1-/2-channel transmitter
Liquilíne CM442

Expandable multiparameter field device for all industries

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

More information and current pricing:
[www.endress.com/CM442](http://www.endress.com/CM442)
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

**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

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

- **Ingress protection** IP66 / IP67
**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)

**Ingress 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

**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
### ORP / Redox

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<th><strong>Characteristic</strong></th>
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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 |
| **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)                                |
| **Ingress protection**        | IP66 / IP67                                               |
| **Input**                     | 1 to 2x Memosens digital input                           |
| **Output / communication**    | 2 to 8x 0/4 to 20 mA current outputs                      |
|                              | Alarmrelay, 2x relay                                      |
| **Additional certifications** | EAC, cCSAus, MCERTS                                        |

### Conductivity

| **Measuring principle**       | Conductive                                               |
## Conductivity

### 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
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)  

### Ingress protection
IP66 / IP67  

### Input
1 to 2x Memosens digital input  

### Output / communication
2 to 8x 0/4 to 20 mA current outputs  
Alarmrelay, 2x relay
Conductivity

**Additional certifications**
EAC, cCSAus, MCERTS

Oxygen

**Measuring principle**
Amperometric oxygen measurement

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

**Material**
Housing base: PC-FR
Housing seal: EPDM

**Dimension**
237 x 194 x 162 mm
9.33 x 7.64 x 7.38 inch

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

**Ingress protection**
IP67
### Oxygen

**Input**
1 to 2x Memosens digital input

**Output / communication**
2 to 4x 0/4...20 mA current outputs
Alarmrelay, 2x relay

**Additional certifications**
EAC, cCSAus, MCERTS

### Disinfection

**Measuring principle**
Free chlorine

**Application**
Modular 4 wire controller
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**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**
Housing base: PC-FR
Housing seal: EPDM

**Dimension**
237 x 194 x 162 mm
9.33 x 7.64 x 7.38 inch
Disinfection

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

**Input**
1 to 2x Memosens digital input

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

**Additional certifications**
EAC, cCSAus, MCERTS

Turbidity

**Measuring principle**
Four beam alternating light

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

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Housing seal: EPDM
### Turbidity

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- 237 x 194 x 162 mm
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**Ingress protection**
- IP66 / IP67

**Input**
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- 2x 0/4 to 20mA input optional
- 2x Digital input optional

**Output / communication**
- 2 to 4x 0/4 to 20 mA current outputs,
- Alarmrelay, 2x relay

**Additional certifications**
- EAC, cCSAus, MCERTS

### Sludge Level

**Measuring principle**
- Ultrasonic sensor

**Application**
- Modular 4 wire controller
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- Two sensors connectable in any combination
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- Plug and play for modules and sensors

**Characteristic**
- Robust plastic housing
- All non-ex applications
Sludge Level

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Concentration

**Measuring principle**
Fluorescence measurement
**Analyser**

**Measuring principle**
UV photometric

**Characteristic**
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All non-ex applications

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