SENSORS

DR. A. KUNTZE
SENSORS

THERE IS GLASS AND GLASS...

There is glass and glass...

By changing their physical properties, pH-sensitive glasses are optimized for specific applications.
We manufacture three different types of pH-sensitive glass:

AH | High alkali high temperature glass...

Measuring range pH 0-14. Very small cross sensitivity towards sodium.
With liquid electrolyte suitable for temperatures up to 100°C.

LT | special glass with reduced internal resistance...

For cold water applications. Resistance reduced by 90%. Measuring range pH 0-12.
For temperatures ranging from -5 to +60°C.

S | fluoride-resistant glass...

For applications with high fluoride content. Tolerates up to 500mg/l of fluoride
over a measuring range of pH 1-11. Maximum temperature 60°C.

AH-300-K-1-2

FOR A LONG LIFESPAN...

For a long lifespan...

While the measuring electrode presents a closed glass surface towards its surroundings, the reference contains an opening – via the junction substances can get in and out. Therefore the lifespan of a sensor strongly depends on the protection of the reference electrode.

Ceramic junction...

Limited exchange. Low maintenance in combination with gel electrolyte. For low salt contents with refillable liquid electrolyte. For special applications and process control with protruding junction that can be abraded or covered with a protective membrane.

Platinum junction or glass sleeve...

For pure water we recommend liquid electrolyte and junctions with high KCl passage. This can be 3 ceramic junctions, a Platinum twine, or a glass sleeve with adjustable passage.

PTFE junction or open hole...

For effluents and particle-containing water we recommend the PTFE junction with a large, non-sticking surface, or even an open hole, in combination with a solid electrolyte.

Double chamber reference...

Two separate chambers with independent refill options. For a maximum of protection and versatility. For example with a chloride-free outer filling to protect damageable solutions.

AH-300-K-1-6

THE LITTLE EXTRA CONVENIENCE...

The little extra convenience...

As an insulator, glass is not a very agreeable electrode material. Its high resistance makes the pH measurement sensitive to disturbances. A lot of effort is required on the part of cables and instrumentation – unless you use one of our "extra convenience" sensors:

Impedance converter...

Our new pH sensors with integrated impedance converter provide a low-resistance signal with drastically reduced sensitivity towards disturbances that can be transported over large distances with simple cables.

Temperature measurement included...

The integrated impedance converter enabled us to use multi-pin connections with only moderate insulation and is therefore an ideal solution for pH sensors with an integrated temperature sensor.
Kill two birds with one stone: Only one sensor for two measurements and automatic temperature compensation even during calibration, and a disturbance-insensitive signal with simple cable connection at a competitive price.

AH-370-K-2-2-PG

ORP SENSORS...

ORP sensors...

ORP measurement requires no special glass membrane. The electrodes are made from precious metals – ideal from an electronic point of view, but rather expensive. So here the focus is on costs and lifespan:

Durable...

Metal ring electrodes of gold or platinum with a purity of 99,99%. Corrosion-resistant and massive. Tolerate mechanical cleaning even with a brush and chemical cleaning even with chromic acid.

With reference...

Combination electrodes have become widely accepted in ORP measurements as well. Designs and function as described for pH sensors.

Without reference...

Single ORP measuring electrodes have an almost infinite lifespan. Therefore a separation of measuring and reference electrode can be an economic decision. Where pH and ORP are measured, the reference of the pH sensor can be used for both measurements simultaneously.

Au-600-0-2-2-PG

CHLORINE, CHLORINE DIOXIDE, OZONE AND HYDROGEN PEROXIDE...

Chlorine, Chlorine dioxide, Ozone and Hydrogen peroxide...

Three electrodes in one body – our new single-rod sensors add simple installation and handling to all the known advantages of bare-metal sensors:

No delicate parts...

No membranes that can tear or clog, no electrolyte that can decompose or leach out. Gold and glass are the materials our sensors are made of. Excellent chemical resistance, uncritical in hygiene requirements, and easy to use.

Quick response...

With their electrodes in direct contact with the water, these sensors react quickly to any changes. Their prompt response makes them especially advantageous for control applications.

Excellent zero-point stability...

The measured signal is a current resulting from an electrochemical reaction. In absence of the disinfectant this reaction cannot take place. Consequently, the signal automatically drops to zero.

Stain-resistant...

The 12mm glass electrode and the vertical electrode surfaces offer no target for particles or fibers. The signal is completely unaffected by air bubbles. And in case that something does succeed to stick to the electrodes, our automatic sensor cleaning ASR will deal with that.

AUTOMATIC SENSOR CLEANING...

Automatic Sensor Cleaning...

Our unique electrochemical cleaning procedure ASR maintains your sensors automatically clean and active. Scale, iron and manganese oxides and even fat are removed every day – without addition of chemicals.

Automatic...

Instruments with ASR carry out the cleaning procedure automatically, once or twice every day according to customer settings. The cleaning can be set to a convenient time via menu.

Efficient...

The electrochemical cleaning attacks stains from three different angles: The gas bubbles forming at the electrode surfaces break up coatings from within, oxygen destroys organic substances, and hydrogen reduces iron or manganese oxides.

No chemicals...

Oxygen and hydrogen are produced directly at the electrodes via electrolysis of the surrounding water. Both are consumed in the cleaning reactions, and excess gases recombine swiftly to water.

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