

Fluoride Monitoring System

 (Quantity) Fluoride Monitors shall be supplied for continuous monitoring of the fluoride ion in solution at the (Specify Location or Application) . The fluoride monitoring system shall consist of an electronic monitor, chemistry module containing a fluoride sensor with integral reference element, chemical pump and associated accessories listed below. The Fluoride Monitor shall be ATI Model A15/82 or equal.

Fluoride Monitor

The Fluoride Monitor shall be a compact ¼ DIN size instrument suitable for panel mounting. For outdoor applications, the monitor shall be supplied in a NEMA 4X enclosure with a clear hinged door to allow tool-less access to controls and for viewing the LCD display. The display shall be alphanumeric LCD and capable of indicating fluorine up to 1000 PPM. Additionally the display shall indicate control and alarm condition and setpoints, temperature and all configuration information programmed through the front keypad. The keypad shall be protected with a software lock and all configuration programming information shall be protected by access code.

The monitor shall provide three independently programmable alarm/control relays selectable over the entire range of the instrument as either low or high alarms and to be programmable for variable deadband and variable time delay.

An isolated 4-20 mA analog signal shall be provided, adjustable to any range within the display scale and suitable for loads up to 600 ohms.

Chemistry Module

The chemistry module shall be housed in a separate NEMA 4X enclosure with clear hinged cover and containing an ion selective fluoride electrode with integral silver/silver chloride reference element, sample and buffer pump and cast acrylic measuring chamber.

The sample shall be drawn from a sample overflow chamber at a fixed rate of 6 cc/minute with overflow discharged to a drain line.

The system shall perform an automatic calibration routine to correct for sensor zero drift. The frequency of this automatic calibration shall be user-selectable from 1 to 999 hours.
