

## Digital combined pH/ORP sensor Memosens CPS96E

Memosens 2.0 electrode for heavily polluted media in chemical processes, paper or paint production



More information and current pricing:

[www.at.endress.com/CPS96E](http://www.at.endress.com/CPS96E)

### Benefits:

- Memosens 2.0 offers extended storage of calibration and process data, enabling better trend identification and offering a future-proof basis for predictive maintenance and enhanced IIoT services.
- Simultaneous measurement of pH, ORP and rH values (in rH mode) provides a better process overview for tighter process control.
- Additional platinum electrode enables constant monitoring of reference impedance and thus sensor quality.
- Robust and resistant to poisoning thanks to stabilized gel and reference with ion trap.
- Not affected by fluctuations in pressure and temperature: Open aperture prevents build-up of diffusion potential at the junction.
- Maximum process safety through non-contact inductive signal transmission.
- Minimized process downtime and extended sensor lifetime reduce operating costs.

### Specs at a glance

- **Measurement range** ORP: -1 500 to 1 500 mV pH: 0 to 14
- **Process temperature** 0 to 110 °C (32 to 230 °F)
- **Process pressure** 0.8 to 14 bar (11.6 to 203 psi) absolute

**Field of application:** Memosens CPS96E is the specialist for media with a high content of suspended solids such as dispersions, precipitations or emulsions. The open aperture prevents fouling and ensures reliable simultaneous pH and ORP measurement. Thanks to Memosens 2.0 digital technology, CPS96E combines maximum process integrity with simple operation. It resists moisture, enables lab calibration and offers

extended storage of calibration and process data providing the perfect basis for predictive maintenance.

## Features and specifications

pH

### Measuring principle

Potentiometric

### Application

pH / ORP sensor for heavily contaminated media and suspended solids

- Chemical processes
- Pulp and paper industry
- Flue gas cleaning
- Contaminated media:
  - Solids
  - Emulsions
  - Precipitation reactions

### Characteristic

Gel pH/ORP electrode with open aperture and double gel reference with ion trap for chemical applications

### Measurement range

ORP: -1 500 to 1 500 mV

pH: 0 to 14

### Measuring principle

Pt-disc as additional ORP element

rH measurement and control of the reference impedance

### Design

All shaft lengths with temperature sensor

Advanced gel technology

Hydrolysis stable gel

pH

**Material**

Sensor shaft: Glass to suit process  
pH membrane glass: Type B  
Metal lead: Ag/AgCl  
ORP measuring element: Platinum  
O-ring: FKM  
Process coupling: PPS fiber-glass reinforced  
Nameplate: Ceramic metal oxide

**Dimension**

Diameter: 12 mm (0.46 inch)  
Shaft lengths: 120, 225, 360 and 425 mm  
(4.68, 8.77, 14.04 and 16.57 inch)

**Process temperature**

0 to 110 °C (32 to 230 °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, digital connection head with Memosens 2.0 technology

**Ingres protection**

IP68

ORP / Redox

**Measuring principle**

Sensor ORP / Redox

---

## ORP / Redox

### Application

pH / ORP sensor for heavily contaminated media and suspended solids

- Chemical processes
  - Pulp and paper industry
  - Flue gas cleaning
  - Contaminated media:
    - Solids
    - Emulsions
    - Precipitation reactions
- 

### Characteristic

Gel pH/ORP electrode with open aperture and double gel reference with ion trap for chemical applications

---

### Measurement range

ORP: -1 500 to 1 500 mV

pH: 0 to 14

---

### Measuring principle

Pt-disc as additional ORP element

rH measurement and control of the reference impedance

---

### Design

All shaft lengths with temperature sensor

Advanced gel technology

Hydrolysis stable gel

---

### Material

Sensor shaft: Glass to suit process

pH membrane glass: Type B

Metal lead: Ag/AgCl

ORP measuring element: Platinum

O-ring: FKM

Process coupling: PPS fiber-glass reinforced

Nameplate: Ceramic metal oxide

---

## ORP / Redox

**Dimension**

Diameter: 12 mm (0.46 inch)  
Shaft lengths: 120, 225, 360 and 425 mm  
(4.68, 8.77, 14.04 and 16.57 inch)

**Process temperature**

0 to 110 °C (32 to 230 °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, digital connection head with Memosens 2.0 technology

**Ingres protection**

IP68

More information [www.at.endress.com/CPS96E](http://www.at.endress.com/CPS96E)