

## IOTRON<sup>TM</sup> SENSORS ION SELECTIVE SENSOR SPECIFICATIONS

Part number: AB 8110

Configuration: 1" Twist Lock, Integrated Chloride Ion Selective Sensor

**General Specifications:** 

<u>Concentration Range:</u>

1 to 10<sup>-5</sup> Molar, 35,000 to 0.350 ppm

<u>Lowest Limit of Detection</u>

3X10<sup>-6</sup> Molar, 0.105 ppm (105 ppb)

pH Range: 2 to 11

Temperature Range: 5 to 50 °C

Pressure Range: 1 to 20 psig (6.9 to 138 kPag)

Body Material: Ultem (Poly-Ether-Imide)

Junction Material: Kynar (Poly-Vinylidene-Fluoride)

Dimensions: Drawing <8-2>

Cable: RG 174/U Coaxial (without preamplifier)

Connector: BNC (unless otherwise specified)

Ion Sensor Specifications:

Measuring Membrane: Selective Chloride Sensitive Membrane (solid state)

Dimensions: 0.310, (7.8 mm) DIA

Initial Impedance: Less than 100 M Ohms @ 25 °C

Interferring lons:

Given in Ratios of Permissible Excess: OH<sup>-</sup> (80), Br<sup>-</sup> (3X10<sup>-3</sup>), I<sup>-</sup> (5X10<sup>-7</sup>), S<sup>2-</sup> (Trace)

Interferring Ion / Measured Ion (in Molarity)

Reference System Specifications:

Type: Double Junction

Reference Half Cell: Ag/AgCl, Saturated KCl

Primary Junction:

Porous Ceramic, Saturated KCl in crosslinked polymer

Secondary Junction:

Porous Kynar, Saturated with KNO<sub>3</sub>in crosslinked polymer

Surface Area: 366,000 mil<sup>2</sup>, (236 mm<sup>2</sup>)

<u>Special Features:</u> <u>Crosslinked polymer in the reference system is resistant to heat, solvents and to a contract to the contr</u>

most chemicals. Sensor holds an excess of KNO<sub>3</sub>, assuring saturation at all

temperatures and extending the life of the sensor.

The ion sensitive part of the sensor is designed to resist the attack of acids, alkali

and solvents used in chemiical processes.

The construction of the sensor permits easy access to the sensing and reference

surfaces for cleaning or inspection.

Recommended Applications: Chloride ion concentration in aqueous solution from drinking water through waste

water to industrial process solutions.

Storage and Shelf Life: 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

