Model Q45/84

Hydrogen Peroxide Monitor

Hydrogen peroxide (H_2O_2) is an extremely strong oxidizer which is widely used in bleaching applications in the paper industry and is sometimes added to water systems for the purpose of disinfection. In addition, it is used in wastewater collection systems to remove hydrogen sulfide that destroys concrete pipe and manhole structures. Peroxide applications in aqueous systems, like most chemical treatment processes, function most efficiently with accurate measurement and control.

In order to facilitate the control of aqueous hydrogen peroxide feed systems, ATI has developed an on-line monitor cable of providing real time measurement of low levels of dissolved H_2O_2 in solution. The Dissolved Hydrogen Peroxide Monitor uses a direct sensing polarographic probe mounted in a flowcell to measure H_2O_2 in a flowing water stream. A peroxide permeable diffusion membrane isolates the sensing electrodes from the measured sample, providing long-term stability without electrode fouling problems. The measurement is selective for peroxide and does not respond to most other ions in solution.

Features

- Available in AC powered, battery powered, or 2-wire loop-powered versions
- Real time Peroxide measurements suitable for chemical feed control
- Standard PID control output
- Second analog output plus two alarm or control relays on AC powered units
- Large, easy to read LCD display with LED back-light
- Display ranges of 0-2, 0-20, or 0-200 PPM operator selectable
- Direct reading H_2O_2 sensor requires minimal maintenance
- Nema 4X (IP-66) electronic packaging suitable for wall or panel mounting

Q45/84 Specifications

Measurement Type:	Hydrogen Peroxide (H_2O_2)
Sensor Type:	Amperometric membraned cell
Range:	0-2.000 PPM Minimum, 0-200.0 PPM Maximum
Display:	Large Character LCD with LED back-light
Response Time:	90% in 60 seconds
Accuracy:	± 0.5 PPM or 2% of Full Scale
Sensitivity:	0.001 PPM Minimum
Zero Stability:	± 0.005 PPM per week
Electronic Linearity:	± 0.5%
Span Drift:	Generally less than 5% per month (Application dependent)
Analog Outputs:	2-Wire Version: One isolated 4-20 mA, 575 ohms maximum AC Versions: Two isolated 4-20 mA, 575 ohms maximum Battery Version: Two 0-2.5 VDC, 200K Minimum input impedance
Power:	24 VDC for 2-Wire Version 115 or 230 VAC, 50/60 Hz., 5 VA max. Two AA Cells for battery-powered system
Alarm Relay:	Two SPDT, 5 A @ 230 VAC resistive
Relay Coil:	Programmable either normally energized or normally de-energized
Enclosure:	Nema 4X Polycarbonate, wall or panel mount
Controls:	4 membrane switches on front of monitor
Operating Temperature:	0° to +50° C
Sample Inlet:	¼" I.D. hose barb
Sample Drain:	½" I.D. hose barb
Recommended Sample Flow:	6 -15 GPH (0.4 – 1.0 LPM)
Weight:	5 lbs. (2.3 Kg.)

Ordering Information
Model Q45/84-A-B Hydrogen Peroxide Monitor

Suffix A: Power
- 1 – 24 VDC, 2-wire (Single Output Only)
- 2 – 115 VAC with 2 Relays & 2 4-20mA Outputs
- 3 – 230 VAC with 2 Relays & 2 4-20mA Outputs
- 4 – Battery operated with two 0-2.5 VDC Outputs
- 5 – Battery operated with internal data logger

Suffix B: Sensor Type
- 1 – Sensor with constant-head flowcell and 25ft. cable
- 2 – Sensor with sealed flowcell and 25ft. cable

Q45/84 Options

07-0100 NEMA 4X junction box
31-0038 Sensor interconnect cable (max. 100 ft.)
47-0005 2" U-bolt, 304SS
05-0068 Panel mount bracket kit

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