

# HANSEN

**SENSORS**



**MONITORS**



**ALERT SYSTEMS**



## **GAS LEAK DETECTION**

# HANSEN GAS DETECTION PRODUCTS

Hansen Technologies offers a complete line of industrial quality Gas Detection Sensors, Monitors and Alert Systems for refrigerants and other common gases. These state-of-the-art gas detection products utilize a range of sensing technologies to suit various applications and operating environments with optimum accuracy and reliability.

## APPLICATIONS

Hansen Gas Sensors are suitable for use in industrial refrigeration engine rooms, cold storage rooms, processing rooms, truck docks, and for relief valve vent lines. Also suitable for use in supermarkets, and large institutional and commercial buildings. Typical gas detection applications include Ammonia, Carbon Dioxide (CO<sub>2</sub>), Hydrocarbons, HFCs, HCFCs and CFCs.

## COMPLETE SOLUTION

Hansen Gas Detection products provide a complete, systematic and reliable solution for gas leak detection. Gas Sensors, Monitors and Alert Systems are fully tested and calibrated prior to shipping for proven, effective gas measurement. Sensors provide continuous gas detection, interfacing directly to Hansen HLM Monitors, GAS Alert Systems or existing monitor, computer or PLC controller via 4-20mA or 0-10V DC analog output.

## GAS DETECTION SENSORS

Hansen utilizes a wide variety of sensing technologies including electrochemical, semiconductor and infrared sensors to selectively detect gases. Built-in visual and audible alarms, and a standard SPDT relay output for fail safe operation provides the added security of initiating an alarm trigger in the event of power failure.

An array of high-quality, durable sensor enclosures are available to meet the environmental and operating condition requirements of your facility. Electronics are sealed in a NEMA4 enclosure providing protection from moisture, dust and surrounding gases. Optional Sensor Element Shield and Quick Disconnect Kit further enhance sensor protection and allow for quick, easy disconnection of unit for replacement or calibration purposes.

Testing, recalibration and sensing element replacement procedures are simple with Calibration Kits and parts also available from Hansen.

### Standard Gas Sensor

For operating temperature down to 0°F (-17°C), mountable indoors or outdoors. Watertight NEMA4 (IP65) enclosure.

### Harsh Environment Gas Sensor

For operating temperatures down to -40°F (-40°C) in wet/humid areas. Watertight NEMA4 (IP65) enclosure.



Standard

Harsh Environment

Extreme Environment

Vent Line

# THINK SAFETY. THINK HANSEN.



### Extreme Environment Gas Sensor

For operating temperatures down to -60°F (-51°C), with a stainless steel enclosure and integral heater and thermostat for low temperature operation. Watertight NEMA4X (IP65) enclosure.

### Vent Line Gas Sensor

For operating temperatures down to -40°F (-40°C), with sensing element in a separate carbon steel housing with a 1" NPT threaded connection and 10ft (3m) cable. Watertight NEMA4 (IP65) enclosure.

### Explosion Proof Gas Sensor

For operating temperatures down to -40°F (-40°C) where regulations and codes specify; Class I, Div II, Group C and D. Enclosure is NEMA7 Aluminum.

### Basic Gas Sensor

For operating temperatures down to 0°F (-17°C) in commercial applications such as supermarket refrigeration systems and air conditioning chillers. Enclosure is NEMA1 (IP41) for indoor installations. Not available for use with Ammonia.

### Portable Gas Sensor

For portable gas measurement in operating temperatures down to -13°F (-25°F). Complete with battery charger, sampling wand, flowmeter, replacement filters, RS-232 output cables, accessories for calibration, and sensor module keeper in a convenient carrying case. Includes software cd for easy transfer of data from unit to computer.

## GAS DETECTION MONITORS

Hansen offers the HLM2 and HLM6 Gas Detection Monitors available for use with two to six sensor units; multiple units provide protection for larger systems. Monitors feature a low and high level alarm with visual power indicator and audible alarm.

## GAS ALERT SYSTEM

GAS Alert Systems feature a local digital PPM display of target gas level with visual and audible alarms. Watertight NEMA4X (IP65) enclosure. For use as a standalone, locally monitored system or as part of a larger gas monitoring and signaling system.

## KEY FEATURES – GAS SENSORS

- Accurate, fast responding
- Linear 4-20mA or 0-10V DC output
- Audible alarm
- Power indicator
- SPDT alarm relay (fail safe operation)
- 24V AC/DC low voltage power
- Shipped factory calibrated and tested
- CE approved

## KEY FEATURES – GAS MONITORS

- Visual and audible alarm
- Power indicator
- Low and high level alarm relay outputs
- Fault relay output (HLM6 only)
- Economical
- CE approved

## KEY FEATURES – GAS ALERT SYSTEM

- Local digital PPM display of measured target gas level
- Visual and audible alarm (mutable)
- Power indicator
- Shipped factory calibrated and tested



Explosion Proof

Portable

HLM6 Monitor

Gas Alert System

## ORDERING INFORMATION: GAS DETECTION SENSORS

AMMONIA			Sensor Type	Range (PPM)
Standard to 0°F(-17°C)	Harsh to -40°F(-40°C)	Extreme to -60°F(-51°C)		
HEC4-N100	HEC4H-N100	HEC4E-N100	Electrochemical	0-100
HEC4-N250	HEC4H-N250	HEC4E-N250	Electrochemical	0-250
HEC4-N1K	HEC4H-N1K	HEC4E-N1K	Electrochemical	0-1,000
HSC4-N10K	HSC4H-N10K	HSC4E-N10K	Semiconductor	0-10,000

For Explosion Proof model, substitute X for 4 in model number (i.e. HECX-N100)

VENT LINE		Sensor Type	Range (PPM)
Standard to -40°F(-40°C)	Refrigerant		
HVSC4-F5K*	Halocarbon	Semiconductor	0-5,000
HVSC4-N10K	Ammonia	Semiconductor	0-10,000

\*Specify refrigerant (R22, R507, R134a, R404, R410).

HALOCARBON			Sensor Type	Range (PPM)
Basic to 32°F(0°C)	Harsh to -40°F(-40°C)	Extreme to -60°F(-50°C)		
HSC1-F3K/R22	HSC4H-F3K/R22	HSC4E-F3K/R22	Semiconductor	0-3,000
HSC1-F3K/R507	HSC4H-F3K/R507	HSC4E-F3K/R507	Semiconductor	0-3,000
HSC1-F3K/R134a	HSC4H-F3K/R134a	HSC4E-F3K/R134a	Semiconductor	0-3,000
HSC1-F3K/R404	HSC4H-F3K/R404	HSC4E-F3K/R404	Semiconductor	0-3,000
HSC1-F3K/R410	HSC4H-F3K/R410	HSC4E-F3K/R410	Semiconductor	0-3,000

CO2			Sensor Type	Range (PPM)
Basic to 32°F(0°C)	Harsh to -40°F(-40°C)	Extreme to -60°F(-50°C)		
HIR1-C10K	HIR4H-C10K	HIR4E-C10K	Infrared	0-10,000

### PORTABLE GAS DETECTION UNIT

Catalog No.	Description
31-1010	Gas Detector, Universal Charger, 100-240V
31-1012	Sensor Module, NH3, 0-50/500 PPM
31-1013	Sensor Module, NH3, 0-500/2000 PPM

### GAS ALERT SYSTEM

Catalog No.	Range (PPM)
GAS-100	0-100
GAS-250	0-250
GAS-1K	0-1,000
GAS-3K	0-3,000
GAS-10K	0-10,000

### GAS DETECTION MONITORS

Catalog No.	Description
HLM2	Two Channels; internal alarm; 120V or 220V
HLM6	Six Channels; external horn; 120V or 220V

### GAS SENSOR ACCESSORIES

Catalog No.	Description
31-1000	Sensor Calibration Kit
31-1001	Quick Disconnect Plug Kit
31-1002	Sensor Element Shield

### CALIBRATION GAS CYLINDERS

Catalog No.	Refrigerant Gas	Range (PPM)
31-0031	Ammonia	100
31-0032	Ammonia	250
31-0033	Ammonia	1,000
31-0034	Ammonia	10,000
31-0127	CO <sub>2</sub>	10,000
31-0078	R22	3,000
31-0123	R22	5,000
31-0079	R404/R507	3,000
31-0126	R404/R507	5,000
31-0080	R134a	3,000
31-0124	R134a	5,000
31-0081	R401a	3,000
31-0082	R402a	3,000
31-0130	R410	5,000

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