| PX2-1-X-E1110-EX | PX2-2-X-E1110-EX | Carbon monoxide CO | 0-250 ppm |
| PX2-1-X-E1110-FX | PX2-2-X-E1110-FX | Carbon monoxide CO | 0-300 ppm |
| PX2-1-X-E1110-HX | PX2-2-X-E1110-HX | Carbon monoxide CO | 0-500 ppm |
| PX2-1-X-E1125-AX | PX2-2-X-E1125-AX | Ammonia* NH3 | 0-100 ppm |
| PX2-1-X-E1125-BX | PX2-2-X-E1125-BX | Ammonia* NH3 | 0-300 ppm |
| PX2-1-X-E1125-CX | PX2-2-X-E1125-CX | Ammonia* NH3 | 0-500 ppm |
| PX2-1-X-E1125-DX | PX2-2-X-E1125-DX | Ammonia* NH3 | 0-1000 ppm |
| PX2-1-X-E1125-EX | PX2-2-X-E1125-EX | Ammonia* NH3 | 0-5000 ppm |
| PX2-1-X-E1130-EX | PX2-2-X-E1130-EX | Nitrogen dioxide NO2 | 0-100 ppm |
| PX2-1-X-E1183-BX | PX2-2-X-E1183-BX | Hydrogen cyanide HCN | 0-50 ppm |
| PX2-1-X-E1183-CX | PX2-2-X-E1183-CX | Hydrogen cyanide HCN | 0-100 ppm |
| PX2-1-X-E1186-DX | PX2-2-X-E1186-DX | Hydrogen chloride HCl | 0-20 ppm |
| PX2-1-X-E1195-A2 | PX2-2-X-E1195-A2 | Oxygen, 2 years O2 | 0-25 % Vol |
| PX2-1-X-E1195-A3 | PX2-2-X-E1195-A3 | Oxygen, 3 years O2 | 0-25 % Vol |
| PX2-1-X-E1195-A5 | PX2-2-X-E1195-A5 | Oxygen, 5 years O2 | 0-25 % Vol |
| PX2-1-X-E1195-A7 | PX2-2-X-E1195-A7 | Oxygen, 7 years O2 | 0-25 % Vol |
| PX2-1-X-E1197-AX | PX2-2-X-E1197-AX | Hydrogen sulphide H2S | 0-50 ppm |
| PX2-1-X-E1197-BX | PX2-2-X-E1197-BX | Hydrogen sulphide H2S | 0-100 ppm |
| PX2-1-X-E1197-CX | PX2-2-X-E1197-CX | Hydrogen sulphide H2S | 0-200 ppm |
| PX2-1-X-E1197-DX | PX2-2-X-E1197-DX | Hydrogen sulphide H2S | 0-300 ppm |
| Infrared Sensor | Infrared Sensor | | |
| PX2-2-X-I464-BX | PX2-2-X-I464-BX | Carbon dioxide CO2 | 0-5 % Vol |
| PX2-2-X-I464-DX | PX2-2-X-I464-DX | Carbon dioxide CO2 | 0-5000 ppm |
| PX2-2-X-I400-AX | PX2-2-X-I400-AX | Methane CH4 | 0-100 % LEL |
| PX2-2-X-I480-AX | PX2-2-X-I480-AX | Propane C3H8 | 0-100 % LEL |

* On request

Sensor PolyXeta[®] 2

Combustible Gases and Freon for Zone 1 and Zone 2

| Item No. | Item No. | Gas | Measuring Range |
|---------------------------|---------------------------|---------------------|-------------------------|
| Zone 1 | Zone 2 | | |
| Pellistor Sensor | Pellistor Sensor | | |
| PX2-1-X-P3400-AX | PX2-2-X-P3400-AX | Methane | CH4 0-100 % LEL |
| PX2-1-X-P3402-AX | PX2-2-X-P3402-AX | LPG ¹⁾ | LPG 0-100 % LEL |
| PX2-1-X-P3408-AX | PX2-2-X-P3408-AX | Ammonia * | NH3 0-100 % LEL |
| PX2-1-X-P3410-AX | PX2-2-X-P3410-AX | Ethylene | C2H4 0-100 % LEL |
| PX2-1-X-P3415-AX | PX2-2-X-P3415-AX | Cyclohexane, Hexane | C6H12 0-100 % LEL |
| PX2-1-X-P3420-AX | PX2-2-X-P3420-AX | Ethane, R170 | C2H6 0-100 % LEL |
| PX2-1-X-P3425-AX | PX2-2-X-P3425-AX | Ethanol | C2H5OH 0-100 % LEL |
| PX2-1-X-P3427-AX | PX2-2-X-P3427-AX | Ethyl acetate | C4H8O2 0-100 % LEL |
| PX2-1-X-P3430-AX | PX2-2-X-P3430-AX | Benzol, Benzene | C6H6 0-100 % LEL |
| PX2-1-X-P3435-AX | PX2-2-X-P3435-AX | Hexane | C6H14 0-100 % LEL |
| PX2-1-X-P3440-AX | PX2-2-X-P3440-AX | Hydrogen | H2 0-100 % LEL |
| PX2-1-X-P3448-AX | PX2-2-X-P3448-AX | Butyl acetate | C6H12O2 0-100 % LEL |
| PX2-1-X-P3450-AX | PX2-2-X-P3450-AX | Methanol | CH3OH 0-100 % LEL |
| PX2-1-X-P3458-AX | PX2-2-X-P3458-AX | MEK | C4H8O 0-100 % LEL |
| PX2-1-X-P3460-AX | PX2-2-X-P3460-AX | Butane | C4H10 0-100 % LEL |
| PX2-1-X-P3468-AX | PX2-2-X-P3468-AX | Isobutyl alcohol | C4H10O 0-100 % LEL |
| PX2-1-X-P3470-AX | PX2-2-X-P3470-AX | Octane | C8H18 0-100 % LEL |
| PX2-1-X-P3472-AX | PX2-2-X-P3472-AX | Cyclopentane | C5H10 0-100 % LEL |
| PX2-1-X-P3473-AX | PX2-2-X-P3473-AX | Methyl acetate | C3H6O2 0-100 % LEL |
| PX2-1-X-P3475-AX | PX2-2-X-P3475-AX | Pentane | C5H12 0-100 % LEL |
| PX2-1-X-P3480-AX | PX2-2-X-P3480-AX | Propane | C3H8 0-100 % LEL |
| PX2-1-X-P3480-BX | PX2-2-X-P3480-BX | Propane | C3H8 0-30 % LEL |
| PX2-1-X-P3480-CX | PX2-2-X-P3480-CX | Propane | C3H8 0-5000 ppm |
| PX2-1-X-P3482-AX | PX2-2-X-P3482-AX | Isopropyl alcohol | C3H8O 0-100 % LEL |
| PX2-1-X-P3485-AX | PX2-2-X-P3485-AX | Acetone | C3H6O 0-100 % LEL |
| PX2-1-X-P3490-AX | PX2-2-X-P3490-AX | Toluene | C7H8 0-100 % LEL |
| PX2-1-X-P3491-AX | PX2-2-X-P3491-AX | Heptane | C7H16 0-100 % LEL |
| PX2-1-X-P3494-AX | PX2-2-X-P3494-AX | Butadiene | C4H6 0-100 % LEL |
| PX2-1-X-P3495-AX | PX2-2-X-P3495-AX | Nonane | C9H20 0-100 % LEL |
| PX2-1-X-P3496-AX | PX2-2-X-P3496-AX | Petrol vapors | 0-100 % LEL |
| Refrigerant Sensor | Refrigerant Sensor | | |
| PX2-1-X-S20XX-XX-X | PX2-2-X-S20XX-XX-X | Freon | R134a, etc. 20-2000 ppm |
| Infrared Sensor | Infrared Sensor | | |
| PX2-1-X-S400-AX | PX2-2-X-S400-AX | Methane | CH4 0-100 % LEL |
| PX2-1-X-S480-AX | PX2-2-X-S480-AX | Propane | C3H8 0-100 % LEL |

* On request

1) Liquid Petroleum Gases

Sensor Cartridge SX1

Toxic Gases for Zone 1 and Zone 2

| Item No. | Gas | | Measuring Range |
|-------------------------|-------------------|-------------------------------|-----------------|
| EL. Chem. Sensor | | | |
| SX1-1-E1110-BX | Carbon monoxide | CO | 0-100 ppm |
| SX1-1-E1110-CX | Carbon monoxide | CO | 0-150 ppm |
| SX1-1-E1110-EX | Carbon monoxide | CO | 0-250 ppm |
| SX1-1-E1110-FX | Carbon monoxide | CO | 0-300 ppm |
| SX1-1-E1110-HX | Carbon monoxide | CO | 0-500 ppm |
| SX1-1-E1125-AX | Ammonia * | NH ₃ | 0-100 ppm |
| SX1-1-E1125-BX | Ammonia * | NH ₃ | 0-300 ppm |
| SX1-1-E1125-CX | Ammonia * | NH ₃ | 0-500 ppm |
| SX1-1-E1125-DX | Ammonia * | NH ₃ | 0-1000 ppm |
| SX1-1-E1125-EX | Ammonia * | NH ₃ | 0-5000 ppm |
| SX1-1-E1130-BX | Nitrogen dioxide | NO ₂ | 0-100 ppm |
| SX1-1-E1183-BX | Hydrogen cyanide | HCN | 0-50 ppm |
| SX1-1-E1183-CX | Hydrogen cyanide | HCN | 0-100 ppm |
| SX1-1-E1186-DX | Hydrogen chloride | HCl | 0-20 ppm |
| SX1-1-E1195-A2 | Oxygen, 2 years | O ₂ | 0-25 % Vol |
| SX1-1-E1195-A3 | Oxygen, 3 years | O ₂ | 0-25 % Vol |
| SX1-1-E1195-A5 | Oxygen, 5 years | O ₂ | 0-25 % Vol |
| SX1-1-E1195-A7 | Oxygen, 7 years | O ₂ | 0-25 % Vol |
| SX1-1-E1197-AX | Hydrogen sulphide | H ₂ S | 0-50 ppm |
| SX1-1-E1197-BX | Hydrogen sulphide | H ₂ S | 0-100 ppm |
| SX1-1-E1197-CX | Hydrogen sulphide | H ₂ S | 0-200 ppm |
| SX1-1-E1197-DX | Hydrogen sulphide | H ₂ S | 0-500 ppm |
| Infrared Sensor | | | |
| SX1-1464-BX | Carbon dioxide | CO ₂ | 0-5 % Vol |
| SX1-1464-DX | Carbon dioxide | CO ₂ | 0-5000 ppm |
| SX1-1400-AX | Methane | CH ₄ | 0-100 % LEL |
| SX1-1480-AX | Propane | C ₃ H ₈ | 0-100 % LEL |

* On request

Sensor Cartridge SX1

Combustible Gases and Freon for Zone 1 and Zone 2

| Item No. | Gas | Measuring Range |
|---------------------------|---------------------|---|
| Pellistor Sensor | | |
| SX1-1-P3400-AX | Methane | CH ₄ 0-100 % LEL |
| SX1-1-P3402-AX | LPG ¹⁾ | LPG 0-100 % LEL |
| SX1-1-P3408-AX | Ammonia * | NH ₃ 0-100 % LEL |
| SX1-1-P3410-AX | Ethylene | C ₂ H ₄ 0-100 % LEL |
| SX1-1-P3415-AX | Cyclohexane, Hexane | C ₆ H ₁₂ 0-100 % LEL |
| SX1-1-P3420-AX | Ethane, R170 | C ₂ H ₆ 0-100 % LEL |
| SX1-1-P3425-AX | Ethanol | C ₂ H ₅ OH 0-100 % LEL |
| SX1-1-P3427-AX | Ethyl acetate | C ₄ H ₈ O ₂ 0-100 % LEL |
| SX1-1-P3430-AX | Benzol, Benzene | C ₆ H ₆ 0-100 % LEL |
| SX1-1-P3435-AX | Hexane | C ₆ H ₁₄ 0-100 % LEL |
| SX1-1-P3440-AX | Hydrogen | H ₂ 0-100 % LEL |
| SX1-1-P3448-AX | Butyl acetate | C ₆ H ₁₂ O ₂ 0-100 % LEL |
| SX1-1-P3450-AX | Methanol | CH ₃ OH 0-100 % LEL |
| SX1-1-P3458-AX | MEK | C ₄ H ₈ O 0-100 % LEL |
| SX1-1-P3460-AX | Butane | C ₄ H ₁₀ 0-100 % LEL |
| SX1-1-P3468-AX | Isobutyl alcohol | C ₄ H ₁₀ O 0-100 % LEL |
| SX1-1-P3470-AX | Octane | C ₈ H ₁₈ 0-100 % LEL |
| SX1-1-P3472-AX | Cyclopentane | C ₅ H ₁₀ 0-100 % LEL |
| SX1-1-P3473-AX | Methyl acetate | C ₃ H ₆ O ₂ 0-100 % LEL |
| SX1-1-P3475-AX | Pentane | C ₅ H ₁₂ 0-100 % LEL |
| SX1-1-P3480-AX | Propane | C ₃ H ₈ 0-100 % LEL |
| SX1-1-P3480-BX | Propane | C ₃ H ₈ 0-30 % LEL |
| SX1-1-P3480-CX | Propane | C ₃ H ₈ 0-5000 ppm |
| SX1-1-P3482-AX | Isopropyl alcohol | C ₃ H ₈ O 0-100 % LEL |
| SX1-1-P3485-AX | Acetone | C ₃ H ₆ O 0-100 % LEL |
| SX1-1-P3490-AX | Toluene | C ₇ H ₈ 0-100 % LEL |
| SX1-1-P3491-AX | Heptane | C ₇ H ₁₆ 0-100 % LEL |
| SX1-1-P3494-AX | Butadiene | C ₄ H ₆ 0-100 % LEL |
| SX1-1-P3495-AX | Nonane | C ₉ H ₂₀ 0-100 % LEL |
| SX1-1-P3496-AX | Petrol vapors | 0-100 % LEL |
| Refrigerant Sensor | | |
| SX1-S20XX-XX-X | Freon | R134a, etc. 20-2000 ppm |
| Infrared Sensor | | |
| SX1-I400-AX | Methane | CH ₄ 0-100 % LEL |
| SX1-I480-AX | Propane | C ₃ H ₈ 0-100 % LEL |
| * On request | | |
| 1) Liquid Petroleum Gases | | |

Sensor Cartridge SSAX1

Toxic Gases for Zone 1 and Zone 2

| Item No. | Gas | | Measuring Range |
|-------------------------|-------------------|------|-----------------|
| EL. Chem. Sensor | | | |
| SSAX1-1-E1110-BX | Carbon monoxide | CO | 0-100 ppm |
| SSAX1-1-E1110-CX | Carbon monoxide | CO | 0-150 ppm |
| SSAX1-1-E1110-EX | Carbon monoxide | CO | 0-250 ppm |
| SSAX1-1-E1110-FX | Carbon monoxide | CO | 0-300 ppm |
| SSAX1-1-E1110-HX | Carbon monoxide | CO | 0-500 ppm |
| SSAX1-1-E1125-AX | Ammonia * | NH3 | 0-100 ppm |
| SSAX1-1-E1125-BX | Ammonia * | NH3 | 0-300 ppm |
| SSAX1-1-E1125-CX | Ammonia * | NH3 | 0-500 ppm |
| SSAX1-1-E1125-DX | Ammonia * | NH3 | 0-1000 ppm |
| SSAX1-1-E1125-EX | Ammonia * | NH3 | 0-5000 ppm |
| SSAX1-1-E1130-BX | Nitrogen dioxide | NO2 | 0-100 ppm |
| SSAX1-1-E1183-BX | Hydrogen cyanide | HCN | 0-50 ppm |
| SSAX1-1-E1183-CX | Hydrogen cyanide | HCN | 0-100 ppm |
| SSAX1-1-E1186-DX | Hydrogen chloride | HCl | 0-20 ppm |
| SSAX1-1-E1195-A2 | Oxygen, 2 years | O2 | 0-25 % Vol |
| SSAX1-1-E1195-A3 | Oxygen, 3 years | O2 | 0-25 % Vol |
| SSAX1-1-E1195-A5 | Oxygen, 5 years | O2 | 0-25 % Vol |
| SSAX1-1-E1195-A7 | Oxygen, 7 years | O2 | 0-25 % Vol |
| SSAX1-1-E1197-AX | Hydrogen sulphide | H2S | 0-50 ppm |
| SSAX1-1-E1197-BX | Hydrogen sulphide | H2S | 0-100 ppm |
| SSAX1-1-E1197-CX | Hydrogen sulphide | H2S | 0-200 ppm |
| SSAX1-1-E1197-DX | Hydrogen sulphide | H2S | 0-500 ppm |
| Infrared Sensor | | | |
| SSAX1-1-S400-AX | Methane | CH4 | 0-100 % LEL |
| SSAX1-1-S480-AX | Propane | C3H8 | 0-100 % LEL |
| Premium | | | |
| SSAX1-1-I400-AX | Methane | CH4 | 0-100 % LEL |
| SSAX1-1-I400-BX | Methane | CH4 | 0-100 % Vol |
| SSAX1-1-I480-AX | Propane | C3H8 | 0-100 % LEL |
| SSAX1-1-I464-BX | Carbon dioxide | CO2 | 0-5 % Vol |
| SSAX1-1-I464-DX | Carbon dioxide | CO2 | 0-5000 ppm |
| SSAX1-1-I464-FX | Carbon dioxide | CO2 | 0-10 % Vol |

* On request

Sensor Cartridge SSAX1

Combustible Gases for Zone 1 and Zone 2

| Item No. | Gas | Measuring Range |
|-------------------------|---|-----------------|
| Pellistor Sensor | | |
| SSAX1-1-P3400-AX | Methane CH ₄ | 0-100 % LEL |
| SSAX1-1-P3402-AX | LPG ¹⁾ | 0-100 % LEL |
| SSAX1-1-P3408-AX | Ammonia * | 0-100 % LEL |
| SSAX1-1-P3410-AX | Ethylene C ₂ H ₄ | 0-100 % LEL |
| SSAX1-1-P3415-AX | Cyclohexane, Hexane C ₆ H ₁₂ | 0-100 % LEL |
| SSAX1-1-P3420-AX | Ethane, R170 C ₂ H ₆ | 0-100 % LEL |
| SSAX1-1-P3425-AX | Ethanol C ₂ H ₅ OH | 0-100 % LEL |
| SSAX1-1-P3427-AX | Ethyl acetate C ₄ H ₈ O ₂ | 0-100 % LEL |
| SSAX1-1-P3430-AX | Benzol, Benzene C ₆ H ₆ | 0-100 % LEL |
| SSAX1-1-P3435-AX | Hexane C ₆ H ₁₄ | 0-100 % LEL |
| SSAX1-1-P3440-AX | Hydrogen H ₂ | 0-100 % LEL |
| SSAX1-1-P3448-AX | Butyl acetate C ₆ H ₁₂ O ₂ | 0-100 % LEL |
| SSAX1-1-P3450-AX | Methanol CH ₃ OH | 0-100 % LEL |
| SSAX1-1-P3458-AX | MEK C ₄ H ₈ O | 0-100 % LEL |
| SSAX1-1-P3460-AX | Butane C ₄ H ₁₀ | 0-100 % LEL |
| SSAX1-1-P3468-AX | Isobutyl alcohol C ₄ H ₁₀ O | 0-100 % LEL |
| SSAX1-1-P3470-AX | Octane C ₈ H ₁₈ | 0-100 % LEL |
| SSAX1-1-P3472-AX | Cyclopentane C ₅ H ₁₀ | 0-100 % LEL |
| SSAX1-1-P3473-AX | Methyl acetate C ₃ H ₆ O ₂ | 0-100 % LEL |
| SSAX1-1-P3475-AX | Pentane C ₅ H ₁₂ | 0-100 % LEL |
| SSAX1-1-P3480-AX | Propane C ₃ H ₈ | 0-100 % LEL |
| SSAX1-1-P3480-BX | Propane C ₃ H ₈ | 0-30 % LEL |
| SSAX1-1-P3480-CX | Propane C ₃ H ₈ | 0-5000 ppm |
| SSAX1-1-P3482-AX | Isopropyl alcohol C ₃ H ₈ O | 0-100 % LEL |
| SSAX1-1-P3485-AX | Acetone C ₃ H ₆ O | 0-100 % LEL |
| SSAX1-1-P3490-AX | Toluene C ₇ H ₈ | 0-100 % LEL |
| SSAX1-1-P3491-AX | Heptane C ₇ H ₁₆ | 0-100 % LEL |
| SSAX1-1-P3494-AX | Butadiene C ₄ H ₆ | 0-100 % LEL |
| SSAX1-1-P3495-AX | Nonane C ₉ H ₂₀ | 0-100 % LEL |
| SSAX1-1-P3496-AX | Petrol vapors | 0-100 % LEL |
| | * On request | |
| | 1) Liquid Petroleum Gases | |

PolyXeta® 2 Modules

| Item No. | Description |
|-----------------------------|---|
| MODULES | |
| GC-06-XXXXXX-XX | Gas Controller Module |
| EP-06-X00 | Extension module addresses 1-7, incl. repeater |
| OPTIONS | |
| GC-06-1XXXXX-XX | Power failure flashing light |
| GC-06-XX1XXX-XX | Data logger incl. USB flash drive |
| GC-06-XXX1XX-XX | Interface Modbus RTU RS-485 |
| STL06 - SERVICE TOOL | |
| STL06-PGX2-P7 | Partner tool for display, calibration, addressing and parameter changes |
| STL06-PGX2-A7 | System tool for display, calibration, addressing and parameter changes * |
| PCE06 - EASYCONFIG | |
| PCE06-PGX2-PF | Partner tool for display, calibration, addressing, parameter changes and history |
| PCE06-PGX2-AF | System tool for display, calibration, addressing, parameter changes and history * |

* Ordered by partner for end customers

Accessories

| Item No. | Description |
|---------------------|--|
| ADAPTER | |
| STA06-PX2 | Adapter for STL06-PGX2 and PCE06-PGX2 tool for communication with product line PX2 |
| ACCESSORIES | |
| Cal01-PX2 | Calibration adapter for PX2 sensors |
| MSR_Pen_PX2 | Magnetic pen for configuration of the PX2 on the display |
| SG-PX2 | SplashGuard for PX2 sensors |
| CABLE GLAND | |
| ZU-PX2-CG-SN | Metal ATEX cable gland for zone 1 & 2 |
| ZU-PX2-CG-PL | Plastic ATEX cable gland for zone 2 |
| MOUNTING KIT | |
| Mounting-Kit | Mounting kit for SSAX1 sensors & SC2 sensor cartridges in stainless steel housing |

Warning Devices

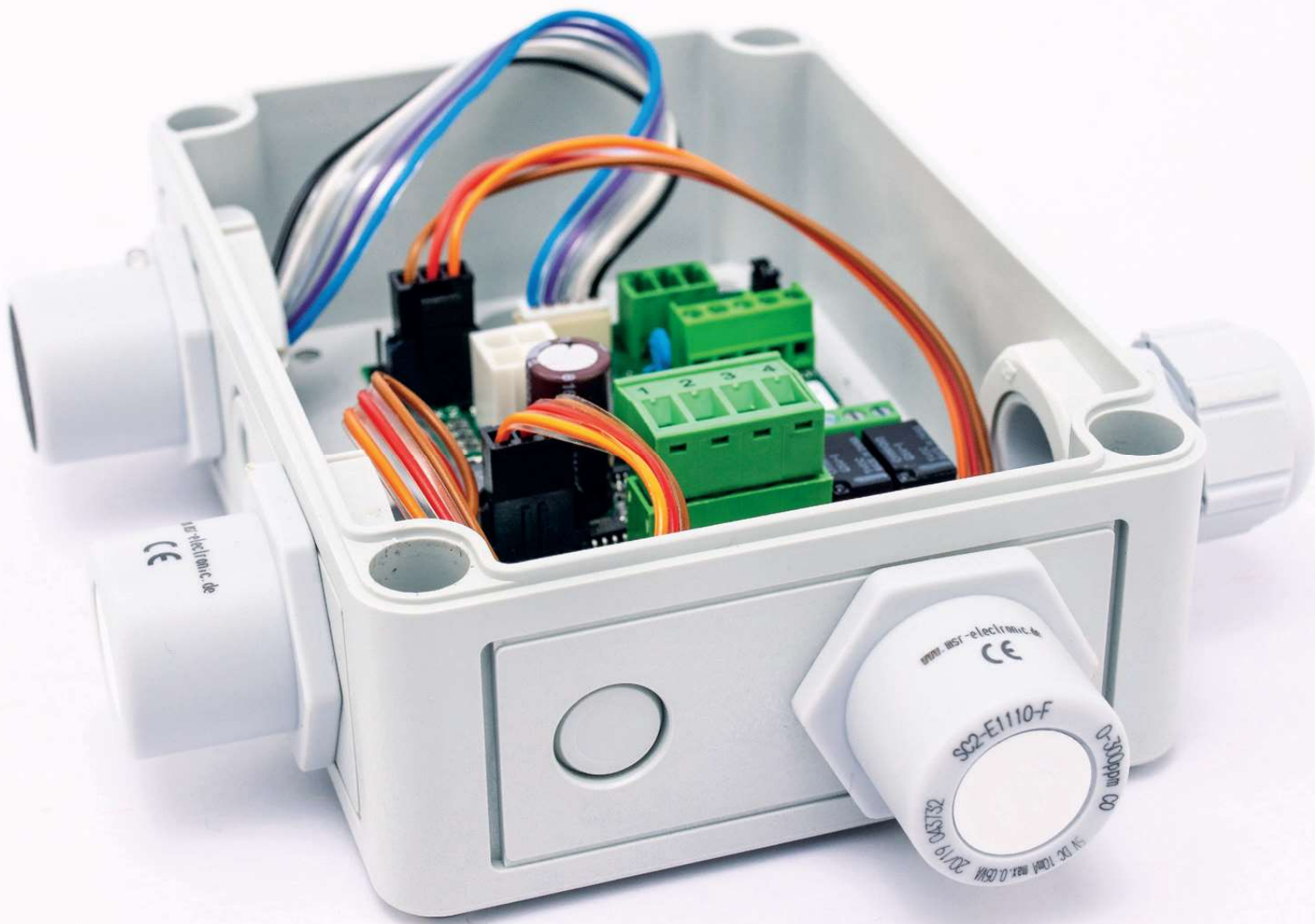
for ATEX Zone 1 and 2

| Item No. | Description |
|-------------|---|
| BL-X | Flashing light |
| WH-24-X | Warning horn, 24 V DC, zone 1 & 2 |
| WH-230-X | Warning horn, 230 V AC, zone 1 & 2 |
| WH/BL 24-X | Warning horn/flashing light combination, 24 V DC |
| WH/BL 230-X | Warning horn/flashing light combination, 230 V AC |

PolyMarine® Products

For combustible and toxic gases

| Item No. | Description |
|--------------------|--|
| CONTROLLER | |
| PMGC2-C-13132300 | Multi Gas Controller with attached warning device (buzzer, status-LED, 12 V, reset button and 5 m cable), surface mounting |
| PMGC2-Q-XXXXXXXX | Separate display with reset button, 15 m cable, for installation |
| SENSORS | |
| PMC2-O-E1110-F-0 | Carbon monoxide (CO), 0-300 ppm, for installation |
| PMC2-O-P3496-A-0 | Petrol vapors, 0-100 % LEL, for installation |
| PMC2-O-P3480-A-0 | Propane (C3H8), 0-100 % LEL, for installation |
| OPTIONS | |
| PMC2-A-XXXXX-X-X | A-Housing for surface mounting |
| PMC2-R-XXXXX-X-X | R-Housing for flush mounting |
| ACCESSORIES | |
| PWH-BL-24-TAST | Warning horn/flashing light combination, 12 V / 24 V, button |
| PRMS-PM-001 | Smoke detector, 12 V / 24 V, digital output |
| PVAR-PM-001 | Magnetic valve, IP65, ATEX, normally open, manual reset |
| PM-CAB-PMGC-S | Cable for connecting the sensors (if not directly in the housing of the PMGC) |



Housings

Boards

W x H x D

5 = Stainless steel:

113 x 135 x 45 mm



A = Plastic:

94 x 130 x 57 mm



C = Plastic:

130 x 130 x 75 mm



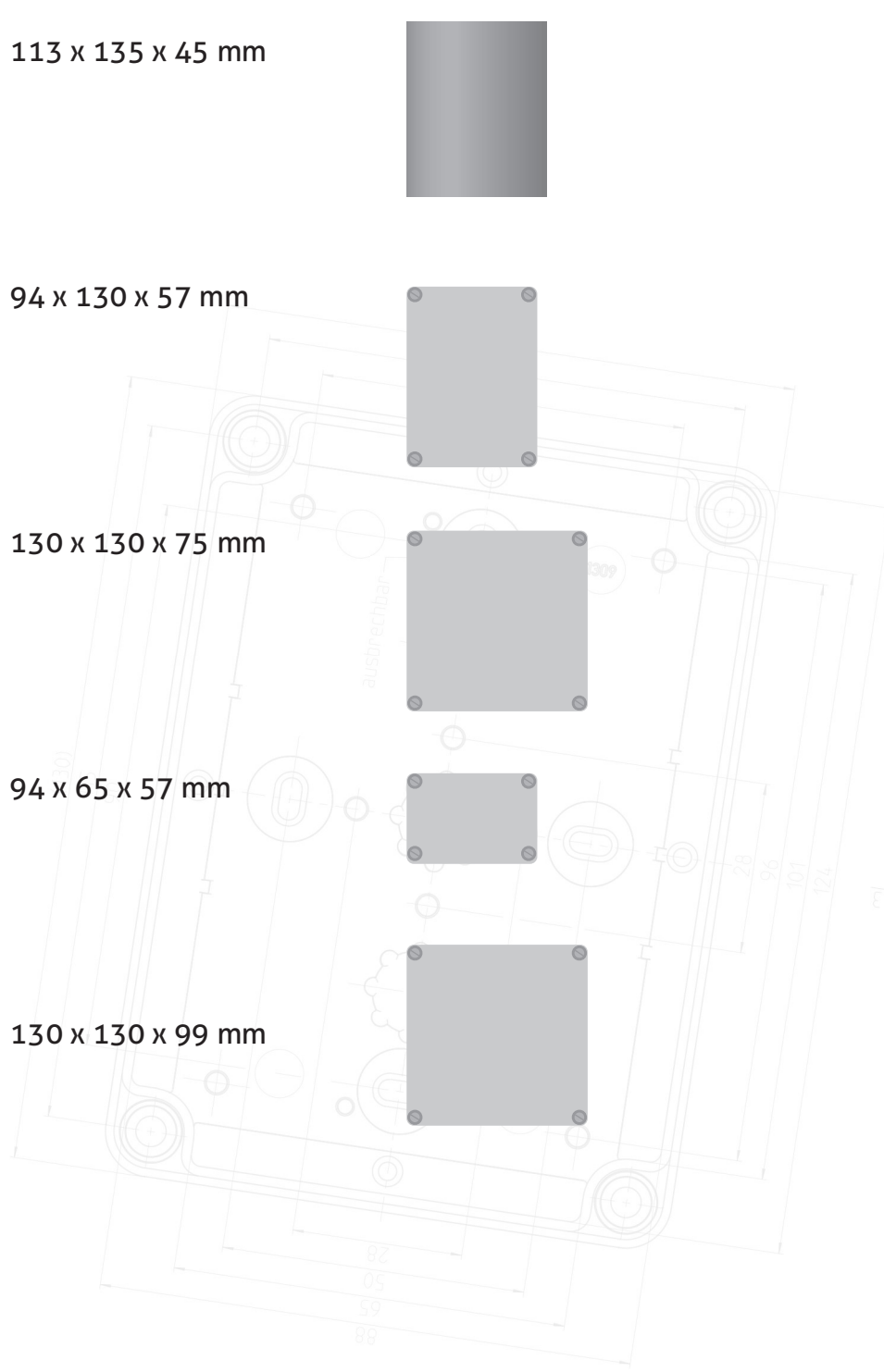
D = Plastic:

94 x 65 x 57 mm



E = Plastic:

130 x 130 x 99 mm



Images similar, not to scale

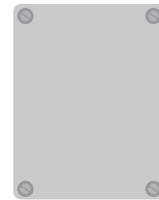
F = Plastic round:

Ø 87 x 45 mm



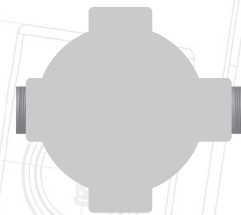
G = Plastic:

94 x 130 x 81 mm



K = Die-cast aluminum (PX2):

Ø 95 x 82 mm



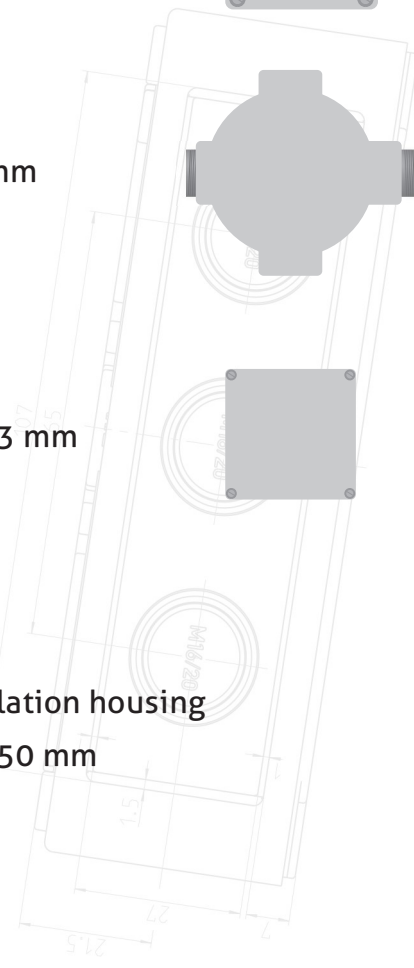
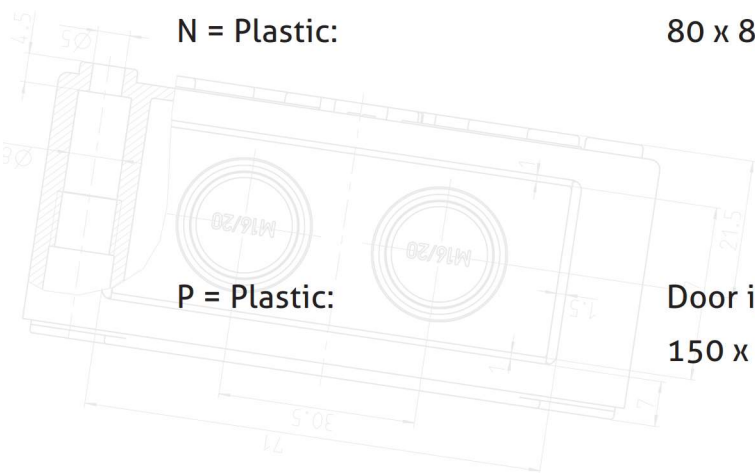
N = Plastic:

80 x 82 x 53 mm



P = Plastic:

Door installation housing
150 x 96 x 50 mm



Images similar, not to scale

Housings

Controller

DGC-06 Housing

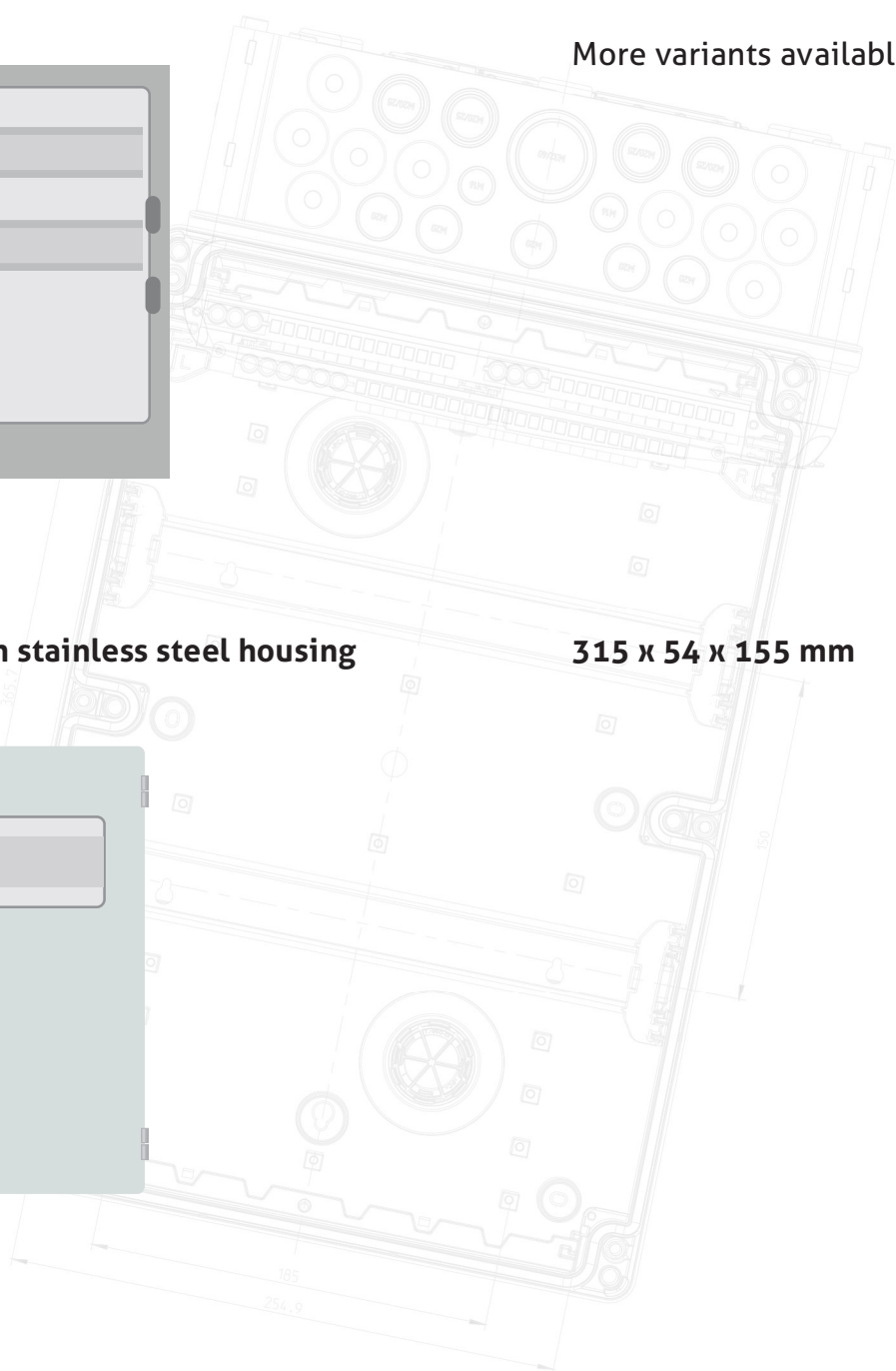
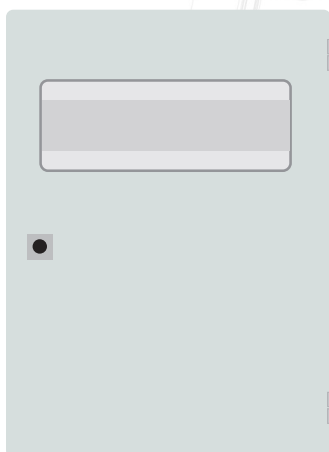
315 x 54 x 155 mm

More variants available



Controller in stainless steel housing

315 x 54 x 155 mm



Images similar, not to scale



Product Matrix

Combinations

| | MC2 Analog | SC2 Digital | Housing | 230 V AC | WAO Warning Device | Display |
|---------------|---------------|----------------|------------|----------|-----------------------|----------|
| ARB2 | 1 | 0 | A, C, N | 1 | 1 | with MC2 |
| SB2 | 0 | 3* | A, C, 5 | 1 | 1 | 1 |
| WSB2 | 1 | 2 | A, C, E, N | 1 | 1 | 1 |
| MSB2 | 3* | 2* | A*, C, E | 1 | 1 | 1 |
| MGC2 | 3* | 2* | A*, C, E | 1 | 1 | 1 |
| MSC2 | 2* | 2* | A*, C, E | 1 | 1 | 1 |
| DGC-06 | 32** | 96 (+ SB2) | 1, 2, 3, 4 | 1 | | |

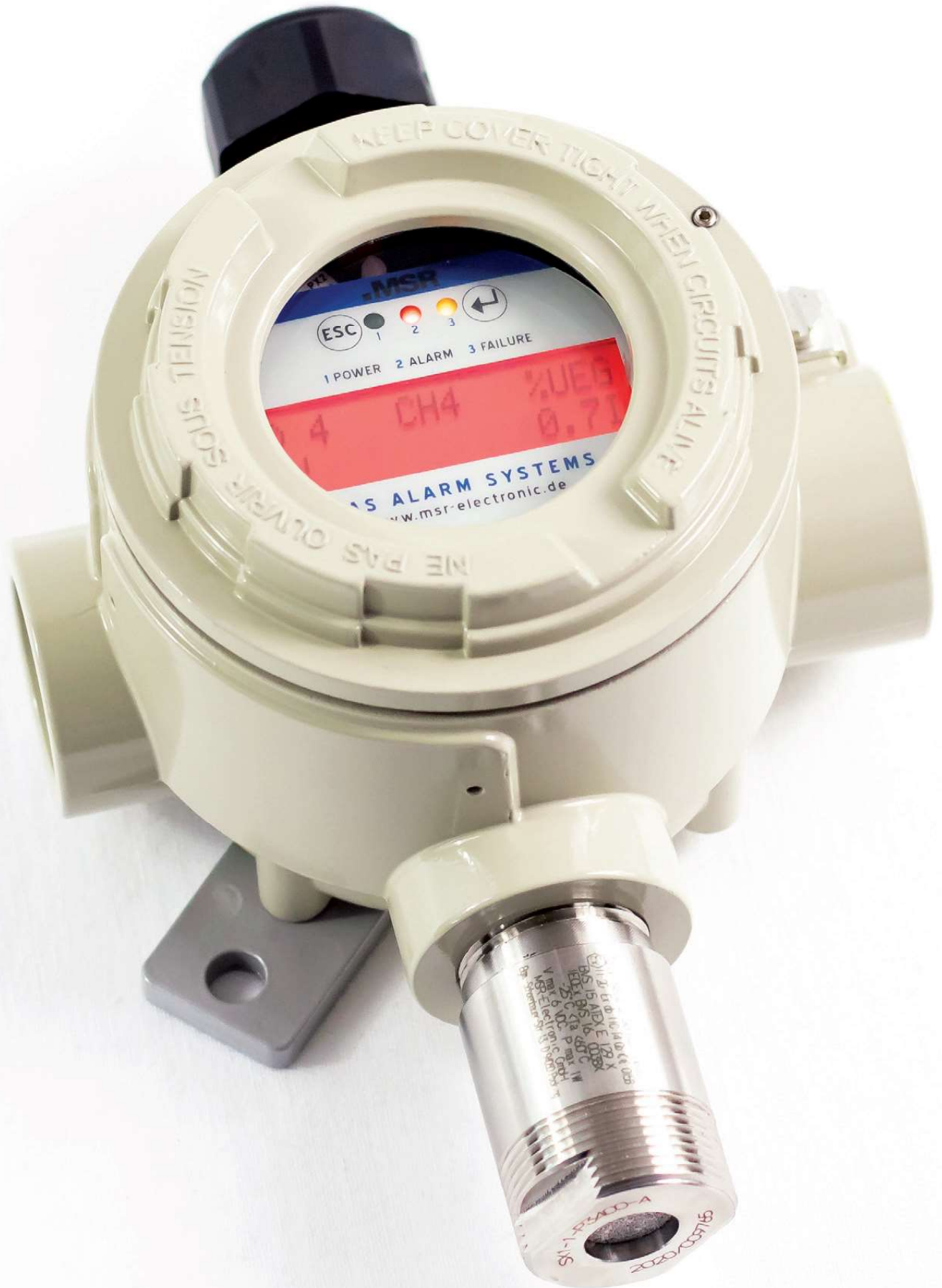
* With restriction, see data sheet

** On controller with 7 EP-06 modules

| Analog Input | Analog Output | Digital Input | Relay | UPS | Stand-Alone | |
|--------------|---------------|---------------|-------|-----|-------------|---------------|
| 1 | 1 | 0 | 2 | 0 | 1 | ARB2 |
| 0 | 0 | 0 | 0 | 1 | 0 | SB2 |
| 1 | 1 | 1 | 2 | 1 | 1 | WSB2 |
| 3 | 1 | 2 | 3 | 1 | 0 | MSB2 |
| 3 | 1 | 2 | 3 | 1 | 1 | MGC2 |
| 2 | 1 | 2 | 3 | 1 | 1 | MSC2 |
| 32** | 16** | 16** | 32** | 1 | 1 | DGC-06 |

Product Directory

| Item no. | Page |
|---|---------------|
| PolyGard®2 Devices for Buildings | |
| Analog sensor cartridge MC2 | 32, 38, 132 |
| Digital sensor cartridge SC2 | 32, 38, 134 |
| Sensor Board SB2 | 40, 137 |
| Warning and Sensor Board WSB2 | 42, 137 |
| Multi Sensor Board MSB2 | 44, 136 |
| Analog Relay Board ARB2 | 46, 136 |
| Multi Sensor Controller MSC2 | 48, 138 |
| Compactcontroller | 50, 138 |
| Multi Gas Controller MGC2 | 52, 139 |
| Analog Gas Controller AGC-05 | 56, 139 |
| Digital Gas Controller DGC-06 | 58, 140 |
| Gas Controller Modules GC-06 and EP-06 | 60, 140 |
| Door Entrance Module DEM-06 | 62, 138 |
| Software und Tools | 64, 141 |
| Warning Devices | 66, 142 |
| Accessories | 68, 131 |
| Control Box | 70, 131 |
| MSR-Cloud | 72 |
| Extended Safety (ES) and Modules | 74, 143 |
| Intelligent Parking Guidance Systems | 82, 144 |
| PolyXeta®2 Devices for Industrial Plants | |
| Sensor Cartridge SX1 | 100, 104, 140 |
| PolyXeta®2 Sensor Cartridge SSAX1 | 102, 104, 142 |
| Controller and Modules | 106, 152 |
| Warning Devices | 110, 153 |
| Accessories | 153 |
| PolyMarine® for Shipping | |
| | 112, 154 |
| PolySam® for Analysis | |
| | 118 |

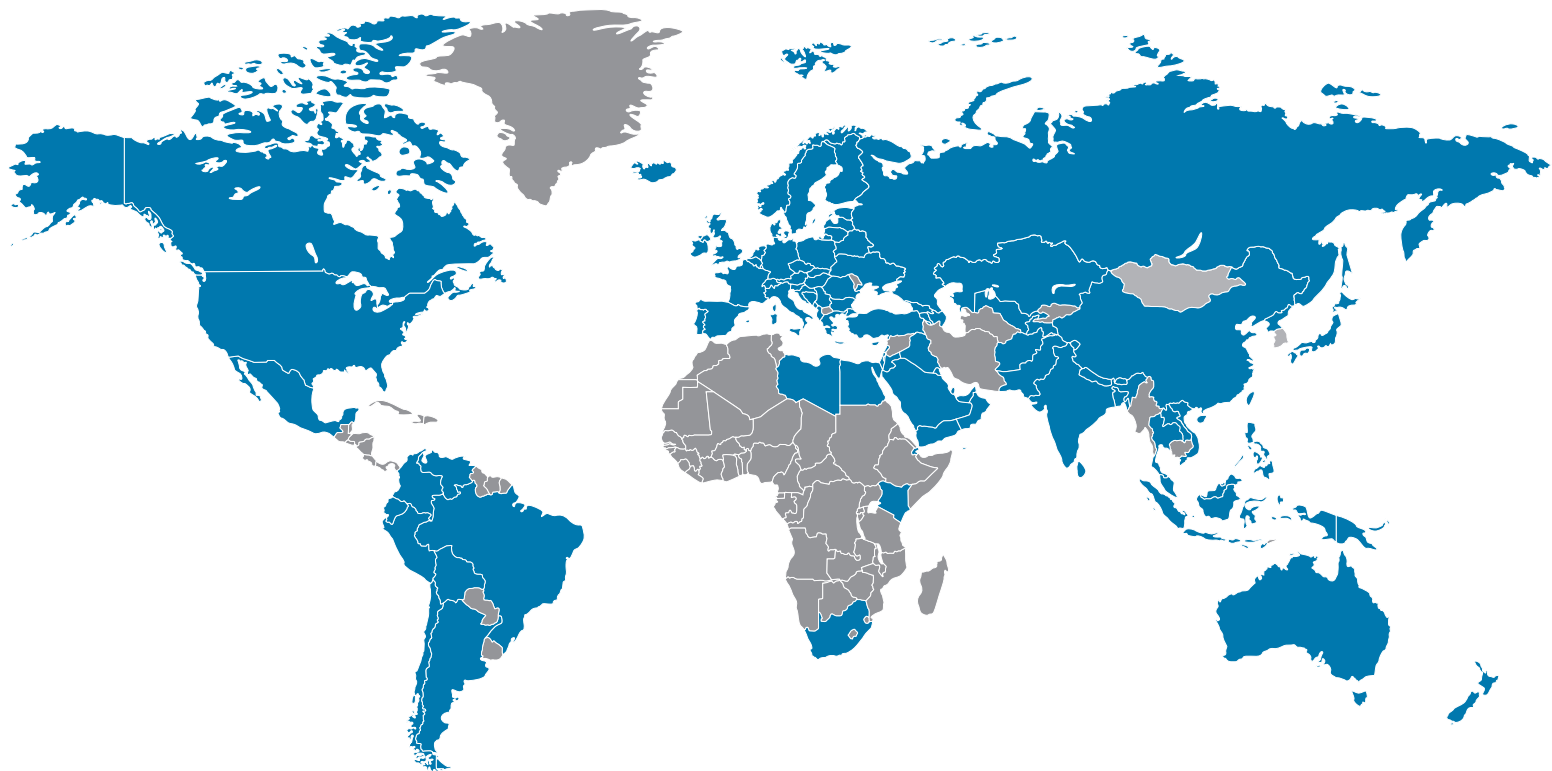


Subsidiaries + Support

Worldwide and across all industries

MSR-Electronic distributes its products and solutions in more than 80 countries with over 50 partners.

The reliable employees and certified partners of MSR-Electronic are worldwide active and always find the best possible solution.



MSR INTERNATIONAL

All information at www.msr-electronic.de/en/msr-partner



**Office for Austria, Hungary,
Slovakia, Czech Republic and
German Switzerland**

Stockerauer Straße 181
2100 Korneuburg, Austria
Fon: +43 2262 64819
Mail: info@msr-austria.at



**Office for Italy, Italian & French
Switzerland, South of France, Monaco
and Malta**

Piazza Dante n. 5
20022 Castano Primo (MI), Italy
Fon: +39 0331 152 8502
Mail: info@msr-italy.it



**Office for Croatia, Slovenia,
Bosnia and Herzegovina**

Barbat 86
51280 Rab, Croatia
Fon: +49 160 46 97 666
Mail: info@msr-arba.com

MSR supplies customers in:

Argentina
Armenia
Australia
Austria
Azerbaijan
Bahrain
Bangladesh
Belarus
Belgium
Bolivia
Brazil
Bulgaria
Canada
Chile
China
Colombia
Croatia
Cyprus
Czechia
Denmark
Ecuador
Egypt
Estonia
Finland
France
Georgia
Germany
Great Britain
Greece

Hong Kong
Hungary
Iceland
India
Indonesia
Ireland
Israel
Italy
Japan
Jordan
Kazakhstan
Kenya
Kuwait
Latvia
Lebanon
Lithuania
Luxembourg
Macedonia
Malaysia
Mauritius
Mexico
Moldova
Morocco
Netherlands
New Zealand
Norway
Oman
Pakistan
Peru

Philippines
Poland
Portugal
Qatar
Republic of Korea
Romania
Russia
Saudi Arabia
Serbia
Singapore
Slovakia
Slovenia
South Africa
Spain
Sweden
Switzerland
Syria
Taiwan
Thailand
Tunisia
Turkey
Uganda
Ukraine
United Arab Emirates
United States of America
Venezuela
Vietnam
Yemen

MSR-Group

Everything under one roof

The MSR-Group unites three innovative companies from the electronics sector. Whether gas alarm systems, parking guidance systems or sensors for building automation – the products

can be found in many commercial and industrial applications, such as parking garages, cold rooms, biogas plants or offices.

www.msr-group.eu



MSR-Electronic GmbH

For reliable gas monitoring and detection of gas leaks, MSR-Electronic offers: fixed gas warning systems with exchangeable sensor cartridges, controllers and warning devices for buildings, industrial plants, shipping and analysis.

www.msr-electronic.de



MSR-Traffic GmbH

MSR-Traffic GmbH stands for intelligent indoor and outdoor parking guidance systems. With wireless magnetic field sensors for outdoor use and smart cities as well as ultrasonic sensors for indoor use (underground car parks and parking garages), MSR-Traffic develops dynamic signposts for every parking system.

www.msr-traffic.de



MSR-International

With its own subsidiaries and sales in over 80 countries, MSR is available to meet the needs of customers worldwide.

You will always find the right contact person in your area.

www.msr-electronic.de/msr-partner

The logo for MSR GROUP, featuring the letters 'MSR' in a large, bold, sans-serif font, with 'GROUP' in a smaller font below it. A thin black arc curves over the top of the letters, and a small square is positioned to the left of the 'M'.

MSR
GROUP

A large, bold, black 'MSR' logo on a white rectangular sign. The sign is positioned in the foreground on a grassy area next to a paved road.

MSR

Bürgermeister-Schönbauer-Straße 13

PERFECT SOLUTIONS FOR GAS ALARM SYSTEMS



MSR-Electronic GmbH

Bürgermeister-Schönbauer-Str. 13
94060 Pocking

Germany



www.msr-24.com



+49 8531-9004-0



info@msr-electronic.de



MSR-Electronic YouTube Channel



MSR-Group News



www.msr-electronic.de/en/msr-partner



www.msr-electronic.de



MSR-Electronic Image film



We are part of the MSR-Group.
www.msr-group.eu

■ All Products
■ Made
■ in Germany

All rights reserved for MSR-Electronic GmbH.
For further technical data please refer to the corresponding data sheets.
Product discontinuation, technical changes, printing errors and mistakes reserved.
Not all products are completely available from 01/2021.

Realisation: BRANDS & PROJECTS. Photos: MSR-Electronic, AdobeStock, iStock, freepic