

Gas Detection Systems SCENTY



MADE IN GERMANY

For more than 20 years HTK HAMBURG has been a manufacturer and supplier of stationary and mobile gas detection systems for all types of gases and applications.

HTK HAMBURG gas detection systems provide reliable protection against the dangers of gases such as in the food industry, metal industry, during chemical processes and all other areas where gases are used. We manufacture reliable sensors for all types of gases and provide early stage detection of hazards and warn people of impending danger.

With our SCENTY® gas detection systems you increase the safety of your employees and meet the legal requirements for occupational safety and industrial safety and also comply with accident prevention regulations.

SCENTY® is manufactured according to the proven modular system of HTK HAMBURG. The systems can be used with 1-8 analog sensors and parallel as a BUS system. The generous display allows the user to view all the important information at a glance. Alarms, faults and operating conditions are also signaled via LED indicators. Additionally, the simple intuitive operation and menu navigation system contributes significantly to overall safety.

SCENTY® GWA

Housing	Plastic wall housing, protection class IP65
Measuring points	GWA 201: 1-2 sensors GWA 401: 1-4 sensors GWA 801: 1-8 sensors, modular expandable up to 32 measuring points GWA BUS: SCENTY® BUS sensor starting with 32 measuring points per module
Measuring signal input	analog 4-20mA, optional SCENTY® BUS sensors
Alarm areas	3 per measurement point
Alarm relay	GWA 201: 3 alarm relays, 1 fault relay, 1 horn relay GWA 401: 8 alarm relays, 1 fault relay, 1 horn relay expandable to max. 32 alarm relays GWA 801: 8 alarm relays, 1 fault relay, 1 horn relay, expandable to max. 32 alarm relays GWA BUS: 10 relays per module
Alarm output	Collective alarm, zone alarm or single alarm, horn relay Main shut-off relay, for example, a solenoid valve in the gas supply line Design potential-free changeover contact 250V/2.5 A Alarms can be designed as self-cancelling or self-sustaining
Display	Concentration measuring points Error message measuring point Alarm signal measuring point
LED indicator	Operating, alarm, fault and maintenance signal
Manual alarm inhibit	Menu function alarm inhibit in special cases
System	WatchDog functional, self-monitoring, system clock, cold start alarm check, sensor/calibration monitoring, maintenance interval monitoring, visualization software package (optional)
Data interface	RS232 or RS485, Ethernet (optional)
Memory starting with GWA 401	Measurement data and alarm memory via SD card
Power supply:	230V/110V/50Hz/60 Hz or 24VDC (special design)

Application Examples

- **Ventilation:** Underground parking garages in residential and commercial buildings, road tunnels (CO, NO_x); monitoring of the CO₂ content in conference rooms
- **Work place protection:** AGW [general limits] (formerly MAK-monitoring), control of workplace exposure limits and explosion protection
- **Beverage industry:** Breweries, sparkling wine, CO₂ and O₂ measurement
- **Automobile industry:** Auto paint shops
Monitoring of organic solvents (toluene), motor and brake testers (CO, NO_x, SO₂, CnHm, H₂) emission measurements
- **LPG storage:** LPG (butane and propane) monitoring
- **Wastewater treatment plants:** H₂S, CO₂, CH₄, O₂, H₂ monitoring
- **Refrigerated warehouses:** Leakage monitoring of NH₃, CO₂ and Freon®
- **Agriculture:** Measuring systems for biogas

Solutions: Stationary and portable gas measuring and gas detection systems, sensors available for all types of gas, practice-oriented systems for custom and standard solutions



Request the SCENTY® Manual in PDF format for print-out or on-screen reading.



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Service: Complete engineering, installation, service for all gas detection and gas analysis systems, service for external equipment



EN ISO
9001:2008
certified
company

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Gas Detection Systems SCENTY

Flammable, toxic gases and vapors are present in many application areas. The danger they pose must be detected and monitored. For many years HTK HAMBURG has been constructing reliable gas sensors for all common types of gas.

All gases, whether in the liquefied, compressed and even in the normal state can be dangerous! What's important is their concentration. When gases displace oxygen or are present in high concentrations, there is a potential danger for the employees in the workplace.



The risk to humans is often not recognized in time if there is no suitable gas measurement technology. Our nose as a warning device, or the statement that nothing has ever happened, cannot be considered to be reliable safety measures.

Seemingly harmless gases such as argon, helium or nitrogen are dangerous when vital oxygen is displaced by their sudden release into the atmosphere. Risk of asphyxiation! An oxygen concentration of less than 6 vol -% is fatal. Excess oxygen increases the risk of fire and the likelihood of spontaneous combustion of flammable materials.

The combustion of flammable gases and vapors will not only cause significant damage to the system but pose a serious health risk as well.

HTK Hamburg delivers gas sensors with standardized output signals which can also be used on BUS systems. Our gas sensors are suitable for use in a wide range of areas since they come in many protection classes. Protection class IP 65 and higher devices are designed especially for the food industry, are very durable and guarantee a high degree of safety.

Detectable gases

Acetone, acetylene, ammonia, arsine, gasoline, hydrogen cyanide, boron trichloride, Bromtrifluormethane, butane, chlorine, chlorine dioxide, chlorine methane, hydrogen chloride, cyclohexane, Diborane, dibutyl ether, dichloroethane, dichlorosilane, dimethyl ether, ethane, ethanol, ethyl acetate, ethyl benzene, ethylene, fluorine, liquefied natural gas (LNG), hydrofluoric acid, formaldehyde, heptane, hexane, hydrides (AsH₃, PH₃, B₂H₆, SiH₄), Isopropanol, refrigerant, carbon dioxide, carbon monoxide, hydrocarbons, nitrous oxide, air quality / VOC, methane, methanol, methyl ethyl ketone, nonane, organic solvents, ozone, phosphine, propane, oxygen, hydrogen sulphide, sulfur dioxide, silane, silicone oil, silicon tetrachloride, nitrogen, nitric oxide, styrene, carbon tetrachloride, tetrahydrofuran, toluene, trichloromethane (chloroform), trichlorosilane, VOC, hydrogen, hydrogen peroxide

There are 3 risk categories

- **Explosion hazard (Ex)** from flammable gases
- **Oxygen (Ox)** - Suffocation due to oxygen deficiency
- Fire hazard due to excess oxygen
- **Poisoning (Tox)** caused by toxic gases

Choosing the right measuring principle - sensor type

A key factor in the detection of gas hazards is the selection of the right gas sensor with the correct measurement method. Each measurement method may only be applied for a certain type of gas (flammable/toxic gases and oxygen).

The first question that must be answered is which gases/vapors occur in the workplace in order to determine which risk category must be monitored.

Explosion protection

There is an increased risk of explosion wherever flammable gases or vapors occur. Typical examples of these are: mining, refineries, the chemical industry and many other industries.

Typical measurement methods are infrared and catalytic bead sensors that detect the gas concentration in the LEL range.

Oxygen deficiency/excess oxygen

Oxygen deficiency is life-threatening. Excess oxygen influences the flammability of materials and can even cause spontaneous combustion. In most cases electrochemical sensors are used. Long-term stable zirconium oxide sensors may also be used.

Toxicity (Tox-risk)

Toxic substances (CO) can occur anywhere as products of incomplete combustion, mainly in industrial manufacturing and treatment processes as well as in rail, road and ship transport. It also occurs in entirely natural procedures such as decay and decomposition processes during the degradation of biomass. Electrochemical sensors are used with low cross-sensitivity for the detection of toxic gases.

Design, installation, service, maintenance

HTK Hamburg offers you a complete range of services from design to installation, maintenance contracts and all-inclusive packages. We train your employees in the field of gas metrology and calibration.

Talk to our team of experts.