**HB Products – dedicated to optimal solutions for level measurement and control of oil and refrigerants**.

HB Products is a development-oriented company, which specializes in the development and production of sensors for industrial refrigeration systems. Apart from expertise within oil and refrigerant control, we have great know-how in the design and optimization of industrial refrigeration systems. This knowledge enables us to develop and produce the best sensors!

Since its start more than 25 years ago, HB Products has attained a strong global position. This is the result of our ability to think in terms of new technological solutions, create

For further info and guidance please visit our homepage
www.hbproducts.dk

# Quick guide
HBGS – Gas Leakage Sensor for NH3 and CO2



## Functionality:
The HBGS sensor is made to detect gas leakage in refrigeration rooms or vent lines from refrigeration rooms. The sensor comes in three variations two for NH3 and one for CO2. The measuring heads and settings are different, but the res rest is identical. If the leakage sensor is to be used in a different way, prior approval must be obtained from HB Products.

## Download complete manual:
For further information please download the instruction manual from our homepage:
www.hbproducts.dk.

## Caution:
Only qualified personnel should work with the product. The technician must be aware of the consequences of an improperly installed sensor and must be committed to adhering to the applicable local legislation.

## Mechanical installation



**Mechanical specifications:**

| Gas | Measuring range | Factory alarm settings (can be configured*) |
|-----|-----------------|---------------------------------------------|
| NH3 | 0-100 ppm | 25/50/75 ppm |
| NH3 | 0-300 ppm | 60/150/240 ppm |
| NH3 | 0-1000 ppm | 250/500/750 ppm |
| NH3 | 0-5000 ppm | 1000/2500/4000 ppm |
| CO2 | 0-10000 ppm | 2000/5000/7500 ppm |

Ambient temperature: -30…+50°C
Humidity: 0…95 %
Material: PC (Plastic)
Cabinet size: 140x82x59 mm
*Configuration: With PC and HB configuration tool
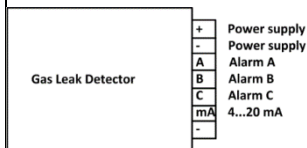Part no. Complete:      HBGS-NH3 and HBGS-CO2
Part no. Sensor Part:    HBGS-NH3-Unit and HBGS-CO2-Unit
Part no. Service kit:    HBGS -Service Kit (same for both refrigerants)

## Electrical installation



Ferrite clamps must be mounted
on the cables to reduce
electromagnetic interference.



| Gas Leak Detector | | |
|---|---|---|
| + | Power supply |
| - | Power supply |
| A | Alarm A |
| B | Alarm B |
| C | Alarm C |
| mA | 4…20 mA |
| - | |

Alarm output
can control the
siren directly.

**Electrical specifications:**
Enclosure: IP20
Analog Output: 4…20 mA
Analog Load: 500 ohm
**Digital Output: 3 x PNP, 0,5 A, NO/NC (Default NO)**
Voltage supply: 24 V DC – Max load 1.7 A
Indication: 3 x alarm levels and 1 x power (green)
Reset of alarms: By push button "R"
**Configuration: With PC and HB configuration tool**
**Special adaptor and USB Cable is needed to change Configuration**