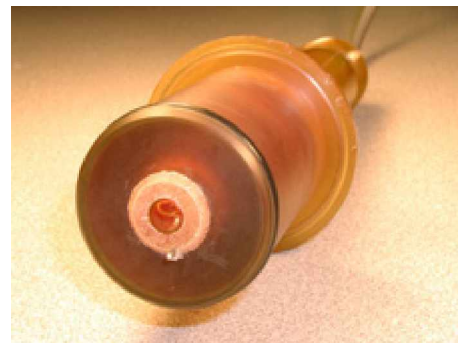




### Sanitary Sensors

ASTI offers unique solutions for process measurement problems:

- Best reference lifetime in process industry through nonporous cross linked conductive polymer
- Rugged industrial grade sensors can operate in a temperature range from -30 to 150 degrees centigrade
- Convenient Quick-Disconnect feature allows easy calibrations and cleaning
- Applications Specific pH glasses service processes such as acid/fluoride, saturated sodium, ultrapure water, cyanide, sulfide, high / ultra high temperature, slurry/viscous materials, paper/pulp
- Each standard sensor selection and/or special sensor design are based upon customer application information
- Sanitary sensors are manufactured with the Ultem™ (PEI) plastic housing.
- These solid state Sanitary Sensors are ideal for aggressive food and beverage processes requiring cleaning.
- The solid state reference is highly resistant to dehydration and our thick wall glass is nearly impervious to cracking, even under high pressure conditions.
- Highly accurate pH glass is well suited for measurements requiring pasturization and blending procedures.





### Standard Applications

- Acid/Fluoride
- High / Ultra High Temperature
- Paper/Pulp
- Slurry/Viscous Materials
- Saturated Sodium
- Oxidation Reduction Potential
- Sulfides
- Ultrapure Water
- General Purpose

### Special Applications

- Organic Solvents Resistant
- Cyanide Resistant
- Dissolved Gases:
- Cl<sub>2</sub>, ClO<sub>2</sub>, NH<sub>3</sub>, SO<sub>2</sub> / SO<sub>3</sub> / NO<sub>x</sub> Resistant

**PLEASE INQUIRE FOR ANY APPLICATIONS NOT LISTED HERE**

### LIMITS & CAPABILITIES (PARTIAL LIST ONLY)

#### pH & ORP MEASUREMENTS

- Fluorides up to 50,000 PPM and -0.5 pH
- Sulfides up to Saturation
- Cyanides up to 500 PPM
- High pH range up to 14.5 (with ASTI calibration procedures and buffers)
- Low pH range up to -0.5 (with ASTI calibration procedures and buffers)
- Low Temperature up to -30 °C
- High Temperature up to 150 °C
- High Pressure up to 150 p.s.i.
- Solids Content up to 12% Consistency Pulp
- Almost All Organic Chemical Mixtures (Minimum 1-2 % aqueous content)
- ORP Measurements in Completely Non-Aqueous Medium
- Bleaching Applications using Chlorine and Chlorine Dioxide
- Sterilization Applications using Peroxide, Ozone & Dissolved O<sub>2</sub>



### Replacement Sensors

#### **REQUIRING Integrated Preamplifiers**

Instruments with preamplifiers are supplied with the appropriate internal temperature compensation, solution ground & integrated (embedded) OEM compatible high-impedance CMOS operational amplifiers (a.k.a. preamplifiers). Not that some manufacturers can support sensors with or without preamplifiers on the same meter. Appropriate sensor hook-up schematics are provided with each sensor, and can be found this web site.

### Replacement Sensors

#### **NOT REQUIRING Integrated Preamplifiers**

Instruments without preamplifiers are supplied with the appropriate internal temperature compensation and/or solution ground signals. Appropriate sensor hook-up schematic are provided with each sensor, and can be found here.

### Fully Supported Hardware

Electro-Chemical Devices (100% Compatible, FULL SUPPORT)  
T-20, T-21, T-27, T-28, T-29, T-30, C-22

Foxboro (100% Compatible, FULL SUPPORT)  
870IT , 873, 873DPX, 875IT

Jenco (100% Compatible, FULL SUPPORT)  
6311

Leeds and Northrup (Honeywell) (100% Compatible, FULL SUPPORT)  
7030, 7075, 7076, 7079, 7081, 7082 , 7083, 7084, 7096, 9782

Uniloc-Rosemount (100% Compatible, FULL SUPPORT)  
1000, 1001, 1002, 1003, 1050, 1181 , 1054, 1054A, 1054B, 1055, 2081, 3081, 81, 54pH/ORP, 54e, 5081, XMT

### Fully Supported Hardware

Endress+Hauser (100% Compatible, FULL SUPPORT)  
CPM 223/253, CPM 152, CPM 153, CPM 280, CPM 431

Mettler Toledo - Ingold (100% Compatible, FULL SUPPORT)  
1120, 1140, 2050, 2100, 2220, 2400, 2500, 2800X  
M700, pH 1140, pH 2050e, pH 2100-PA, pH 2100e

TBI-Bailey Controls (100% Compatible, FULL SUPPORT)  
TB515, TBN580, TB701/702, TB82pH, TB84pH  
4630, 4631, 4635, 4636, AX416, AX436, AX468, AX460, AX466

### Supported Hardware with Known issues

Uniloc-Rosemount (Limited Compatability, Some Known Issues)  
1054, 1054A & 1054B

Great Lakes Instruments (Most models supported, Some minor known issues)  
33, 53, 60, 62, 63, 70, 83, 90, 95, 570, 670  
671, 690, 691, 692, P33, P53, P63, Pro-Series P3

Signet (Limited Compatability, Some Known Issues)  
710 et. al., 2720, 9030, 9040, 8710, 8750, 5700

IC Controls (Limited Compatibility, Some Known Issues)  
650, 652, 653, 653-9, 654, 655, 656, 657

Aquametrix (Most models supported, Some minor known issues)  
SHARK, 2200P, 2200R

### Supported Hardware with Known issues

Johnson Yokogawa (Limited Compatibility, Some Known Issues)  
pH/ORP 200, pH/ORP 400, pH/ORP 202, pH/ORP 402  
pH150, pH100, OR100

**PLEASE INQUIRE FOR ANY INSTRUMENTATION NOT LISTED**

**2 1/2" Sanitary Configuration**

**Standard, Ultem (PEI) body**



[Drawing <6-7> \(pH Bulb\)](#)  
[Drawing <6-7-Pt> \(ORP- Platinum Band\)](#)  
[Drawing <6-8> \(Flat pH\)](#)



# IOTRON™ SENSORS

## INTEGRATED pH/ORP SENSOR SPECIFICATIONS

### Sanitary Sensor Selection Guide

<b>Iotron™ Sensor Selection Guide</b>	<b>2 1/2 " Sanitary Configuration</b>
<b>Sensor Description</b>	<b>ULTEM</b>
<b>General Purpose</b>	<a href="#"><u>Drawing &lt;6-7&gt;</u></a> <a href="#"><u>6031/SN (Specs)</u></a>
<b>High Temperature</b>	<a href="#"><u>Drawing &lt;6-7&gt;</u></a> <a href="#"><u>6131/SN (Specs)</u></a>
<b>Ultra High Temperature</b>	Not Available
<b>Slurry Viscous Material</b>	<a href="#"><u>Drawing &lt;6-8&gt;</u></a> <a href="#"><u>6331/SN (Specs)</u></a>
<b>Acid/ Fluoride Resistant</b>	<a href="#"><u>Drawing &lt;6-7&gt;</u></a> <a href="#"><u>6431/SN (Specs)</u></a>
<b>Paper/ Pulp Resistant</b>	Not Available
<b>Sulfide Resistant</b>	Not Available
<b>Ultrapure Water</b>	Not Available
<b>ORP</b>	<a href="#"><u>Drawing &lt;6-7-Pt&gt;</u></a> <a href="#"><u>6831/SN (Specs)</u></a>
<b>Saturated Sodium Resistant</b>	<a href="#"><u>Drawing &lt;6-7&gt;</u></a> <a href="#"><u>6931/SN (Specs)</u></a>

### Sanitary Sensor Options

- All sensors are configured without tines (no guard)
- Mount sanitary sensor with any standard sanitary flow cell
- Fast temperature compensation response may be desired for installations with variable temperature conditions (Iotron™ AccuTemp™)



**GET THE COMPLETE ASTI PART NUMBERING GUIDE FOR MORE DETAILS**

### APPENDIX "A"

#### Custom Applications

#### Alpha Prefix

Dissolved Chlorine Gas	C
Dissolved Ammonia Gas	A
Organic Media Applications	L
Teflon Silicone Required*	TS
Triple Junction*	TJ
Position Insensitive Assembly*	H
Mid-Level HF Resistant	MF
High-Level HF Resistant	HF
Accu-Temp Option for Fast Temperature Response*	X
Low Impedance Option	GP

#### Custom Configurations

#### Alpha Prefix

Solution Ground Addition (For Sensors Without Preamplifiers)*	Y
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**\* Additional Charges may apply for these options.**