



FOX CROFT EQUIPMENT AND SERVICE COMPANY, INC.
FX-300 Integrated Fluoride Ion Selective Sensor Specifications
For High pH Service Applications, Twist Lock Mounting

Part Number: SF-8T-UL-FT-10

1" MNPT Twist Lock Immersion Integrated, Fluoride Ion Selective Sensor for use in high pH Applications

Recommended Applications: Fluoride ion concentration in aqueous solution from drinking water through waste water. Not suitable for use in etching solutions.

Special Features: Crosslinked polymer in the reference system is resistant to heat, solvents and to most chemicals. Sensor holds an excess of KCl, assuring saturation at all temperatures and extending the life of the sensor.

The construction of the sensor permits easy access to the sensing and reference surfaces for cleaning or inspection.

General Specifications:

Concentration Range: 1 to 10^{-6} Molar, 19,000 to 0.019 ppm
Lowest Limit of Detection: 5×10^{-8} Molar, .001 ppm
pH Range: 5.5 to 9.5 pH (continuous), intermittent up to 11 pH with crystal degradation
Temperature Range: 5 to 50 °C
Temperature Compensation: Fast Temp PT1000 for variable temperature conditions
Pressure Range: 1 to 20 psig (6.9 to 138 kPag)
Body Material: RADEL ®R-5000 NT (Poly-Phenyl-Sulfone, PPSU)
Junction Material: Kynar (Poly-Vinylidene-Fluoride)
Cable: RG 174/U Coaxial (without preamplifier)
Connector: BNC (unless otherwise specified)

Ion Sensor Specifications:

Measuring Membrane: Selective Fluoride Sensitive Membrane (solid state)
Dimensions: 0.310", (7.8 mm) DIA
Initial Impedance: Less than 100 M Ohms @ 25 °C

Interfering Ions in Ratios of Permissible Excess:

Interfering Ion / Measured Ion (in Molarity): OH- above 12.0 pH

Reference System Specifications:

Type: Double Junction
Reference Half Cell: Ag/AgCl, Saturated KCl
Primary Junction: Porous Ceramic, Saturated KCl in cross linked polymer, interfaced to secondary junction
Secondary Junction: Solid-State Non-Porous Cross-Linked Conductive Polymer embedded in HDPE/Kynar support matrix, excess saturated KCl salt system in cross linked polymer
Surface Area: 366,000 mil², (236 mm²)

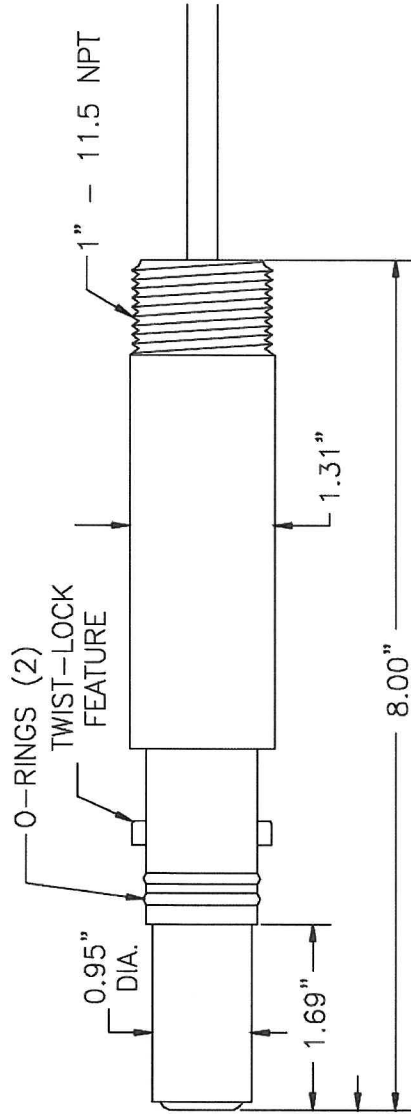
Storage and Shelf Life: 1 year from date of manufacture at room temperature with protective cap on

Standard Hook-Up Options:

No Preamp - BNC Connector + TC lead wires
With Preamp – Multiconductor Lead Wires – See Hook Up Schematics



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