Digital pH sensor Memosens CPS91E

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

More information and current pricing:
www.at.endress.com/CPS91E

Benefits:

- Reliable measurement in heavily soiled media: Open aperture cannot be blocked by fibres or suspended solids.
- Not affected by fluctuations in pressure and temperature: Thanks to open aperture no diffusion potential can build up at the junction.
- Stabilized gel filling allows for low maintenance and a long sensor lifetime.
- 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.
- Non-contact, inductive signal transmission eliminates disturbances caused by moisture or corrosion, ensuring highest process safety.
- Lab calibration and quick sensor exchange in the process maximize process uptime and reduce operating costs.

Specs at a glance

- **Measurement range** 1 to 14 pH
- **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 CPS91E is equipped with Memosens 2.0 digital technology, offering enhanced data storage for predictive maintenance and IIoT. The sensor features an open aperture that prevents fouling and ensures the most reliable measurement in fibrous media or media with a high content of suspended solids such as dispersions, precipitations or emulsions. Memosens CPS91E is

completely resistant to moisture and can be pre-calibrated in the lab which facilitates operation and improves process integrity.

Features and specifications

pH

Measuring principle
Potentiometric

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

Characteristic
Digital pH electrodes with open aperture for contaminated media and integrated temperature sensor

Measurement range
1 to 14 pH

Measuring principle
Gel compact electrode wit open aperture and double gel reference

Design
All shaft lengths with temperature sensor
Advanced gel technology

Material
Sensor shaft: Glass to suit process
pH membrane glass:Type B
Metal lead: Ag/AgCl
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, 14.17 and 16.73 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, contactless connection head with Memosens 2.0 technology

Ingres protection
IP68

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