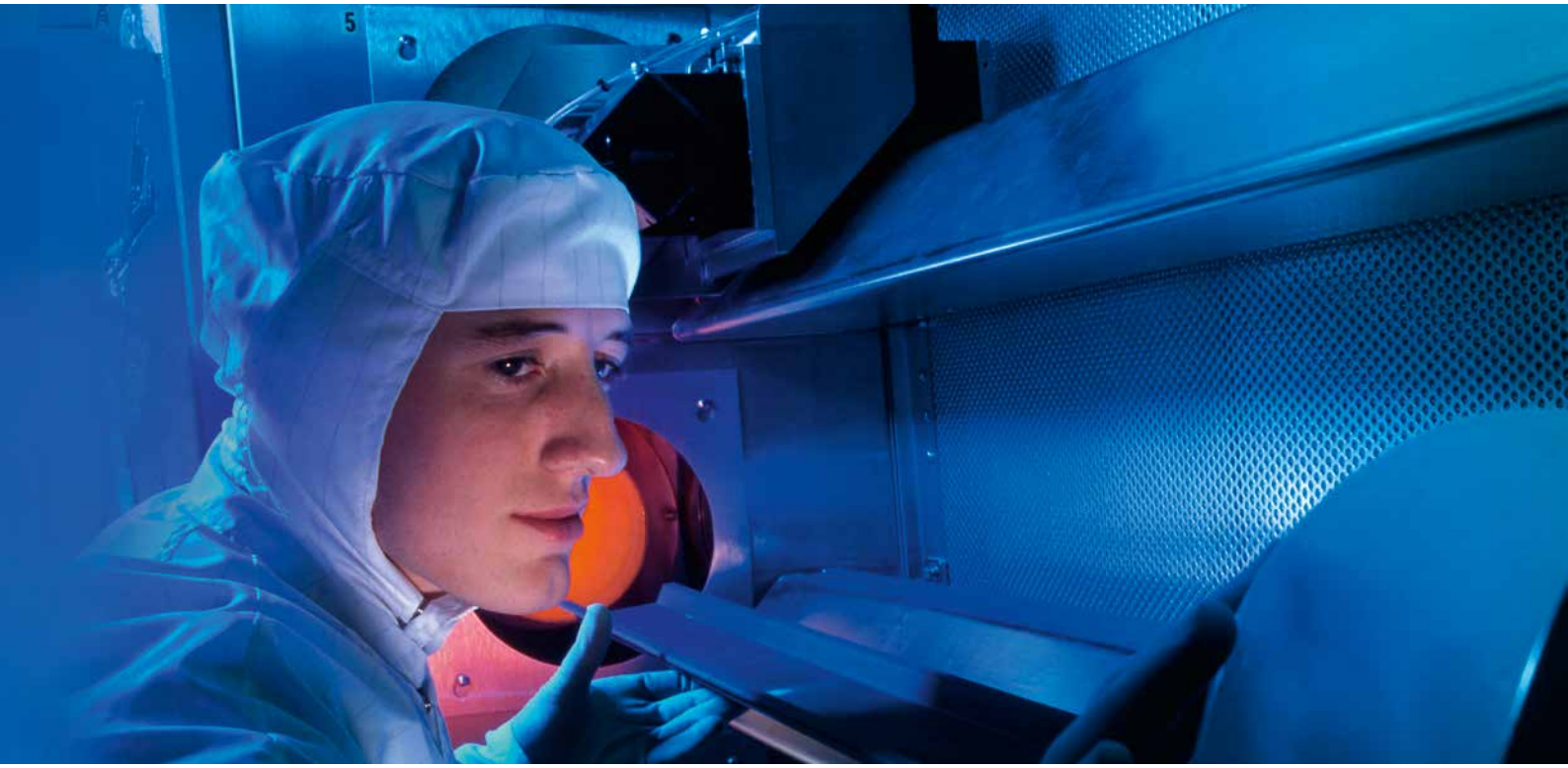
COSMOS

GAS DETECTION FOR

SEMICONDUCTOR & PHOTOVOLTAIC INDUSTRY



Maximum Safety

More than 65 years of experience and a strong proven track record with respect to solutions for gas detection.

Monitoring of:

- Tools
- VMB (Valves Manifold Box)
- Pumps and basements
- Scrubbers
- Gas cabinets and storage areas
- Cleanroom environment

Fixed detection

SH-WAD/CDS	
Single point, multi point and multi gas detectors with cartridge sensors.	
Ranges	From ppb to %vol (please refer to table on backside)
Detection method	Sample draw
Power supply	24 VDC
Output	Options: 4 - 20 mA, Profibus DP, Modbus, SIMS and relays
Provision for	Pyrolyzer

PS-7	
Single point gas detector with a cartridge sensor.	
Ranges	From ppb to %vol (please refer to table on backside)
Detection method	Sample draw
Power supply	24 VDC
Output	Options: 4 - 20 mA, Modbus TCP/IP
Provision for	Pyrolyzer

SH-WAD - TEOS		SH-WAD - CO
Single point gas detector for TEOS and CO.		
IPA compensated	Prevents alarms caused by IPA	
Ranges	0 - 30 ppm	0 - 150 ppm
Detection method	Sample draw	
Power supply	24 VDC	
Output	Options: 4 - 20 mA, Profibus DP, Modbus, SIMS and relays	

TX-KFP	
Single point gas detector. Ideal for safety extract (exhaust) monitoring applications. For example monitoring of gas cabinet extracts.	
Ranges	From ppb to %LEL (please refer to table on backside)
Detection method	Diffusion type
Power supply	24 VDC
Output	4 - 20 mA
Optional	Sensor protector for environment monitoring applications Local indicator

KS-7O	
Single point gas detector for monitoring oxygen levels.	
Ranges	0 - 25% / 0 - 50%
Detection method	Diffusion type
Power supply	24 VDC
Output	4 - 20 mA, relays for A1, A2 and fault
Optional	Remote sensor box

KS-7D	
Single point gas detector for the detection of CO.	
Ranges	0 - 150 ppm / 0 - 250 ppm / 0 - 400 ppm
Detection method	Diffusion type
Power supply	24 VDC
Output	4 - 20 mA, relays for A1, A2 and fault

KS-7R	
Single point gas detector for the detection of CO_2.	
Range	0 - 5000 ppm
Detection method	Diffusion type
Power supply	24 VDC
Output	4-20mA, relays for A1, A2 and fault

Portable detection

XPS-7 II	
Portable gas detector for toxic and corrosive gases including NF_3	
Range	From ppb to ppm (please refer to table on backside) Detects a range of gases with a single-gas detector by replacing the sensor unit
Detection method	Sample draw
Power supply	4 x AA type batteries (up to 12 hrs.) or AC adapter

XP-703D III	
Portable leak tester for the detection of semiconductor gases like arsine (AsH_3), phosphine (PH_3), diborane (B_2H_6), silane (SIH_4) and hydrogen (H_2).	
Range	ppm
Detection method	Hot wire semiconductor
Power supply	2 x AA type batteries (up to 12 hrs.)

ePACT controller gas detection system

ePACT Gas Detection Controller

The ePACT Gas Detection Controller is the epitome of flexibility in centralized or decentralized control in industrial safety systems. With its user-friendly interface and intuitive design, it's incredibly easy to configure to meet your specific needs.

This cutting-edge controller offers you full control over your gas detection network, allowing you to monitor and manage gas levels across your facility with ease. Its decentralized architecture means that you can expand your system as your requirements grow, without the hassle of a complete overhaul.

Whether you need to enhance safety in a small workspace or a large semiconductor clean room, ePACT grows with your needs. Its modular approach lets you add or remove sensors, alarms, and other components effortlessly.

With ePACT, you have the power to customize your gas detection system for optimal safety and efficiency. Experience the peace of mind that comes with having full control at your fingertips, knowing that your gas detection system is tailored to your unique requirements.

Features

The ePACT Controller consist of easy to use ePACT configuration software to configure the system to your needs

- Designed for small, medium to large size gas detection systems
- Modular set-up for flexible I/O configuration
- Easy expandable via internal I/O modules or remote cabinets
- Expansion and configuration is done in live systems. No need to reboot, no down-time of your safety system
- Full control over the entire system
- The ePACT (Ethernet Programmable Active Configuration Tool) software is equiped with real time visualisation of the gas detection system available via multiple (remote) displays
- Each display can be configured to show dedicated detector signals and will automaticaly scale to the resolution of your screen
- The ePACT Controller is fully compatible with the SIMS-NX visualisation software for real time and historical sensor data via trendview, eventlog and maps
- Support of SH-WAD, PS-7M and other I/O protocols

Detectable Gases

Gas Formula	Target Gas	F*	P*
2NTe	2NTe	X	
AN	Acrylonitrile	X	
AsH_3	Arsine	X	X
B_2H_6	Diborane	X	X
BBr_3	Boron Bromide	X	
BCl_3	Boron Trichloride	X	
BF_3	Boron Trifluoride	X	
Br_2	Bromine	X	
C_2F_6	Hexafluoroethane	X	
C_2H_2	Acetylene	X	
$C_2H_2Cl_2$	1,2-Dichloroethylene (1,2-DCE)	X	
$C_2H_2F_4$	1,1,1,2-Tetrafluoroethane (R-134a, HFC-134a)	X	
C_2H_3Cl	VCM	X	
C_2H_4	Ethylene	X	
$C_2H_4Cl_2$	Ethylene Dichloride (EDC)	X	
C_2H_5OH	Ethanol (Anhydrous)	X	
C_2H_7N	Dimethylamine (DMA)	X	
$C_2H_8N_2$	Ethylenediamine	X	
$C_3H_{10}Si$	Trimethylsilane (3MS)	X	
$C_3H_2ClF_5O$	Isoflurane	X	
C_3H_6	Propylene	X	
C_3H_8	Propane	X	
$C_3H_9BO_3$	Trimethyl Borate (TMB)	X	
C_4F_6	Hexafluorobutadiene	X	
C_4F_8	Octafluorocyclobutane	X	
$C_4F_9OCH_3$	HFE71DA	X	
C_4H_6	Butadiene	X	
C_4H_9NO	Dimethylacetamide (DMAC)	X	
C_5F_8	Octafluorocyclopentene	X	
C_6H_{14}	Hexane	X	
C_6H_6	Benzene	X	
C_7H_8	Toluene	X	
C_7H_8 (BCHD)	2,5-Norbornadiene (BCHD)	X	
C_8H_{18}	Octane	X	
$C_8H_{24}N_4Ti$	Tetrakis(dimethylamido) titanium (TDMAT)	X	
CF_4	Carbon tetrafluoride	X	
CH_2Cl_2	Dichloromethane	X	
CH_2F_2	Difluoromethane (R-32, HFC-32)	X	
CH_2O_2	Formic Acid	X	
CH_3Cl	Methyl Chloride	X	
CH_3CN	Acetonitrile	X	
CH_3COOH	Acetic Acid	X	
CH_3F	Methyl flouride (R-41)	X	
CH_3OH	Methanol	X	
CH_4	Methane	X	
CH_3S	Methyl Mercaptan	X	
CH_5Si	Methyl Mercaptan	X	
$CHCl_3$	Chloroform	X	
CHF_3	Trifluoromethane (R-23)	X	

Gas Formula	Target Gas	F*	P*
Cl_2	Chlorine	X	X
ClF_3	Chlorine Trifluoride	X	X
CO	Carbon Monoxide	X	X
CO_2	Carbon Dioxide	X	
$COCl_2$	Phosgene	X	
COS	Carbonyl Sulfide	X	
F_2	Fluorine	X	X
Ge_2H_6	Digermane	X	
GeH_4	Germane	X	X
H_2	Hydrogen	X	
H_2S	Hydrogen Sulfide	X	X
H_2Se	Hydrogen Selenide	X	X
HBr	Hydrogen Bromide	X	X
HCFC	Phosphorus Trifluoride	X	
HCHO	Formaldehyde	X	
HCl	Hydrogen Chloride	X	X
HCN	Hydrogen Cyanide	X	
HF	Hydrogen Fluoride	X	X
HNO_3	Nitric Acid	X	
I_2	Iodine	X	
$i\text{-}C_4H_{10}$	Isobutane	X	
IPA	Isopropyl Alcohol	X	
LTO520	LTO520	X	
N_2H_4	Hydrazine	X	
N_2O	Nitrous Oxide	X	
NF_3	Nitrogen Trifluoride	X	X
NH_3	Ammonia	X	X
NMP	N-Methylpyrrolidone	X	
NO	Nitric Oxide	X	X
NO_2	Nitrogen Dioxide	X	X
O_2	Oxygen	X	
O_3	Ozone	X	X
PF_3	Phosphorus Trifluoride	X	X
PH_3	Phosphine	X	X
$POCl_3$	Phosphorus Oxychloride	X	
SF_6	Sulphur Hexafluoride	X	
Si_2Cl_6	Hexachlorodisilane	X	
Si_2H_6	Disilane	X	X
$SiCl_4$	Tetrachlorosilane	X	
SiH_2Cl_2	Dichlorosilane (DCS)	X	X
SiH_4	Silane	X	X
$SiHCl_3$	Trichlorosilane	X	
SO_2	Sulphur Dioxide	X	X
TEOS	Tetraethyl Silicate	X	
VOC	Volatile Organic Compounds	X	
WF_6	Tungsten hexafluoride	X	
XeF_2	Xenon Difluoride	X	

* F = Fixed Detectors
* P = Portable detector XPS-7 II

Software for PLC Alarm System

SIMS-NX Software

Imagine a cutting-edge gas detection system that provides real-time safety assurance. This system employs state-of-the-art sensors and advanced analytics to continuously monitor the environment for any gas leaks or hazardous levels. Instant alerts and precise location information enable swift response, ensuring the safety of personnel and the environment. With its user-friendly interface, this system empowers you to visualize real-time and historical gas concentration data effortlessly, granting you peace of mind and proactive control over potentially dangerous situations.

ePACT Software

The ePACT gas detection controller configuration tool is a versatile embedded software solution designed for efficient configuration and management of gas detection systems. This user-friendly tool not only streamlines setup but also offers real-time visualization, allowing users to monitor gas levels and system performance in real-time. It's an essential tool for ensuring safety and precision in gas detection applications. It can work side by side with the SIMS-NX software.

In control Software

With In control software the configuring of the SH-WAD series gas detectors is simple. It will give you full control of your gas detector. When installing a gas sensor, parameters such as target gas, measurement range and measurement unit are all set automatically. The user only has to specify the alarm values and the desired alarm responses. Historical data stored in the detector for in depth analysis also becomes available with In control software.

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