Digital non-glass pH sensor Memosens CPS47E

Memosens 2.0 ISFET pH electrode for the chemical, life sciences and food industries



More information and current pricing:
www.endress.com/CPS47E

Benefits:

- IIoT ready: 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.
- Unbreakable: Non-glass PEEK body ensures highest product safety where glass breakage is intolerable.
- Resistant to poisoning: Constant refilling of KCl bridge electrolyte and separate reference lead prevent poisoning ions from entering the electrode.
- The sensor is suitable for autoclaving and sterilization with hot steam offering long-term stable measurement.
- Low maintenance: ISFET technology is insensitive to temperature changes enabling long calibration intervals
- Maximum process safety: Thanks to non-contact, inductive signal transmission, problems with moisture are a thing of the past.
- Reduced operating costs: Laboratory calibration and fast sensor exchange on-site minimize process downtime and extend sensor lifetime

Specs at a glance

- **Measuring range** pH 0 to 14
- **Process temperature** -15 to 135 °C (5 to 275 °F)
- **Process pressure** Max. 11 bar abs at 100 °C (max. 160 psi at 212 °F)

Field of application: Memosens CPS47E is the high performer with liquid KCl reference for media with low conductivity or high organic load. It measures accurately even in applications with fast-changing media. Its

unbreakable shaft ensures best product safety. Thanks to Memosens 2.0 digital technology, the pH sensor resists moisture and enables lab calibration, increasing process safety and simplifying operation. Its extended storage of calibration and process data provides a perfect basis for predictive maintenance.

Features and specifications

pH

Measuring principle
ISFET

Application
For applications requiring high accuracy in blocking media or high content of organic solvents

Characteristic
Digital, sterilizable and autoclavable pH electrodes for hygienic production processes with KCl vessel for measuring in media with low conductivity

Reference
Liquid KCl

Measuring range
pH 0 to 14

Measuring principle
Measuring principle

Design
Design

pH

Material
Sensor shaft: PEEK
Sealings: FFKM
Metal lead: Ag/AgCl
Open aperture: Ceramic junction, zirconium dioxide
O-ring: FKM
Process coupling: PPS fiber-glass reinforced
Nameplate: Ceramic metal oxide

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
Max. 11 bar abs at 100 °C (max. 160 psi at 212 °F)

Temperature sensor
Pt1000

Ex certification
With the following approvals for use in potentially explosive areas of Zone 0, Zone 1 and Zone 2: ATEX, IECEx, CSA C / US, NEPSI, JPN Ex, INMETRO,
UKCA and Korea Ex

Connection
Inductive, contactless connection head with Memosens 2.0 technology

Ingress protection
IP 68

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