



xylem

Sensors for Field & Lab

Electrodes, Sensors & Measurement Cells
for your Application

WTW
xylem

Content

| | |
|--------------------------------------|----|
| Sensors - Overview | 4 |
| Sensors - Analog or Digital? | 6 |
| pH Electrodes | 8 |
| pH Electrodes - Design | 9 |
| pH Field Electrodes | 10 |
| pH Lab Electrodes | 12 |
| ORP Electrodes | 15 |
| Conductivity Cells | 16 |
| Oxygen Sensors | 18 |
| Ion-selective Electrodes | 20 |
| pH Electrodes Guide | 22 |
| pH Electrodes Guide: Applications | 22 |
| pH Electrodes Guide: Membranes | 24 |
| pH Electrodes Guide: Diaphragms | 24 |
| pH Electrodes Guide: Selection Guide | 25 |
| Sensors - Accessories | 26 |
| Service | 30 |

Sensors for Field & Lab



80

We have been developing and manufacturing glass electrodes for more than 80 years. Our electrodes are used for important tasks in worldwide laboratories with high demands. What began back then with the patent for pH electrodes now includes a range of several hundred different sensors: whether ultra-pure water, jam, wine, creams or drinking water – we offer the right electrode for every conceivable application. Our extensive electrode program is as diverse as the applications.



Sensors - Overview



pH Field Electrodes

- Robust field electrodes
- Plastic shaft
- Optional build-in temperature sensor
- Gel filling or liquid filling
- Also available as digital (IDS) sensors



pH Lab Electrodes

- High performance lab electrodes
- Glass shaft with precision glass
- Optional build-in temperature sensor
- Penetration- / Surface- / Micro- / Split ring-Electrodes
- Gel filling or liquid filling
- Also available as digital (IDS) sensors



ORP Electrodes

- Metal electrode made of stainless steel
- Incl. reference electrode
- Reference system silver/silver chloride
- Also available as digital (IDS) sensors



Conductivity Cells

- Two-pole cells
- Four-pole cells
- Graphite
- Stainless steel
- Also available as digital (IDS) sensors



Oxygen Sensors

- Galvanic dissolved oxygen sensors
- Self-stirring dissolved oxygen sensors
- Optical dissolved oxygen sensors (DIN ISO 17289)
- Also available as digital (IDS) sensors



Ion-selective Electrodes

- Combined ISE & GSE electrodes
- Glass electrodes
- Matrix electrodes
- Solid state electrodes

Sensors - analog or digital?

The powerful base

- Analog and digital models are based on the same, proven **quality electrodes**.
- **Low-resistance membrane glasses** guarantee stable measurement signals even at low temperatures.
- **Silver ion-free reference electrolyte** in combination with the unique **platinum wire diaphragm** prevents measurement problems caused by precipitating silver compounds.
- **Functional slider** for opening and safely closing the refill opening of liquid electrolyte electrodes.



Analog Electrodes

- The **conversion** of the raw signal into pH takes place **in the meter**.
- **Connection options:** Fixed cable (1 meter or 3 meter) with water-proof DIN plug, BNC plug or S7 plug head.

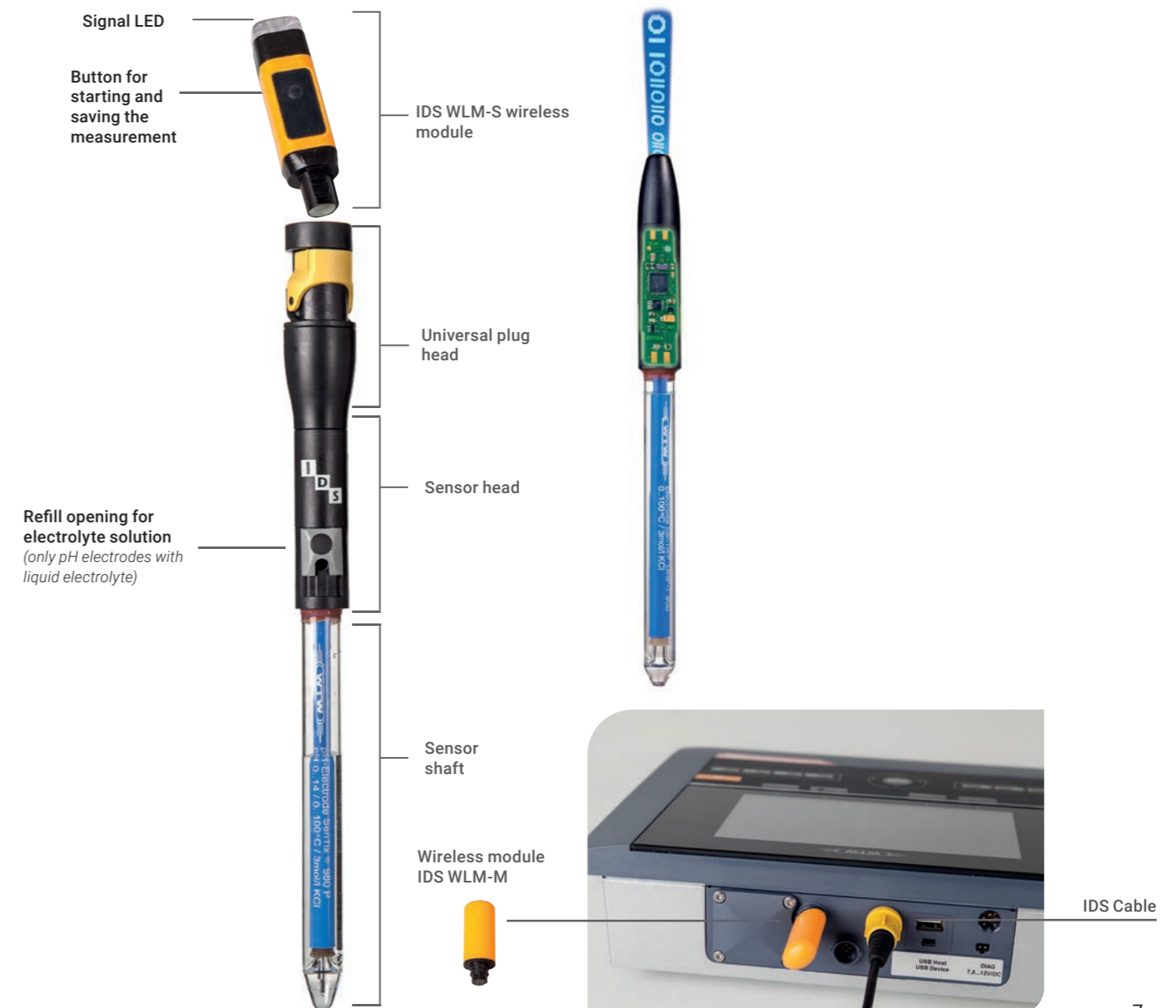
Digital IDS electrodes

- **Conversion** of analog measurement signals into digital values **directly in the sensor** prevents interference and guarantees fail-safe data transmission.
- **Cables up to 100 m length** available.
- The IDS electrodes are available with **fixed cable** or **plug head**. Cables of different lengths or wireless modules can be connected to the plug head.
- Automatic transmission of **sensor serial number** and **calibration record** of the sensor increase data integrity.
- Comprehensive support for **GLP-compliant data acquisition**.
- Universal plug for connection **to any IDS portable or lab instrument** for flexible use on site or in the lab.



Wireless work with flexible sensor connections

- The IDS electrodes are available with **fixed cable** or with **plug head** connections.
- Versatile: A connection cable **from 1.5 m to 100 m in length** or a wireless module with a range of up to 10 m can be connected to the plug head.
- Wireless operation **allows physical separation**: measuring at the sample and documenting at the workplace.
- **Secure** 1:1 connection.
- **Great flexibility** due to universal applicability of the wireless modules for various IDS sensors.
- Transfer of measurement data and metadata via IDS-Gate, directly into a **database** or into a **LIMS** system.



pH Electrodes



pH Electrodes

The electrodes consist of a measuring electrode and a reference electrode. pH electrodes from Xylem Analytics are usually combined pH electrodes or combination electrodes, consisting of a glass and reference electrode built into one unit. The glass membrane of our electrodes is sensitive to hydrogen ions and filled with a buffer solution. There is a reference electrolyte in the reference electrode. Immersion in a measuring solution causes a change in voltage - this change in voltage is recorded as a signal (analog or digital) and converted into a pH value.

Glass

Today there is a large amount of different pH glasses, which should be selected according to the application. Due to the large amount of different purposes, several types of membrane glasses are required to reach the optimum measurement reliability and lifetime.



Precision glassblowing

pH Electrodes - Design

Glass electrodes consist of three essential components: the glass membrane, the inner buffer and the measuring electrode. While the inner buffer and the measuring electrode can be used universally, the shape and properties of the glass membrane must be selected according to the respective sample type. Important criteria are the consistency, volume and temperature of the sample, which measuring range is expected and the concentration of the ions in the solution to be measured.

1 Elektrolytes:
The electrolyte is connected to the sample via the diaphragm. **Potassium chloride (KCl)** is the most commonly used electrolyte and can be of a liquid, gel, or polymer form.

2 Measuring electrode:
The measuring electrode consists of a **capillary tube** filled with a buffer solution with a **pH-sensitive glass** at the tip. Inside there is also a conductive element for potential detection, the so-called internal reference.

3 Glass membrane:
The membrane can vary in shape and is made of special glass that is **sensitive to hydrogen ion activity**. It is filled with a buffer with a known pH value, while the sample on the outside has variable hydrogen ion activity. This difference creates an electrical potential.

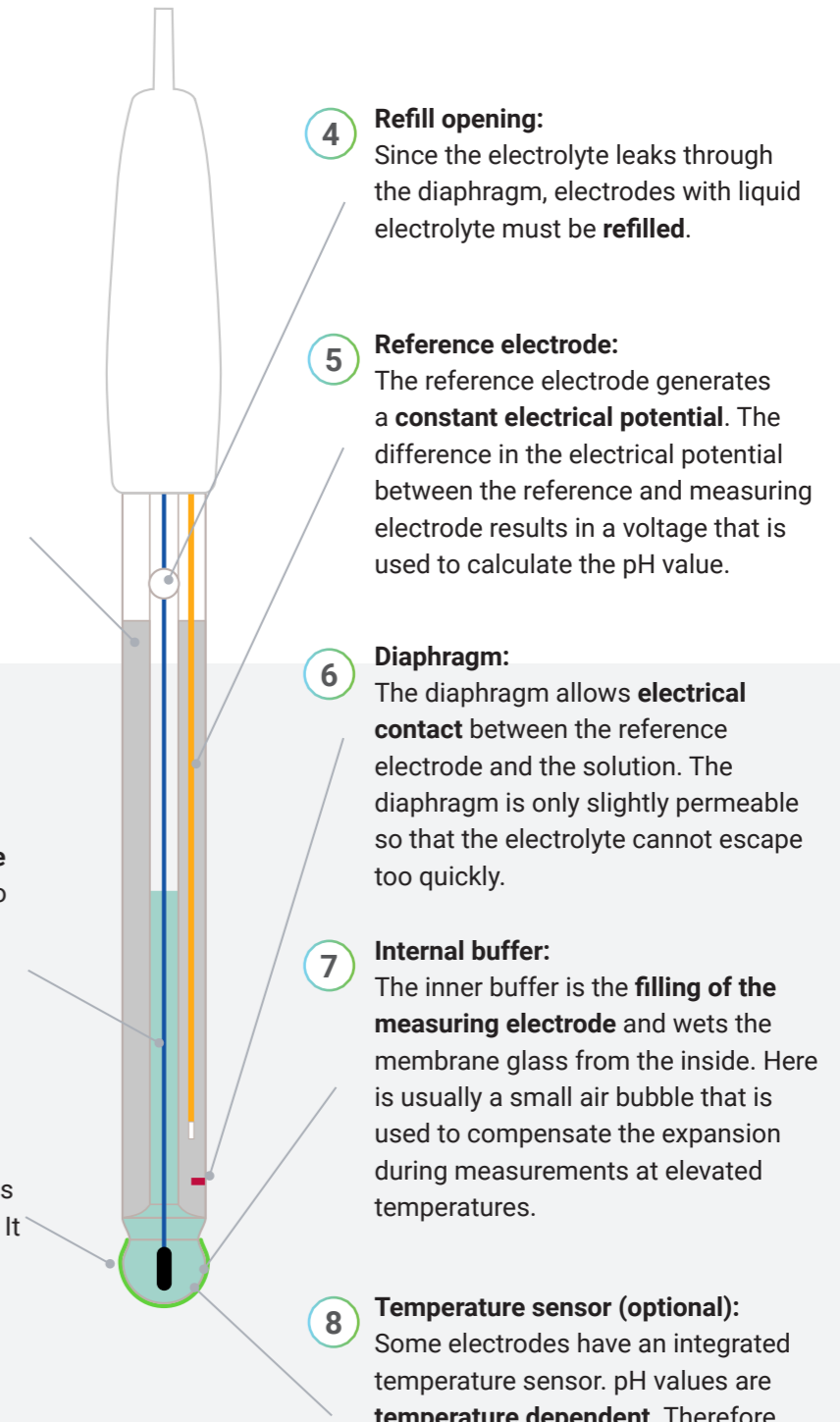
4 Refill opening:
Since the electrolyte leaks through the diaphragm, electrodes with liquid electrolyte must be **refilled**.

5 Reference electrode:
The reference electrode generates a **constant electrical potential**. The difference in the electrical potential between the reference and measuring electrode results in a voltage that is used to calculate the pH value.

6 Diaphragm:
The diaphragm allows **electrical contact** between the reference electrode and the solution. The diaphragm is only slightly permeable so that the electrolyte cannot escape too quickly.

7 Internal buffer:
The inner buffer is the **filling of the measuring electrode** and wets the membrane glass from the inside. Here is usually a small air bubble that is used to compensate the expansion during measurements at elevated temperatures.

8 Temperature sensor (optional):
Some electrodes have an integrated temperature sensor. pH values are **temperature dependent**. Therefore, pH measurements should always be carried out with an accurate temperature sensor.



pH Field Electrodes with Plastic Shaft

For water, wastewater and predominantly aqueous samples

Ideal for portable measurements, but also for routine measurements in the lab; with or without built-in temperature sensor.

pH measurement in **non-aqueous solutions?**

We have the right electrode



| Model | Analog | | | | | | | | | | | |
|-----------------------|--|---------------------|-----------------|-----------------|---|-----------------|-----------------------------|--|-----------------------------|-----------------------|---|--|
| | SenTix 20 | SenTix 21 | SenTix 21-3 | SenTix 22 | SenTix 41 | SenTix 41-3 | SenTix 42 | SenTix 43 | SenTix 44 | SenTix 46 | SenTix 47 | |
| Order-No. | 103630 | 103631 | 103632 | 103633 | 103635 | 103636 | 103637 | 103805 | 103806 | 103807 | 103808 | |
| Type/Application | Low-maintenance pH electrodes without temperature sensor | | | | Low-maintenance pH electrodes with temperature sensor | | | | | | | |
| Shaft material | Plastic | | | | Plastic | | | | | | | |
| Temperature sensor | - | | | | NTC 30 kOhm | | Pt 1000 | | NTC 30 kOhm | | NTC 10 kOhm | |
| Membrane shape | Cylindric | | | | Cylindric | | | | | | | |
| Reference electrolyte | Gel | | | | Gel | | | | | | | |
| Diaphragm | Fiber | | | | Fiber | | | | | | | |
| Meas. range pH | 0 ... 14 pH | | | | 0 ... 14 pH | | | | | | | |
| Temperature range | 0 ... 80 °C | | | | 0 ... 80 °C | | | | | | | |
| Membrane resistance | < 1 GΩ | | | | < 1 GΩ | | | | | | | |
| Shaft length | 120 mm | | | | 120 mm | | | | | | | |
| Shaft diameter | 12 mm | | | | 12 mm | | | | | | | |
| Connection | S7 plug head | Waterproof DIN plug | | BNC plug | Waterproof DIN plug + 4 mm banana plug | | BNC plug + 4 mm banana plug | Waterproof DIN plug + 4 mm banana plug | BNC plug + 4 mm banana plug | BNC plug + Cinch plug | BNC plug + 2.5 mm Jack plug (for Sartorius devices) | |
| Cable | without cable* | 1 m fixed cable | 3 m fixed cable | 1 m fixed cable | 1 m fixed cable | 3 m fixed cable | 1 m fixed cable | | | | | |

| | | | | | Digital (IDS) | | | | | | | | | |
|--|-----------------------------|--|--|-----------------------|----------------------------------|-------------------------|---------------------------------------|-------------------------|-----------------|-------------------------|-------------------|-------------------------|-----------|--|
| SenTix 51 | SenTix 52 | SenTix 57 | SenTix Top 41 | SenTix Top 46 | SenTix Top 940 | SenTix Sp-T 900 | SenTix Sp-T 900-P | SenTix 940 | SenTix 940-3 | SenTix 940-P | SenTix 950 | SenTix 950-P | | |
| 103651 | 103652 | 103809 | 103816 | 103817 | 103744 | 103752 | 103766 | 103740 | 103741 | 103760 | 103750 | 103761 | | |
| pH electrodes with temperature sensor | | pH electrodes with double reference system and polymer electrolyte | | | Digital pH penetrator electrodes | | Digital low-maintenance pH electrodes | | | Digital pH electrodes | | | | |
| | | | | | | | | | | | | | | |
| Plastic | | PEEK Shaft / Plastic | | | Plastic | | Plastic | | | Plastic | | | | |
| NTC 30 kOhm | | NTC 10 kOhm | | NTC 30 kOhm | | | NTC 30 kOhm | | NTC 30 kOhm | | | NTC 30 kOhm | | |
| Cylindric | | Cylindric | | | Spear | | Cylindric | | | Cylindric | | | | |
| KCl 3 mol/l Ag+ free | | Duralid® | | | Referid® | | Gel | | | KCl 3 mol/l Ag+ free | | | | |
| Ceramic | | Double junction / hole | | | Hole | | Fiber | | | Ceramic | | | | |
| 0 ... 14 pH | | 0 ... 14 pH | | | 2 ... 13 pH | | 0 ... 14 pH | | | 0 ... 14 pH | | | | |
| 0 ... 80 °C | | -5 ... 100 °C | | | 0 ... 80 °C | | 0 ... 80 °C | | | 0 ... 80 °C | | | | |
| < 1 GΩ | | < 400 MΩ | | | < 400 MΩ | | < 1 GΩ | | | < 1 GΩ | | | | |
| 120 mm | | 120 mm | | | 65/25 mm | | 120 mm | | | 120 mm | | | | |
| 12 mm | | 12 mm | | | 15/5 mm | | 12 mm | | | 12 mm | | | | |
| Waterproof DIN plug + 4 mm banana plug | BNC plug + 4 mm banana plug | BNC plug + 2.5 mm Jack plug (for Sartorius devices) | Waterproof DIN plug + 4 mm banana plug | BNC plug + Cinch plug | Waterproof digital plug | Waterproof digital plug | Plug head | Waterproof digital plug | Plug head | Waterproof digital plug | Plug head | Waterproof digital plug | Plug head | |
| 1 m fixed cable | | 1 m fixed cable | | | 1.5 m fixed cable | 1.5 m fixed cable | without cable* | 1.5 m fixed cable | 3 m fixed cable | without cable* | 1.5 m fixed cable | without cable* | | |

*=Suitable connection cables can be found on page 28

pH Lab Electrodes with Glass Shaft

For demanding measurements in the lab

Our laboratory electrodes are characterized by fast response, high precision and a long service life and can also be used in difficult samples.



| Model | Analog | | | | | | | | | |
|-----------------------|--|---------------------|-----------|---|-----------------------------|--|-----------------------------|---------------------------------|-----------------------|---|
| | SenTix 60 | SenTix 61 | SenTix 62 | SenTix 81 | SenTix 82 | SenTix 83 | SenTix 84 | SenTix 85 | SenTix 86 | SenTix 87 |
| Order-No. | 103639 | 103640 | 103641 | 103642 | 103643 | 103810 | 103811 | 103812 | 103813 | 103814 |
| Type/Application | Precision pH electrodes without temperature sensor | | | Precision pH electrodes with temperature sensor | | | | | | |
| Shaft material | Glass | | | Glass | | | | | | |
| Temperature sensor | - | | | NTC 30 kOhm | | Pt 1000 | | NTC 30 kOhm | | NTC 10 kOhm |
| Membrane shape | Conic | | | Conic | | | | | | |
| Reference electrolyte | KCl 3 mol/l Ag+ free | | | KCl 3 mol/l Ag+ free | | | | | | |
| Diaphragm | Platinum wire | | | Platinum wire | | | | | | |
| Meas. range pH | 0 ... 14 pH | | | 0 ... 14 pH | | | | | | |
| Temperature range | 0 ... 100 °C | | | 0 ... 100 °C | | | | | | |
| Membrane resistance | <600 MΩ | | | <600 MΩ | | | | | | |
| Shaft length | 120 mm | | | 120 mm | | | | | | |
| Shaft diameter | 12 mm | | | 12 mm | | | | | | |
| Connection | S7 plug head | Waterproof DIN plug | BNC plug | Waterproof DIN plug + 4 mm banana plug | BNC plug + 4 mm banana plug | Waterproof DIN plug + 4 mm banana plug | BNC plug + 4 mm banana plug | BNC plug + 2 x 4 mm banana plug | BNC plug + Cinch plug | BNC plug + 2,5 mm Jack plug (for Sartorius devices) |
| Cable | without cable* | 1 m fixed cable | | 1 m fixed cable | | | | | | |

| Model | Digital (IDS) | | | | | | | | | | |
|-----------------------|--|--|-----------|--|-------------------------|---|-------------------------|---------------------------------|-------------------------|--|----------------|
| | SenTix 91 | SenTix H | SenTix HW | SenTix HWD | SenTix HW-T 900 | SenTix HW-T 900-P | SenTix 945 | SenTix 945-P | SenTix 980 | SenTix 980-P | Sensolyt 900-P |
| Order-No. | 103695 | 103644 | 103650 | 103731 | 103753 | 103767 | 103743 | 103764 | 103780 | 103762 | 103748 |
| Type/Application | Precision pH electrode with temperature sensor | pH special electrode with ground joint diaphragm | | | | Digital low-maintenance precision pH electrodes | | Digital precision pH electrodes | | pH electrode with polymer electrolyte, pressure resistant up to 10 bar | |
| Shaft material | Glass | Glass | | | | Glass | | Glass | | Glass | |
| Temperature sensor | NTC 30 kOhm | - | | | | NTC 30 kOhm | | NTC 30 kOhm | | NTC 30 kOhm | |
| Membrane shape | Spheric | Cylindric | | Spheric | Cylindric | | Spheric | | Conic | | Cylindric |
| Reference electrolyte | KCl 3 mol/l Ag+ free | KCl 3 mol/l Ag+ free | | | | Gel | | KCl 3 mol/l Ag+ free | | Referid® | |
| Diaphragm | Platinum wire | Ground joint | | | | 3 x Ceramic | | Platinum wire | | Hole | |
| Meas. range pH | 0 ... 14 pH | 0 ... 14 pH | | 0 ... 14 pH | | 0 ... 14 pH | | 0 ... 14 pH | | 2 ... 13 pH | |
| Temperature range | 0 ... 100 °C | 0 ... 60 °C | | -5 ... 100 °C | | 0 ... 60 °C | | 0 ... 80 °C | | 0 ... 80 °C | |
| Membrane resistance | <600 MΩ | < 2 GΩ | < 800 MΩ | < 600 MΩ | < 600 MΩ | | < 600 MΩ | | < 400 MΩ | | |
| Shaft length | 170 mm | 170 mm | | 165 mm | | 120 mm | | 120 mm | | 120 mm | |
| Shaft diameter | 12 mm | 12 mm | | | | 12 mm | | 12 mm | | 12 mm | |
| Connection | Waterproof DIN plug + 4 mm banana plug | S7 plug head | | Waterproof DIN plug + 4 mm banana plug | Waterproof digital plug | Plug head | Waterproof digital plug | Plug head | Waterproof digital plug | Plug head | Plug head |
| Cable | 1 m fixed cable | without cable* | | 1 m fixed cable | 1.5 m fixed cable | without cable* | 1.5 m fixed cable | without cable* | 1.5 m fixed cable | without cable* | without cable* |

*=Suitable connection cables can be found on page 28

pH Lab Electrodes for Special Applications

Our lab electrodes are characterized by fast response, high precision and long service life and can also be used in difficult samples.

| Model | Analog | | | | | | | Digital (IDS) | |
|-----------------------|--|--|--|--|---------------------------------|---------------------|-----------------|-------------------------|---------------------|
| | SenTix® Sp | SenTix® Sp-T | SenTix® Sur | SenTix® RJD | SenTix® Mic | SenTix® Mic-D | SenTix® Mic-B | SenTix® Micro 900 | SenTix® Micro 900-P |
| Order-No. | 103645 | 103733 | 103646 | 103732 | 103647 | 103660 | 103661 | 103751 | 103765 |
| Type/Application | pH electrodes for penetration measurements | | pH electrodes for surface measurement. | RJD pH electrode for polluted probes | pH electrodes for small volumes | | | | |
| Shaft material | Glass | | Glass | Glass | Glass | | | | |
| Temperature sensor | - | NTC 30 kOhm | - | NTC 30 kOhm | - | | | NTC 30 kOhm | |
| Membrane shape | Spear | | Flat | Calotte | Cylindric | | | | |
| Reference electrolyte | Referid® | | Referid® | Referid® | KCl 3 mol/l Ag+ free | | | | |
| Diaphragm | Hole | | Split ring | Split ring | Ceramic | Platinum wire | | | |
| Meas. range pH | 2 ... 13 pH | | 2 ... 13 pH | 2 ... 13 pH | 0 ... 14 pH | | | | |
| Temperature range | 0 ... 80 °C | | 0 ... 50 °C | 0 ... 80 °C | 0 ... 100 °C | -5 ... 100 °C | | 0 ... 100 °C | |
| Membrane resistance | < 400 MΩ | | < 1 GΩ | < 600 MΩ | < 700 MΩ | | | | |
| Shaft length | 65/25 mm | | 120 mm | 120 mm | 40/80 mm | 96 mm | | 65/130 mm | |
| Shaft diameter | 15/5 mm | | 12 mm | 12 mm | 12/5 mm | 3 mm | | 12/5 mm | |
| Connection | S7 plug head | Waterproof DIN plug + 4 mm banana plug | S7 plug head | Waterproof DIN plug + 4 mm banana plug | S7 plug head | Waterproof DIN plug | BNC plug | Waterproof digital plug | Plug head |
| Cable | without cable* | 1 m fixed cable | without cable* | 1 m fixed cable | without cable* | 1 m fixed cable | 1 m fixed cable | 1.5 m fixed cable | without cable* |

*=Suitable connection cables can be found on page 28

ORP Electrodes

All ORP electrodes consist of a metal electrode made of precious metal and a reference electrode.

| Model | Analog | Digital (IDS) | Analog | Digital (IDS) | | Analog | Digital (IDS) |
|-----------------------|---------------------|-------------------------|----------------------|-------------------------|-----------------------|---|----------------------------------|
| | SenTix® Rx | SenTix® Rx-T 900 | SenTix® ORP | SenTix® ORP-T 900 | SenTix® ORP-T 900-P | SenTix® Ag | SensoLyt® ORP 900-P |
| Order-No. | 103815 | 103792 | 103648 | 103791 | 103763 | 103664 | 103749 |
| Type/Application | ORP electrodes | | ORP electrodes | | | Special ORP-electrode for Argentometrie | Pressure resistant ORP electrode |
| Shaft material | Plastic | Plastic | Glass | Glass | Glass | Glass | Glass |
| Temperature sensor | - | NTC 30 kOhm | - | NTC 30 kOhm | NTC 30 kOhm | - | NTC 30 kOhm |
| Membrane shape | Platinum - Pole 1mm | Platinum - Pole 1mm | Platinum - Round 4mm | Platinum - Round 4 mm | Platinum - Round 4 mm | Argentum - Cylindric cap | Platinum ring |
| Reference electrolyte | Gel | Gel | KCl 3 mol/l Ag+ free | KCl 3 mol/l Ag+ free | KCl 3 mol/l Ag+ free | 2 mol/l KNO3 + 0,001 mol/l KCl | Polymer |
| Diaphragm | Fiber | Fiber | Ceramic | Ceramic | Ceramic | Ceramic | Hole |
| Temperature range | -5 ... 80 °C | -5 ... 80 °C | 0 ... 100 °C | 0 ... 100 °C | 0 ... 100 °C | -5 ... 100 °C | 0 ... 60 °C |
| Shaft length | 120 mm | 120 mm | 120 mm | 120 mm | 120 mm | 120 mm | 120 mm |
| Shaft diameter | 12 mm | 12 mm | 12 mm | 12 mm | 12 mm | 12 mm | 12 mm |
| Connection | S7 plug head | Waterproof digital plug | S7 plug head | Waterproof digital plug | Plug head | S7 plug head | Plug head |
| Cable | without cable* | 1.5 m fixed cable | without cable* | 1.5 m fixed cable | without cable* | without cable* | without cable* |

Conductivity Measurement Cells

A selection of two-electrodes and four-electrodes conductivity measuring cells to cover a wide range of applications from ultrapure water to viscous samples.



| Model | Analog | | | | | | | | |
|-------------------------|--|-----------------|-----------------|------------------|------------------|------------------|--|---|--|
| | TetraCon® 325 | TetraCon® 325-3 | TetraCon® 325-6 | TetraCon® 325-10 | TetraCon® 325-15 | TetraCon® 325-20 | TetraCon® 325 S | TetraCon® 325/C | KLE 325 |
| Order-No. | 301960 | 301970 | 301971 | 301972 | 301973 | 301974 | 301602 | 301900 | 301995 |
| Type/Application | Four electrodes conductivity measurement cell | | | | | | | | Two electrodes conductivity measurement cell |
| | | | | | | | | | |
| Shaft material | Epoxy/POM | | | | | | Epoxy/PEEK | Epoxy/POM | |
| Electrode material | Graphite | | | | | | PEEK | Graphite | |
| Type | 4 Electrodes | | | | | | | 2 Electrodes | |
| Temperature Sensor | NTC 30 kOhm | | | | | | | NTC 30 kOhm | |
| Cell constant | 0.475 cm ⁻¹ | | | | | | 0.491 cm ⁻¹ ± 1.5 % | 0.475 cm ⁻¹ ± 1.5 % | 0.84 cm ⁻¹ |
| Maximum pressure | 2 bar | | | | | | | 2 bar | |
| Measuring range | 1 µS/cm ... 2 S/cm | | | | | | | 10 µS/cm ... 20 mS/cm | |
| Temperature range | -5 ... 80 °C (100 °C)** | | | | | | | -5 ... 80°C (100 °C)** | |
| Min/Max Immersion depth | Min.: 36 mm Max.: Whole cell + cable up to 80 °C Only shaft (=120 mm) up to 100 °C | | | | | | Min.: 40 mm Max.: Whole cell + cable up to 80 °C Only shaft (=120 mm) up to 100 °C | Min.: 36 mm Max.: Whole cell + cable | Minimal: 36 mm Maximal: Gesamte Zelle + Kabel |
| Shaft length | 120 mm | | | | | | | 120 mm | |
| Shaft diameter | 15,3 mm | | | | | | | 15,3 mm | |
| Connection | Waterproof 8-pin plug | | | | | | Waterproof 8-pin plug | Waterproof 8-pin plug | |
| Cable | 1.5 m fixed cable | 3 m fixed cable | 6 m fixed cable | 10 m fixed cable | 15 m fixed cable | 20 m fixed cable | 1.5 m fixed cable | 1.5 m fixed cable | 1.5 m fixed cable |

*=Suitable connection cables can be found on page 28

**=Value in brackets only shaft




| Digital (IDS) | | | | | | Analog | | Digital (IDS) | |
|---|-----------------|-----------------|-------------------------|---|---|---|--|--|-----------------|
| TetraCon® 925 | TetraCon® 925-3 | TetraCon® 925-P | TetraCon® 925 /C | TetraCon® 925/LV-P | TetraCon® 925/LV | LR 325/01 | LR 325/001 | LR 925/01 | LR 925/01-P |
| 301710 | 301711 | 301716 | 301721 | 301719 | 301718 | 301961 | 301962 | 301720 | 301722 |
| Digital four electrodes conductivity measurement cell | | | | | Digital conductivity measurement cell for small volumes | Ultrapure water conductivity measurement cell | Trace conductivity measurement cell | Digital ultrapure water conductivity measurement cell | |
| | | | | | | | | | |
| Epoxy/POM | | | Epoxy/PEEK | Epoxy/POM | Epoxy/POM | Stainless steel/POM | | Stainless steel/POM | |
| Graphite | | | | Graphit | Graphite | POM | Stainless steel | Graphite | |
| 4 Electrodes | | | | 4 Electrodes | 4 Electrodes | 2 Electrodes | | 2 Electrodes | |
| NTC 30 kOhm | | | | | | NTC 30 kOhm | | | |
| 0.475 cm ⁻¹ | | | | 0.469 cm ⁻¹ | 0.469 cm ⁻¹ | 0.1 cm ⁻¹ | 0.01 cm ⁻¹ | 0.100 cm ⁻¹ ± 2 % | |
| Cable connection: 2 bar, plug head: 10 bar | | | | | | 2 bar | | | |
| 1 µS/cm ... 2000 mS/cm | | | | | | 0.001 µS/cm ... 200 µS/cm | 0.0001 µS/cm ... 30 µS/cm | 0.01 µS/cm ... 200 µS/cm | |
| -5 ... 70 °C (100 °C)** | | | | | | -5 °C ... 80 °C (100 °C) | | | |
| Min.: 36 mm Max.: Whole cell + cable | | | | Min.: 16 mm Max.: Whole cell + cable | | Min.: 30 mm Max.: Whole cell + cable | Min.: 40 mm (Immersion cell) Max.: Whole cell + cable | Min.: 30 mm Max.: Whole cell + cable up to 70 °C Only shaft (=120 mm) up to 100 °C | |
| 120 mm | | | | | | 120 mm | | | |
| 15,3 mm | | | | | | 12 mm | | | |
| Waterproof digital plug | | Plug head | Waterproof digital plug | Plug head | Waterproof digital plug | Waterproof 8-pin plug | | Waterproof digital plug | Plug head |
| 1.5 m fixed cable | 3 m fixed cable | withouth cable* | 1.5 m fixed cable | withouth cable* | 1.5 m fixed cable | 1.5 m fixed cable | | 1.5 m fixed cable | withouth cable* |

Oxygen Sensors

Optical measurement is the most modern method of determining dissolved oxygen. The so-called fluorescence quenching is used, which means that the fluorescence signal of suitable dyes changes according to the law depending on the oxygen concentration and is converted accordingly.



| Model | Analog | | | |
|-------------------------------|--|-----------------|-----------------|--|
| | CellOx® 325 | CellOx® 325-3 | CellOx® 325-6 | DurOx® 325-3 |
| Order-No. | 201533 | 201545 | 201546 | 201570 |
| Type/Application | Universal galvanic dissolved oxygen sensors | | | Galvanic oxygen sensor for the field |
| |  | | |  |
| Shaft material | POM | | | POM |
| Temperature sensor | NTC 30 kOhm | | | NTC 30 kOhm |
| Sensor head | Epoxy, PEEK | | | Epoxy, PEEK |
| Measuring range at 20 °C | 0 ... 50 mg/l O2 concentration 0 ... 600 % O2 saturation 0 ... 1250 mbar O2 partial pressure | | | 0 ... 50 mg/l O2 concentration 0 ... 600 % O2 saturation 0 ... 1250 mbar O2 partial pressure |
| Max. permissible overpressure | 6·10 ⁵ Pa (6 bar) | | | - |
| Temperature range | 0 ... 50 °C | | | 0 ... 40 °C |
| Min/Max Immersion depth | min. 6 cm / max. 20 m (depending on cable length) | | | min. 4 cm / max. 6 m (depending on cable length) |
| Shaft length | 145 mm | | | 110 mm |
| Shaft diameter | 15.25 mm | | | 17.5 mm |
| Connection | Waterproof 8-pin plug | | | Waterproof 8-pin plug |
| Cable | 1.5 m fixed cable | 3 m fixed cable | 6 m fixed cable | 3 m fixed cable |

| Analog | Digital (IDS) | | | |
|-------------------------------|--|---|-----------------|--|
| | StirrOx®G | FDO® 925 | FDO® 925-3 | FDO® 925-P |
| Order-No. | 201425 | 201300 | 201301 | 201306 |
| Type/Application | Self-stirring dissolved oxygen sensor | Digital optical dissolved oxygen sensor | | |
| |  |  | |  |
| Shaft material | POM | POM | | |
| Temperature sensor | NTC 30 kOhm | NTC 30 kOhm | | |
| Sensor head | Epoxy, PEEK | POM, Stainless steel | | |
| Measuring range at 20 °C | 0 ... 50 mg/l O2 concentration 0 ... 600 % O2 saturation 0 ... 1250 mbar O2 partial pressure | 0 ... 20 mg/l O2 concentration 0 ... 200 % O2 saturation 0 ... 400 mbar O2 partial pressure | | |
| Max. permissible overpressure | corresponding to an immersion measurement up to the maximum immersion depth | 1 x 10 ⁶ Pa (10 bar) | | |
| Temperature range | 0 ... 50 °C | 0 ... 50 °C | | |
| Min/Max Immersion depth | min. 49 mm / max. 83 mm (with stirring paddle) | min 6 cm / max. 100 m (depending on cable length) | | |
| Shaft length | 83 mm | 150 mm | | |
| Shaft diameter | 12 mm - 43 mm | 15.3 mm | | |
| Connection | Waterproof 8-pin plug, Western plug | Waterproof digital plug | | Plug head |
| Cable | 1.5 m fixed cable | 1.5 m fixed cable | 3 m fixed cable | without cable* |

*=Suitable connection cables can be found on page 28







Ion-Selective Electrodes

Combined ISE and GSE electrodes

Ion-selective and gas-sensitive electrodes are used to measure the dissolved concentration of specific ions or gases in water. Similar to the pH electrode, the membrane interacts with the dissolved ions and delivers a concentration-dependent voltage signal that is converted into the respective measurement result.



| Model | Analog | | | | | |
|------------------------|--|---|--|--|--|--|
| | NH 500/2 | Na 800/S7 | Ag/S 800 DIN | Br 800 DIN | Ca 800 DIN | Cl 800 DIN |
| Order-No. | 106395 | 106649 | 106651 | 106653 | 106655 | 106661 |
| Ions/gases | Ammonia gases | Sodium | Silver / Sulfide | Bromide | Calcium | Chloride |
| |  |  |  |  |  |  |
| Measuring range | 10 ⁻⁶ ... 5 · 10 ⁻² mol/l NH ₄ ⁺ 0.02 ... 900 mg/l NH ₄ ⁺ | 10 ⁻⁶ ... 1 mol/l Na ⁺ 0.01 ... 23000 mg/l Na ⁺ | 0.01 ... 108000 mg/l Ag ⁺ 0.003 ... 32000 mg/l S ²⁻ | 0.4 ... 79000 mg/l Br | 0.02 ... 40000 mg/l Ca ²⁺ | 2 ... 35000 mg/l Cl |
| Reference electrolyte | - | 3 mol/l KCl | - | - | - | - |
| Diaphragm | - | Platinum wire | - | - | - | - |
| pH range | 4 ... 12 | 8 ... 11 | 2 ... 12 | 1 ... 12 | 2.5 ... 11 | 2 ... 12 |
| Temperature range | 0 ... 50 °C | -10 ... +80 °C | 0 ... 80 °C | 0 ... 80 °C | 0 ... 40 °C | 0 ... 80 °C |
| Membrane resistance | - | < 500 MΩ | < 1 MΩ | < 0.1 MΩ | 1 bis 4 MΩ | < 1 MΩ |
| Membrane | - | Glass electrode | Solid state electrode | Solid state electrode | Matrix electrode | Solid state electrode |
| Immersion depth | Min.: 5 mm, Max.: 50 mm | Min.: 20 mm, Max.: 100 mm | Min.: 20 mm, Max.: 80 mm | | | |
| Shaft length | 120 mm | | | | | |
| Shaft diameter | 12 mm | | | | | |
| Add. scope of delivery | 3 exchange heads, 50 ml electrolyte solution | - | Electrolyte | Electrolyte | Electrolyte and exchange head | Electrolyte |
| Connection | S7 plug head | | Waterproof DIN plug | | | |
| Cable | without cable* | | 1 m fixed cable | | | |

| Analog | | | | | |
|---|--|--|--|--|--|
| CN 800 DIN | Cu 800 DIN | F 800 BNC | F 800 DIN | K 800 DIN | NO 800 DIN |
| 106663 | 106665 | 106666 | 106667 | 106671 | 106675 |
| Cyanide | Copper | Fluoride | Fluoride | Potassium | Nitrate |
|  |  |  |  |  |  |
| 0.2 ... 260 mg/l CN ⁻ (recommended 0.2 ... 25 mg/l CN ⁻) 8 x 10 ⁻⁶ ... 1 x 10 ⁻² mol/l CN ⁻ (recommended 8 x 10 ⁻⁶ ... 1 x 10 ⁻³ mol/l CN ⁻) | 6 x 10 ⁻⁴ ... 6350 mg/l Cu ²⁺ | 0.02 mg/l F ⁻ (10 ⁻⁶ mol/l) until saturation | 0.02 mg/l F ⁻ (10 ⁻⁶ mol/l) until saturation | 0.04 ... 39000 mg/l K ⁺ | 0.4 ... 62000 mg/l NO ₃ ⁻ |
| - | | | | | |
| - | | | | | |
| 0 ... 14 | 2 ... 6 | 5 ... 7 | | 2 ... 12 | 2.5 ... 11 |
| 0 ... 80 °C | | | | | |
| < 30 MΩ | < 1 MΩ | 0.15 ... 0.2 MΩ | 0.15 ... 0.2 MΩ | < 50 MΩ | 1 bis 5 MΩ |
| Solid state electrode | Solid state electrode | Solid state electrode | Solid state electrode | Matrix electrode | Matrix electrode |
| Min.: 20 mm, Max.: 80 mm | | | | | |
| 120 mm | | | | | |
| 12 mm | | | | | |
| Electrolyte | | | | Electrolyte and exchange head | Electrolyte and exchange head |
| Waterproof DIN plug | | BNC plug | Waterproof DIN plug | | |
| 1 m fixed cable | | | | | |

*=Suitable connection cables can be found on page 28








pH Electrodes Guide - Applications

| Application | Field | | | | | Lab | | | | | | | | | | |
|----------------------------|-------|----------|----------|-----|------|-----|----------|----|---|-----|------|-----|-----|-----|-----|-----------------|
| | 2x | 4x / 940 | 5x / 950 | Top | Sp-T | 6x | 8x / 980 | 9x | H | HWx | Micx | Spx | Sur | RJD | 945 | Sensolyt® 900 P |
| Chemistry | | | | | | | | | | | | | | | | |
| Diluted acids | | | | | | ● | ● | ● | | ○ | | | | | ● | |
| Diluted alkalis | | | | | | | | | ● | | | | | | | |
| Emulsions, water-based | | | | | | ● | ● | ● | ● | ● | | | | | ● | ● |
| Non-aqueous liquids | | | | | | | | | ○ | ○ | | | | | | |
| Oil/water emulsions | | | | ● | | ● | ● | ● | ● | ● | | | | ● | ● | ● |
| Sulfide-containing liquids | | | | ● | | | | | | ● | | | | ● | | |
| Industry | | | | | | | | | | | | | | | | |
| Boiler feed water | | | | | | ○ | ○ | ○ | | ● | | | | | ○ | |
| Cooling water | | | | | | ● | ● | ● | | ● | | | | | ● | |
| Cutting oil emulsions | | | | ● | | | | | | | | | | ● | | ● |
| Dye solutions | | | | | | ● | ● | ● | | ● | | | | | ● | |
| Galvanic wastewater | ● | ● | ○ | ● | | ○ | ○ | ○ | | ○ | | | | | | |
| Galvanic baths | | | | ● | | ● | ● | ● | | ○ | | | | ● | ● | |
| Waste water | ● | ● | ○ | ● | | ○ | ○ | ○ | | | | | | | ○ | ● |
| Paper extract | | | | | | ● | ● | ● | | | | | | | | |
| Aquarium water | ● | ● | ● | ● | | ○ | ○ | ○ | | | | | | | | |
| Condensate | | | | | | | | | | ● | | | | | | |
| Distilled water | | | | | | | | | | ● | | | | | | |
| Fully desalinated water | | | | | | | | | | ● | | | | | | |
| Saline solutions | ○ | ○ | ○ | ○ | | ● | ● | ● | ○ | ● | | | | | ● | ● |
| Suspensions | | | | ● | | | | | | ● | | | | ● | | ● |
| Swimming pool water | ● | ● | ● | ● | | ● | ● | ● | | | | | | | ● | |
| Waster water, general | ● | ● | ○ | ● | | ○ | ○ | ○ | | | | | | | ○ | ● |
| Drinking water | ○ | ○ | ● | ○ | | ● | ● | ● | | ○ | | | | | ● | |
| Groundwater | ● | ● | ○ | ● | | ○ | ○ | | | | | | | | ○ | ● |
| Lake water | ○ | ○ | ○ | ○ | | ● | ● | ● | | ● | | | | | ● | ● |
| Rain water | | | | | | ○ | ○ | ○ | | ● | | | | | ○ | |
| Sea water | | | | | | ○ | ○ | ○ | ○ | ● | | | | | ○ | |
| Soil extract | | | | | | ● | ● | ● | | ● | | | | | ● | |
| Surface water | ● | ● | ● | ● | | ● | ● | ● | | ○ | | | | | ● | ● |
| Hair color | | | | ● | | ● | ● | ● | | ● | | | | | ● | |
| Hair gel | | | | | ● | | | | | | | ● | ● | | | |
| Lotions / Creams | | | | ● | ● | | | | | | ● | ● | ● | | ● | |
| Make-up | | | | | ● | | | | | | ● | ● | | | | |
| Mouthwash | | | | | | ● | ● | ● | | ● | | | | | ● | |
| Shampoo | | | | ● | | | | | | ● | | | | ● | | ● |
| Toothpaste | | | | ● | ● | | | | | | ● | | | ● | | ● |
| Household cleaners | ○ | ○ | ○ | ○ | | ● | ● | ● | ● | ○ | | | | | ● | ● |


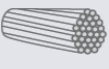



● recommended for this application ○ applicable for this application

| Application | Field | | | | | Lab | | | | | | | | | | |
|-----------------------------------|-------|----------|----------|-----|------|-----|----------|----|---|-----|------|-----|-----|-----|-----|-----------------|
| | 2x | 4x / 940 | 5x / 950 | Top | Sp-T | 6x | 8x / 980 | 9x | H | HWx | Micx | Spx | Sur | RJD | 945 | Sensolyt® 900 P |
| Paints | | | | | | | | | | | | | | | | |
| Bleach | | | | ○ | | ○ | ○ | ○ | ● | ○ | | | | | | ○ |
| Dispersion paints | | | | ● | | | | | | | | | | ● | | ● |
| Paints & varnishes, water-soluble | | | | ● | | ○ | ○ | ○ | | ○ | | | | ● | ○ | ● |
| Solids / Surfaces | | | | | | | | | | | | | | | | |
| Leather (Surface) | | | | | | | | | | | | | ● | | | |
| Paper | | | | | | | | | | | | | ● | | | |
| Skin (Surface) | | | | | | | | | | | | | ● | | | |
| Solids (Penetration) | | | | | ● | | | | | | | ● | | | | |
| Solids (Surface) | | | | | | | | | | | | | ● | | | |
| Beverages | | | | | | | | | | | | | | | | |
| Beer | | | | ○ | | ● | ● | | | ● | | | | | ● | |
| Lemonade | | | | ● | | ● | ● | ● | | ○ | | | | | ● | |
| Sparkling Water | ○ | ○ | | ● | ○ | ● | ● | ● | | ○ | | | | | ● | |
| Fruit juice | | | | ● | | ● | ● | ● | | ○ | | | | | ● | |
| Vegetable juice | | | | ○ | | ● | ● | ● | | ○ | | | | | ● | |
| Wine | | | | ○ | | ● | ● | ● | | ● | | | | | ● | |
| Milk | | | | | | ● | ● | ● | | ● | | | | | ● | |
| Food | | | | | | | | | | | | | | | | |
| Bread | | | | | ● | | | | | | | | ● | | | |
| Coffee extract | | | | ○ | | ● | ● | ● | | ● | | | | | ● | |
| Fish | | | | | ● | | | | | | | ● | | | | |
| Honey | | | | ○ | | | | | | ● | | | | ○ | | |
| Marmalade | | | | ○ | | | | | | ● | | | | ○ | | |
| Butter / margarine | | | | | ● | | | | | | | ● | ● | | | |
| Mayonnaise | | | | ● | ● | | | | | | | ● | | ● | | |
| Meat | | | | | ● | | | | | | | ● | | | | |
| Sausage | | | | | ● | | | | | | | ● | | | | |
| Vinegar | | | | ● | | ● | ● | ● | | ● | | | | | ● | |
| Fruits / vegetabels | | | | | ● | | | | | | | ● | | | | |
| Cheese | | | | | ● | | | | | | | ● | | | | |
| Yogurt | | | | | ● | ○ | ○ | ○ | | ● | | ● | | | ○ | |
| Pharma, Biology, Medicine | | | | | | | | | | | | | | | | |
| Agar-agar gel | | | | | | | | | | | | | ● | | | |
| Bacterial cultures | | | | | | | | | | | | | ● | | | |
| Enzyme solutions | | | | | | ● | ● | ● | | ● | | | | | ● | |
| Gastric juice | | | | | | ● | ● | ● | | ● | | | | | ● | |
| Infusion solutions | | | | | | ● | ● | ● | | ● | | | | | ● | |
| Protein-containing liquids | | | | | | ● | ● | ● | | ● | | ● | | | ● | |
| Saliva | | | | | | | | | | | | ● | | ● | | |
| Serum | | | | | | ● | ● | ● | | ● | | | | | ● | |
| Tris buffer solutions | | | | | | ● | ● | ● | | ● | | | | | ● | |
| Urine | | | | | | ● | ● | ● | | ● | | | | | ● | |
| Vials | | | | | | | | | | ● | | | | | | |

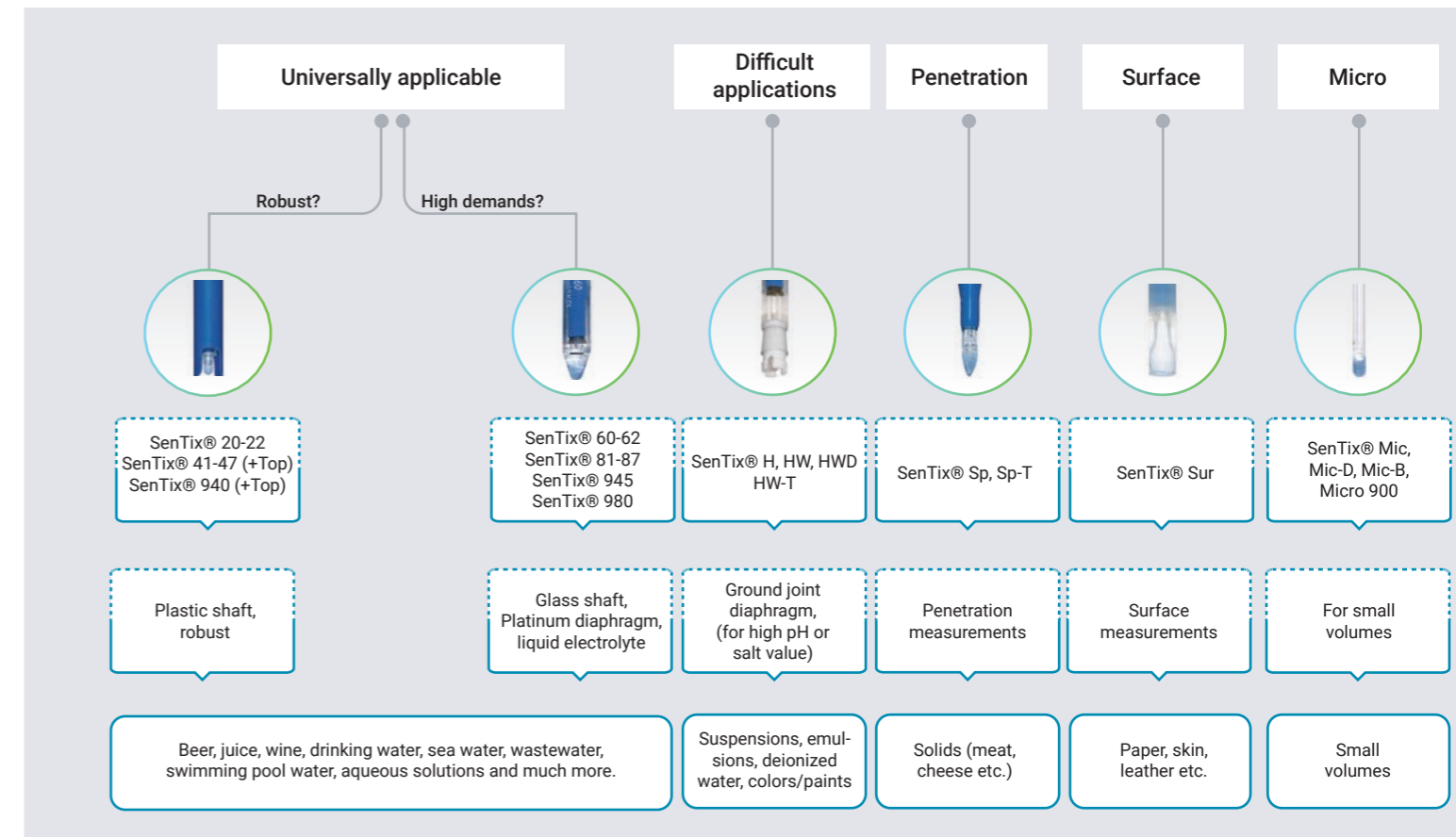
pH Electrodes Guide - Membranes

| Head | Shape | Application |
|---|-----------|---|
|  | Sphere | Constant quality, low resistance due to large surface area, suitable for most applications |
|  | Cone | Shockproof , easy to clean |
|  | Calotte | Easily wetted , shockproof, easy to clean |
|  | Cylindric | Shockproof , for general applications |
|  | Spear | Shockproof, for penetration of semi-solid samples |
|  | Flat | Shockproof, easy to clean, primarily for measurements on surfaces |
|  | Micro | Measurement in small volumes , suitable for general applications |

pH Electrodes Guides - Diaphragms

| Type | Resistance | Outflow | Application |
|---|------------|----------------|---|
|  | 1 kOhm | up to 0.2 ml/d | General purpose, robust |
|  | 0.5 kOhm | up to 1 ml/d | Universally applicable, quick adjustment, constant, insensitive to pollution |
|  | 0.2 kOhm | up to 3 ml/d | Suitable for emulsions, ultrapure water, easy to clean |
|  | 0.1 kOhm | - | Symmetrical, easy to handle, insensitive to pollution , suitable for wastewater, suspensions |
|  | 1 kOhm | - | Quick adjustment, easy handling |

pH Electrodes Guide - Selection Guide



Do you have questions about choosing the right electrode for your application?

We will be glad to help you:

<https://www.xylenalytics.com/en/contact/consult-your-expert>



pH Electrodes - Blog

In our blog you can regularly read current and exciting articles on the topic of "pH". Our experts will give you tips on calibration, selecting pH electrodes or how to care for and store pH electrodes.





Just subscribe to our blog and don't miss out none of our articles:

<https://www.xylenalytics.com/en/company/blog>








Sensors - Accessories


Standard Buffers

| | Name | Art.-No. | Description |
|---|---|--|---|
|  | PL 2 (pH 1.679 /1.68) PL 4 (pH 4.006 /4.01) PL 7 (pH 6.865 /6.87) PL 9 (pH 9.180 /9.18) PL 12 (pH 12.47) | 109000 109110 109120 109130 109400 | Standard (DIN/NIST) buffer solution for special applications 1 x 250 ml |
|  | SORT/K | 109415 | Calibration and maintenance set with standard (DIN/NIST) buffer solution: <ul style="list-style-type: none"> 3 bottles with 250 ml each: pH 4.006 - 6.865 - 9.180 1 bottle with 250 ml pepsin cleaning solution 1 bottle with 250 ml KCl solution 3 mol/l |
|  | STAPL-4/7/9 | 109020 | Working reference buffer solution <ul style="list-style-type: none"> 10 x 6 glass ampoules with 20 ml each: pH 4.01, pH 6.87, pH 9.18 (Traceable to NIST/PTB. Steam-sterilized package) |
|  | QSC Kit | 109830 | Initial calibration kit for IDS pH electrodes: <ul style="list-style-type: none"> 3 ampoules pH 4.01; pH 6.86; pH 9.18 |

KCl, Cleaning and References

| | Name | Art.-No. | Description |
|---|------------------|----------|--|
|  | PEP/pH (3x250ml) | 109648 | Pepsin cleaning solution (<i>only for electrodes with liquid electrolytes</i>), to remove protein-containing contamination from the diaphragm, 3 x 250 ml |
|  | KCl-50 | 109706 | KCl solution, 3 mol/l, 1 x 50 ml |
|  | KCl-250 | 109705 | KCl solution, 3 mol/l, 1 x 250 ml |
|  | ELY/ORP/Ag | 109735 | Electrolyte with 2 mol/l KNO ₃ + 0.001 mol/l KCl (<i>for combined Ag-electrode</i>), 1 x 250 ml |
|  | RH 28 | 109740 | ORP buffer solution pH 7, U _H = 427 mV, 1 x 250 ml |


Storage

| | Name | Art.-No. | Description |
|---|-------|-----------|---|
|  | Z 453 | 285123170 | Plastic container with compression ring seal and bayonet lock for electrodes with a diameter of 12 mm |

Technical Buffer Solutions

| | Name | Art.-No. | Description |
|---|--|--------------------------------------|--|
|  | STP 4 (pH 4.01) STP 7 (pH 7.00) STP 10 Trace (pH 10.01) | 108706 108708 108722 | Technical buffer solution, 1 x 50 ml |
|  | TPL 4 (pH 4.01) TPL 7 (pH 7.00) TPL 10 Trace (pH 10.01) | 108800 108802 108805 | Technical buffer solution, 1 x 250 ml |
|  | TPL 4/10 (pH 4.01) TPL 7/10 (pH 7.00) TPL 10 Trace/10 (pH 10.01) | 108801 108803 108809 | Technical buffer solution, 10 x 250 ml |
|  | TPL 4/25 (pH 4.01) TPL 7/25 (pH 7.00) TPL 10 Trace/25 (pH 10.01) | 108811 108812 108814 | Technical buffer solution, 25 x 250 ml |
|  | TEP 2 (pH 2.00) TEP 4 (pH 4.01) TEP 7 (pH 7.00) TEP 10 Trace (pH 10.01) | 108698 108700 108702 108703 | Technical buffer solution, 1 x 1 Liter |
|  | TEP 4/10 (pH 4.01) TEP 7/10 (pH 7.00) TEP 10 Trace/10 (pH 10.01) | 108701 108725 108727 | Technical buffer solution, 10 x 1 Liter |
|  | TEP 4/25 (pH 4.01) TEP 7/25 (pH 7.00) TEP 10 Trace/25 (pH 10.01) | 108728 108729 108731 | Technical buffer solution, 25 x 1 Liter |
|  | SORT/TPL/TRACE | 108824 | Calibration and maintenance set technical buffer solution: <ul style="list-style-type: none"> 3 bottles with 250 ml each: pH 4.01/7.00/10.01 Trace 1 bottle with 250 ml KCl solution 3 mol/l 1 bottle with 250 ml pepsin cleaning solution |
|  | SORT/TPL/G/TRACE | 108825 | Calibration and maintenance set technical buffer solution (Gel electrodes): <ul style="list-style-type: none"> 3 bottles with 250 ml each: pH 4.01/7.0/10.01 Trace 2 bottles with 250 ml each: KCl solution 3 mol/l |
|  | SORT/TEP/TRACE | 108826 | Calibration and maintenance set technical buffer solution: <ul style="list-style-type: none"> 3 bottles with 1 l each: pH 4.01/7.0/10.01 Trace 1 bottle with 250 ml: pepsin cleaning solution 1 bottle with 250 ml KCl solution 3 mol/l |
|  | SORT/TEP/G/TRACE | 108827 | Calibration and maintenance set technical buffer solution (Gel electrodes): <ul style="list-style-type: none"> 3 bottles with 1 l each: pH 4.01/7.0/10.01 Trace 2 bottles with 250 ml each: KCl-Lösung 3 mol/l |

Conductivity Standard


| | Name | Art.-No. | Description |
|---|-------------|----------|---|
|  | E-SET Trace | 300572 | Calibration set for conductivity measurement <ul style="list-style-type: none"> 6 bottles with 50 ml each: calibration and control standard, KCl 0.01 mol/l, 1413 µS/cm bei 25 °C (traceable to PTB/NIST) |

Sensors - Accessories



Cable & Plugs

| | Name | Art.-No. | Description |
|---|--|--|---|
|  | AS/DIN AS/DIN - 3 | 108110 (1m) 108112 (3m) | Connection cable with DIN plug (for pH/ORP electrodes with plug head) |
|  | AS/BNC | 108114 | Connection cable with BNC plug (for pH/ORP electrodes with plug head) 1 m cable |
|  | ADA-DIN-BNC | 108509 | Adapter for connecting pH electrodes with BNC plug to a meter with DIN socket |
|  | IDS WLM-S | 108141 | Wireless module for IDS plug head sensors for radio transmission of measurement values. Includes rechargeable LiPo-battery. Splash water protected according IP 66. |
|  | IDS WLM-M | 108142 | Wireless module for connecting to MultiLine® 3310/3510/36x0 IDS and inoLab® Multi IDS. Connects up to three sensors at the same time (depends on meter capabilities). Also for operation of OxiTop®-IDS. |
|  | WLM Charger | 108143 | Charger without external power supply for charging IDS WLM-S modules, with USB plug, cascable, with USB cable. For charging via PC or external USB power supply. |
|  | IDS WLM Kit | 108144 | Kit consisting of one of each IDS WLM-S, IDS WLM-M and WLM Charger including USB power supply for wireless operation of IDS plug head sensors. |
|  | AS/IDS-1.5 AS/IDS-3 AS/IDS-6 AS/IDS-10 AS/IDS-15 AS/IDS-20 AS/IDS-25 AS/IDS-40 AS/IDS-60 AS/IDS-100 | 903850 (1.5m) 903851 (3m) 903852 (6m) 903853 (10m) 903854 (15m) 903855 (20m) 903856 (25m) 903857 (40m) 903858 (60m) 903859 (100m) | Connection cable for MPP IDS respectively IDS sensors with waterproof plug head |
|  | ADA S7/IDS | 108130 | Adapter cable 1.5 m with digital connector, for connecting a SenTix® combination electrode with S7 plug head to a MultiLine® or inoLab® IDS. |






Flow-through Vessel

| | Name | Art.-No. | Description |
|---|--------|----------|---|
|  | D 3Sen | 903842 | Flow-through vessel for up to three pH, ORP, D.O. or conductivity sensors (also IDS). With tube adapter for commercially available garden hoses inner diameter 19 mm (3/4"). Including clamp also for mast mounting. |



Case Sets

| | Name | Art.-No. | Description |
|---|-----------------|----------|--|
|  | KS Universal | 2F0001 | Universal Case set for all analog and digital handhelds (<i>without meter and sensors</i>) incl. <ul style="list-style-type: none"> • Armoring SM Pro • Buffer STP 4 und STP 7 • Stand & beaker • Conductivity standard 1413 µS/cm at 25° C |
|  | KS MultiLine® 2 | 2F0004 | Case set for MultiLine® multiparameter systems with 3 IDS sensors (large field case) (<i>without meter and sensors</i>) incl.: <ul style="list-style-type: none"> • Armoring SM Pro • Buffer STP 4 and STP 7 • Stand & beaker • Conductivity standard 1413 µS/cm at 25° C |

Armoring

| | Name | Art.-No. | Description |
|---|-----------|----------|--|
|  | A pHLab/K | 903841 | Plastic armoring for protecting pH and ORP electrodes with length 120 mm in the field and in a plant |
|  | A 325/K | 903830 | Plastic armoring with protective hood for oxygen sensor CellOx® 325 and conductivity cell TetraCon® 325 |
|  | A 925/K | 903836 | Armor for IDS field sensors including guard, suitable for TetraCon® 925, SensoLyt® 900, FDO® 925, material: POM . |
|  | A 925-P/K | 903839 | Armor for IDS field sensors including guard designed for TetraCon® 925-P, SensoLyt® 900-P, SensoLyt® ORP 900-P, FDO® 925-P, VisoTurb® 900-P, material: POM . |
|  | A 925-P/S | 903840 | Armor for IDS field sensors including guard designed for TetraCon® 925-P, SensoLyt® 900-P, SensoLyt® ORP 900-P, FDO® 925-P, material: Stainless steel . |

Stands

| | Name | Art.-No. | Description |
|---|----------|----------|--|
|  | STH 650 | 109809 | Benchtop stand for pH electrodes, ion-sensitive electrodes, reference electrodes, temp sensors, oxygen sensors and TetraCon® 325 cond cells |
|  | STH 9400 | 109813 | Stand including electrode holder for right or left mounting, for inoLab 94x0 |

Your Partner for measuring devices and sensors

Our service for you

Do you know our **services** for your electrochemical and optical measuring devices and sensors?

- Certification
- Validations according to IQOQPQ (only for laboratory devices)
- Device verification
- Calibration

Service is not just software, hotline, calibration service, rental equipment and repairs, but for us this means also "service **to the customer**". We work closely with you to find your optimal solution. By watching and listening carefully, your problem can be properly understood and effective solutions are implemented.

Our service range:

- Product advice by telephone/virtual
- Product advice in person
- Technical and application support
- Training
- Hotline

Your advantages

- You are on the safe side! Your **sensors** have been checked by the manufacturer and given a **test seal**. This ensures that all parts are functional and that your **measured values are correct** when used correctly.
- You have **proof of the manufacturer** for your customers and for authorities.
- **Questions from your employees**, for example, when operating the sensor, can be clarified on site by our experts.
- We have a large selection of different sensors and can test them on site and check whether you are using the **ideal electrodes and testing equipment for your samples**.

Measuring devices from Xylem Analytics

For your daily work, whether in the lab or in the field, you will find both precise laboratory measuring devices and robust portable measuring systems. Please feel free to arrange a conversation for advice or find your optimal measuring device on our website.



Diverse parameters

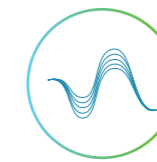
We are your partner for a wide variety of parameters that are measured in laboratories:



pH



Multiparameter



Photometry



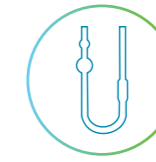
Temperature



Titration



Refractometry



Viscometry

Expert knowledge as a practical guide

On our blog pages you will find concentrated knowledge and know-how on various topics. You can also download our handbooks as PDF files. We have the right guide for all the parameters we measure!

<https://www.xylemanalytics.com/en/company/blog/handbooks>



Xylem | 'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

Xylem (XYL) is a Fortune 500 global water solutions company that empowers customers and communities to build a more water-secure world. Our 23,000 diverse employees delivered combined pro forma revenue of \$8.1 billion in 2023, optimizing water and resource management with innovation and expertise.

Join us at www.xylem.com and Let's Solve Water.

| | |
|--|--|
| Offers and orders Phone: +49 881 183-323 Orders.XAGS@xylem.com | Service Phone: +49 881 183-325 E-Mail: Service.XAGS@xylem.com |
| Technical Information Phone: +49 881 183-321 TechInfo.XAGS@xylem.com | Consult an Expert xylemanalytics.com/en/expert |



Xylem Analytics Germany Sales GmbH & Co. KG
Am Achalaich 11
82362 Weilheim
Germany

Phone: +49 881 183-0
Fax: +49 881 183-420
Info.XAGS@xylem.com
www.xylemanalytics.com

All names are registered tradenames or trademarks of Xylem Inc. or one of its subsidiaries.
Technical changes reserved.

© 2025 Xylem Analytics Germany Sales GmbH & Co. KG.

999347US

February 2025



November 2024