MEMO SENS

Process monitoring made easy with Liquiline® CM44P
Transmitter for Memosens® sensors and process photometers

Multiparameter transmitter for monitoring processes such as chromatography, fermentation and phase separation

- Makes it easier to set up complete measuring points for many industrial processes by combining process photometers with Memosens sensors

- Provides Liquiline transmitter flexibility with multiple I/O options and plug and play functionality for Memosens sensors

- Offers easy and reliable operation thanks to the large, graphical display and a uniform, user-friendly operating concept

- Enables seamless integration into your control systems thanks to digital fieldbus protocols

- Increases convenience through remote access via integrated web server

Endress+Hauser **EH**

People for Process Automation

User-friendly and easy

- The flexible Liquiline CM44P transmitter offers multichannel and multiparameter functionality with process photometers and Memosens sensors
- As with other products in the Liquiline platform, it provides significant I/O flexibility for adaptation to various applications

- Liquiline CM44P supports established digital fieldbus protocols which means it can be seamlessly integrated into your process system
- An optional web server allows you to remotely access the transmitter. You can use any web browser to call up measured values or diagnostic messages and configure the device.

i Liquiline CM44P adaptability

- Operate up to 2 process photometers and 4 Memosens sensors simultaneously
- 16 different parameters, e.g. UV, NIR/VIS, NIR absorption, turbidity, pH/ORP, conductivity, dissolved oxygen, etc.
- HART®, PROFIBUS®, Modbus® or EtherNet/IP™ fieldbus protocols

Cost-effective

Process photometers provide precise and reproducible measurement of absorption and turbidity. Their simple measuring principle and low cross-sensitivity to other process parameters open up a wide range of applications. Their hygienic designs make process photometers ideal for use in the Food & Beverages and Life Sciences industries. Their high temperature and pressure stability also make them suitable for Chemicals and Oil and Gas. Process photometers save you time and money.

- In-line measurement with continuous process data replaces time-consuming and resource-intensive sampling and measurement in the laboratory
- Product loss caused by contamination during sampling is eliminated
- The real-time measurement allows you to optimize process control
- No reagents are required
- Less maintenance thanks to easier calibration (EasyCal®) with certified calibration filters

The OUSAF44 UV sensor delivers fast and reliable process information that is fully consistent with laboratory results.

The OUSAF12/ OUSAF22 absorption sensors enable precise measurement of the absorption of a color wavelength or a qualitative analysis of the product and process.

The OUSBT66 sensor monitors cell growth, biomass processes and algae systems.

The OUSTF10 scattered light turbidity sensor delivers highly sensitive measurements of undissolved solids, emulsions and immiscible media.

OUSAF11 is a glass-free sensor for the in-line detection of changing phases and solids.

The perfect combination

Monitoring of your process quality was never this easy. Connect multiple quality control-related parameters to one Liquiline CM44P.

Chromatography

Combine the OUSAF44 process photometer with pH and conductivity measurement. This combination of sensors ensures accurate detection of the target product by means of UV measurement and verifies that the buffer quality in the column is correct, resulting in optimum product yield. Furthermore, the transition from product to cleaning phase is accurately detected, allowing you to optimize cleaning and flushing cycles in the column.

Fermentation

The combination of the OUSBT66 photometer with oxygen and pH measurements facilitates perfect growth conditions for the microorganisms at all times. Measurement of cell growth with the OUSBT66 also shows you when the fermentation has achieved the appropriate process phase resulting in optimal product yield.

Beer filtration

Combine the OUSTF10 process photometer with oxygen and pH measurement. Turbidity measurement with the OUSTF10 provides you with an accurate overview of the filtration process. Oxygen measurement indicates if oxygen has entered somewhere which would have an adverse effect on the taste of the beer. pH measurement provides information on the integrity of the cooling system.
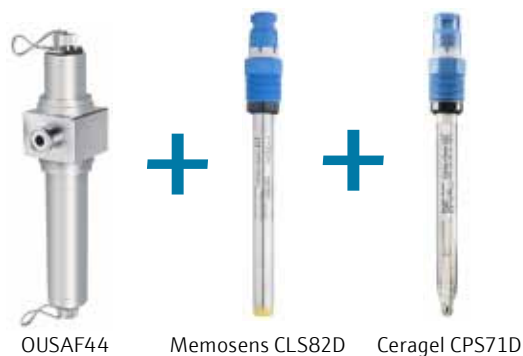
Filling

Combine the OUSAF22 process photometer with conductivity measurement. The OUSAF22 detects the spectrum of colors e.g. of different beers and, in conjunction with conductivity measurement, allows you to make an accurate distinction between different drinks so that errors are eliminated during the filling stage.

Liquiline CM44R

OUSAF44   Memosens CLS82D   Ceragel CPS71D

The perfect combination for monitoring chromatography

Calibration with EasyCal - NIST traceable system for online calibration of UV and solids flow through sensors

- Calibration of UV and solids flow
- Installs directly on sensor (OUSAF42, OUSAF44, OUSAF45 or OUSAF10)
- Most accurate liquid free method of calibration or calibration confirmation on the market
- Eliminates need for time consuming calibrations with toxic liquid standards
- Two NIST traceable, Inconel® coated Quartz neutral density filters provide two distinct calibration points for unprecedented accuracy and reproducibility
- Numerous wavelength options available to suit every application

Memosens:
ℹ The cutting-edge sensor technology

Memosens digitizes the measured value within the sensor and provides non-contact interference-free transfer to the transmitter. Since its introduction in 2004, it has become the worldwide leading standard in liquid analysis. Since then, a large portfolio of Memosens products enhances the safety, efficiency, transparency and quality of processes in all industries.

- Safe digital data transmission: inductive, corrosion-free, 100% reliable
- Easy-to-handle sensor connection
- Sensor head stores measurement data and sensor information for predictive maintenance
- Fast plug & play with pre-calibrated sensors
- International standard

MEMO⊗SENS

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