

2029 Ammonia Analyzer

From Metrohm Process Analytics

Over 85% of globally manufactured ammonia (NH_3) is used to produce fertilizers for the agricultural sector, and since 2015 the global supply capability of NH_3 has increased by more than 9% (FAO). Increased use of fertilizers can cause environmental problems, and there is a high demand to measure NH_3 at all kinds of locations. The majority of all online ammonia measurements are performed in wastewater treatment plants (WWTP), as there can be heavy fines from authorities for exceeding discharge limits. Ammonia is also used in different industrial processes as a precursor for most nitrogen-containing compounds.

Because of its role in many different production and environmental processes, it is of vital importance to closely monitor the concentration. The **2029 Ammonia process analyzer** from Metrohm Process Analytics is the most straightforward and easy-to-use tool to do so online.

About the Ammonia application

Ammonia is determined photometrically based on the Berthelot method, measured at a wavelength of 650 nm. The analyzer is able to handle a wide range of ammonia concentrations, from $\mu\text{g/L}$ to mg/L .

Benefits for online analysis

- Protect expensive company assets by monitoring your processes
- Process data available at your fingertips 24/7 means no waiting for slow, manual laboratory methods
- Increased safety for employees – no manual sampling necessary, no exposure to dangerous environments
- Save money by reducing downtime: analyzer sends alarms for out-of-specification values which inform the operator sooner

NH_3 analysis performed safely online

- Ammonia can be measured in 1 or 2 sample streams
- Compact footprint for tight industrial spaces: 326 × 273 mm
- Safe, rugged enclosure designed to IP66 specifications is ideal for process environments
- A 7" full color touchscreen shows trend graphs and allows action modifications
- Remote access and control via Ethernet and Modbus TCP/IP, with USB for data export
- Easy maintenance due to simplicity of the layout
- Automatic data and/or alarm transfer to a DCS system



Applications for NH_3

- ... in drinking water production / (potable water)
- ... in the cooling water circuit / (energy/power)
- ... in the sour water stripper (SWS) / (petrochemical)
- ... in the coking process / (steel/metals)
- ... in brine for Soda Ash production / (chemical)
- ... in fermentor cultures / (biochemistry)
- ... in effluent streams (WWTP) / (several industries)



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