

Water Quality Monitor

Q45H-64 Dissolved Ozone Transmitter

OVERVIEW

The dissolved ozone transmitter is the ideal choice for on-line monitoring and control of ozonation systems. Capable of measuring DO₃ concentrations as low as 0...200 ppb full scale, the system provides the sensitivity needed for demanding applications such as pharmaceutical grade water or semiconductor wash water. And with the standard 0...2 ppm range, the monitor is ideally suited to water bottling systems or municipal water treatment. Even high range applications requiring 0...20 or 0...200 ppm can be easily accommodated.

Utilizing a highly selective polarographic membraned sensor, dissolved ozone can be monitored interference-free, with little maintenance. There are no moving parts and what little maintenance is required can be done in just a few minutes. Installation is simple and you can be up and running in a few hours.

Available in loop-powered or battery operated portable versions, the Q45H/64 is well suited for almost any DO₃ measurement requirement.



APPLICATIONS

- **Egg Washing Systems**
- **Pharmaceutical Water**
- **Semiconductor Wash Water**
- **Ground Water Remediation**
- **Bottled Water Systems**
- **Food Wash Water**
- **Aquaculture**

FEATURES

- Low maintenance membraned sensor
- Loop-powered or battery operation
- External 5...17V DC version for solar power applications
- Interference-free measurement
- Measurement from 0...200 ppb to 0...200 ppm
- Constant-head flowcell simplifies operation
- Sealed flowcell option for recirculation systems
- Large, easy-to-read LCD display
- Clear, menu-driven user interface
- NEMA 4X (IP-66) enclosure
- Wall or pipe mounting bracket standard
- Built-in PID controller

SENSOR AND FLOW CELL OPTIONS



Figure 1: Sealed flow cell



Figure 2: Constant head flow cell



Figure 3: Submersible sensor

SPECIFICATIONS

Electronic Monitor

Display Range	0...200 ppb 0...2,000, 0...20.00 0...200.0 ppm or mg/l
Accuracy	±0.5% of selected range or 0.02 ppm
Repeatability	0.3% of selected range or 0.01 ppm
Sensitivity	0.05% of selected range
Linearity	0.1% of selected range
Temperature Drift	0.1% of span/°C
Sensor Type	2E Amperometric (Polarographic) membraned sensor
Temperature Input	Pt100 in sensor for temperature compensation
Power	2-wire unit: 17...30V DC, 25 mA maximum Battery unit: Two AA alkaline batteries External DC: 5...17V DC, 10 mA maximum
Analog Outputs	2-wire unit: Single 4...20 mA DC, 450 Ω maximum Battery unit: Two 0...2.5V DC, 50K Ω minimum External DC: Two 0...2.5V DC, 50K Ω minimum
Output Isolation	600V galvanic isolation
Enclosure	NEMA 4X (IP66) polycarbonate, V-0 flammability
Mounting Options	Wall or pipe mounting bracket supplied
Conduit Entries	Two PG9 cord grips, 0.16...0.31 in. diameter cable
Ambient Temperature	Operating: -40°...140° F (-40°...60° C) Storage: -40°...158° F (-40°...70° C)
Ambient Humidity	0...95%, non-condensing
Size	4.4 (H) × 4.4 (W) × 3.5 (D) in. (111 × 111 × 90 mm)
Weight	2-wire or External DC unit: 1 lb (0.45 kg) Battery unit: 2 lb (0.9 kg)
Certifications	CE marked to BS EN 61326-1:2006 standard UL and CSA general purpose



ORDERING INFORMATION

Model Q3-A-B-C Dissolved Ozone Transmitter

Suffix A - Power

5	24V DC, 2-wire (single output only)
6	Battery operated with two 0...2.5V DC outputs
7	External 5...17V DC with two 0...2.5V DC outputs

Suffix BB - Sensor Type

1A	Sensor with constant head flow cell and 25 foot cable
2A	Submersible sensor with 25 foot cable
3A	Sensor with sealed low-volume flow cell
4A	Sensor with 1-1/2 in. Flow "T"
5A	Sensor with sealed flow cell
6A	Flow sensor only, no flow cell (use with extreme caution)
WW	None

Suffix C - pH Sensor Input

1	None
2	Q22 pH sensor with battery preamp, 25 foot cable
3	Standard pH sensor with 25 foot cable and adapter for overflow cell
4	Standard pH sensor with 25 foot. cable and sealed flowcell
5	Q22P pH sensor, submersible

Accessories

07-0100	Universal junction box, NEMA 4X
31-0001	5-c sensor interconnect cable, max. 100 ft (03 only)
31-0038	7-c sensor interconnect cable, max. 100 ft
00-0628	Mounting bracket kit for submersible sensor
00-0570	Ozone polarizer, flow cell style
00-0571	Ozone polarizer, submersible style
00-0930	Monitor pipe mounting bracket kit
47-0005	2 in. U-bolt, 304SS
55-0057	Fixed flow regulator, 400 cc/min., 1/4 in. inlet and outlet, viton

Notes

1. All systems are supplied with one package of membranes, one 120 cc bottle of electrolyte, and one spare kit containing 3 each of all O-rings and special screws.
2. Flow cell for O₃ systems should be kept within 25 feet of monitor.
3. Pipe mount requires two 2 in. U-bolts (47-0005).