1-/2-channel transmitter
Liquiline 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
- **Output / communication** 2 to 8x 0/4 to 20 mA current outputs
  Alarmrelay, 2x relay
- **Ingress protection** IP66 / IP67

More information and current pricing:
www.endress.com/CM442
**Field of application:** Liquiline CM442 is a digital multiparameter transmitter for process monitoring and controlling in any application. The 1-/2-channel controller saves you time and money by offering seamless system integration, simple operation and a reduced need for spare part stock. Liquiline CM442 provides you with all the benefits of a best-in-class transmitter platform from clever simplicity to maximum process safety.

**Features and specifications**

### Conductivity

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

**Dimension**
- 237 x 194 x 162 mm
- 9.33 x 7.64 x 7.38 inch
### Conductivity

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

**Ingres 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

### 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, Alarmrelay
2x relay, SD card for software update and copy & paste of setup
Liquline CM442

Oxygen

**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)

**Ingres protection**
- IP67

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

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

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

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Sludge Level

**Measuring principle**
- Ultrasonic sensor

**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
### Sludge Level

| Characteristic       | Robust plastic housing  
<table>
<thead>
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<tbody>
<tr>
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<td>All non-ex applications</td>
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| Design               | 2x Memosens input, 2 to 4x current output, Alarmrelay  
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<tbody>
<tr>
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<td>2x relay, SD card for software update and copy &amp; paste of setup</td>
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| Material             | Housing base: PC-FR  
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<td>Housing seal: EPDM</td>
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| Dimension            | 237 x 194 x 162 mm  
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<td>9.33 x 7.64 x 7.38 inch</td>
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| Process temperature  | -20 to 60 °C (0 to 140 °F) |

| Ingress protection   | IP66 / IP67               |

| Input                | 1 to 2x Memosens digital input  
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<tr>
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<td>2x 0/4 to 20mA input optional</td>
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<td>2x Digital input optional</td>
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| Output / communication| 2 to 8x 0/4 to 20 mA current outputs  
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<td>Alarmrelay, 2x relay, ProfibusDP, Modbus RS485, Modbus TCP, Ethernet</td>
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</tbody>
</table>

| Additional certifications | EAC, cCSAus, MCERTS |

### Turbidity

| Measuring principle | Four beam alternating light |

Turbidity

**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**
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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)

**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 4x 0/4 to 20 mA current outputs,
Alarmrelay, 2x relay
Liquiline CM442

**Turbidity**

**Additional certifications**
EAC, cCSAus, MCERTS

**Disinfection**

**Measuring principle**
Free chlorine

**Application**
Modular 4 wire controller
Multichannel: 1/2 digital channels for Memosens protocol
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9.33 x 7.64 x 7.38 inch

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

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

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

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

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## Analyser

**Measuring principle**
- UV photometric

**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

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

**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

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

**Input**
- 1 to 2x Memosens digital input
**Measuring principle**
- Potentiometric

**Application**
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**Characteristic**
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**Design**
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**Material**
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**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**
- IP66 / IP67

**Input**
- 1 to 2x Memosens digital input
- 2x 0/4 to 20mA input optional
- 2x Digital input optional
### pH

**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

**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

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

**Ingres protection**
IP66 / IP67

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

**Output / communication**
2 to 8x 0/4 to 20 mA current outputs
Alarm relay, 2x relay

**Additional certifications**
EAC, cCSAus, MCERTS