

EXPERTS IN ANALYSIS



online**NH<sub>3</sub>**

Device for online monitoring of NH<sub>3</sub> in gases

[www.ECH.de](http://www.ECH.de)

# online **NH<sub>3</sub>**



## Product description

The onlineNH<sub>3</sub> is used for a quantitative determination of NH<sub>3</sub> in livestock buildings, digestion towers and biogas plants. The sampling can be carried out at one, two or more selected measuring points. This measurement serves as the basis for water treatment and the control of maximum threshold values.

The measurement of NH<sub>3</sub> works with selective, electrochemical sensors. The mobile microcontroller unit includes a data acquisition and data transmission tool, digital and analogue input connections for various measurands as well as digital and analogue alarm output connections (4 - 20 mA) for industrial process monitoring and control.

The onlineNH<sub>3</sub> enables an increase of efficiency regarding treatment methods through a quantitative measurement of the NH<sub>3</sub>-value in front and after filter plants and through a measurement of the individual process steps of a biogas plant, respectively. Hence, maintenance and cleaning cycles can be accurately identified and optimized.

## Applications

- Livestock facility
- Control of digestion towers
- Slurry storage



Biogas plant

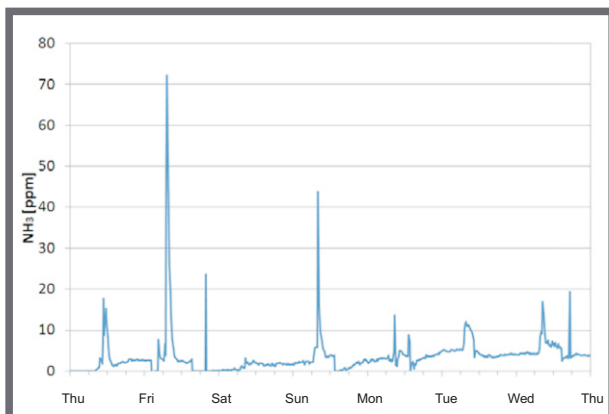
- Biogas plant
- Elimination of smell nuisance
- Elimination of hazard sources



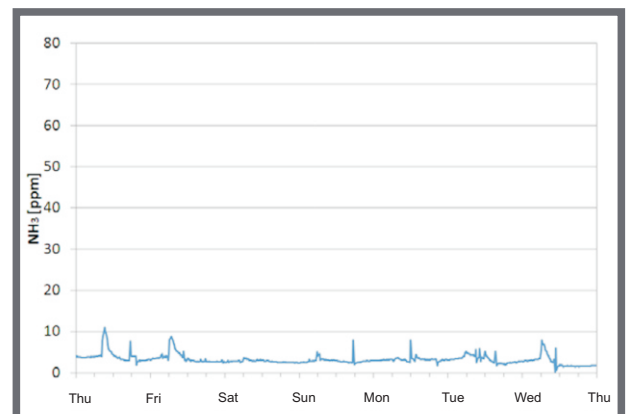
Animal husbandry

## Details

- Online determination of the  $\text{NH}_3$ -concentration at the source (e. g. livestock building) and at the drain (e. g. exhaust air chimney located after a biofilter)
- Very high sensitivity (below 1 ppm) with highest precision
- High selective electrochemical sensors
- Integrated rinsing steps to ensure a current sample for analysis at all times
- Automatic zero point compensation
- Arbitrary measuring cycles/amount of measurements per day
- Data logger for several months
- Output of the  $\text{NH}_3$ -value: 4...20 mA-signal
- Alarms as acoustic or electrical signal - threshold value can be selected by authorized service staff



Before treatment



After treatment

## Advantages

- Data acquisition directly in the data logger of the analyzer for several months
- Long operating life of the sensor through intermittent gas path control
- Low maintenance effort due to automatic zero point compensation
- Optional combination with other sensors (e. g. hydrogen sulfide or hydrocarbon/odor sensors)
- 4...20 mA output signal to transmit the NH<sub>3</sub>-signal into customers' control system
- Active gas sampling through a transfer line of up to 50 m length and from a depth of down to 10 m
- Integrated rinsing steps to ensure a current sample for analysis at all times
- Optional extension for multiple measuring points
- Selective electrochemical sensors
- Data transmission via GSM

## Specifications

Power supply:	230 V, 50 Hz
Power input:	40 W max., 5 W on standby mode
Measuring range:	0.1 ... 500 ppm
Typical duration:	24 hours online measurement
Output signal:	4 ... 20 mA analogous and digital output, respectively
Protection type:	IP65
Dimensions:	200 x 250 x 122 mm
Weight:	2 kg

We are here for you



ECH Elektrochemie Halle GmbH  
Otto-Eissfeldt-Str. 8  
D-06120 Halle (Saale)  
Germany  
Tel.: +49 345 279570-0  
Fax: +49 345 279570-99  
E-Mail: [info@ech.de](mailto:info@ech.de)  
Internet: [www.ech.de](http://www.ech.de)