

**Recommended Specification**  
**ChemScan<sup>®</sup> A-2000 Amperometric Chlorine Analyzer**

An Amperometric Chlorine analyzer shall be furnished in accordance with these specifications.

The analyzer shall detect (*specify free or total*) chlorine over a concentration range of 0.000 to (*specify 0.500, 1.00,2.00, 3.00, 5.00, 10.0, 20.0 or 50.0*) mg/l.

The sensing cell shall consist of fixed 24Kgold and 99.9% copper electrodes, which shall be continuously cleaned by the agitation of non-conductive spheres between the electrode Surfaces. Agitation within the cell shall be provided by an electric motor. Buffer solution shall be continuously introduced at a rate proportionate to sample flow into the sample cell using a peristaltic pump. The sample will be gravity fed to an overflow chamber at a nominal rate of 120/ml/min. Accuracy shall be +/-0.25% of full scale or 0.003 mg/l, whichever is more. The analyzer shall be furnished with an external module and fittings for periodic zeroing.

The analyzer shall provide a 4-20 mA output signal proportionate to chlorine residual in the sample. High and low relay closure type alarms shall be provided. The analyzer shall operate from 110/120 Vac, 50/60 Hz single-phase power connected to the electronics enclosure using a wall plug.

A data logger shall be provided with the system. The data logger will accept a 4-20 mA signal from the chlorine analyzer and will record a minimum of 4000 readings at selectable intervals of 1 to 600 seconds. Stored data shall be capable of transfer onto a portable computer using an RS-232 cable and Windows compatible software furnished with the analyzer.

The analyzer shall be provided with a NEMA 4-X enclosure for electronic components, the analog output transmitter and alarms. A vented NEMA-3R enclosure shall be provided for the sample cell, agitation motor and buffer pump. Power connection and signal wires for the sample cell, agitation motor and buffer pump shall originate in the electronics enclosure and shall terminate at a connector located inside of the sample cell enclosure. The electronics enclosure and the sample cell enclosure shall be mounted on a rigid back panel for wall installation.

The analyzer shall be a ChemScan<sup>®</sup> A-2000, manufactured by Applied Spectrometry Associates, Inc., Waukesha, WI.