## Part number:
AB 6490

## Configuration:
¾” – 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

## Interfering Ions:
Given in Ratios of Permissible Excess:
- Na⁺ (250), K⁺ (200), Mg²⁺ (2X10⁻⁴), NH₄⁺ (1X10⁻³)

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