

HP80 Hydrogen Peroxide Analyzer

The HP80 Hydrogen Peroxide Analyzer provides continuous, online monitoring of hydrogen peroxide for water and process applications. Designed for municipal and industrial environments, the HP80 offers dependable performance, stable operation, and flexible system integration.

Built with industrial reliability in mind, ECD's HP80 Analyzer supports long-term operation and straightforward installation. It's panel-mounted design allows for seamless integration into existing analytical control systems.



Features & Benefits

▶▶ Panel Mounted System Plug and Play Design

- Complete System, Easy Installation, Ready to Use

▶▶ Multiple H2O2 Ranges

- 0-200 ppm
- 0-20.0% ppm

▶▶ Automatic Flow Control

- Eliminates Pressure Regulators and Rotameters

▶▶ T80 Transmitter Capability

- Dual Measurements
- Single Parameter
- or Dual Parameter Displays
- MODBUS RTU
- Spray Cleaner (optional for fouling applications)

Consult our Technical Support staff for additional configuration options at +1-714-695-0051 or email: sales@ecd.com

Description

The Model HP80 is a panel mounted, ready to use Hydrogen Peroxide (H₂O₂) Analyzer. It is available in several ranges to suit its various applications:

Oxidation and Disinfection processes

- 0 - 200 ppm

Bleaching Applications

- 0 - 20.0% ppm

Hydrogen Peroxide is a colorless liquid that in high concentrations gives off an irritating acidic odor.

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 byproducts (DPB) 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 Model HP80 is features a plug and play design that incorporates:

- Constant Head Flow
- pH Sensor
- Hydrogen Peroxide Sensor
- T80 Universal Transmitter

all while conveniently mounted on a PVC Panel.

Simple 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 graphs:

- Line
- Bar
- Gauge Style

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

Anything 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 maximum flow is 80 gal/hr with the sample going to drain at atmospheric pressure.

The Auto Clean option includes a solenoid 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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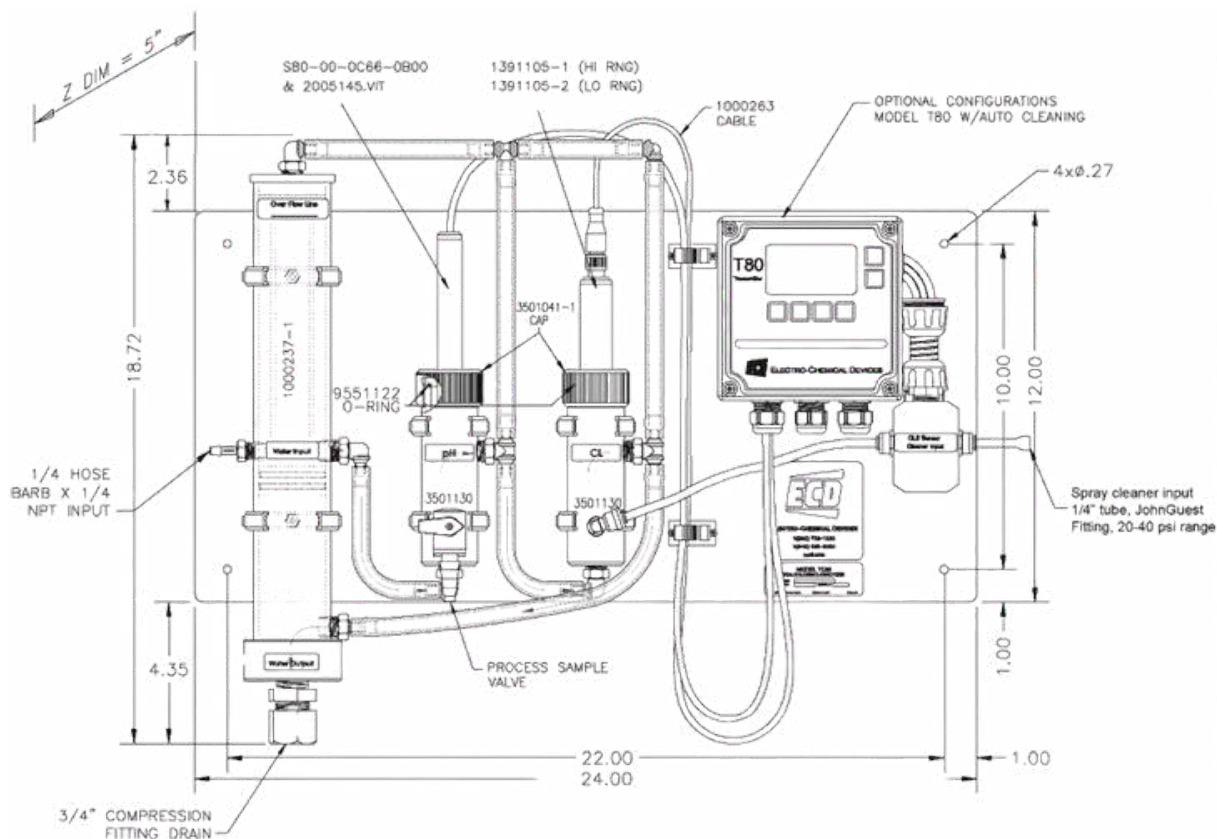
Specifications

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: 0 to 14 pH
Operating Temperature	0°C to 45°C (32°F to 113°F)
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 Fitting
Response Time	T90 in 8 minutes
Electrolyte Life	Up to 6 months
Dimensions	

T80 Transmitter

Measurements	Hydrogen Peroxide: 000.0 to 999.9 ppb 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, (LxWxD) (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 to 0-14 pH)
Alarm Relays Ratings	(3) SPDT, 1 Form C, 250 VAC, 10 Amp
Input Power	Code -1 • 24 VDC (18-36 VDC @ 250 mW min.) Code -2 • 110-240 VAC 50/60 Hz, 4W protected with 250v, 1A, Slow Blow Fuse (Standard)



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Order Information

A	B	C	D	E	F	G	Sample Order
HP80	0	1	2	2	0	0	HP80-01-2200

(A) HP80 Analyzer	(F) No Spray Cleaner / Standard Constant Head Flow
(B) HP Sensor (0 - 200 ppm Range)	(G) Standard Panel Mount (No Enclosure)
(C) No pH Sensor / Flow Cell	
(D) 110-250 VAC	
(E) (2) 4-20 mA Output, 3 Configurable Relays	

A. Model HP80

Part No.

HP80 Hydrogen Peroxide Analyzer, Panel Mounted, Constant Head Flow Controller, HP Sensor, Flow Cell pH Sensor, Flow Cell (2) 4-20 mA, 3 Relays

B. Sensor Type and Range

Part No.

- 0** 0.00 to 200 ppm Hydrogen Peroxide (H2O2) Sensor (Standard)
- 1** 0.00 to 2000 ppm Hydrogen Peroxide (H2O2) Sensor
- 2** 0.00 to 2.00 % Hydrogen Peroxide (H2O2) Sensor
- 3** 0.00 to 20.0 % Hydrogen Peroxide (H2O2) Sensor

C. pH Sensor

Part No.

- 1** No pH Sensor / Flow Cell
- 2** S80 pH Sensor with Flow Cell and 2nd Channel T80 Analyzer

D. Power Supply

Part No.

- 1** 24 VDC
- 2** 110-250 VAC (Standard)

E. Outputs

Part No.

- 2** (2) 4-20 mA output, 3 configurable relays (Standard)

F. Spray Cleaner / Constant Head Flow

Part No.

- 0** No Spray Cleaner / Standard Constant Head Flow
- 1** 110 VAC Spray Cleaner on Hydrogen Peroxide Sensor / Standard Constant Head Flow
- 2** No Spray Cleaner / High Constant Head Flow
- 3** 110 VAC Spray Cleaner on Hydrogen Peroxide Sensor / High Constant Head Flow
- 4** 240 VAC Spray Cleaner on Hydrogen Peroxide Sensor / Standard Constant Head Flow
- 5** 240 VAC Spray Cleaner on Hydrogen Peroxide Sensor / High Constant Head Flow

G. Enclosure

Part No.

- 0** Standard Panel Mount (No Enclosure)
- 1** Fiberglass-reinforced Polyester NEMA 4x Enclosure, 24" x 24" x 7", Drain and Tubing holes on bottom panel, Clear Door (Standard Head Flow)
- 2** Fiberglass-reinforced Polyester NEMA 4x Enclosure, 24" x 24" x 7", Drain and Tubing holes on bottom panel, Opaque Door (Standard Head Flow)

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Equipment and Specifications may be updated periodically to enhance performance and reliability.



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HP80 Instruments, Parts & Accessories

Part No.

Calibration

1000040-8	Kit, Photometer Tester HCA-2 (Hydrogen Peroxide)
9260106	Test Strip Reagent, Hydrogen Peroxide (50 Test Strips)

Spare Parts

T80-11-212-00	Hydrogen Peroxide Analyzer (HP80), Instrument Only , (2) 4-20 mA output, 3 Relays, 110-250 VAC
T80-11-112-00	Hydrogen Peroxide Analyzer (HP80), Instrument Only , (2) 4-20 mA output, 3 Relays, 24 VDC
1391115-2	Hydrogen Peroxide (H2O2) Sensor, 0.00 – 200 ppm
1391115-1	Hydrogen Peroxide (H2O2) Sensor, 0.00 – 2000 ppm
1391115-3	Hydrogen Peroxide (H2O2) Sensor, 0.00 – 2.00 % ppm
1391115-4	Hydrogen Peroxide (H2O2) Sensor, 0.00 – 20.0 % ppm
1000287-1	OLD: Membrane Replacement Kit (1 Cap, 50 mL Electrolyte) (0 - 200 / 0 - 2000) (Model 2025 or Older)
1000287-2	OLD: Membrane Replacement Kit (1 Cap, 100 mL Electrolyte) (0 - 2 % / 0 - 20.0 %) (Model 2025 or Older)
1000282-2	OLD: Membrane Cap Replacement (0 - 200 / 0 - 2000) (Model 2025 or Older)
1000282-3	OLD: Membrane Cap Replacement (0 - 2.00 % / 0 - 20.0 %) (Model 2025 or Older)
1000286-1	Electrolyte Refill, 100 mL Bottle
1000387-1	NEW: Membrane Replacement Kit (1 Cap, 50 mL Electrolyte) (0 - 200 / 0 - 2000) (Model 2026)
1000382-1	NEW: Membrane Cap Replacement (Model 2026)
3501130	Flow Cell with Spray Cleaner Port (No Cap/Fittings)
S80-00-0C66-0B00-001	S80 Flanged Style pH Sensor Complete, Includes 2005145.VIT pH Electrode
3501130	pH Replacement Electrode for S80 pH Sensor
9370048	Sample Spigot
1000237-3	Constant Head Flow Controller with Fittings
2000120	Tube Fitting Set, Complete set of (9) 3/8" Fittings and (1) 1/4" Fitting
2000107-3	Kit, Tubing 3/8" PVC
2000107-4	Kit, Tubing 3/8" PVC with Spray Cleaner Tube
2000197	Kit, O-Ring, Constant Head Flow

Data Logger

1000300-1	4-20 mA USB Data Logger
9130007	Spare Battery for USB Data Logger *Dangerous Goods

Represented By:



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