

HP80 Hydrogen Peroxide Analyzer



ELECTRO-CHEMICAL DEVICES

Features

- **Panel Mounted System Plumb and Play Design**
- **Multiple H2O2 ranges**
- **Automatic Flow Control**
- **T80 Transmitter Capability**
- **pH measurement for added process information**

Benefits

- **Complete System, Easy Installation, Ready to Use**
- **0-200 ppm, 0-20.0%**
- **Eliminates Pressure Regulators and Rotameters**
- **Dual Measurements, Single parameter or Dual parameter Displays, MODBUS RTU, Spray Cleaner (optional for fouling applications)**



Model HP80
Hydrogen Peroxide Analyzer

Description

The HP80 is a panel mounted, ready to use Hydrogen Peroxide (H₂O₂) analyzer. It is available in several ranges to suit its various applications, 0-200 ppm for oxidation and disinfection processes and 0-20% for bleaching applications. Hydrogen Peroxide is a colorless liquid that in high concentrations gives off an irritating acidic odor. It is a strong oxidizer, stronger than either chlorine or chlorine dioxide. Hydrogen peroxide reacts very fast. It will then disintegrate into oxygen gas and water, without the formation of byproducts and also increases the amount of oxygen in water.

Hydrogen Peroxide is widely used in the Paper and Pulp industries as a bleaching agent and as an oxidizer for removing metals from well water. It is also used as a disinfectant in cooling towers and municipal waste water treatment plants. H₂O₂ is an effective bactericide that does not form any harmful Disinfection By Products (DBP) like many chlorine products do. It decomposes naturally into oxygen and water and does not form a residual that has to be removed from the treated water before it is released to the environment.

The HP80 features a plug and play design that incorporates a constant head flow control device, a pH sensor, a hydrogen peroxide sensor and the T80

analyzer/ transmitter conveniently mounted on a PVC panel. Simply connect the sample and drain lines, connect the power and outputs and it is ready to use. Calibration is accomplished by a grab sample comparison.

The T80 is 110-240 VAC or 24 VDC powered and allows either parameter to be graphically displayed with user defined Line, Bar or Gauge style graphs. The standard configuration has (2) 4-20 mA outputs, (3) alarm relays and MODBUS RTU.

Amperometric H₂O₂ sensors are flow sensitive, the minimum required flow by the sensor is 0.5 ft/sec, above this value the output is virtually flow independent. A "Constant head" Flow control Device (CFD) maintains the optimum flow past the sensor over a wide range of incoming sample flow rates. The minimum flow required for the CFD is 10 gal/hr and the maximum flow is 80 gal/hr with the sample going to drain at atmospheric pressure.

The Auto Clean option includes a solinoid actuated spray cleaner that uses either 30 psi process water or air. An easily adjusted timer controls the period and duration of the cleaning cycle.

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Specifications

Sensor and Flow Train

Sensor

Polarographic, Gold/Silver, micro-porous membrane, Digital communication

Measurement Range

H2O2: 0.00 to 200 ppm (2000 ppm, 2%, 20% optional)

pH: 2 to 11 pH

Accuracy

0.1 ppm, +/- 1% full scale

Operating Temperature

0° C to 45° C (32° F to 113° F)

Automatic temperature compensation in H2O2 sensor

Min/Max Flow

38 L/hr to 300 L/hr (10 gal/hr to 80 gal/hr)

Wetted Materials

PVC, PP, PVDF, PTFE, Glass, 316 SS

Process Connections

Input 1/4" barb fitting (1/4" FNPT), Drain 3/4" FNPT

Response Time

T90 in 8 minutes

Electrolyte Life

Up to 6 months

T80 Analyzer/Transmitter

Measurements

Hydrogen Peroxide: 000.0 to 999.9 ppm

pH: 0 to 14 pH

Temperature: 0° C to 100° C (32° F to 212° F)

pH Compensation

none, measurement between 2-11 pH

Display

128 x 64 pixels (2.75" x 1.5") LCD, Black on Grey background, Blue on White background with LED backlight

Enclosure

IP65, weatherproof, 1/2 DIN, (L x W x D) 5.7" X 5.7" X 3.5"

Outputs

(1) 4-20 mA for H2O2, set to 0 - 2.00%

(1) 4-20 mA for pH (Optional) , set 0-14 pH

Alarm Relay Ratings

Three (3) SPDT, 1 form C, 250 VAC, 10 Amp

Input Power

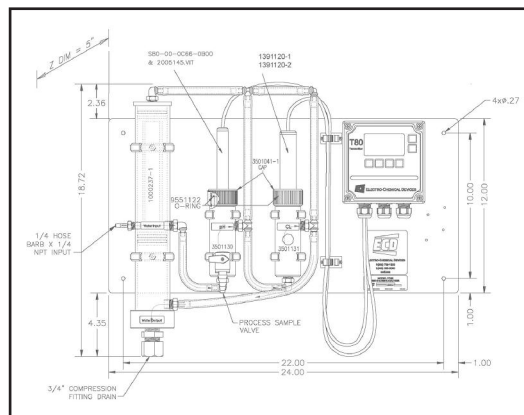
Code -1 24 VDC (18-36 VDC @ 250 mW minimum)

Code -2 100-240 VAC, 50/60 Hz, 4W, protected with 250V, 1A, Slow Blow fuse (Standard)



Part No.	Model and Product Description
HP80-01-2200	Hydrogen Peroxide Analyzer (HP80), complete, 0.00-200 ppm, 100-240 VAC
HP80-01-2210	Hydrogen Peroxide Analyzer (HP80), complete, 0.00-200 ppm, with spray cleaner, 100-240 VAC

Part No.	Spare Parts and Accessories Description
1391115-1	Hydrogen Peroxide Sensor, 0.00-200 ppm
1000267-1	Membrane Replacement Kit with electrolyte
S80-00-OC66-0B00	pH Sensor, 316L SS body with Flange, 4' cable
2005145.VIT	Replacement pH Cartridge
3501131	HP Flow Cell
3501130	pH Flow Cell
3501041-1	Flow Cell Threaded Cap



Specifications subject to change without notice.

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