Digital ORP sensor
Memosens CPF82E

Memosens 2.0 compact electrode for wastewater, mining, minerals and metal industries

Benefits:
- Memosens 2.0 offers extended storage of calibration and process data, enabling better trend identification and providing a future-proof basis for predictive maintenance and enhanced IIoT services.
- Long time stable: Double junction provides better protection against electrode poisoning ions such as $\text{S}^{2-}$ or $\text{CN}^-$.  
- Robust polymer housing protects against mechanical damage.
- The sensor is suitable for flow and immersion installation
- Non-contact, inductive signal transmission maximizes process safety.
- Minimum process downtime and extended sensor lifetime reduce operating costs.

Specs at a glance
- **Measurement range** -1500mV to +1500mV
- **Process temperature** 0 to 80 °C (32 to 170 °F)
- **Process pressure** 1 to 10 bar abs at 80 °C (15 to 145 psi abs at 176 °F)

Field of application: Memosens CPF82E is the digital, robust solution for ORP measurement in harsh environments. Its large, dirt-repellent PTFE junction guarantees low maintenance while its integrated assembly offers easy and compact installation. Thanks to Memosens 2.0 digital technology, CPF82E 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.

More information and current pricing: [www.endress.com/CPF82E](http://www.endress.com/CPF82E)
### Features and specifications

#### ORP / Redox

**Measuring principle**
Sensor ORP / Redox

**Application**
Flotation, leaching, neutralization, outlet monitoring

**Characteristic**
Resistent against electrolyte poisoning and dirt repellent gel-electrode including process connection NPT 3/4"

**Measurement range**
-1500mV to +1500mV

**Measuring principle**
Gel-compact electrode with double chamber reference system, potassium nitrate bridge electrolyte and PTFE-diaphragm, platinum ring

**Design**
Compact electrode in PPS housing with NPT3/4" process connection

**Material**
- Housing: PPS
- ORP electrode: platinum ring
- Double chamber reference system: KNO3 and KCl/AgCl

**Dimension**
- Diameter: 22 mm (0.87 inch)
- Length: 150 mm (5.91 inch)

**Process temperature**
0 to 80 °C (32 to 170 °F)

**Process pressure**
1 to 10 bar abs at 80 °C
(15 to 145 psi abs at 176 °F)
**ORP / Redox**

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<tr>
<th>Temperature sensor</th>
<th>NTC</th>
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<tr>
<th>Ex certification</th>
<th>(optional) FM IS NI Cl. I Div.1&amp;2, Groups A-D</th>
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<tr>
<th>Connection</th>
<th>Process connection: NPT 3/4&quot; Memosens plug</th>
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<th>Ingress protection</th>
<th>IP 68</th>
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