



## Organic load under control

### Safe analysis of the chemical oxygen demand with Liquiline System CA80COD

The colorimetric analyzer is perfectly suited for environmental monitoring, industrial and municipal wastewater.

- Established COD dichromate method directly comparable to laboratory results
- Accurate measured values thanks to high-precision dosing via light barriers
- Safety on the highest level by software-controlled safety cover for the reactor and all heated parts
- Fast process integration: Self-priming version for direct installation or y-strainer for bypass applications
- Advanced diagnostics and process documentation with remote access to the analyzer
- Easy upgrade to a complete measuring station connecting Memosens sensors



## Optimize environmental monitoring



### Reliable assessment of the organic load

The chemical oxygen demand (COD) is the most commonly used parameter to determine the organic load of wastewater.

**Municipal wastewater treatment plants** The COD value is measured in the inlet and outlet

- to re-direct incoming water with high load into buffer basins
- to calculate the cleaning capacity of the plant

**Industrial wastewater treatment plants** COD is measured in the outlet to enable load-based billing for the dischargers and support the polluter-pays-principle.

### True COD values for highly accurate environmental monitoring

Liquiline System CA80COD is the right analyzer for those customers that require “true” online COD values to comply with regulations:

- The established dichromate COD method ensures consistent comparability to lab measurements.
- COD analyzers must capture particles of a defined size in order to gain accurate and correct results. Liquiline System is equipped with peristaltic pumps that are able to cope with those particles.
- The optional dilution module extends the measuring range to 40 mg/l to 20 000 mg/l O<sub>2</sub> COD for compliant and precise measurements in water with higher organic loads.
- Detailed logbooks enable consistent documentation of the COD values.

### Highest level of safety

Liquiline System CA80COD features a pressure reactor that ensures highest operational and occupational safety during thermal and chemical digestion.

- A precisely adjusted reactor temperature guarantees complete digestion of the sample.
- Its software-controlled safety cover prevents opening of the digestion reactor if it is too hot or under pressure. The reactor only heats up when the safety cover is in the correct position and the cover can only be removed for maintenance when the reactor is in a safe state.
- The optical dosing unit is equipped with an additional safety light barrier which takes over in case of a malfunction, ensuring the best level of reliability.

### Remote access as required

An integrated web server allows remote access to the analyzer. This enables you to analyze possible process disturbances and decide on required measures quickly. It also meets the increasing demand for quality assurance of field devices. The person in charge can remotely access all relevant analyzer parameters to assure that the transferred measuring data reflects the true process value.

## Decrease operating costs, simplify maintenance

### Precision starts with precise dosing

- Liquiline System CA80COD uses an optical dosing unit with a light barrier that guarantees precise and reproducible dosing of small volumes.
- One set of reagents lasts for 50 days.

### Uniform, intuitive operation of analyzers and transmitters

- Operation of Liquiline System is familiar because it is identical to the concept of other online analysis parameters, such as pH or chlorine. Operating errors are virtually eliminated.
- Extend your analyzer to a measuring station by connecting up to four Memosens sensors and thus reduce the investment costs for your plant.
- Integrate the analyzers seamlessly into your process control systems via Modbus, PROFIBUS DP, EtherNet/IP and web server communication.

### Liquiline System makes life easier for operators

**Automatic cleaning and calibration functions** Ensure that the analyzer works accurately and reliably over a long period without manual intervention.

**Simple maintenance** The modular design simplifies fast replacement of individual components and reduces stock costs:

- Bayonet locks of the peristaltic pumps enable hose exchange within minutes.
- The dilution module consists of the same components as the standard pumps for sampling.





Y-strainer

## Easy process integration

Liquiline System CA80COD offers two easy ways of integrating the sampling to draw homogeneous and representative samples.

**The self-priming version** extracts samples from an external collecting vessel.

**The optional Y-strainer** enables you to take samples directly from bypass pipes.

- It is easily integrated by its standard adhesive fitting (40 mm).
- It delivers representative samples thanks to the sample hose floating in the middle of the sample stream.
- Blocking is avoided because the fluidic movement removes particles.



Easy connection with M12 connector

### Easy connection of Memosens sensors

To be prepared for an especially easy upgrade to a measuring station, use the Liquiline System CA80COD with M12 connectors. With this analyzer version, Memosens sensors can simply be screwed into these M12 connections without any additional wiring or tools.