The pHSense range of pH analyzers from Pi utilize the very latest and best pH sensors available in the world today for measuring the online pH of any aqueous solution. They are combination glass electrodes with integral reference, automatic temperature compensation, which use no reagents, are extremely stable, and have reduced maintenance and reduced whole life costs.

- Up to 3 years continuous operation
- Stable and reliable - excellent process control
- Suitable for all potable and process waters
- Suitable for very low conductivity waters
- Integral temperature compensation
- Suitable for use in Autoflush (see separate brochure)

"The pH sensors from Pi are much more stable than others we’ve tried and they seem to last forever!" Kahraman Kayyoncu, Turkey

The pHSense sensors and flow cells are available with different controllers giving you the same great performance with different communication, display, and control options. With the pHSense range of online pH meters, you get everything that you need - and nothing that you don’t.

CRONOS® pHSense

- High Quality - Lowest Cost
- Multilingual
- High resolution grayscale display
- 9 buttons for easy navigation
- Graphing and data logging
- Enclosure; wall, panel, pipe or pole mounting. IP65/Nema 4x.
- Options:
  - Modbus RS485/LAN
  - Profibus DPV 1
  - Up to 2 sensors
  - PID/flow proportional controls
  - Remote sensors
  - Color display
  - Downloadable data logs

CRIUS® pHSense

- Highest Quality - Low Cost
- Multilingual
- High resolution color display
- Intuitive user interface
- Downloadable data logs
- Customizable home pages
- All CRONOS® options plus:
  - Up to 4 sensors
  - Remote access via LAN
  - Remote access via 3G/4G
  - Expandable to 16 sensors

Sensor Selection

pH1
- Suitable for pools and spas
- Max. temp 80°C
- Flow cell mounting options

pH2®
- Suitable for potable and process waters
- Max. temp 80°C
- Flow cell, at line tee, autoflush flow cell and welding stub mounting options

pH3
- Suitable for waste and process water
- Max. temp 80°C
- Autoclean immersion, at line tee, handrail and welding stub mounting options

pH5®
- Suitable for potable, waste and process waters
- Max. temp 100°C
- Flow cell, at line tee, autoflush flow cell, handrail and welding stub mounting options

pH6®
- Suitable for potable and process waters and boiler feedwater
- Max. temp 100°C
- Flow cell, at line tee, autoflush flow cell, handrail and welding stub mounting options

*Includes a temperature sensor for automatic temperature compensation.

For more information please see the individual brochures for CRONOS® and CRIUS®

www.processinstruments.net
Principle of Operation

At the heart of the pHSense are the pH electrodes. The pH5 electrode has a double-junction reference to prevent contamination of the reference from sample components. This design gives the electrode a longer life compared to ordinary electrodes (up to 3 years). The electrode also has a hemispherical glass measuring surface which is more durable than the traditional bulb-shaped glass. Although they command a higher price in the market place, these sensors are more than cost effective with their longer life and lower maintenance requirements, typically only needing calibration once per two or three months.

pH5 and pH6 are particularly sensitive to difficult applications such as very low ionic strength waters or high temperature applications. pH1 - pH3 are less expensive, more traditional combination electrodes.

Automatic Cleaning

As described in a separate brochure (ISB36 Autoflush), the pHSense can come equipped to automatically clean itself at user defined intervals with all the benefits of no operator intervention for 6 months. The Autoflush is particularly useful in food preparation, pulp and paper, and many applications where there is likely to be a build up of solids in the sample. Automatic cleaning is available for at line, and in line versions including dip and screw in Autoclean pipe versions. Please see the Autoflush brochure (ISB36) available on our website, or if you are online, please click here.

Specifications*

pH Electrodes

<table>
<thead>
<tr>
<th>Type</th>
<th>pH1 Combined reference, and measuring electrode</th>
<th>pH2 Combined reference, and measuring electrode</th>
<th>pH3 Combined reference, and measuring electrode</th>
<th>pH5 Combined reference, and measuring electrode</th>
<th>pH6 Combined reference, and measuring electrode</th>
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</thead>
<tbody>
<tr>
<td>Reference Type:</td>
<td>Ag/AgCl gel filled</td>
<td>Ag/AgCl gel filled</td>
<td>Ag/AgCl gel filled</td>
<td>Ag/AgCl gel filled</td>
<td>Ag/AgCl gel filled</td>
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<tr>
<td>pH Range:</td>
<td>0-12</td>
<td>0-12</td>
<td>0-13</td>
<td>0-14</td>
<td>0-14</td>
</tr>
<tr>
<td>Slope:</td>
<td>95-102%</td>
<td>95-102%</td>
<td>95-102%</td>
<td>95-102%</td>
<td>95-102%</td>
</tr>
<tr>
<td>Pressure Range:</td>
<td>0-7 Bar</td>
<td>0-7 Bar</td>
<td>0-7 Bar</td>
<td>0-7 Bar</td>
<td>0-7 Bar</td>
</tr>
<tr>
<td>Impedance:</td>
<td>≤135 MOhm</td>
<td>≤150 MOhm</td>
<td>≤130 MOhm</td>
<td>&lt;150 MOhm</td>
<td>&lt;150 MOhm</td>
</tr>
<tr>
<td>Response Time:</td>
<td>95% of step pH2 to pH12 ≤5s</td>
<td>95% of step pH2 to pH12 ≤5s</td>
<td>95% of step pH2 to pH12 ≤5s</td>
<td>95% of step pH2 to pH12 ≤5s</td>
<td>95% of step pH2 to pH12 ≤5s</td>
</tr>
<tr>
<td>Temperature Range:</td>
<td>0-80°C</td>
<td>-5-80°C</td>
<td>0-80°C</td>
<td>0-100°C</td>
<td>0-100°C</td>
</tr>
<tr>
<td>Conductivity:</td>
<td>&gt;100μS/cm</td>
<td>&gt;300μS/cm</td>
<td>&gt;100μS/cm</td>
<td>&gt;100μS/cm</td>
<td>&gt;100μS/cm</td>
</tr>
<tr>
<td>Wetted Surface:</td>
<td>PVC/Glass</td>
<td>PVC/Glass</td>
<td>PVC/Glass</td>
<td>PVC/Glass</td>
<td>PVC/Glass</td>
</tr>
<tr>
<td>Junction:</td>
<td>Single Gelled</td>
<td>Single Gelled</td>
<td>Double Gelled</td>
<td>Double Gelled</td>
<td>Double Gelled</td>
</tr>
<tr>
<td>Cable Length:</td>
<td>1m</td>
<td>3m</td>
<td>6m</td>
<td>6m</td>
<td>6m</td>
</tr>
<tr>
<td>Shelf Life:</td>
<td>12 months</td>
<td>12 months</td>
<td>12 months</td>
<td>12 months</td>
<td>12 months</td>
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<tr>
<td>ATC:</td>
<td>-</td>
<td>PT100</td>
<td>PT100</td>
<td>PT100</td>
<td>PT100</td>
</tr>
<tr>
<td>Estimated Life (Application Dependent):</td>
<td>12-18 months</td>
<td>12-18 months</td>
<td>12-18 months</td>
<td>3 years</td>
<td>18 months</td>
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<tr>
<td>Warranty:</td>
<td>3 months</td>
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<td>3 months</td>
<td>6 months</td>
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</tbody>
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*All subject to change without notice