



SNH Display



SNH Wall



SNH Duct



## Features

- Continuous monitoring
- Low zero point drift
- Good stability to poisoning
- Long life semiconductor sensor
- Modular plug-in technology
- Comfortable calibration with selective access release
- 4-20mA or 2-10Vdc output signal selectable
- Digital measurement value processing incl. temperature compensation
- Linear output signal
- Integrated heating element temperature controlled for down to -40 degree (option)

## Technical Data

<b>Gas</b>	Ammonia (NH <sub>3</sub> )
<b>Detection principle</b>	Semiconductor sensor
<b>Oxygen concentration</b>	21%(stand.) 18% minimum level
<b>Response time</b>	t90 <100 sec.
<b>Sensor coverage</b>	Approx.100m <sup>2</sup>
<b>Storage time</b>	6 months
<b>Mounting height</b>	Under the ceiling
<b>Output signal</b>	
(0)4-20mA	Load < 500ohm overload and short circuit proofed
(0)2-10Vdc	Load < 50kohm overload and short circuit proofed
Starting point 0/20%	Proportional
Relay 1	30Vac/dc, 0,5A, pot.free SPDT
Relay 2	Dito SPNO/SPNC
<b>Wiring distance</b>	Current signal cirka 500m Voltage signal cirka 200m
<b>Cable entry</b>	1 x M20
<b>Serial interface</b>	
RS485	19200 Baud (9600 for Modbus)
<b>Power supply</b>	16-28Vac/dc reverse polarity prot.
<b>Power consumption</b>	45mA, max (1,1VA) without option
<b>Analogue input</b>	4-20mA, only RS485 mode 24Vdc
<b>Expected lifetime</b>	>5 years,normal operating
<b>Humidity range</b>	15-90%rH non-condensing
<b>Operating range</b>	
Continuous	-20 up to +50C
Short-time	-20 up tp +50C
<b>Rating</b>	IP65 Protection Class
<b>Pressure range</b>	Atmospheric +/-10%
<b>These products meet the CE-approval</b>	

## Application

For detection leakages in refrigeration plants with ammonia as refrigerant to assure the compliance with the requirements according to EN 378-3 and also within a wide range of commercial and industrial applications.

Due to the analogue signal and the RS-485 serial interface the NH<sub>3</sub> transmitter is compatible to monitoring units by AP, as well as any others controllers or automation systems.

## Ordering Codes

### Wall Mounting

#### Manual calibration and adressing

<b>SNH 300VC</b>	30- 300ppm	(0)4-20mA/ (0)2-10Vdc	sel.
<b>SNH 1000VC</b>	30-1000ppm	(0)4-20mA/ (0)2-10Vdc	sel.
<b>SNH 4000VC</b>	30-3000ppm	(0)4-20mA/ (0)2-10Vdc	sel.

#### Calibration and adressing by service tool

<b>SNH 300VCT</b>	30- 300ppm	(0)4-20mA/ (0)2-10Vdc	sel.
<b>SNH 1000VCT</b>	30-1000ppm	(0)4-20mA/ (0)2-10Vdc	sel.
<b>SNH 4000VCT</b>	30-3000ppm	(0)4-20mA/ (0)2-10Vdc	sel.

<b>/MOD</b>	Protocol for Modbus
<b>/CUST</b>	Protocol for customers specifications
<b>/GCD</b>	Protocol for GCD-series
<b>/REL 1-3</b>	Relay pack see rear side
<b>/DUCT</b>	Duct Mounting
<b>/LCD</b>	Two lines, 16 characters each
<b>CAL 2</b>	Calibration Kit for Tox-transmitters
<b>/HEAT</b>	Temp.controlled heating element 3C +/-2C0,3VA
<b>/BUZZ</b>	Internal warning summer 85dB
<b>/STAIN</b>	Enclosure of stainless steel
<b>/SERV</b>	Service Tool with Keyapad and LCD-display
<b>/AIN</b>	4-20mA analogue input
<b>GAS 17</b>	Calibration gas 17 liter
<b>REG</b>	Pressure regulator flow adjusted to 0,5 lit/min.
<b>Warning devices</b>	See special datasheet
<b>Warning signs</b>	See special datasheet



## Relay Package

With the SNH relay package two potential-free contacts are available for the connection to external devices.

The switching thresholds of these relays are selectable via potentiometer in the range of 10 - 90% of NH3 concentration.

The hysteresis is programmable via jumpers.

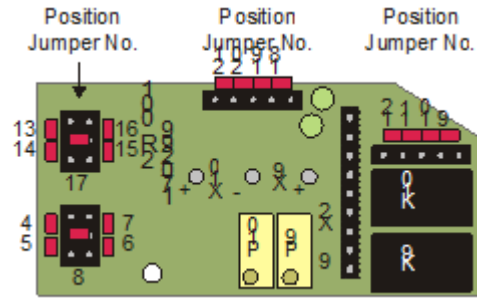
Additionally the relay mode, open-circuit or closed circuit, is selectable.

The status of the two relays is displayed via LED

Add analogue input 4-20mA is not possible.

For standard RS 485 fixed thresholds - please specify when ordering.

For Modbus RS 485 thresholds with software changeable



## Relay Package

### Threshold standard as stand alone

		Threshold
Relay 1NH	30-300 ppm	50 resp 100 ppm
Relay 2NH	30-1000ppm	300 resp 500 ppm
Relay 3NH	30-4000ppm	500 resp 2000 ppm

## Cross sensitivity

	Reaction
Ethanol C2H8O	< 1
Iso butane	> 1
Hydrogen H2	> 1

## Note

The sensors used in the SH- range of products are not gas specific.

Care should be taken when installing the equipment to minimize any cross contamination from other gases or vapours.

## Connecting Diagram

