



# IOTRON™ SENSORS

## INTEGRATED pH SENSOR SPECIFICATIONS

|   |   |
|---|---|
| <u>Part number:</u>                                 | 6650A   |
| <u>Configuration:</u>                               | 3/4" – 3/4" MNPT Integrated Hydronium Ion Selective Sensor  |
| <u>General Specifications:</u>                      |   |
| <u>Concentration Range:</u>                         | N/A   |
| <u>Lowest Limit of Detection:</u>                   | N/A   |
| <u>pH Range:</u>                                    | 6 to 8 pH   |
| <u>Temperature Range:</u>                           | 5 to 40 ° C   |
| <u>Pressure Range:</u>                              | 1 to 10 psia (6.9 to 138 kPa absolute)  |
| <u>Body Material:</u>                               | CPVC (Chlorinated-Polyvinyl-Chloride)   |
| <u>Junction Material:</u>                           | Kynar (Poly-Vinylidene-Fluoride)  |
| <u>Dimensions:</u>                                  | Drawing <6-5>   |
| <u>Cable:</u>                                       | RG 174/U Coaxial (without preamplifier)   |
| <u>Connector:</u>                                   | BNC (unless otherwise specified)  |
| <u>Ion Sensor Specifications:</u>                   |   |
| <u>Measuring Membrane:</u>                          | Selective Hydronium Sensitive Membrane (organic)  |
| <u>Dimensions:</u>                                  | 0.310, (7.8 mm) DIA   |
| <u>Initial Impedance:</u>                           | Less than 100 M Ohms @ 25 ° C   |
| <u>Interfering Ions:</u>                            |   |
| <u>Given in Ratios of Permissible Excess:</u>       | Na <sup>+</sup> (10 <sup>10</sup> ), K <sup>+</sup> (10 <sup>10</sup> ), Ca <sup>+2</sup> (10 <sup>10</sup> ) Excellent Selectivity in biological media.  |
| <u>Interfering Ion / Measured Ion (in Molarity)</u> |   |
| <u>Reference System Specifications:</u>             |   |
| <u>Type:</u>  | Double Junction   |
| <u>Reference Half Cell:</u>                         | Ag/AgCl, Saturated KCl  |
| <u>Primary Junction:</u>                            | Porous Ceramic, Saturated KCl in crosslinked polymer  |
| <u>Secondary Junction:</u>                          | Porous Kynar, Saturated with Na <sub>2</sub> SO <sub>4</sub> in crosslinked polymer   |
| <u>Surface Area:</u>                                | 366,000 mil <sup>2</sup> , (236 mm <sup>2</sup> )   |
| <u>Special Features:</u>                            | <p>Crosslinked polymer in the reference system is resistant to heat, solvents and to most chemicals. Sensor holds an excess of Na<sub>2</sub>SO<sub>4</sub> assuring saturation at all temperatures and extending the life of the sensor.</p> <p>The sensor is designed to resist the interactions of a wide range of chemicals and some solvents used in chemical processes.</p> <p>The construction of the sensor permits easy access to the sensing and reference surfaces for cleaning or inspection.</p> |
| <u>Recommended Applications:</u>                    | Nitrite ion concentration in aqueous solution from ultrapure water through waste water to industrial process solutions.   |
| <u>Storage and Shelf Life:</u>                      | At room temperature with closed protector cap, 1 year from date of manufacture.   |
| <u>Standard Hook-Up Options:</u>                    | No Preamp - BNC Connector + TC lead wires<br>With Preamp – Multiconductor Lead Wires – See Hook Up Schematics   |

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| REVISIONS |     |             | DATE | APPROVED |
|-----------|-----|-------------|------|----------|
| ZONE      | REV | DESCRIPTION |      |          |
| 2         | 1   |             |      |          |



|                        |         |                                    |              |
|------------------------|---------|------------------------------------|--------------|
| <b>ASTI</b>            |         | Advanced Sensor Technologies, Inc. |              |
| INTEGRATED pH SENSOR   |         |                                    |              |
| REF. DRAWING <6-5>     |         |                                    |              |
| SIZE                   | WEB NO. | DWG NO.                            | REV          |
| 2                      | #<6-5>  | AST16-5.DWG                        | 1            |
| DRAWN BY: PETE CSISZAR |         | SCALE: NONE                        | SHEET 1 OF 1 |

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