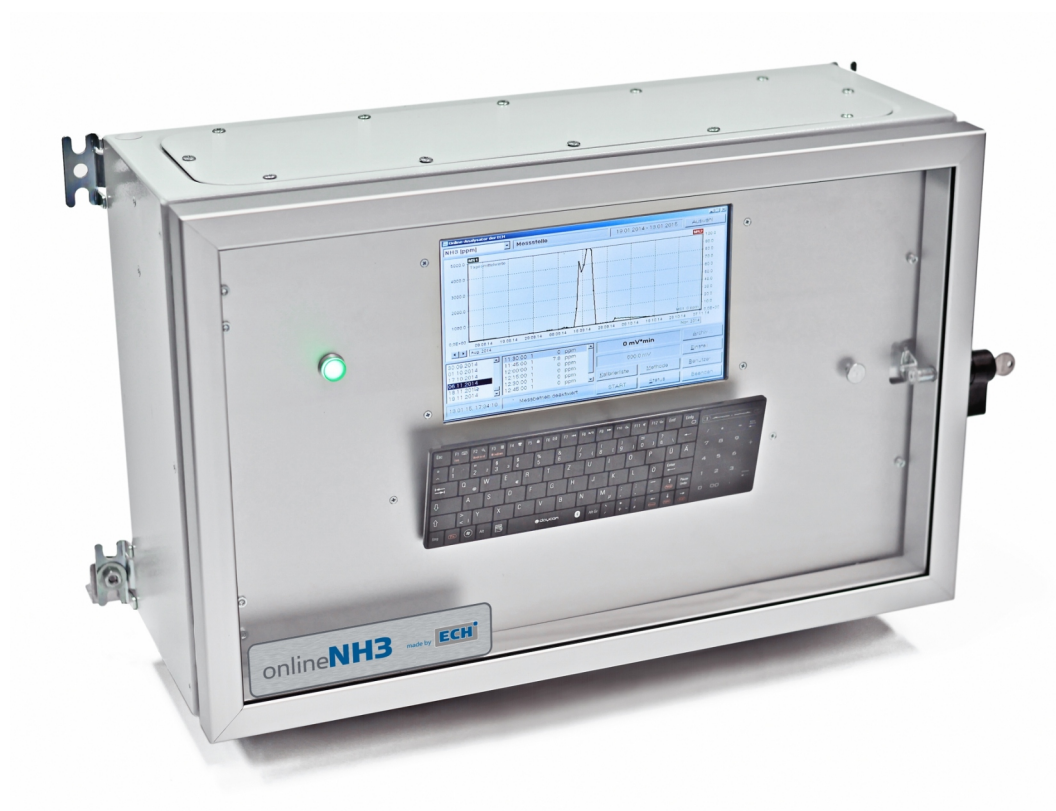


Online determination of NH₃ in gases



online**NH3**

made by **ECHⁱ**

onlineNH₃

Online NH₃ determination in gases

Product description

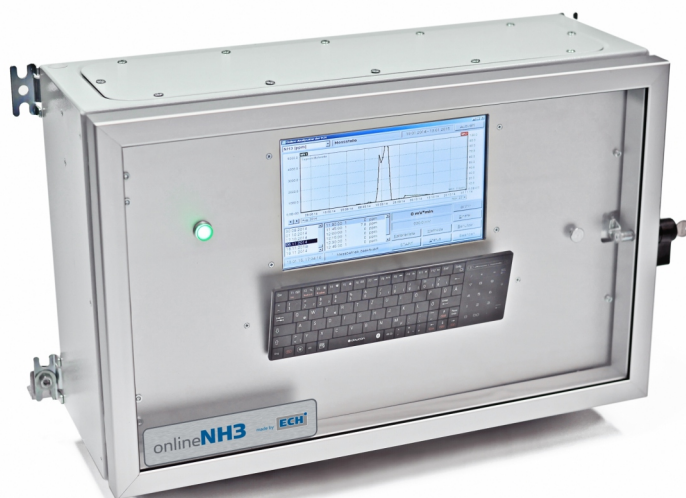
The **OnlineNH₃** is used for the continuous quantitative determination of ammonia gas (NH₃) in gas mixtures.

The system is designed with an integrated dilution step for measurement of very high concentrations (100 ppm - 20000 ppm). Also very low contents in the range of odour threshold (0.1 - 100 ppm) can be measured.

The **OnlineNH₃** contains a selective amperometric sensor with gas selective membranes, membrane pumps for gas transportation and sample transfer and an integrated PC for continuous recording of measurement data, trends and alarm states. The measurement values can be transmitted via digital (alarm-) and analog outputs into the control room.

Due to an integrated cleaning system the gas analysis in O₂ free gases (e. g. biogas) is realized without any drift effects. Because of the stress free mode of operation, the sensor lifetime is considerable increased. The operation principle makes the **OnlineNH₃** ideal as a basis for NH₃ adjusted regulation of enrichment and cleaning steps.

The instrument is available in the same design for monitoring of hydrogen sulphide (H₂S), sulphur dioxide (SO₂) or ozone (O₃).



OnlineNH₃ - Analyser system for online NH₃ determination in gases

Applications

- Online recording of the current NH₃ gas concentration as a basis for NH₃-adapted controls (e. g. monitoring of air quality in livestock buildings)
- Environment analysis

Fields of application:

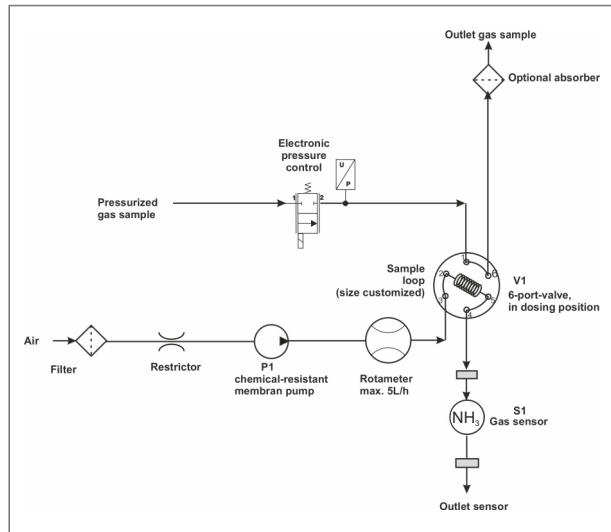
- Industrial sectors
- Animal husbandry
- Biogas plants

Advantages

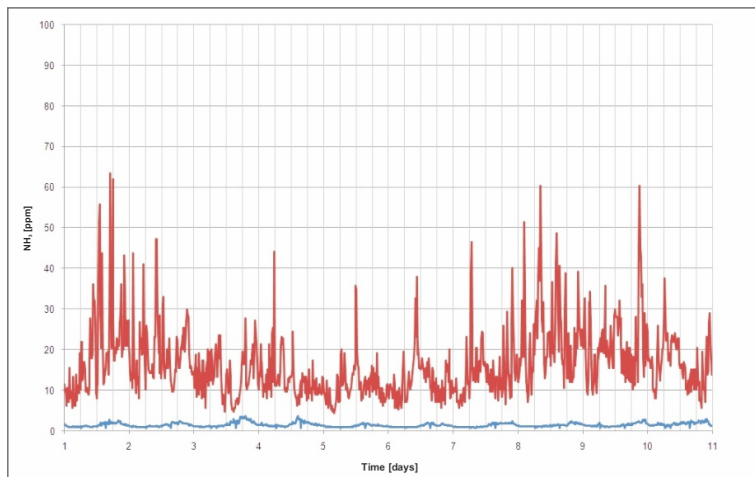
- Fully automated sample dosing
- Hardly any cross-sensitivities due to selective electrochemical sensor
- Output 4 - 20 mA for integration of the NH₃ signal into the local control system
- Long sensor life due to intermittent gas path gas path switching
- Active sample aspiration, thus free installation (wall mounting) with up to 100 m distance from the sampling point

Features and Results

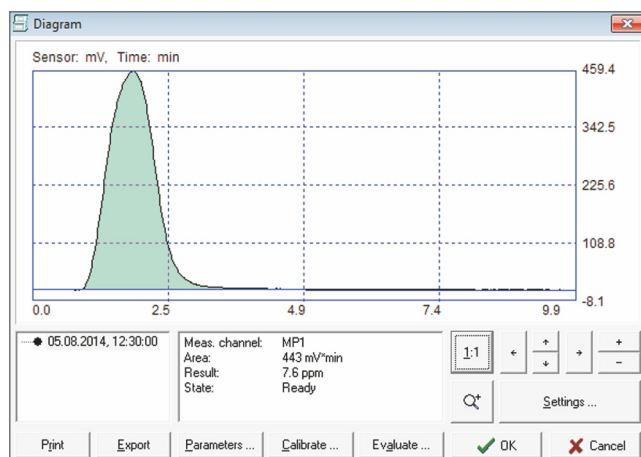
- Continuous NH_3 gas analysis (measuring time < 5 min)
- Robust analysis method (drift stability)
- Simple calibration
- Simple, clear software
- Integrated purging steps to ensure a constantly updated sample for analysis
- Also available for measuring hydrogen sulphide (H_2S), sulphur dioxide (SO_2) or ozone (O_3)



Flow diagram of the analysis system



Determination of NH_3 at two sampling points before and after a biofilter



Determination of NH_3 in gas stream



Biogas plant

Technical specifications

Measuring points:	Max. 2
Sampling:	By suction via a transfer line (up to 100 m)
Sample volume:	0.1 - 100 mL (depending on application)
Sample pressure:	Ambient or pressurized
Typical measuring time:	< 5 min (depending on sample)
Measuring range:	0.1 ppm - 20000 ppm (± 2 %)
Gas supply:	Internal pump or pressure controller
Alarm:	Dry contact
Signal output:	4 - 20 mA
Power supply:	220 - 230 V, 50 Hz, 2 A
Power input:	100 W
Protection type:	IP 66
Dimensions:	660 x 250 x 400 mm (W x D x H)
Weight:	9 kg

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