

IOTRONTM SENSORS ION SELECTIVE SENSOR SPECIFICATIONS

Part number: AB 6490

Configuration: 3/4" - 1" MNPT Integrated Lithium Ion Selective Sensor

General Specifications:

Concentration Range: 0.1 - 6X10⁻⁶ Molar, 700 - 0.042 ppm

Lowest Limit of Detection: 1X10⁻⁶ Molar, 0.007 ppm

pH Range: 2 to 12
Temperature Range: 5 to 40 °C

Pressure Range: 1 to 10 psig (6.9 to 69 kPag)

Body Material: Ultem (Poly-Ether-Imide)

Junction Material: Kynar (Poly-Vinylidene-Fluoride)

Dimensions: Drawing <6-2>

Cable: RG 174/U Coaxial (without preamplifier)

Connector: BNC (unless otherwise specified)

Ion Sensor Specifications:

Measuring Membrane: Selective Lithium Sensitive Membrane (organic)

Dimensions: 0.310, (7.8 mm) DIA

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

Interferring lons:

Given in Ratios of Permissible Excess: Na⁺ (250), K⁺ (200), Mg⁺² (2X10⁴), NH₄⁺ (1X10³)

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 Lithium specific salt in crosslinked polymer

Surface Area: 366,000 mil², (236 mm²)

Special Features: Crosslinked polymer in the reference system is resistant to heat, solvents and to

saturation at all temperatures and extending the life of the sensor.

The sensor is designed to resist the interactions of sodium, ammonium, potassium, magnesium and calcium ions as well as most solvents used in

most chemicals. Sensor holds an excess of lithium specific salt assuring

chemical processes.

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

surfaces for cleaning or inspection.

Recommended Applications: Lithium ion concentration in aqueous solution from ultrapure 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.

Standard Hook-Up Options: No Preamp - BNC Connector + TC lead wires

With Preamp - Multiconductor Lead Wires - See Hook Up Schematics

