



Liquiline System CA80AM analyzer and sample systems

High-precision ammonium analysis at critical control points

Colorimetric analyzers and
sample preparation systems
for water and wastewater
monitoring

- Enable fast commissioning and plug & play thanks to Memosens technology and user-friendly Liquiline operating concept
- Offer easy upgrade to a complete measuring station simply by connecting Memosens sensors
- Provide advanced diagnostics and process documentation with remote access for analyzer and sample preparation
- Save costs through low reagent consumption and tool-free maintenance.
- Guarantee reliable, regulation-compliant measurement by using the standard indophenol blue method - following ISO 7150-1, DIN 38406-5 and GB 7481-87



Increase precision, reduce complexity



Liquiline System CA80AM uses the standard colorimetric measuring principle, the indophenol blue method, giving you the security of highly precise measurement at your critical control points.

- React quickly at the inlet: The analyzer monitors the incoming nitrogen load, providing you a detailed view of the process and the possibility to handle disturbances promptly.
- Save energy in the aeration basin: Accurate ammonium measurement allows a precise control of the blowers reducing energy costs considerably.
- Be regulation-compliant in the outlet: Liquiline System CA80AM helps to make sure that your outlet water complies with the ammonium limit values stipulated in your country. It also features the logbooks to provide continuous documentation of these values to the water authorities.



"Our customer was very unhappy with his current measurement due to very high deviation of the measuring value compared to lab. After installation and startup of our Liquiline System CA80AM + CAT820, the customer did cuvette tests in the lab as a comparison to the value measured by CA80. And, they were exactly the same (difference <math><0.1\text{ mg/l}</math>). Therefore, the customer immediately decided to use our 4...20 mA signal to control his process. It's now been running for one month and the customer has not even spent one minute on the analyzer and it's still running accurately and without any problems."

Bart Küpers, Product Manager Analytics
Endress+Hauser Netherlands



"As our customer confirmed, the CA80AM analyzer is working very well. Measuring values are less than 3% vs. laboratory results, showing stable trends. Since we commissioned the new system, the customer had completely nothing to do with the analyzer thanks to the very low consumption of reagents."

Dariusz Figiel, Product Manager Analytics
Endress+Hauser Poland

Decrease operating costs, simplify maintenance

Liquiline System as member of the Liquiline platform with Memosens technology reduces the complexity of your instrumentation.

- Commissioning becomes a fast and easy task thanks to plug & play of the sample preparation.
- Operation of the Liquiline System is already familiar because it is identical to the concept of other online analysis parameters, such as pH or oxygen.
- Upgrade to a complete measuring station is ultra-simple. Just connect up to 4 Memosens sensors and they are detected immediately.
- Integration into your process control systems is smooth and seamless thanks to Modbus RS485, Modbus TCP bus communication, and Ethernet web browser.

The operating costs of a colorimetric analyzer stand or fall with the reagent consumption.

- Liquiline System CA80AM uses dispensers that enable ultra-precise reagent dosing and thus reduced consumption.
- The lifetime of reagents is increased up to three months by the analyzer's intelligent and energy-efficient cooling.

Liquiline System makes life easier for operators.

- The analyzer's automatic cleaning and calibration functions ensure that it works accurately and reliably over a long period without any manual intervention.
- If Liquiline System needs manual maintenance, you can access all parts easily without tools.
- Advanced diagnostics with remote access for the analyzer and the sample preparation enable you to analyze possible process disturbances and to decide on required measures quickly and even from home.



Sample preparation right to the point



Highly precise measurement at all critical control points for ammonium demands suitable sample preparation. Liquiline System CAT810, CAT820, and CAT860 are perfectly adapted to the respective sampling spots.

- Liquiline System CAT860 is the perfect choice for demanding conditions in the inlet. Its automatic backflush function with cleaning solution and automatic air cleaning clean off fat and proteins and prevent blocking of the ceramic filter.
- Liquiline System CAT820 is the flexible solution for bacteria-free sample preparation in the aeration basin or the outlet. It can be equipped with various filters and cleaning options to tailor it to the sampling situation.

- Liquiline System CAT810 prepares samples in the outlet or from pressurized pipes. Thanks to its low dead volume, it reflects process changes promptly and shortens the response time of your downstream measuring devices. The system is equipped with a cross-flow filter to avoid blocking.

All sample preparations are fully controlled by the Liquiline System CA80AM analyzer to guarantee a perfect synchronization of the measuring point. The filters of Liquiline System CAT860 and CAT820 can be combined with the Flexdip CYH112 holder system to fit them into any installation situation.



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