

Digital pH sensor Memosens CPF81E

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 S^{2-} or CN^- .
- Robust polymer housing protects against mechanical damage.
- Optional flat membrane makes the sensor suitable for high flow rates and abrasive media.
- Non-contact, inductive signal transmission ensures maximum process safety.
- Maximum process uptime and extended sensor lifetime reduce operating costs.

More information and current pricing:

www.us.endress.com/CPF81E

Specs at a glance

- **Measurement range** pH 0 to 14
- **Process temperature** Version LH: 0 to 110 °C (32 to 230 °F)
Version NN: 0 to 80 °C (32 to 170 °F)
- **Process pressure** 1 to 10 bar abs at 80 °C (15 to 145 psi at 176 °F)

Field of application: Memosens CPF81E is the digital, robust solution for harsh environments. It measures reliably and accurately even in abrasive media and at high flow rates. With its integrated assembly, the electrode saves installation space. Thanks to Memosens 2.0 digital technology, CPF81E combines maximum process integrity with simple operation. It resists moisture and enables lab calibration. It offers extended storage of

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

Features and specifications

pH

Measuring principle

Potentiometric

Application

Flotation, leaching, neutralization, outlet monitoring

Characteristic

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

Measurement range

pH 0 to 14

Measuring principle

Gel-compact electrode with double chamber reference system, kalium nitrate bridge electrolyte and PTFE-diaphragm

Design

Compact electrode in PPS housing with NPT 3/4" process connection

Material

Housing: PPS

pH electrode: lead-free membrane glass

Double chamber reference system: KNO₃ and KCl/AgCl

Dimension

Diameter: 22 mm (0.87 inch)

Length (protction guard, long shaft): 150 mm (5.91 inch)

Length (flat membrane): 140 mm (5.51 inch)

Process temperature

Version LH: 0 to 110 °C (32 to 230 °F)

Version NN: 0 to 80 °C (32 to 170 °F)

pH

Process pressure

1 to 10 bar abs at 80 °C
(15 to 145 psi at 176 °F)

Temperature sensor

Pt1000

Ex certification

(optional) FM IS NI Cl. I Div.1&2, Groups A-D

Connection

Memosens plug

Ingres protection

IP68

More information www.us.endress.com/CPF81E