

# Technical Information

## Memocheck CYP02E

Service tool for fast checking of measuring systems



### Application

Memocheck CYP02E is a service tool for fast on-site checking of measuring systems incorporating Memosens technology.

Typical applications include:

- Installation check of transmitters with Memosens technology
- Fast configuration check of transmitter and process control system
- Troubleshooting by performing sensor simulation with fixed values

### Your benefits

- Increased plant safety thanks to sensor and error simulation
- Time savings thanks to quick and easy installation check during commissioning
- Quick and easy checking of transmitter and PLC configuration
- Robust sensor simulator for a variety of applications

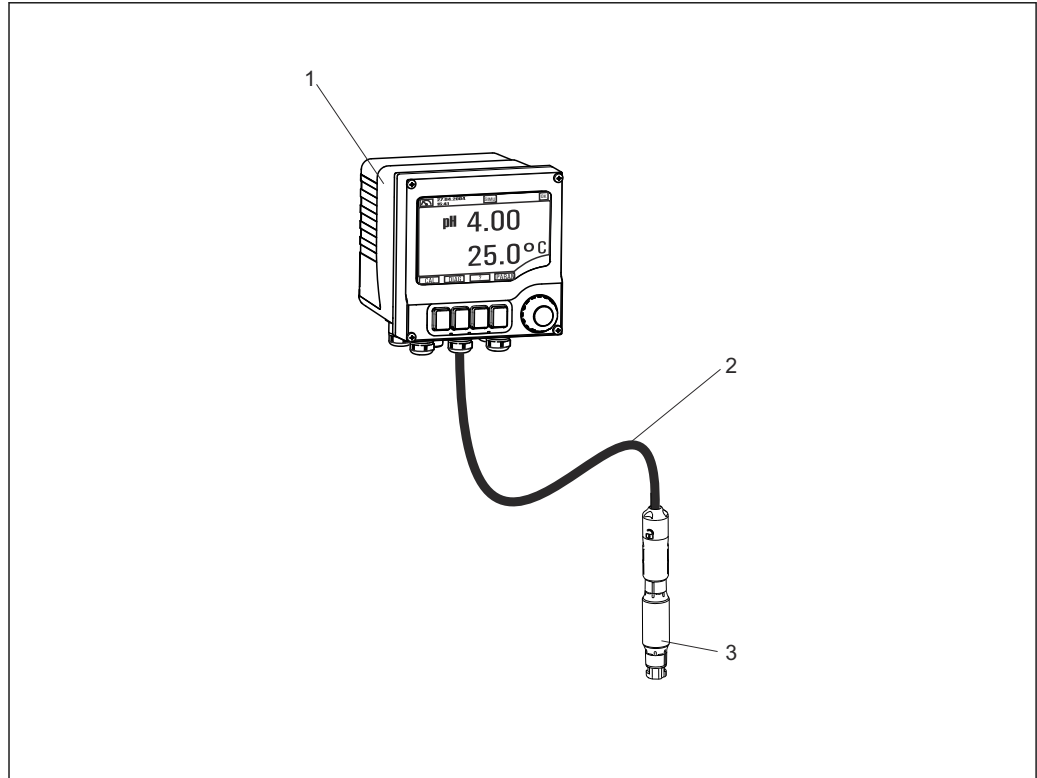
Other advantages provided by Memosens technology:

- No contact corrosion
- Water-tight (degree of protection IP65)
- No interference from external potential thanks to galvanic isolation of simulator and transmitter

## Function and system design

Sensor simulation in a complete measuring system consists of:

- Memocheck CYP02E
- Transmitter with Memosens technology, e.g. Liquiline M CM42 or Liquiline CM44x
- Memosens data cable CYK10



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1 Measuring system with Memocheck CYP02E

- 1 Liquiline M CM42 transmitter  
 2 Memosens data cable CYK10  
 3 Memocheck CYP02E

## Performance characteristics

Memocheck CYP02E consists of two interconnected sensor plug-in heads which are independent of one another, and which each supply one specific parameter. You can simulate the following values depending on your order:

*Simulation values output for pH glass and pH ISFET*

|          | Fixed simulation value | Temperature    |
|----------|------------------------|----------------|
| pH glass | 4                      | 25 °C (77 °F)  |
| pH ISFET | 7                      | 60 °C (140 °F) |

*Simulation values output for pH glass and pH glass*

|          | Fixed simulation value | Temperature    |
|----------|------------------------|----------------|
| pH glass | 4                      | 25 °C (77 °F)  |
| pH glass | 7                      | 60 °C (140 °F) |

*Simulation values output for pH glass and ORP*

|               | Fixed simulation value | Temperature    |
|---------------|------------------------|----------------|
| pH glass      | 4                      | 25 °C (77 °F)  |
| ORP potential | 750 mV                 | 90 °C (194 °F) |

*Simulation values output for pH glass and oxygen*

|          | Fixed simulation value | Temperature    |
|----------|------------------------|----------------|
| pH glass | 4                      | 25 °C (77 °F)  |
| Oxygen   | 60 nA <sup>1)</sup>    | 60 °C (140 °F) |

1) Sensor current

*Simulation values output for pH glass and conductive measurement of conductivity*

|              | Fixed simulation value | Temperature    |
|--------------|------------------------|----------------|
| pH glass     | 4                      | 25 °C (77 °F)  |
| Conductivity | 20 µS/cm               | 60 °C (140 °F) |

*Simulation values output for pH glass and chlorine*

|          | Fixed simulation value | Temperature   |
|----------|------------------------|---------------|
| pH glass | 4                      | 25 °C (77 °F) |
| Chlorine | 60 nA <sup>1)</sup>    | 25 °C (77 °F) |

1) Sensor current

The data listed above are displayed on the transmitters.

Memocheck CYP02E is maintenance-free.

## Environment

Ambient temperature range –15 to 70 °C (5 to 158 °F)

Storage temperature range –15 to 70 °C (5 to 158 °F)

Degree of protection IP65

Electromagnetic compatibility Interference emission and interference immunity as per EN 61326-1:2013, Class A for Industry

## Process

Process conditions

**NOTICE**

**Memocheck CYP02E is not suitable for use directly in the process.**

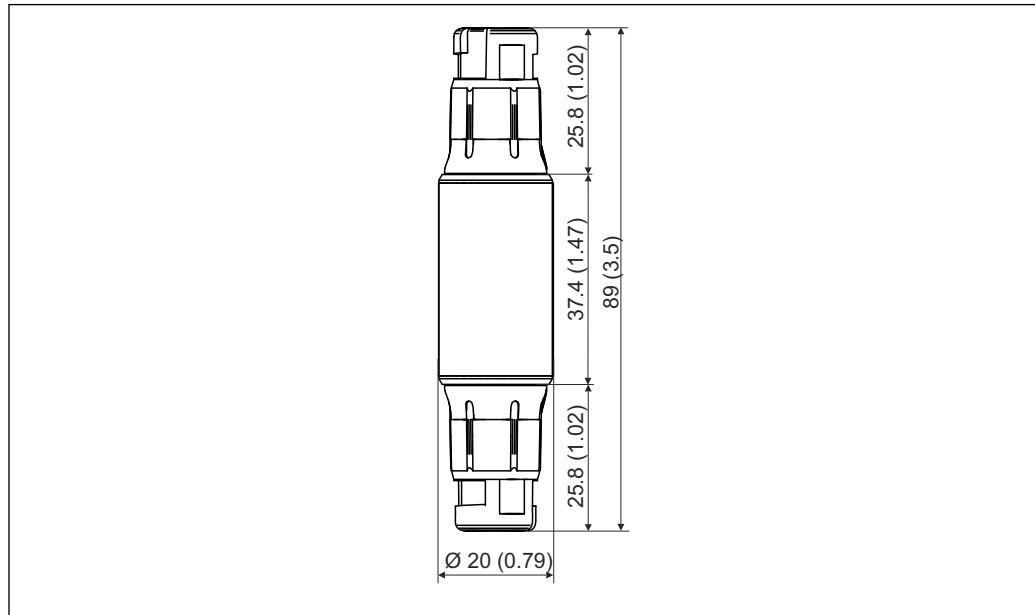
The device can be damaged or destroyed in the process.

► Only use the device to simulate measured values outside the process!

The sensor simulators must not be operated under electrostatically critical process conditions. Avoid strong steam or dust currents that act directly on the connection system.

## Mechanical construction

### Dimensions



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2 Dimensions in mm (in)

**Weight** 40 g

**Materials** White plastic: PET  
Blue plastic: PPS GF 40

## Certificates and approvals

**CE mark** The product meets the requirements of the harmonized European standards. As such, it complies with the legal specifications of the EU directives. The manufacturer confirms successful testing of the product by affixing to it the **CE** mark.

### Hazardous area approvals

**ATEX**  
II 2G Ex ia IIC T6 Gb

**IECEX**  
Ex ia IIC T6 Gb

**NEPSI**  
NEPSI Ex ia IIC T6 Gb

**CSA C/US**

- CSA C/US IS Cl. I Div. 1 GP A-D T6
- CSA C/US IS Cl. I Zone 0 AEx ia IIC T6

**Japan Ex**  
JPN Ex ia IIC T6 Gb

**INMETRO**  
INMETRO Ex ia IIC T6 Gb



Ex versions of digital sensor simulators with Memosens technology are identified by an orange-red ring on the plug-in head.

## Ordering information


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**Product page** [www.endress.com/CYP02E](http://www.endress.com/CYP02E)

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**Product Configurator** On the product page there is a **Configure** button to the right of the product image.

1. Click this button.
  - ↳ The Configurator opens in a separate window.
2. Select all the options to configure the device in line with your requirements.
  - ↳ In this way, you receive a valid and complete order code for the device.
3. Export the order code as a PDF or Excel file. To do so, click the appropriate button on the right above the selection window.

 For many products you also have the option of downloading CAD or 2D drawings of the selected product version. Click the **CAD** tab for this and select the desired file type using picklists.

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**Scope of delivery** **Memocheck Plus CYP02E**

- 1 Memocheck CYP02E with 2 plug-in heads
- 1 x Operating Instructions

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## Accessories

The following are the most important accessories available at the time this documentation was issued.

- ▶ For accessories not listed here, please contact your Service or Sales Center.
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**Measuring cable** **Memosens data cable CYK10**

- For digital sensors with Memosens technology
- Product Configurator on the product page: [www.endress.com/cyk10](http://www.endress.com/cyk10)

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**Memosens laboratory cable CYK20**

- For digital sensors with Memosens technology
- Product Configurator on the product page: [www.endress.com/cyk20](http://www.endress.com/cyk20)

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[www.addresses.endress.com](http://www.addresses.endress.com)

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