

# 1-/2-channel transmitter

## Liquiline CM442

Expandable multiparameter field device for all industries



More information and current pricing:

[www.uk.endress.com/CM442](http://www.uk.endress.com/CM442)

### Benefits:

- **Clever simplicity:**  
One controller for all parameters and applications, intuitive user interface, automatic sensor recognition, hot plug & play with pre-calibrated Memosens sensors.
- **High flexibility:**  
Universal modules for all parameters minimize spare part stock and allow for easy extension to up to 8 channels at any time.
- **Seamless system integration:**  
Unique portfolio of communication standards suits every distributed control system (DCS).
- **Simple and safe commissioning:**  
Saving configuration on SD card enables fast set-up on duplicate installations.
- **Process control from a distance:**  
Integrated web server that allows the operator to remotely view diagnostic data, perform configurations, or access device parameters in any web browser - even via Smartphone.
- **Higher availability, lower costs:**  
Heartbeat Technology enables status-oriented maintenance and easy verification of the entire measuring point and helps to carry out optimization measures.

### Specs at a glance

- **Input** 1 to 2x Memosens digital input 2x 0/4 to 20mA input optional 2x Digital input optional
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**Output / communication** 2 to 8x 0/4 to 20 mA current outputs  
Alarmrelay, 2x relay, ProfibusDP, Modbus RS485, Modbus TCP,  
Ethernet

- **Ingres protection** IP66 / IP67

**Field of application:** The Liquiline CM442 transmitter allows you to connect up to 2 Memosens sensors of your choice from over 12 measurement parameters. It offers automatic sensor recognition, easy operation, and standardized spare parts with all other devices of the Liquiline platform. With its inputs, outputs, controllers, and math modules, you can even control cleaning systems or dosing pumps. Heartbeat Technology helps you find the ideal balance between measuring point availability and maintenance costs.

## Features and specifications

pH

### Measuring principle

Potentiometric

### Application

Modular 4 wire controller

Multichannel: 1/2 digital channels for Memosens protocol

Multiparameter: pH, redox, ISFET, conductivity inductive and conductive, dissolved oxygen, nitrate and turbidity

Two sensors connectable in any combination

Functionality modular extendable at any time

Plug and play for modules and sensors

### Characteristic

Robust plastic housing

All non-ex applications

### Design

2x Memosens input, 2 to 4x current output, Alarmrelay,

2x relay, SD card for software update and copy & paste of setup

## pH

**Material**

Housing base: PC-FR

Housing seal: EPDM

**Dimension**

237 x 194 x 162 mm

9.33 x 7.64 x 6.38 inch

**Process temperature**

-20 to 60 °C (0 to 140 °F)

**Ingres protection**

IP66 / IP67

**Input**

1 to 2x Memosens digital input

2x 0/4 to 20mA input optional

2x Digital input optional

**Output / communication**

2 to 8x 0/4 to 20 mA current outputs

Alarmrelay, 2x relay, ProfibusDP, Modbus RS485, Modbus TCP, Ethernet

**Additional certifications**

EAC, cCSAus, MCERTS

## ORP / Redox

**Measuring principle**

Sensor ORP / Redox

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## ORP / Redox

**Characteristic**

Robust plastic housing  
All non-ex applications

**Design**

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2x relay, SD card for software update and copy & paste of setup

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Alarmrelay, 2x relay

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## Conductivity

**Measuring principle**

Conductive

## Conductivity

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2x relay, SD card for software update and copy & paste of setup

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Alarmrelay, 2x relay

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**Conductivity****Additional certifications**EAC, cCSAus, MCERTS

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**Oxygen****Measuring principle**Amperometric oxygen measurement

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Plug and play for modules and sensors

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**Characteristic**

Robust plastic housing

All non-ex applications

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**Design**

2x Memosens input, 2 to 4x current output, Alarmrelay

2x relay, SD card for software update and copy & paste of setup

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**Material**

Housing base: PC-FR

Housing seal: EPDM

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**Dimension**

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**Process temperature**-20 to 60 °C (0 to 140 °F)

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**Ingres protection**IP67

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## Oxygen

**Input**

1 to 2x Memosens digital input

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**Output / communication**

2 to 4x 0/4...20 mA current outputs

Alarmrelay, 2x relay

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**Additional certifications**

EAC, cCSAus, MCERTS

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## Disinfection

**Measuring principle**

Free chlorine

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Functionality modular extendable at any time

Plug and play for modules and sensors

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**Characteristic**

Robust plastic housing

All non-ex applications

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**Design**

2x Memosens input, 2 to 4x current output, Alarmrelay

2x relay, SD card for software update and copy & paste of setup

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**Material**

Housing base: PC-FR

Housing seal: EPDM

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**Dimension**

237 x 194 x 162 mm

9.33 x 7.64 x 7.38 inch

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## Disinfection

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**Process temperature**

-20 to 60 °C (0 to 140 °F)

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**Input**

1 to 2x Memosens digital input

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**Output / communication**

2 to 4x 0/4 to 20 mA current outputs  
Alarmrelay, 2x relay

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## Turbidity

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**Measuring principle**

Four beam alternating light

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**Material**

Housing base: PC-FR

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## Turbidity

**Dimension**

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IP66 / IP67

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**Input**

1 to 2x Memosens digital input  
2x 0/4 to 20mA input optional  
2x Digital input optional

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**Output / communication**

2 to 4x 0/4 to 20 mA current outputs,  
Alarmrelay, 2x relay

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## Sludge Level

**Measuring principle**

Ultrasonic sensor

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**Application**

Modular 4 wire controller  
Multichannel: 1/2 digital channels for Memosens protocol  
Multiparameter: pH, redox, ISFET, conductivity inductive and conductive,  
dissolved oxygen, nitrate and turbidity  
Two sensors connectable in any combination  
Functionality modular extendable at any time  
Plug and play for modules and sensors

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**Characteristic**

Robust plastic housing  
All non-ex applications

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## Sludge Level

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### Design

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### Output / communication

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Alarmrelay, 2x relay, ProfibusDP, Modbus RS485, Modbus TCP, Ethernet

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## Concentration

### Measuring principle

Fluorescence  
measurement

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## Analyser

### Measuring principle

UV photometric

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### Output / communication

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### Input

1 to 2x Memosens digital input

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