Gas Detection.

MSR ELECTRONIC

PolyXeta®2



Fixed Gas Detection Systems

for Industrial Environments

ATEX Zone 1/2

EN 60079-29-1

SIL

PolyXeta®2

Gas Alarm Systems for Industrial Plants

MSR-Electronic protects health and equipment under extreme industrial conditions. In 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 has a wide range of methods for the permanent detection of gases. On this basis, MSR-Electronic develops individual gas sensors for applications where extreme environmental conditions prevail.

GAS HAZARDS

- Chemical and petrochemical industry
- Oil/Gas Industry
- Biogas plants
- Power stations
- Gas transfer stations
- Food production
- H2 research
- H2 production
- H2 logistics
- H2 mobility
- Waste management industry
- Marine
- Offshore
- and others

BENEFITS

- More safety: More than required by all national standards
- Exchangeable sensor with X-Change technology:
  Significantly lower maintenance costs
- Precise planning with overall lower costs
- Integration with existing systems (analog, Modbus, relay)


H2
Hydrogen
Hydrogen
zero emission H2









PolyXeta®2

Approvals for all applications

Electrical explosion protection of sensors and devices according to ATEX/IECEx, EN 60079-0,-1 and EU Directive 2014/34/EU (DEKRA Testing and Certification GmbH)
Device series types: PX2, SX1, SSAX1

Metrological testing of sensors and devices according to EN 60079-29-1 for combustible gases/ EN 50104 for oxygen (DEKRA Testing and Certification GmbH)
Device series types: PX2, SX1 *

Testing functional safety (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

Approval for shipping according to the European Directive 2014/90/EU, (EU) 2021/1158 and according to the international guideline DNV-GC 0339
Device series types: PX2, SX1, SSAX1

EAC - Metrological Certifications
Device series types: PX2, SX1, SSAX1

Other conformities
EU Directive 2014/30/EU, EN 50270, EN 378, EN 50402, EN 45544-1, EN 14624,
Device series types: PX2, SX1, SSAX1

Certifications for quality, environmental and energy management
ISO 9001, ISO 50001, ISO 14001

* Only the sensor heads that are marked in the data sheet are metrologically tested.



HOW-TO VIDEO
Watch the commissioning of the PolyXeta®2 in this video.

PolyXeta®2 with Sensor SX1

Easy recalibration with X-Change technology

The microprocessor-based gas sensor with 4-20 mA output signal and alarm or fault relay is used to monitor the ambient air for combustible gases and vapors by means of a catalytic sensor element. For sensors without LC display, calibration is performed using the handy STL06-PGX2 calibration device or the PC software PCE06-PGX2. Sensors with LC display have an integrated calibration routine that is started from the outside with a permanent magnet without opening the housing. For sensors with LC display the background lighting changes from green to red in the event of an alarm or error.

BENEFITS

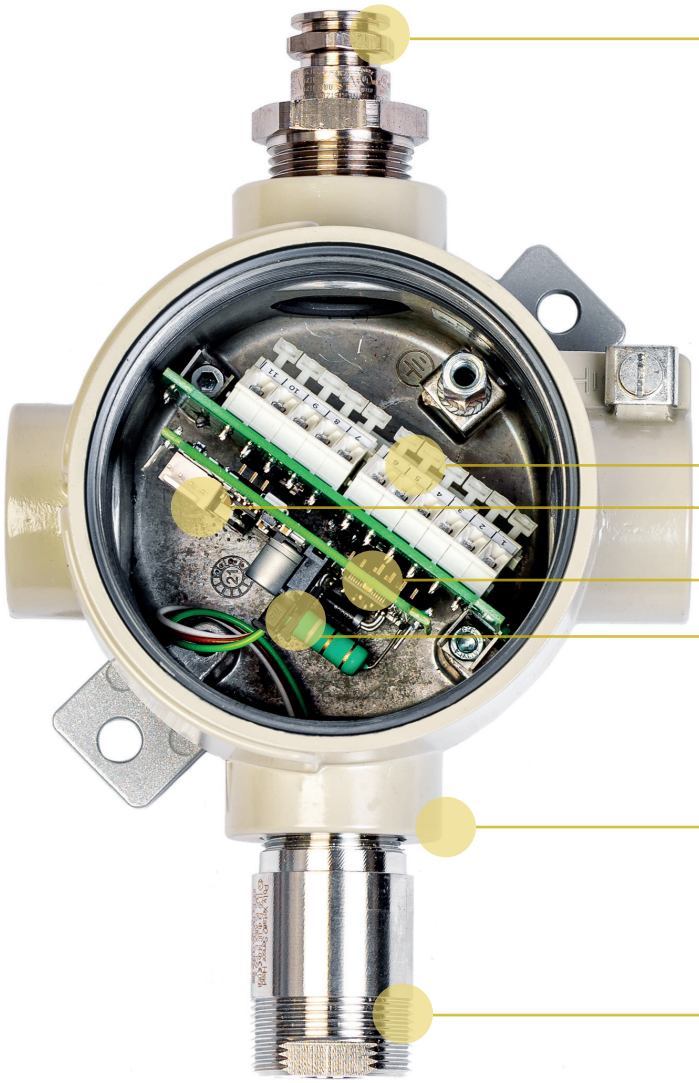
- SIL2-certified PolyXeta®2 sensor for ATEX zones 1 and 2
- Metrological testing of sensors and devices according to EN 60079-29-1 for combustible gases/ EN 50104 for oxygen
- Cost-reduced calibration due to sensor head exchange on site (X-Change technology)
- Solution for individual requirements, easy installation using a mounting bracket
- Easy connection to existing systems (analog, Modbus, relay)
- 2 potential-free relays, e.g. for controlling warning devices



PoyXeta®2 with sensor head SX1



PolyXeta®2 with sensor head SX1



Cable gland

RS-485 / power supply

Interface service tool / display

Control LED (red/green/yellow)

Input sensor head SX1

Housing IP66

Sensor head SX1
(Changeable sensor X-Change)

PolyXeta®2 Sensor Head SSAX1

Sensor for remote applications

The ATEX sensor SSAX1 for combustible and toxic gases contains in addition to the high-quality sensor element and the measuring amplifier a µController for processing the measured values.
In the µController, all relevant relevant data and measured values of the sensor element are stored in a fail-safe manner and are transmitted digitally via the local bus to a PolyXeta®2 or PolyGard®2 controller. In the µController of the sensor head, the calibration management is also integrated. The calibration can be done by simply changing the sensor head or by using the integrated, comfortable calibration routine directly on the system.

BENEFITS

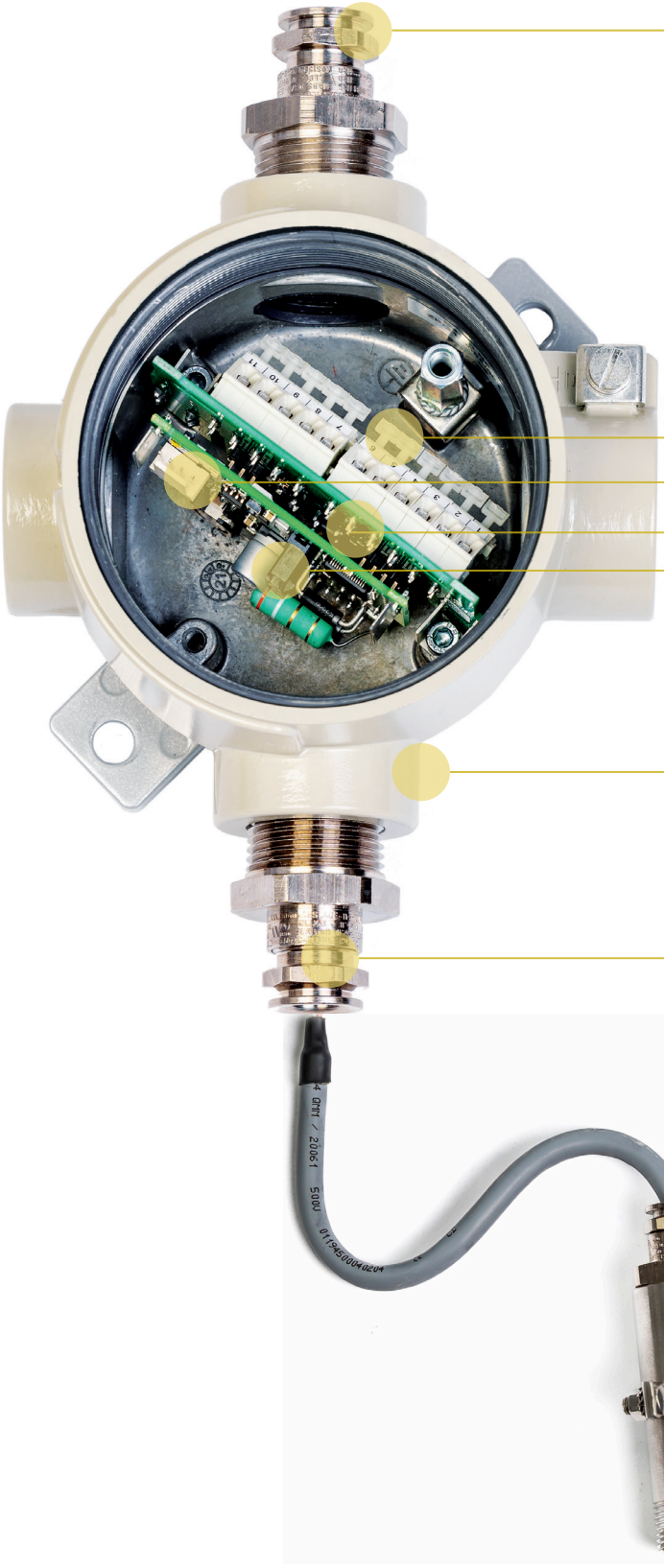
- ATEX and IECEx certificates for electrical explosion protection
- SSAX1 for zone 1 (can also be used in zone 2):
  Variant „Ex d" with flameproof enclosure
- Continuous monitoring of toxic and combustible gases as well as oxygen
- Depending on customer requirements and application different measuring principles (infrared, electrochemical sensor, pellistor)
- High accuracy, selectivity and reliability
- Cost-reduced calibration by sensor head change on site (X-Change technology)



PolyXeta®2 for ATEX Area



Sensor head SSAX1


Cable gland
RS-485 / power supply
Interface service tool / display
Control LED (red/green/yellow)
Input sensor head SSAX1
Housing IP66
Cable gland for sensor head SSAX1
Sensor head SSAX1

Application and Accessories

PolyXeta®2 devices and sensors in the ATEX area

The SSAX1 makes it possible to place the ATEX-certified sensor head alone in the hazardous zone and to lead it with the associated ATEX cable out of the hazardous zone to a WSB2 in order to to carry out the evaluation of the sensor. The SX1 is directly connected to the PX2 and can thus be used as a complete device in the ATEX zone.

ACCESSORIES



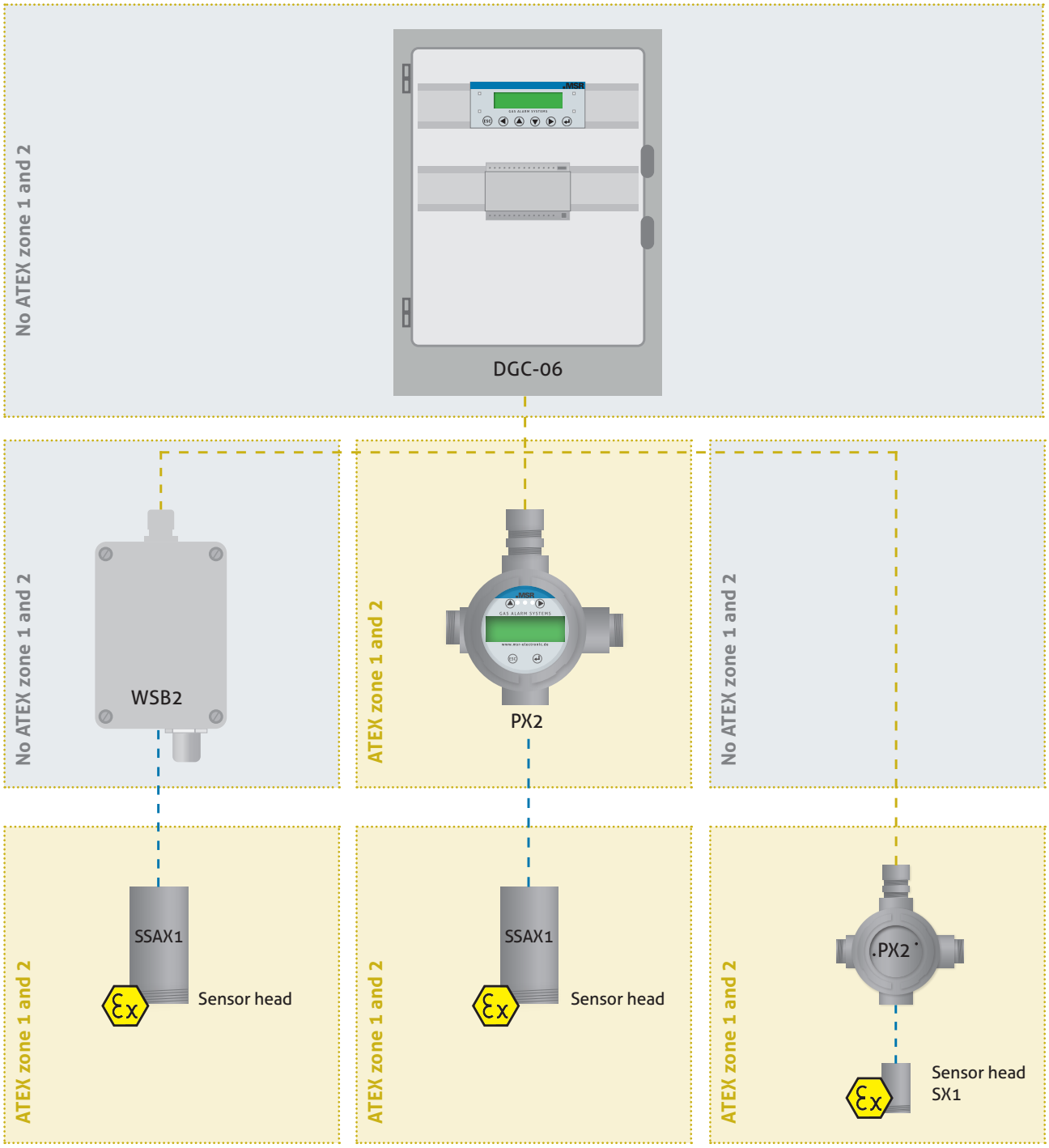
Service Tool STL06
Self-supporting, menu-driven tool for comfortable addressing, parameter settings and calibration of the devices.
The communication and power supply is done via a cable that is plugged into the respective devices.

Software PCE06
Self-supporting, menu-driven PC tool for convenient addressing, parameter setting and calibration of the devices.The communication to the PC is done via the supplied USB-RS-485 and USB/TTL adapter. The power supply and data coupling with galvanic isolation to the devices is done via a cable with plug connection.

Other accessories
Last but not least, the accessories make the PolyXeta®2 (PX2) a very flexible transmitter. With the help of the magnetic pen, the PX2 with display option can be set and calibrated without opening. With the Splashguard, an IP protection class of 66 is achievable. The warning devices with ATEX protection provide a warning of the environment in the Atex zone. The calibration set is made of stainless steel and can be firmly screwed to the sensor for calibration.


PolyXeta®2 for ATEX Area


PoyXeta®2 product series


No ATEX zone 1 and 2
DGC-06
No ATEX zone 1 and 2
WSB2
ATEX zone 1 and 2
PX2
No ATEX zone 1 and 2
ATEX zone 1 and 2
SSAX1
Sensor head
ATEX zone 1 and 2
SSAX1
Sensor head
ATEX zone 1 and 2
PX2
Sensor head
SX1

X-Change Technology

The exchangeable sensor SX1 and SSAX1

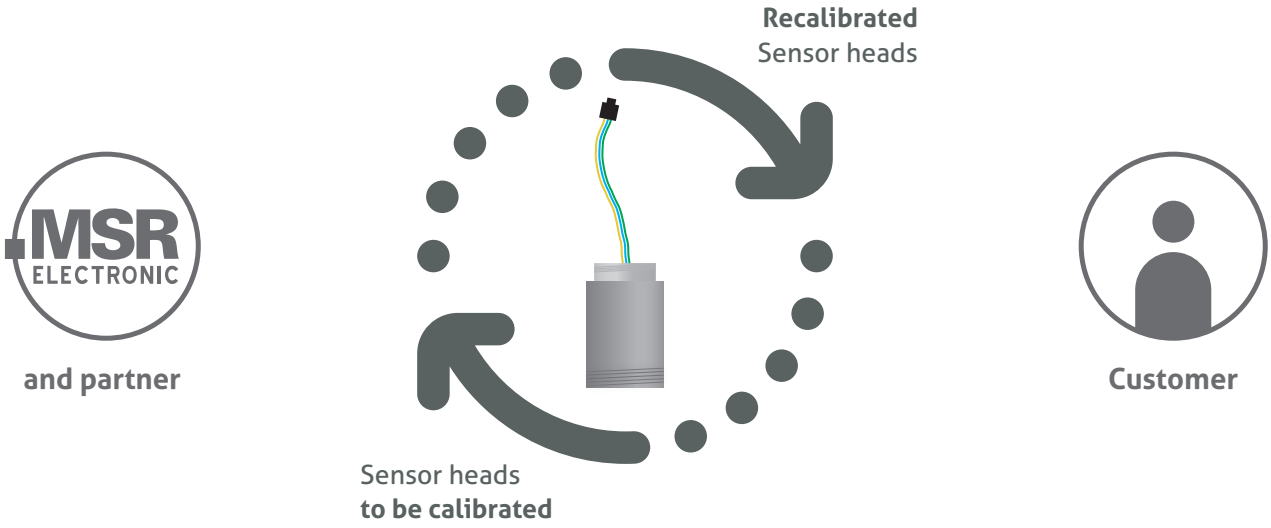
Time-saving calibration of the gas sensors.

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 technology this effort can be saved. The exchangeable head can be replaced on site at any time. The transmitter therefore remains untouched. This saves time and costs.

Simple change and calibration process

BENEFITS

- Significant time and cost savings
- Constantly high safety of your plant
- Calibration protocol directly from the manufacturer
- Sending of new calibrated sensor heads
- Increase of the safety of your plant





HOW-TO VIDEO
Watch the simple change process in video here.

MSR ELECTRONIC

Expertos mundiales en detección de gases.



Con una red mundial de socios y sucursales propias en todo el mundo.

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