



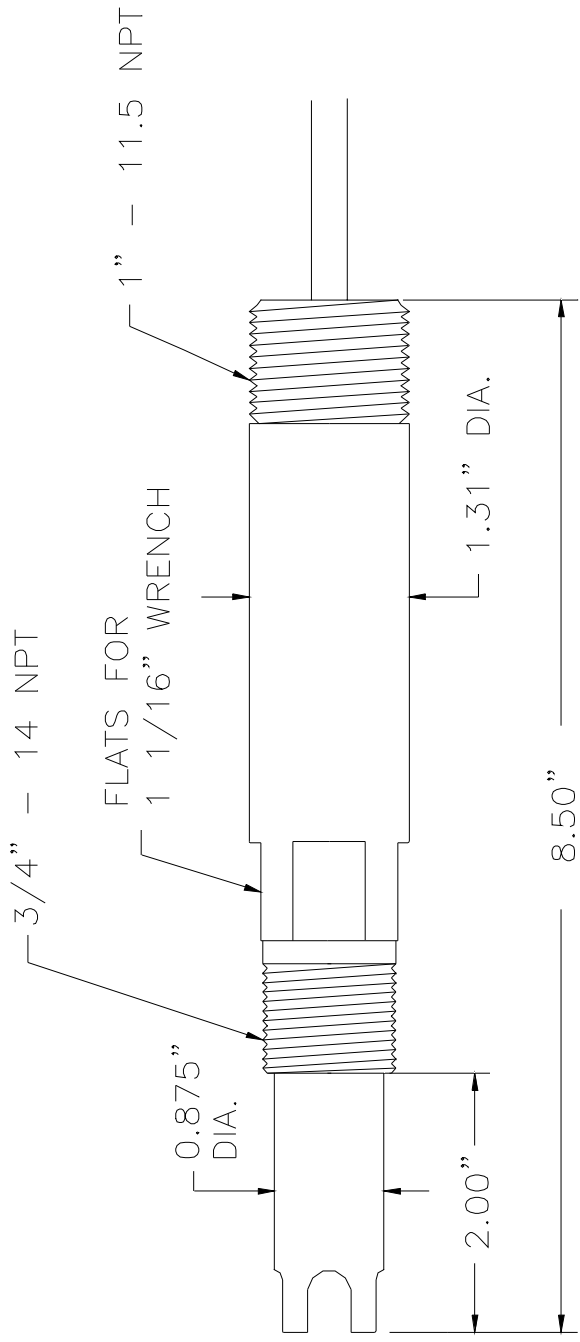
# IOTRON™ SENSORS

## ION SELECTIVE SENSOR SPECIFICATIONS

<u>Part number:</u>	AB 6540
<u>Configuration:</u>	3/4" – 1" MNPT Integrated Silver Ion Selective Sensor
<u>General Specifications:</u>	
<u>Concentration Range:</u>	0.1 - 10 <sup>-6</sup> Molar, 10,790 - 0.108 ppm
<u>Lowest Limit of Detection:</u>	3X10 <sup>-7</sup> Molar, 0.033 ppm
<u>pH Range:</u>	2.5 - 8.5 in AgNO <sub>3</sub>
<u>Temperature Range:</u>	5 to 40 °C
<u>Pressure Range:</u>	1 to 10 psig (6.9 to 69 kPag)
<u>Body Material:</u>	Ultem (Poly-Ether-Imide)
<u>Junction Material:</u>	Kynar (Poly-Vinylidene-Fluoride)
<u>Dimensions:</u>	Drawing <6-2>
<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 Silver Sensitive Membrane (organic)
<u>Dimensions:</u>	0.310, (7.8 mm) DIA
<u>Initial Impedance:</u>	Less than 200 M Ohms @ 25 °C
<u>Interfering Ions:</u>	
<u>Given in Ratios of Permissible Excess:</u>	Hg <sup>2+</sup> (200), K <sup>+</sup> (6.3X10 <sup>4</sup> ), Na <sup>+</sup> , Cu <sup>2+</sup> , Ni <sup>2+</sup> , Pb <sup>2+</sup> , Ca <sup>2+</sup> (8X10 <sup>4</sup> )
<u>Interfering Ion / Measured Ion (in Molarity)</u>	Sr <sup>2+</sup> (10 <sup>5</sup> ), Co <sup>2+</sup> (4X10 <sup>5</sup> )Mg <sup>+2</sup> (2X10 <sup>5</sup> ), Zn <sup>+2</sup> (4X10 <sup>5</sup> )Cd <sup>2+</sup> (2.5X10 <sup>5</sup> )
<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 KNO <sub>3</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 KNO<sub>3</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>	Lead 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  With Preamp – Multiconductor Lead Wires – See Hook Up Schematics

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
2	1			



**ASTI**  
Advanced Sensor Technologies, Inc.

**ION SELECTIVE SENSOR**  
REF. DRAWING <6-2>

SIZE	DWG NO.	REV
Z	#<6-2>	1
DRAWN BY: PETE CSISZAR		SCALE: NONE
DATE: MARCH, 2003		SHEET 1 OF 1

4 3 2 1