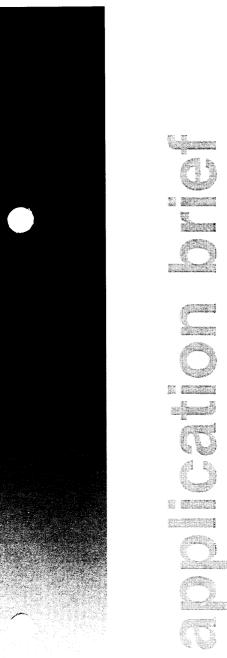# 8810 Applications

application brief

ISE Potentiometric Titration Analyzer

Applications: potable water; wastewater; process water; cyanide measurement for industrial wastewater; chloride measurement for cooling water and surface water applications; fluoride measurement in wastewater treatment; nitrate measurement in wastewater and drinking water; ammonia measurement in wastewater, drinking water and surface water; calcium measurement in cooling water and water treatment.

The 8810 uses an ion–selective electrode and the standard addition method to measure different parameters in aqueous solutions. The microprocessor–controlled unit has two analog outputs (0/4–20 mA) and one bidirectional digital output (RS232). It can be panel–mounted or mounted into an optional NEMA 4X or NEMA 12 enclosure. An optional multi–channel sequencer is available.

Methanol Analyzer: 0–20 mg/l

Applications: control of biological denitrification process and monitoring of wastewater effluent, primarily in municipal wastewater treatment.

The 8810 uses an amperometric detection method with a methanol biosensor. The biosensor is an oxygen sensor with an immobilized enzyme film which allows only gases to pass through.

A reaction, resulting in the consumption of oxygen, occurs. The oxygen consumption measured is proportional to the methanol concentration. There are two outputs (0/4–20 mA) and three relays (low limit, high limit and system alarm). The analyzer is housed in a freestanding steel IP 54 cabinet.

ORP/mV Titration Analyzer

Applications: potable water; wastewater; process water; chlorine / hypochlorite in odor control for wastewater treatment; chlorine for pulp and paper bleaching; free hydrosulfite / indigo for textile industry (dyeing); chrome for metal surface treatment; peroxide for textile industry (bleaching); zinc and accelerator (sodium nitrite) for phosphatizing baths in metal surface treatment; sulfide measurement in industrial wastewater; total hardness measurement for water treatment and softening; calcium measurement in cooling water and water treatment.

The 8810 uses an ORP or ion–selective electrode and the titration method to measure different parameters in aqueous solutions. The unit is microprocessor–controlled with two analog outputs (0/4–20 mA) and one bidirectional digital output (RS232). It can be panel–mounted or mounted into an optional NEMA 4X or NEMA 12 enclosure. An optional multichannel sequencer is available.

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pH Titration Analyzer

Applications: potable water; wastewater; process water; acidity for metal surface treatment; alkalinity for decarbonation / water treatment and softening; caustic for manufacturing and textile fiber treatment; high phosphate for wastewater treatment.

The 8810 uses a pH electrode and titration method to measure different parameters in aqueous solutions. The unit is microprocessor–controlled with two analog outputs (0/4–20 mA) and one bidirectional digital output (RS232). It can be panel–mounted or mounted into an optional NEMA 4X or NEMA 12 enclosure. An optional multichannel sequencer is available.

Phosphate Analyzer: 0-5 mg/l

Applications: measurement of low–level orthophosphate in wastewater treatment plant effluent monitoring.

The measurement principle is based on the standard laboratory colorimetric method. No sample filtration is required if suspended solids are < 50 mg/l and particle size < 100 mm. The 8810 has one output (0/4-20 mA) and one bidirectional output (RS232). There are three relays (low limit, high limit and system alarm). It has a panel-mount titrator; a platinum measuring electrode; three reagent pumps for acid, molybdate and reducing agent; and an automatic heating device. The unit is available in a fiberglass or stainless steel panel–mounted cabinet.

Phosphate Analyzer: 5-100 mg/l

Applications: measurement of high–level orthophosphate in wastewater treatment plants at the aeration or tertiary dephosphatizing stage.

The measurement principle is based on a lanthanum pH titration. No sample filtration is required if the suspended solids are < 10 g/l and the particle size is < 1 mm. The 8810 has one output (0/4–20 mA) and one bidirectional output (RS232). There are three relays (low limit, high limit and system alarm). It has a panel–mount titrator; a pH measuring electrode; two reagent pumps for lanthanum nitrate and sodium hydrogenocarbonate; micro–piston pump for sulfuric acid; automatic heating device and chemical cleaning system. The unit is available in a fiberglass or stainless steel panel–mounted cabinet.

Model 8811 Multi–stream Sequencer

The 8811 allows you to connect and analyze up to six sample streams for the 8810 and 9073 analyzers. It is designed with fast loop sample routing to ensure sample integrity. The unit is microprocessor–controlled with one analog output per stream (0/4–20 mA) and one bidirectional digital output (RS232). Standard features include programming of sample sequence, cycle time and sample bypass.

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