

# Digital ORP sensor Memosens CPS12E

Memosens 2.0 ORP electrode for standard applications in process and water & wastewater industries



More information and current pricing:

[www.th.endress.com/CPS12E](http://www.th.endress.com/CPS12E)

## Benefits:

- Robust, low maintenance ORP sensor: Large, dirt-repellent PTFE junction protects from soiling by the medium. Long poison diffusion path prevents poisoning of the electrode reference.
- Suitable for harsh applications: Gold pin or platinum cap cover the full range of oxidizing or reducing media. Shaft glass ensures high chemical stability. The sensor is pressure stable up to 17 bar (246.5 psi) absolute.
- Memosens 2.0 technology enables the sensor to store more process and calibration data. It lays the basis for IIoT services and predictive maintenance.
- Extremely reliable measurement with non-contact, inductive signal transmission results in increased process safety.
- Lab calibration and fast sensor replacement on site allow for minimized process downtimes, reducing operating costs.

## Specs at a glance

- **Measurement range** -1500 mV to +1500 mV
- **Process temperature** -15 to 135 °C (5 to 275 °F)
- **Process pressure** 0.8 to 17 bar (11.6 to 246.5 psi) absolute

**Field of application:** Memosens CPS12E is the digital all-round ORP sensor. It measures reliably even in harsh applications or hazardous areas. Designed for low maintenance and a long operating life, the ORP sensor offers you best value for money. Memosens CPS12E features Memosens 2.0 digital technology that provides the perfect basis for predictive maintenance thanks to extended storage of calibration and

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process data. The plug & play principle of Memosens allows for easy operation and more process uptime.

## Features and specifications

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### ORP / Redox

**Measuring principle**

Sensor ORP / Redox

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**Application**

Long-term monitoring and limit control in processes with stable process conditions

Water treatment

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**Characteristic**

Digital ORP sensor for standard applications in process technology and environmental engineering with dirt-repellent PTFE junction and integrated temperature sensor

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**Measurement range**

-1500 mV to +1500 mV

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**Measuring principle**

Gel compact electrode with teflon junction and double gel reference  
Measuring part as gold-pin or platinum ring

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**Design**

All shaft lengths with temperature sensor

Advanced gel technology

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**Material**

Sensor shaft: Glass to suit process

ORP measuring element: Platinum or gold

Metal lead: Ag/AgCl

Aperture: Ring-shaped PTFE diaphragm, sterilizable

O-ring: FKM

Process coupling: PPS fibre-glass reinforced

Nameplate: ceramic metal oxide

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## ORP / Redox

**Dimension**

Diameter: 12 mm (0.47 inch)  
Shaft lengths: 120, 225 and 360 mm  
(4.72, 8.86 and 14.17 inch)

**Process temperature**

-15 to 135 °C  
(5 to 275 °F)

**Process pressure**

0.8 to 17 bar (11.6 to 246.5 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, digital connection head with Memosens 2.0 technology

**Ingres protection**

IP68

**Additional certifications**

Additional certifications

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