

1-/2-channel transmitter

Liquiline CM442

Expandable multiparameter field device for all industries



More information and current pricing:

www.us.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
-

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

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

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)

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

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)

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

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, 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)

Ingres protectionIP67

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

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

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

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

Turbidity

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

Additional certifications

EAC, cCSAus, MCERTS

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

Characteristic

Robust plastic housing
All non-ex applications

Sludge Level

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)

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

Analyser

Measuring principle

UV photometric

Characteristic

Robust plastic housing
All non-ex applications

Analyser

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

More information www.us.endress.com/CM442