

# 1/2 채널 트랜스미터

## Liquiline CM442

모든 산업을 위한 확장형 멀티파라미터 현장 계기



추가 정보 및 현재 가격:

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

### 장점:

- **단순성:**  
한 컨트롤러를 모든 파라미터와 어플리케이션에서 사용, 직관적인 사용자 인터페이스, 자동 센서 인식, 사전 교정된 Memosens 센서를 통한 핫 플러그 앤 플레이 지원.
- **높은 유연성:**  
모든 파라미터를 지원하는 범용 모듈로 예비 부품 재고를 최소화하고 언제든지 8채널까지 손쉽게 확장할 수 있습니다.
- **완벽한 시스템 통합:**  
모든 분산 제어 시스템(DCS)에 적합한 고유한 통신 표준 포트폴리오.
- **간단하고 안전한 시운전:**  
SD 카드에 구성을 저장해 중복 설치에서 신속한 설정이 가능합니다.
- **원격 프로세스 제어:**  
통합 웹 서버를 통해 작업자가 웹 브라우저나 스마트폰에서 원격으로 진단 데이터를 확인하거나, 구성을 수행하거나, 계기 파라미터에 액세스할 수 있습니다.
- **가용성 향상, 비용 감소:**  
하트비트 기술(Heartbeat Technology)을 통해 상태 지향 유지보수를 수행하고, 손쉽게 전체 측정 개소를 검증하고, 최적화 조치를 취할 수 있습니다.

### 사양 정보

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

**적용 분야:** Liquiline CM442는 모든 어플리케이션의 프로세스 모니터링과 제어를 위한 디지털 멀티파라미터 트랜스미터로, 1/2채널 컨트롤러가 완벽한 시스템 통합과 간단한 작동을 지원해 시간과 비용을 절약하고 예비 부품 재고를 최소화할 수 있습니다. Liquiline CM442는 단순성에서 프로세스 안전성에 이르기까지 최고의 트랜스미터 플랫폼이 제공하는 모든 장점을 갖추고 있습니다.

## 특징 및 사양

### Sludge Level

#### 측정 원리

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

#### 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

## Sludge Level

**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

**측정 원리**

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 &amp; paste of setup

## ORP / Redox

**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

**Output / communication**

2 to 8x 0/4 to 20 mA current outputs  
Alarmrelay, 2x relay

**Additional certifications**

EAC, cCSAus, MCERTS

## Analyser

**측정 원리**

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)

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## Analyser

### 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

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## Oxygen

### 측정 원리

Amperometric oxygen measurement

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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

### 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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## 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

Alarmrelay, 2x relay

**Additional certifications**

EAC, cCSAus, MCERTS

## Disinfection

**측정 원리**

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

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**Disinfection****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

---

**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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**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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**Additional certifications**

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**pH****측정 원리**

Potentiometric

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## pH

**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 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



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pH

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**Additional certifications**

EAC, cCSAus, MCERTS

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Turbidity

**측정 원리**

Four beam alternating light

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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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**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

---

**Dimension**

237 x 194 x 162 mm

9.33 x 7.64 x 7.38 inch

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**Process temperature**

-20 to 60 °C (0 to 140 °F)

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**Ingres protection**

IP66 / IP67

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## Turbidity

### 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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### Additional certifications

EAC, cCSAus, MCERTS

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## Conductivity

### 측정 원리

Potentiometric

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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

---

### 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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## Conductivity

### Dimension

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

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### Process temperature

-20 to 60 °C (0 to 140 °F)

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### Ingres protection

IP66 / IP67

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### Input

1 to 2x Memosens digital input

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### Output / communication

2 to 8x 0/4 to 20 mA current outputs  
Alarmrelay, 2x relay

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### Additional certifications

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추가 정보 [www.kr.endress.com/CM442](http://www.kr.endress.com/CM442)