



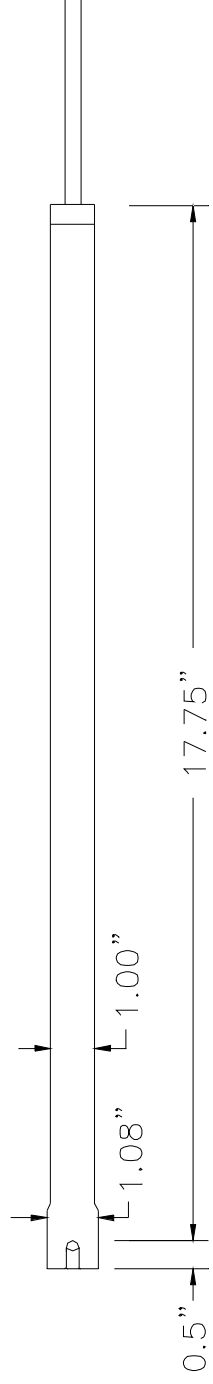
IOTRON™ SENSORS

INTEGRATED pH SENSOR SPECIFICATIONS

<u>Part Number:</u>	9712
<u>Configuration:</u>	1.0" O.D. Valve Retractable, Ultrapure Water pH Sensor
<u>General Specifications:</u>	
<u>pH Range:</u>	0 to 12 pH
<u>Temperature Range:</u>	-5 to 105 ° C
<u>Pressure Range:</u>	1 to 100 psia (6.9 to 690 kPa absolute)
<u>Body Material:</u>	CPVC (Chlorinated-Polyvinyl-Chloride)
<u>Junction Material:</u>	Kynar (Poly-Vinylidene-Fluoride)
<u>Dimensions:</u>	Drawing <9-2>
<u>Cable:</u>	RG 174/U Coaxial (without preamplifier)
<u>Connector:</u>	BNC (unless otherwise specified)
<u>pH Sensor Specifications:</u>	
<u>Measuring Glass Type:</u>	Flat G-3, Low Solubility Clear Glass
<u>Dimensions:</u>	0.310, (7.8 mm) DIA
<u>Initial Impedance:</u>	Less than 900 M Ohms @ 25 ° C
<u>Alkaline Ion Error:</u>	Less than 0.15 pH in 1.0 M K ⁺ at pH 14.0
<u>Acidic Error:</u>	Less than 0.01 pH in 1.0 M HCl @ 0.0 pH
<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 KCl in crosslinked polymer
<u>Surface Area:</u>	366,000 mil ² (236 mm ²)
<u>Special Features:</u>	Crosslinked polymer is resistant to heat, solvents and to most chemicals. Sensor holds an excess of KCl, assuring saturation at all temperatures and extending in situ sensor life. The controlled release of ions through the reference junction via the crosslinked polymer assures reliable measurement up to the highest water purity level to be encountered. The large and well-contoured reference electrode surface eliminates the flow sensitivity so many times observed with conventional electrodes and sensors. The extremely low solubility of the pH Glass reduces the frequency of the calibration needed and extends the service life of the sensor.
<u>Recommended Applications:</u>	High purity and ultrapure water in power plants, for medical diagnostic and therapeutic reagents, control of ion exchange, reverse osmosis systems.
<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

4 3 2 1

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
2	1			



D C B A

ASTI
Advanced Sensor Technologies, Inc.

**VALVE RETRACTABLE
PH SENSOR DWG <9-2>**

SIZE	FSCM NO.	DWG NO.	AST19-2.DWG	REV	1
2	#<9-2>				
DRAWN BY: PETE CSISZAR			DATE: MARCH, 2003	SHEET 1 OF 1	

4 3 2 1