

SE 555 pH Sensor



pH Sensor for Aggressive Media & High Temperatures

The SE 555 Memosens pH sensor is ideal for use in a wide range of applications. The sensor is designed to withstand extreme pH ranges, aggressive media, and applications requiring frequent CIP or SIP cleaning. An integrated NTC 30K temperature element assures that all pH measurements are accurately compensated for the temperature of the process media. The pressurized reference system, along with the Silamid reference electrode, help to extend time between calibrations

and reduce sensor replacement frequency. With the integration of Memosens technology, the SE 555 provides for a significant reduction in overall cost of ownership.

The SE 555 is suitable for use with any Memosens transmitter. When paired with the Stratos Pro transmitter, it provides for a robust solution in Class 1, Division 1 rated areas.

QUICK SPECS

Range: 0 ... 14 pH

Temperature: 32 ... 284°F (0 ... 140°C)

Pressure: -14 ... 87 psig (-1 ... 6 bar)

Sensor Material: Special pH glass for high temperatures & pH values

Diaphragm/Junction: Ceramic

Electrolyte: Gel

Reference Electrode: Ag/Ag Cl — Silamid®

Approvals: cFMus Cl 1 Div 1 groups A–D

TYPICAL APPLICATIONS

- Extreme pH values
- Aggressive media
- Processes requiring cleaning and sterilization (CIP and SIP)
- Scrubbers
- Fermentation
- Food and Beverage
- Chemical
- BioPharma

SE 555 PH SENSOR ANATOMY

SENSOR HEAD

Memosens Digital Sensing Technology

Memosens sensors provide several benefits with regard to ease of use and reduction of operating costs:

- Submersible inductive connection removes measurement influence from moisture and humidity that are commonly present in process applications.
- Galvanically isolated so there is no measurement influence from noise or ground loops. This is especially beneficial when using plastic holders.
- Calibration and diagnostics can be performed in the shop or lab. This reduces field maintenance time and process down time.

REFERENCE ELECTRODE

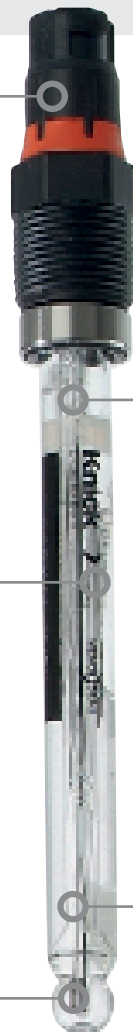
Ag/Ag Cl – Silamid®

The Silamid reference electrode is constructed using a glass tube internally lined with silver and packed with silver chloride powder. A polyester fiber plug is added as an additional barrier to prevent poisoning and extend sensor life.

SENSOR MATERIAL

Omega pH glass

Omega hydrogen sensitive glass is designed for use in applications requiring fast response time in high temperature and high pH environments.



ELECTROLYTE

Gel Electrolyte

Gel electrolyte does not require refilling, making this sensor a low-maintenance solution.

DIAPHRAGM/JUNCTION

Ceramic

Robust and corrosion resistant design. The density of a ceramic junction allows for the reference system to be pressurized. This slows the fouling/poisoning of the reference system, extending time between calibrations and reducing sensor replacement frequency.