



SENTEK

SPECIALIST SENSORS

Water and Wastewater Treatment

The UK's largest electrochemical sensor manufacturer.

About Us

Sentek specialises in the bespoke engineering of electrochemical sensors, specifically designed to be used in water-based applications.

Our products are built with optimum durability and accuracy in mind to withstand everyday use in tough environments whilst providing reliable results.

Products include pH, reference, conductivity cells, ion selective electrodes, steam sterilisable/ autoclavable pH electrodes, metal electrodes (ORP), temperature probes and dissolved oxygen sensors.

CUSTOM AND OEM SENSOR SOLUTIONS

Whether it be a different plug, longer probe, longer cable, different colour cap, or a name other than Sentek on the probe, we can leverage our expertise to provide our clients with bespoke electrode solutions, globally.

QUALITY

Our specialist electrodes are handmade in the UK by trained glassblowers and technicians at our manufacturing facility which is fully ISO 9001:2015 certified.

Sensors are put through rigorous testing and quality control procedures to ensure the electrodes you receive are reliable in both accuracy and durability.





Water Quality Monitoring

Water quality monitoring is an essential component of most industrial water, municipal water and wastewater treatment systems. This could include monitoring pH, conductivity and ORP levels to ensure water is safe to drink or be discharged into the environment.

pH control is a crucial part of maintaining drinking water quality. Too low and the taste can be bitter, too high will also result in an unacceptable taste. UK authorities recommend that drinking water should read between pH 6.5 - pH 9.5.

As well as pH, other water quality sensors and instrumentation also provide the data required to operate industrial water treatment equipment. ORP or Redox measurement for example, is very important in drinking and wastewater monitoring. Sensors can be used to control dosing of disinfection chemicals such as Chlorine, with typical readings in water ranging from 400 to 800mV.

Conductivity measurement is also a good indicator of water purity. Conductivity sensors can measure the ability of water to pass an electrical current, with the unit of measurement usually being in microseimens per cent centimetre. Drinking water, for example, is commonly between 100 and 1,000 microseimens per centimetre, but can be higher.

Sentek specialise in manufacturing pH, Conductivity, and ORP sensors, as well as DO2 and Ion Selective Electrodes, to help plants ensure their treatment processes deliver the required results.

pH Electrodes



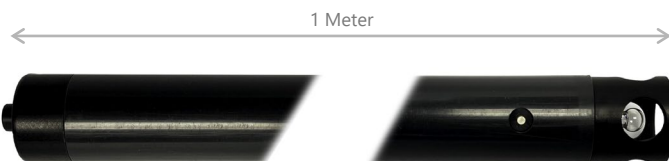
P15 Low Conductivity Water Combination pH Electrode

| | | | |
|-------------------|----------|------------------|--|
| Body Type | Glass | Junction Type | Annular Ceramic |
| pH Range | 0 - 11 | Cap/ Connector | Fixed Cable, BNC |
| Temperature Range | 0 - 80°C | Shaft Dimensions | 120mm x 12mm |
| Combination | Yes | E O Point | 0 to $\pm 25\text{mV}$ |
| | | Reference | Ag/AgCl, Liquid Filled, Pseudo Double Junction |



P14/DJ/S8 Epoxy Bodied Double Junction pH Electrode

| | | | |
|-------------------|-----------|------------------|--------------------------|
| Body Type | Epoxy | Junction Type | Porous Teflon |
| pH Range | 0 - 14 | Cap/ Connector | S8, PG13.5 Thread |
| Temperature Range | 0 - 100°C | Shaft Dimensions | 120mm x 12mm |
| Combination | Yes | Reference | Ag/AgCl, Double Junction |



DIW 1 Meter PVC pH Electrode

| | | | |
|-------------------|----------|------------------|--------------------------|
| Body Type | PVC | Junction Type | Ceramic |
| pH Range | 0 - 14 | Cap/ Connector | Fixed Cable, BNC |
| Temperature Range | 0 - 50°C | Shaft Dimensions | 1m x 26mm |
| Combination | Yes | Reference | Ag/AgCl, Double Junction |

pH Electrodes



P11 Protected Bulb pH Electrode

| | | | |
|-------------------|----------|------------------|--------------------------|
| Body Type | Glass | Junction Type | Porous Teflon |
| pH Range | 0 - 14 | Cap/ Connector | Fixed Cable, BNC |
| Temperature Range | 0 - 80°C | Shaft Dimensions | 120mm x 12mm |
| Combination | Yes | Reference | Ag/AgCl, Single Junction |



P11/CER/S8 Durable pH Electrode

| | | | |
|-------------------|-----------|------------------|--------------------------|
| Body Type | Glass | Junction Type | Ceramic Pin |
| pH Range | 0 - 14 | Cap/ Connector | S8, PG13.5 Thread |
| Temperature Range | 0 - 100°C | Shaft Dimensions | 120mm x 12mm |
| | | Reference | Ag/AgCl, Double Junction |



P11/S8 Fast Response pH Electrode

| | | | |
|-------------------|----------|------------------|-----------------------------------|
| Body Type | Glass | Junction Type | Ceramic |
| pH Range | 0 - 14 | Cap/ Connector | S8, PG13.5 Thread |
| Temperature Range | 0 - 80°C | Shaft Dimensions | 120mm x 12mm |
| Combination | Yes | Reference | Ag/AgCl Cartridge Single Junction |

PI10 Pipeline Combination Industrial pH Electrode

| | | | |
|-------------------|-----------|------------------|----------------------------|
| Body Type | Glass | Junction Type | Porous Teflon |
| pH Range | 0 - 14 | Cap/ Connector | Fixed Cable, PG13.5 Thread |
| Temperature Range | 0 - 130°C | Shaft Dimensions | 120mm x 12mm |
| Combination | Yes | Pressure | 10 BAR |
| | | Reference | Ag/AgCl, Double Junction |

PI10/S8 Open Junction Combination pH Electrode

| | | | |
|-------------------|----------|------------------|--------------------------|
| Body Type | Glass | Junction Type | Open Junction |
| pH Range | 0 - 14 | Cap/ Connector | S8, PG13.5 Thread |
| Temperature Range | 0 - 50°C | Shaft Dimensions | 120mm x 12mm |
| Combination | Yes | Reference | Ag/AgCl, Double Junction |

PI11 Dip Industrial pH Electrode

| | | | |
|-------------------|-----------|----------------|--------------------------|
| Body Type | Ryton | Junction Type | Porous Teflon |
| pH Range | 0 - 14 | Cap/ Connector | ¾" NPT Thread |
| Temperature Range | 0 - 100°C | Dimensions | 150mm x 25.9mm |
| Combination | Yes | Reference | Ag/AgCl, Double Junction |

Redox Electrodes



OI10/S8 Pipeline Combination Industrial ORP Electrode

| | | | |
|-------------------|---------------|------------------|--|
| Body Type | Glass | Junction Type | Porous Teflon |
| Range | 0 - 1000mV | Cap/ Connector | S8, PG13.5 Thread |
| Temperature Range | 0 - 130°C | Shaft Dimensions | 120mm x 12mm |
| Combination | Yes | Pressure | 6 BAR |
| Tip | Platinum Ring | Reference | Ag/AgCl, Salt Rings Solid Gel, 3.3 Molar KCL/ AgCl Gel |



OI11 Industrial ORP Electrode

| | | | |
|-------------------|------------------|----------------|--------------------------|
| Body Type | Glass Filled PPS | Junction Type | Porous Teflon |
| Range | 0 - 1000mV | Cap/ Connector | ¾" NPT Thread |
| Temperature Range | 0 - 100°C | Dimensions | 150mm x 25.9mm |
| Combination | Yes | Reference | Ag/AgCl, Double Junction |



O1/S8 Platinum Glass Combination ORP Electrode

| | | | |
|-------------------|------------------------|------------------|--------------------------|
| Body Type | Glass | Junction Type | Annular Ceramic |
| Range | 0 - 2000mV | Cap/ Connector | S8, PG13.5 Thread |
| Temperature Range | 0 - 100°C | Shaft Dimensions | 120mm x 12mm |
| Pressure | Atmospheric | Wet Materials | Platinum, Glass, Ceramic |
| Precious Metal | 1mm x 8mm Platinum Rod | Reference | Ag/AgCl, Single Junction |

Conductivity Electrodes



K20 Low-Cost K=1 Industrial Conductivity Electrode

| | | | |
|-------------------|----------|----------------|---------------|
| Body Type | PVC | Plate Material | Graphite |
| Range | 0 - 2mS | Cap/ Connector | ½" BSP Thread |
| Temperature Range | 0 - 45°C | Dimensions | 21mm x 24mm |
| Cell Constant | K=1 | Pressure | 10 BAR |
| Termination | 2x2 Tags | | |



K20/S8 Epoxy Bodied K=1 Industrial Conductivity Electrode

| | | | |
|-------------------|----------|------------------|-------------------|
| Body Type | Epoxy | Plate Material | Graphite |
| Range | 0 - 10mS | Cap/ Connector | S8, PG13.5 Thread |
| Temperature Range | 0 - 80°C | Shaft Dimensions | 120mm x 12mm |
| Cell Constant | K=1 | | |



KI11 Dip K=1 Industrial Conductivity Electrode

| | | | |
|-------------------|----------|----------------|----------------|
| Body Type | Ryton | Plate Material | Carbon |
| Range | 0 - 10mS | Cap/ Connector | ¾" NPT Thread |
| Temperature Range | 0 - 50°C | Dimensions | 150mm x 25.4mm |
| Cell Constant | K=1 | Pressure | 1 BAR |

Ion Selective Electrodes



Removable
Membrane Cap



Ammonia/S8 Combination Ion Selective Electrode

| | | | |
|----------------------------|----------------------------|--|-------------------------------|
| Ionic Species | Ammonia (NH ₄) | Temperature Range | 5 - 50°C |
| Concentration Range | 10 ⁻⁶ - 1 Mol/L | Main Interferences | Hydrazine |
| Limits (ppm) | 0.02 - 17,000 | ISAB (Ionic Strength Adjustment Buffer) | 1M NaOH (Sodium Hydroxide) |

Fluoride/S8 Combination Ion Selective Electrode

| | | | |
|----------------------------|---|--|-----------------------|
| Ionic Species | Fluoride (F ⁻) | Temperature Range | 5 - 50°C |
| Concentration Range | 10 ⁻⁵ - 10 ⁻¹ Mol/L | Main Interferences | OH ⁻ (0.1) |
| Limits (ppm) | 0.02 - 1,900 | ISAB (Ionic Strength Adjustment Buffer) | TISAB ^{a)} |

Also available for Nitrate, Sodium, Potassium and more.

Can't find what you need?

Using the experience and industry know-how built up over the last three decades, we are able to offer custom sensors built to suit your requirements, as well as equivalents to almost any electrode on the market.

All our electrodes are manufactured with accuracy and precise engineering to ensure the very best products for our valued clients, with the added flexibility of a minimum order of just one electrode.



Sentek Limited

Unit 6-7 Crittall Court, Crittall Drive,
Springwood Industrial Estate, Braintree,
Essex, CM7 2SE

+44 (0) 1376 340456
sales@sentek.co.uk

www.sentek.co.uk

Company Registration No. 02753857

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