



MORE THAN THE SUM OF THEIR COMPONENTS

Fixed Gas Detection Systems

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SUPERIOR PERFORMANCE WITH TRADITION

We have been developing gas measuring technology products for over 80 years, repeatedly setting new standards for measuring accuracy, durability and options for customer-specific adaptation. Our measuring technology monitors your production locations, warehouses and workplaces to warn you of imminent gas hazards and flames.



WE OFFER A WIDE RANGE OF SOLUTIONS

- A uniquely wide range of DrägerSensors
 - for more than 400 flammable gases and vapours as well as oxygen, measuring by vol. % (volume percent), % LEL (percentage of the Lower Explosive Limit), or ppb (parts per billion)
 - with evaluated measuring technologies such as infrared absorption, electrochemical reaction and catalytic bead
- Various detectors for a variety of applications
 - Point gas transmitter
 - Wireless gas transmitter
 - Open path transmitter
 - Flame detectors
 - Ultrasonic leak detectors
 - Area monitoring
 - Stand-alone systems
- Various controllers to suit your requirements
- Supplemental components and accessories to complete the system
- Consulting and engineering
- Installation
- Commissioning
- Maintenance and service
- Product and user training



WE OFFER THE HIGHEST STANDARDS

- Our gas measuring systems are of modular design, making your safety design future-proof and your investment worthwhile for years to come.
- Our products are strictly tested, meeting worldwide approvals and standards, such as ATEX and IECEx.
- With our approach to a safe system and the correct combination of components, you can also meet the functional safety requirements in accordance with SIL 2.
- We integrate all third-party products into the system, such as horns, warning lights and fans.



CONSULTING AND ENGINEERING

BETTER ENGINEERING STARTS WITH THE RIGHT QUESTIONS

Your gas detection application is specific to your site and company conditions, potentially hazardous areas and legal regulations. A dedicated team of engineers and technicians from various disciplines will work out a solution proposal that best meets your specific requirements. A team of specialists in the fields of planning, installation and commissioning implement the projects according to the agreed schedule.

CONSULTING

We deliver complete end-to-end consulting – from design to equipment specification and installation guidance. Our specialist teams have full in-house capability to assess hazardous environments for any application. They use proactive analysis, including advanced technologies such as flame and gas mapping or custom wireless solutions, to develop a suitable recommendation for your specific needs.

PROJECT ENGINEERING

Our engineering team works directly with you, addressing all your needs and providing optimised solutions for best performance, adherence to regulations and easy maintenance.



INSTALLATION AND MAINTENANCE

COMMISSIONING

We ensure that your system is fully installed and working correctly. In addition, our commissioning technicians will instruct you in your gas detection system upon handover.

TRAINING

Our product and user training courses teach you the correct way to use your gas detection system – at your site or at one of our many training locations.

CUSTOMER SUPPORT

Dräger provides timely support for your project or application. This includes any technical queries, along with guidance on all aspects of our product and service portfolios, such as onsite after-sales service to maintain or repair your gas detection system.

TANK FARMS

A large quantity of gases or liquids must be stored, all of which have a flammable potential. Possible leaks pose a high danger for the staff and production site.

YOUR CHALLENGE:

- Dimensions of the plant result in a large monitoring area
- Long distances to production site and existing infrastructure
- Entire tank must be monitored
- Highest possible degree of safety for reasonable costs
- Integration of a new system into existing infrastructure



OUR SOLUTION:

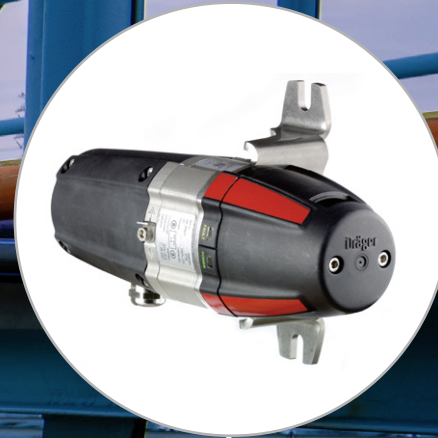
- Consulting, installation, commissioning, training and instruction, maintenance, extension and modification, all from one partner
- Reliable and proven technology for point, open-path, ultrasonic and flame detection
- Wired or wireless installation
- Stand-alone, centralised and/or decentralised evaluation of the detection signal
- Providing of interfaces to connect with your infrastructure

WASTE WATER

For the disinfection and reprocessing of water, various chemical substances are used, such as Cl_2 , SO_2 , O_3 , and ClO_2 . Each must be monitored during storage and use.

YOUR CHALLENGE:

- Storage of various gases
- Determination of measuring points and distances under cost aspects
- Harsh and unclean environment for the transmitter



OUR SOLUTION:

- One partner for consulting, installation, commissioning and maintenance
- Especially durable electrochemical sensors, also for H₂S
- Specific sensors for disinfection, especially ozone and chlorine
- Individual determination of alarm levels
- Account for the special requirements of the application in terms of durability, without neglecting the cost aspect
- Timely alerting leads to timely initiation of countermeasures

AMMONIA COOLING

In the food and beverage industry, ammonia is often used for cooling during the production process. It must be continuously stored and monitored.

YOUR CHALLENGE:

- Ammonia is toxic, flammable, corrosive, and has a destructive effect on plant components and cooled goods
- Leaks must be detected as early as possible
- During production, ammonia is under pressure in the cooling, increasing the risk of leakage



OUR SOLUTION:

- Durable electrochemical sensors, including for ammonia
- Adjustable alarm levels to detect leakage at an early stage
- Individual advice on the position and quantity of measuring points
- Determination of automatic countermeasures based on the specific situation
- One partner on site for consultation, installation, commissioning and maintenance

SOLVENT STORAGE

Many different substances are stored in one place. Container leakage can cause an acute health or fire hazard for personnel and the facility.

YOUR CHALLENGE:

- Different substances must be detected with different sensitivities
- Different substances require different calibrations of the IR and CatEx sensors
- Transmitters and sensors require proper positioning, accounting for air flow, behaviour of the gas in ambient air, and the building infrastructure



OUR SOLUTION:

- A wide range of different IR and CatEx sensors
- Vast experience in the effective placement of sensors and transmitters
- Positioning of transmitters according to the spatial requirements
- Competent advice on the individual measuring points
- Variety and quality of sensors – all necessary sensor technologies are available
- Service from commissioning to maintenance

PHARMA STERILISATION

H₂O₂ vapour is often used for sterilisation in the pharma industry. Very few manufacturers offer a sensor for measuring H₂O₂ and sensor calibration with the target gas – but we do.

YOUR CHALLENGE:

- Limited space makes sensor placement difficult
- Potential damage to transmitter and sensor by H₂O₂ vapour, dynamic range of H₂O₂ concentrations – from sterilization to clearance measurement
- International QA/QC requirements and documentation

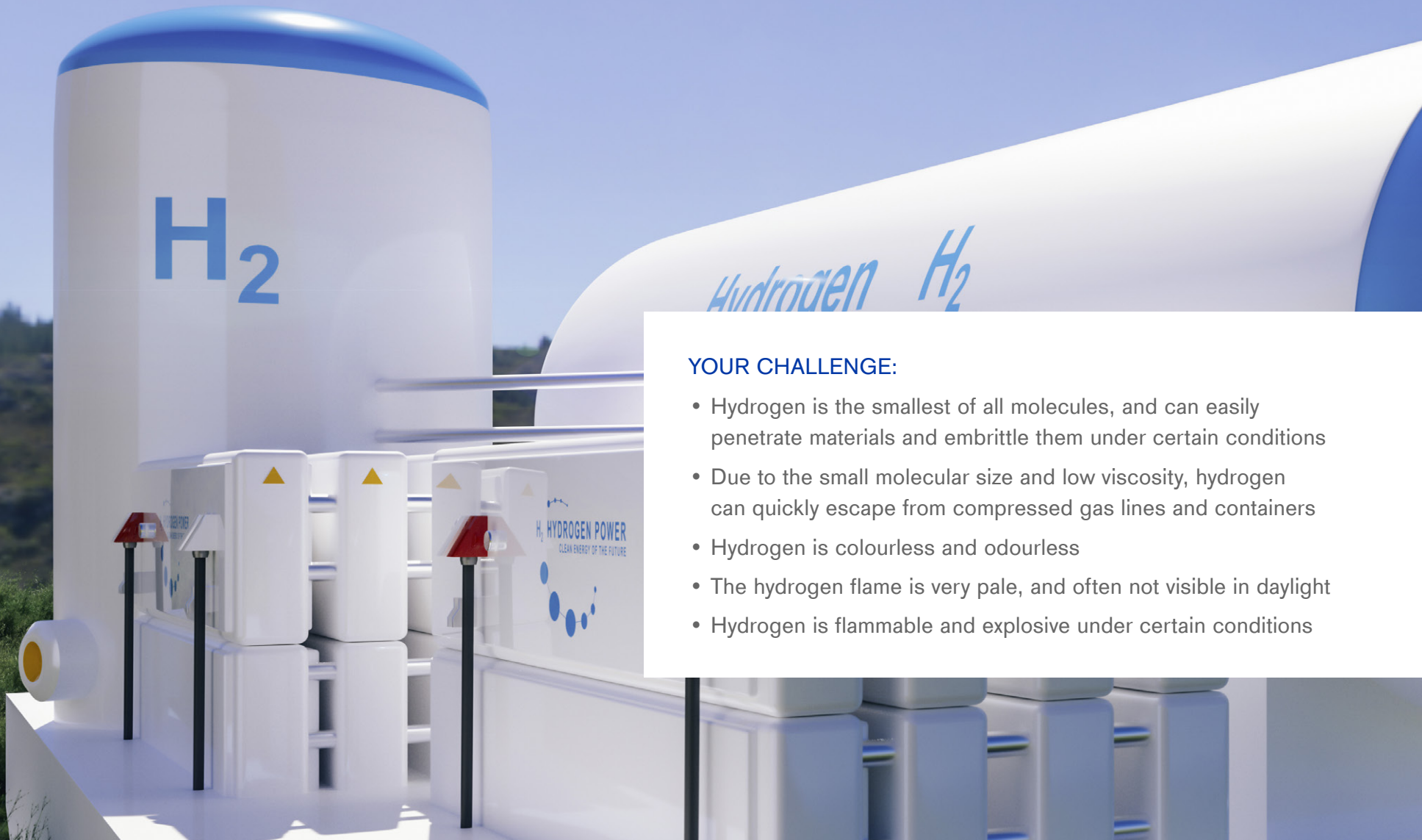


OUR SOLUTION:

- Development and production of H₂O₂ sensors
- Two measuring ranges for different applications (HC – High Concentration and LC – Low Concentration)
- Highly robust materials suitable for the application
- Operation with remote sensors in case of confined spaces
- Our accredited laboratory calibrates and adjusts your sensors and issues the necessary documentation

HYDROGEN APPLICATIONS

Hydrogen is a key element for a successful energy transition. But it comes with unique safety requirements.



YOUR CHALLENGE:

- Hydrogen is the smallest of all molecules, and can easily penetrate materials and embrittle them under certain conditions
- Due to the small molecular size and low viscosity, hydrogen can quickly escape from compressed gas lines and containers
- Hydrogen is colourless and odourless
- The hydrogen flame is very pale, and often not visible in daylight
- Hydrogen is flammable and explosive under certain conditions



OUR SOLUTION:

- A comprehensive portfolio of catalytic and durable electrochemical sensors, as well as ultrasonic detectors
- Holistic and customised solutions, such as suction units
- Gas detection technology is part of the primary explosion precautions, to prevent explosive atmospheres from occurring in the first place

LABORATORIES

A broad range of substances are used in laboratories. They can harm employees by themselves, or through oxygen displacement.

YOUR CHALLENGE:

- A substance can diffuse, displacing oxygen from the ambient air
- Gases and vapours released in the process pose a health hazard
- Occupational exposure limits must be monitored and maintained



OUR SOLUTION:

- Continuous monitoring of occupational exposure limits
- Displays and alarm devices to warn of contaminated rooms
- Durable sensors for various gases and vapours, as well as oxygen monitoring

OUR PRODUCTS FOR A SUCCESSFUL SYSTEM

DETECTION OF TOXIC GASES AND OXYGEN

■ Standard □ Option

TOXIC MEASUREMENT	DISPLAY	INTRINSIC SAFETY	FLAMEPROOF	INCREASED SAFETY	SIL	4-20 mA	BUS	HART®	WIRELESS
PIR 7200			■	■	SIL 2	■		□	
PointGard® 2100	■					■			
PointGard® 2720	■					■			
Polytron® 2000	■					■			
Polytron® 3000	■	■			SIL 1	■			
Polytron® 5100	■		■	□		■			
Polytron® 5720	■		■	□		■			
Polytron® 6100 EC WL	■				SIL 2			□	■
Polytron® 7000	■	■			SIL 2	■	□	□	
Polytron® 8100	■		■	□	SIL 2	■		■	
Polytron® 8720	■		■	□	SIL 2	■		■	
VarioGard® 2320						■			
VarioGard® 3000							■		
VarioGard® 3320							■		



OUR PRODUCTS FOR A SUCCESSFUL SYSTEM

DETECTION OF FLAMMABLE GASES AND VAPOURS

■ Standard □ Option

EX MEASUREMENT	DISPLAY	INTRINSIC SAFETY	FLAMEPROOF	INCREASED SAFETY	SIL	4-20 mA	BUS	HART®	WIRELESS
GS01		■			SIL 2				■
PEX 3000			■	■	SIL 2	■			
PIR 3000			■	■		■			
PIR 7000			■	■	SIL 2	■		□	
PointGard 2200	■					■			
PointGard 2700	■					■			
Polytron® 5200	■		■	□		■			
Polytron® 5310	■		■	□		■			
Polytron® 5700	■		■	□		■			
Polytron® 8200	■		■	□	SIL 2	■	■	■	
Polytron® 8310	■		■	□	SIL 2	■	■	■	
Polytron® 8700	■		■	□	SIL 2	■	■	■	
Polytron® SE Ex			■	■	SIL 1 (2)				
VarioGard® 2300						■			
VarioGard® 3200							■		
VarioGard® 3300							■		



OUR PRODUCTS FOR A SUCCESSFUL SYSTEM

FLAME DETECTION

■ Standard □ Option

FLAME DETECTION	DETECTION TECHNOLOGY	FLAMEPROOF	SIL	4-20 mA	HART®	RS-485	RELAY
Flame 1500	IR3	■	SIL 2	■	■	■	■
Flame 3000	Visual	■	SIL 2	■	■	■	■
Flame 5000	Visual	■	SIL 2	■	■	■	■

AREA MONITORING

AREA MONITORING	MEASURING GAS	FLAMEPROOF	RESPONSE TIME	4-20 mA	HART®	RS-485	GIGA ETHERNET	WIFI
MetCam	Methane	■	< 10 sec.	■	■	■	■	□

ULTRASONIC LEAK DETECTION

ULTRASONIC LEAK DETECTION	FLAMEPROOF	INCREASED SAFETY	RESPONSE TIME	SIL	4-20 mA	HART®	FREQUENCY RANGE	RELAY
Polytron® 8900 UGLD	■	■	< 3 sec.	SIL2	■	■	18-80 kHz	■



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OUR PRODUCTS FOR A SUCCESSFUL SYSTEM

CONTROL UNITS

■ Standard □ Option

CONTROL UNITS	CHANNELS	mA	mV	DIGITAL COMMUNICATION	SIL	SURFACE MOUNT	DIN RAIL MOUNT	DOCKING STATION
REGARD® 2400/2410	4	■	□			■	■	
REGARD® 3000	4	■		■	SIL 2c3	■	■	■
REGARD® 3900 Series	16	■	□	■	SIL 1 (2)	■	□	
REGARD® 7000	1536	■		□	SIL 2c3		■	■
VarioGard® Controller	100			■		■	□	

OPEN-PATH DETECTION

OPEN-PATH DETECTION	TYPE OF GAS	FLAMEPROOF	INCREASED SAFETY	SIL	4-20 mA	BUS	HART®
Pulsar 7000 Series	flammable	■		■	■	■	■
SafEye 900 / 950 / 960	toxic or flammable	■	■	SIL 2	■	RS485	■

REGARD® 2400/2410



REGARD® 3000



REGARD® 3900 Series



REGARD® 7000



Pulsar 7000 Series



SafEye 900 / 950 / 960



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CORPORATE HEADQUARTERS

Drägerwerk AG & Co. KGaA
Moislinger Allee 53–55
23558 Lübeck, Germany

www.draeger.com

REGION EUROPE

Dräger Safety AG & Co. KGaA
Revalstraße 1
23560 Lübeck, Germany
Tel +49 451 882 0
Fax +49 451 882 2080
info@draeger.com

REGION MIDDLE EAST, AFRICA

Dräger Safety AG & Co. KGaA
Branch Office
P.O. Box 505108
Dubai, United Arab Emirates
Tel +971 4 4294 600
Fax +971 4 4294 699
contactuae@draeger.com

REGION ASIA PACIFIC

Draeger Singapore Pte. Ltd.
61 Science Park Road
The Galen #04-01
Singapore 117525
Tel +65 6872 9288
Fax +65 6259 0398
asia.pacific@draeger.com

REGION CENTRAL AND SOUTH AMERICA

Dräger Indústria e Comércio Ltda.
Al. Pucuruí - 51 - Tamboré
06460-100 - Barueri - São Paulo
Tel. +55 (11) 4689-4900
relacionamento@draeger.com

Locate your Regional Sales
Representative at:
www.draeger.com/contact

