

## New generation of glass-free pH sensors with improved CIP stability

With the new generation of unbreakable ISFET sensors, Endress+Hauser is setting new standards for glass-free pH measurement. The ISFET sensors made of unbreakable PEEK offer maximum product safety, accuracy and much improved CIP stability.

### **Glass-free and unbreakable**

ISFET pH sensors can be used in any applications where glass PH sensors are not desirable due to challenging process conditions or risk of breakage. The use of glass sensors is avoided especially in applications in the food and beverages or life sciences industries, since entire production batches could become contaminated in the event of glass breakage. The ISFET sensors made of unbreakable PEEK are available with three different reference systems, which means that there is a glass-free sensor to suit every requirement.

### **Certified hygienic design**

The new ISFET sensors, Memosens CPS47D and CPS77D, are perfectly equipped to meet the strict demands of hygienic applications. Thanks to their new design with an increased chip surface, they are even easier to clean than their predecessors. They deliver stable and reproducible measured values, even after sterilization and autoclaving up to temperatures of 135°C, come with all the usual hygiene approvals for the food and life sciences industries, such as USP, EHEDG and 3A, and are TSE-/BSE-free. They can outlast at least 25 CIP cycles and have therefore significantly improved CIP stability compared to conventional ISFET sensors. In addition, the Memosens CPS77D offers maximum bacteria tightness thanks to its microporous ceramic diaphragm.

### **Fast response time—even at low temperatures**

Chemical processes at low temperatures and where there is a high proportion of organic solvents or solids, pose specific challenges for pH measurement. Even at low temperatures, ISFET sensors such as the Memosens CPS97D have a fast response time and are chemically stable thanks to their PEEK stem. Also, their open diaphragm means that they do not become clogged even in the case of high solids concentrations. The firm gel used in the reference is also extremely resistant to chemicals.

### **Easy handling, high level of process safety**

The digital ISFET sensors with Memosens technology store calibration, sensor and process data. A significant increase in process safety can be achieved through combining the Liquiline platform with efficient sensor management by Memosens Plus software. Using Memobase Plus software, the sensors can be calibrated and regenerated under optimum conditions in a lab. This not only increases the operating life of the sensors, but also makes commissioning and maintenance considerably easier and reduces process downtime to a minimum. The stored data can also be used for predictive maintenance and process optimization.



**Picture: Memosens CPS77D\_product picture.jpg**

Memosens CPS77D, the pH sensor for the food and life science industries, offers six times greater CIP stability than other ISFET sensors.

## **The Endress+Hauser Group**

Endress+Hauser is a global leader in measurement instrumentation, services and solutions for industrial process engineering. The Group employs approximately 14,000 personnel across the globe, generating net sales of over 2.4 billion euros in 2018.

## **Structure**

With dedicated sales centers and a strong network of partners, Endress+Hauser guarantees competent worldwide support. Our production centers in 12 countries meet customers' needs and requirements quickly and effectively. The Group is managed and coordinated by a holding company in Reinach, Switzerland. As a successful family-owned business, Endress+Hauser is set for continued independence and self-reliance.

## **Products**

Endress+Hauser provides sensors, instruments, systems and services for level, flow, pressure and temperature measurement as well as analytics and data acquisition. The company supports customers with automation engineering, logistics and IT services and solutions. Our products set standards in quality and technology.

## **Industries**

We work closely with the chemical, petrochemical, food & beverage, oil & gas, water & wastewater, power & energy, life science, primaries & metal, renewable energies, pulp & paper and shipbuilding industries. Endress+Hauser supports its customers in optimizing their processes in terms of reliability, safety, economic efficiency and environmental impact.

## **History**

Founded in 1953 by Georg H Endress and Ludwig Hauser, Endress+Hauser has been solely owned by the Endress family since 1975. The Group has developed from a specialist in level measurement to a provider of complete solutions for industrial measuring technology and automation, with constant expansion into new territories and markets.

For further information, please visit [www.endress.com/media-center](http://www.endress.com/media-center) or [www.endress.com](http://www.endress.com)

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