

<u>Part number:</u>	6470A
<u>Configuration:</u>	3/4" – 3/4" MNPT Integrated Nitrate Ion Selective Sensor
<u>General Specifications:</u>	
<u>Concentration Range:</u>	1 to 10^{-5} Molar, 62,000 to 0.620 ppm
<u>pH Range:</u>	2 to 12 pH
<u>Lowest Limit of Detection:</u>	5×10^{-6} Molar, .310 ppm
<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>	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 Nitrate 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: (given in permissible ratios of excess)</u>	ClO_4^- (10^{-3}), ClO_3^- (0.2), Br^- (6.7), Cl^- (10^2), HCO_3^- (10^{-1}), H_2PO_4^- (10^3), F^- (10^3)
<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_2SO_4 in crosslinked polymer
<u>Surface Area:</u>	366,000 mil ² , (236 mm ²)
<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_2SO_4 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>	Nitrate 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			DATE	APPROVED
ZONE	REV	DESCRIPTION		
2	1			



ASTI Advanced Sensor Technologies, Inc.		ASTI16-5.DWG	
INTEGRATED pH SENSOR			
REF. DRAWING <6-5>			
SIZE	WEB NO.	DWG NO.	REV
2	#<6-5>	ASTI16-5	1
DRAWN BY: PETE CSISZAR		SCALE: NONE	SHEET 1 OF 1

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