

# 1-/2-channel transmitter

## Liquiline CM442R

Compact multiparameter DIN-rail and cabinet device for all industries



More information and current pricing:

[www.jp.endress.com/CM442R](http://www.jp.endress.com/CM442R)

### Benefits:

- **Saves space, saves money:**  
Extremely small footprint, saves space in cabinets – perfect for skids.
- **High-speed installation:**  
No cut-out in cabinet door, one-click DIN-rail mounting, minimized wiring.
- **Simple and safe commissioning:**  
Saving configuration on SD card enables fast set-up on duplicate installations.
- **Easy to operate and service:**  
Intuitive user interface, hot plug & play with pre-calibrated Memosens sensors, universal components fit all parameters.
- **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
- **Output / communication** 2 to 8x 0/4 to 20 mA current outputs Alarmrelay, 2x relay, ProfibusDP, Modbus RS485, Modbus TCP, Ethernet
- **Ingres protection** Transmitter: IP20 Optional Display: IP66

**Field of application:** Liquiline CM442R allows you to connect up to 2 Memosens sensors of your choice from over 12 measurement parameters. With its extremely compact design, it fits into any cabinet - and even offers inputs, outputs, controllers, and math modules, e.g. for cleaning control. The transmitter belongs to the Liquiline platform with standardized system integration, operation, and spare parts. Heartbeat Technology helps you find the ideal balance between measurement 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

### Material

DIN rail housing: PC-FR

Display seal: EPDM

pH

**Dimension**

99 x 100 x 97 mm  
3.9 x 3.94 x 3.82 inch

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**Process temperature**

0 to 60 °C (32 to 140 °F)

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**Ingres protection**

Transmitter: IP20  
Optional Display: IP66

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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 8x 0/4 to 20 mA current outputs  
Alarmrelay, 2x relay, ProfibusDP, Modbus RS485,  
Modbus TCP, Ethernet

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**Additional certifications**

EAC, cCSAus

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ORP / Redox

**Measuring principle**

Sensor ORP / Redox

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Multiparameter: pH, redox, ISFET, conductivity inductive and conductive,  
dissolved oxygen, nitrate and turbidity  
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Plug and play for modules and sensors

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## ORP / Redox

**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**

DIN rail housing: PC-FR  
Display seal: EPDM

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**Dimension**

99 x 100 x 97 mm  
3.9 x 3.94 x 3.82 inch

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**Ingres protection**

Transmitter: IP20  
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## Conductivity

### Measuring principle

Conductive

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## Conductivity

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## Oxygen

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### Measuring principle

Amperometric oxygen measurement

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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

DIN rail housing: PC-FR  
Display seal: EPDM

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### Dimension

99 x 100 x 97 mm  
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## Oxygen

**Process temperature**

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**Output / communication**

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## Disinfection

**Measuring principle**

Total chlorine

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**Characteristic**

Robust plastic housing

All non-ex applications

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## Disinfection

**Material**

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Display seal: EPDM

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## Turbidity

**Measuring principle**

Single beam scattered light

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## Turbidity

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## Sludge Level

### Measuring principle

Ultrasonic sensor

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