

# Digital pH sensor Memosens CPS71E

## Memosens 2.0 pH electrode for chemical processes and poisoning media



More information and current pricing:

[www.be.endress.com/CPS71E](http://www.be.endress.com/CPS71E)

### Benefits:

- The electrode's unique ion trap prevents poisoning of the junction and reference, making it resistant to strong acids and bases and ensuring a long sensor lifetime.
- The optional pressurized reference allows for reliable measurement in blocking media such as dispersions.
- Flexible installation thanks to optional upside-down mounting
- Inductive cable connection and non-contact signal transmission eliminate any problems due to moisture or corrosion and increase process integrity.
- Fast sensor exchange on site reduces process downtime and operating costs.
- Memosens 2.0 digital technology makes trend identification and predictive maintenance possible thanks to its extended storage of calibration and process data. The technology paves the way for advanced IIoT services.

### Specs at a glance

- **Measurement range** Application B: ▪ pH: 0 to 14 Application H: ▪ pH: 0 to 12
- **Process temperature** 1 to 140 °C (32 to 284 °F)
- **Process pressure** 0,8 to 14 bar (11,6 to 203 psi) (absolute)

**Field of application:** Memosens CPS71E is specially designed for demanding processes. Its unique, contamination-resistant reference and its resistance to moisture ensure reliable measurement even in heavily polluted, aggressive media such as strong acids and bases. Thanks to Memosens 2.0 digital technology, CPS71E offers extended storage of calibration and process data providing the perfect basis for predictive

maintenance. Pre-calibration in the lab and quick sensor exchange on site maximize process uptime.

## Features and specifications

pH

### Measuring principle

Potentiometric

### Application

Process technology and monitoring of processes with:

- Rapidly changing pH values
- High proportion of electrode poisons such as H<sub>2</sub>S

### Characteristic

Digital pH electrode for chemical process with an ion trap for poison-resistant reference

### Measurement range

Application B:

- pH: 0 to 14

Application H:

- pH: 0 to 12

### Measuring principle

Gel compact electrode with ceramic junction and ion trap

### Design

All shaft lengths with temperature sensor

Advanced gel technology

### Material

Sensor shaft: Glass to suit process

pH membrane glass: Type B, Type N

Metal lead: Ag/AgCl

Open aperture: Ceramic junction, zirconium dioxide

O-ring: FKM

Process coupling: PPS fiber-glass reinforced

Nameplate: Ceramic metal oxide

pH

**Dimension**

Diameter: 12 mm (0.47 inch)  
Shaft lengths: 120, 225, 360 and 425 mm  
(4.72, 8.86, 14.2 and 16.7 inch)

**Process temperature**

1 to 140 °C (32 to 284 °F)

**Process pressure**

0,8 to 14 bar (11,6 to 203 psi) (absolute)

**Temperature sensor**

NTC 30k

**Ex certification**

With ATEX, IECEx, CSA C/US, NEPSI, Japan Ex and INMETRO approvals for use in hazardous areas Zone 0, Zone 1 and Zone 2.

**Connection**

Inductive, contactless connection head with Memosens 2.0 technology

**Ingres protection**

IP68

**Additional certifications**

Additional certifications

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