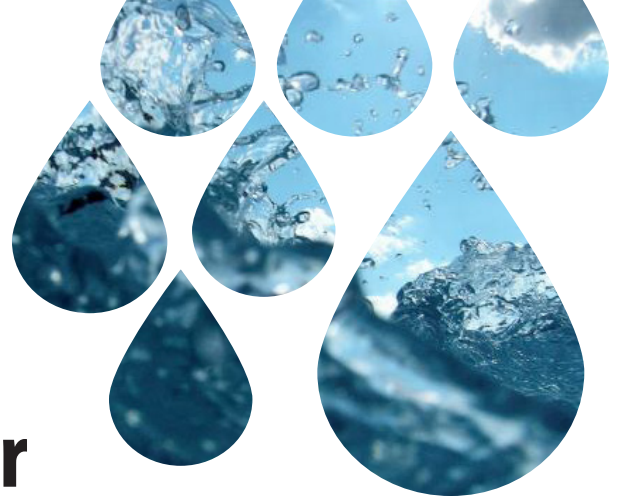


Call [800.959.0299](tel:800.959.0299) to speak with a sales representative or visit us on the web at www.analyticaltechnology.com



Chlorine Dioxide Monitor

Model Q46H/65



Chlorine Dioxide is a powerful oxidizing agent used for disinfection of potable water, cooling towers, and food wash water. It is also widely used for the bleaching of pulp in paper mills. As a disinfectant, ClO_2 has advantages over chlorine in that it does not react with ammonia and many organic compounds while proving more effective at controlling bacteria, spores, viruses, and cysts. It is particularly well suited for removing biofilms from the inside of piping systems.

ATI's Model Q46H/65 Chlorine Dioxide Monitor provides an economical and reliable measurement system for monitoring and controlling ClO_2 treatment systems. With a variety of outputs including 4-20 mA analog, PID control and digital communications, the Q46H/65 is adaptable to any ClO_2 application.

Online Monitoring & Control
FOR ClO_2 DISINFECTION SYSTEMS!



INTERFERENCE-FREE ClO₂ MEASUREMENT

Q46H/65 monitors use a polarographic membraned sensor to accurately measure ClO₂ in water. The sensor operates much like a battery, generating current that is linearly proportional to the concentration of chlorine dioxide in solution. A ClO₂ permeable membrane isolates the sensor from the measured sample and insures that the measurement is interference free.

Two versions of the sensor are available, a sensor intended for installation in a flowcell and a sensor intended for submersion applications. Requiring minimal maintenance, sensors are easy to use and easy to maintain. An integral RTD provides temperature compensation and allows temperature to be displayed and transmitted from the monitor.



SENSOR STABILIZATION

Chlorine Dioxide sensors require 2 to 4 hours of stabilization time when first installed or after membrane change. ATI offers a battery powered “polarizer” that can be used to stabilize a spare sensor so it is ready to run within a few minutes of installation. Polarizers simply plug into the sensor connector and require no adjustments.



APPLICATIONS



Food Washing



Pulp & Paper Mill



Cooling Water



Potable Water Treatment

FEATURES

pH Input Option. Enables monitor to measure both chlorine dioxide and pH. One analog output may be assigned to the pH measurement, allowing remote monitoring and recording of both variables.

Flexibility. Programmable range options from 0-200 PPB up to 0-200 PPM provide maximum application flexibility.

AC or DC Power Options. Power options include universal 100-240 VAC or 12-24 VDC.

Analog Output Options. Two isolated 4-20 mA outputs are standard, with an option for a third output if required. Default setting provides analog outputs for ClO₂ and temperature.

PID Output. Standard PID control function assignable to one analog output.

Digital Communications. Available for either Profibus-DP, Modbus-RTU, or Ethernet-IP.

Relay Contacts. Three SPDT relays are standard, with relay functions programmable for alarm, control, or trouble indication. Three additional low power relays available as an option.

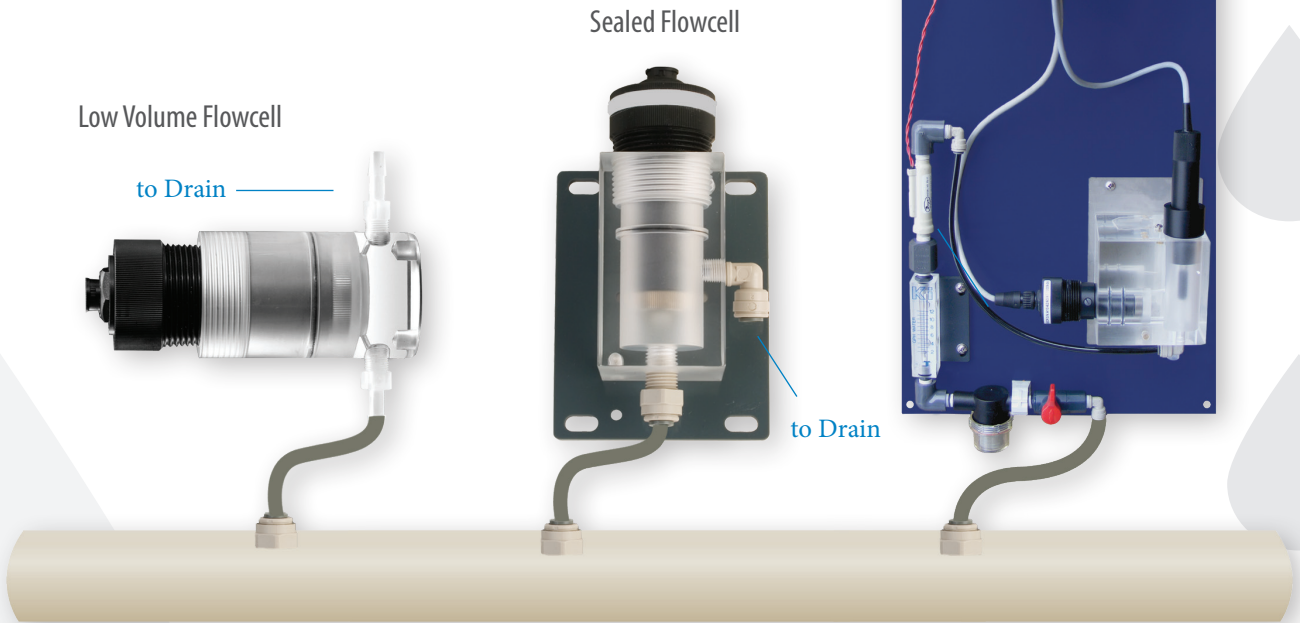
Flexible Mounting. NEMA 4X (IP-66) enclosure is suitable for wall, pipe, or panel mounting.

Clear Display. Back-lit large LCD display provides clear visibility in any lighting conditions. A scrolling second line on the display provides additional information and programming prompts.

FLOW OPTIONS

Chlorine Dioxide sensors require a steady flow of sample across the membrane at the tip of the sensing assembly. ATI offers a number of options for flowcells, including the standard constant-head overflow system, a sealed flowcell for pressures up to 50 PSI, and a low-volume flowcell where low sample flow is important. A 1-1/2" flow tee is also available for in-line applications with reliable constant flow and pressure conditions. For simplicity of installation, complete flow control assemblies are available.

ClO₂ Monitoring with *Direct Membrane Sensing!*



Constant Head Flowcell
(Shown with pH sensor &
complete flow system)

YOUR SOURCE FOR ClO₂ MONITORING PRODUCTS

ATI also offers a loop-powered chlorine dioxide monitor for those applications where extra outputs and/or relays are not required. A battery powered portable unit is also available with an internal data logger for temporary monitoring applications. And for safety around your ClO₂ system, ATI manufactures a variety of portable and fixed point gas detectors.



Portable ClO₂ Gas Detector



PQ45 Portable ClO₂ Data Logger



Fixed ClO₂ Gas Detector

Q46H/65 SPECIFICATIONS

ELECTRONIC MONITOR

Display Range	0-200 PPB; 0-2,000, 0-20.00 or 0-200.0 PPM
Accuracy	0.5% of selected range or 0.02 PPM
Repeatability	0.3% of selected range or 0.01 PPM
Non-Linearity	0.1% of selected range
Temperature	0.01% of span/°C
Power	100-240 VAC, +/-10%, 50/60 Hz, 10 VA max.; 12-24 VDC, 500 mA max.
Analog Outputs	Two isolated 4-20 mA, 500 Ω load max. (3rd output optional)
Relays	Three SPDT, 6A @250 VAC, 5A @24 VDC (3 additional SPST non-isolated, 1A @30 VDC optional)
Display	4 digit, 0.75" numeric LCD with 12 character second line, LED back light.
Enclosure	NEMA 4X (IP-66) Polycarbonate, V-0 flammability
Operating Temperature	-20 to 60°C (-4 to 140°F)
Weight	6 lbs. (2.7 kg) with sensor, flowcell & accessories
Zero Drift	< 0.01 PPM/month

SENSOR & FLOWCELL

Sensor	Membraned-Covered Amperometric (Polarographic)
Materials	PVC & 316SS
Response Time	90% in 60 sec
Temperature Limits	0 to 50°C
Pressure Limit	0-50 PSIG
Sensor Cable	25 ft (7.5 m) standard
Sensor Flowcell	Clear Acrylic Constant-Head Overflow standard Sealed Acrylic Flowcell optional
Sample Connections	1/4" I.D. hose barb inlet, 1/2" I.D. hose barb drain for standard flowcell
Temperature Sensor	Internal Pt100 RTD

NOTES:

- 1 - All systems are supplied with one package of membranes, one 120 cc bottle of electrolyte, and one spare parts kit containing 3 each of all o-rings and special screws.
- 2 - Suffix C, 2, 3, or 4 allow Q46H to supply outputs for both ClO₂ & pH.
- 3 - Flowcell for ClO₂ / pH Combo system should be kept within 25 ft for monitor.
- 4 - Buffer packet for pH 4 & 7 supplied with options 2, 3 or 4, suffix C.
- 5 - Pipe mount requires two 2" U-bolts (47-0005)

ORDERING INFORMATION

Model Q46H/65 - A - B - C - D - E - F Chlorine Dioxide Monitor

Suffix A - Power

- 1 - 100-240 VAC, +/-10%, 50/60 Hz
- 2 - 12-24 VDC, (requires 300 mA)

Suffix B - Sensor Style

- 1 - Sensor with constant head flowcell and 25 ft cable
- 2 - Submersible sensor with 25 ft cable
- 3 - Sensor with sealed low volume flowcell
- 4 - Sensor with 1-1/2" Flow "T"
- 5 - Sensor with sealed flowcell
- 6 - Flow sensor only, no flowcell (use with extreme caution)

Suffix C - pH Sensor Input

- 1 - None
- 2 - Q22 pH Sensor with battery preamp, 25 ft cable
- 3 - Standard pH sensor with 25 ft cable & adapter for overflow cell
- 4 - Standard pH sensor with 25 ft cable & sealed flowcell

Suffix D - Digital Output

- 1 - None
- 2 - Profibus-DP
- 3 - Modbus-RTU
- 4 - Ethernet-IP

Suffix E - Optional output (select only one)

- 1 - None
- 2 - One additional 4-20 mA output
- 3 - Three additional low power relays (SPST, 0.5 A max.)

Suffix F - System Assembly

- 1 - None
- 2 - Panel with flow controls, without flow switch
- 3 - Panel with flow controls, with flow switch

ACCESSORIES

- 07-0100** NEMA 4X junction box
31-0001 5-c sensor interconnect cable, max. 100 ft (ClO₂ only)
31-0038 7-c sensor interconnect cable, max. 100 ft (ClO₂ / pH systems)
00-0628 Mounting bracket kit for submersible sensor
00-0930 Monitor pipe mounting bracket kit
00-0570 Chlorine Dioxide Polarizer, Flow Cell style
00-0571 Chlorine Dioxide Polarizer, Submersible Style
05-0094 Panel mount bracket kit
47-0005 2" U-bolt, 304SS
55-0048 Fixed flow regulator, 400 cc/min 1/4" inlet & outlet, viton
03-0372 Fixed flow regulator assembly, 400cc/min., 1/4" inlet & outlet



Visit Us on the Web: www.analyticaltechnology.com

B / Q46H/65 (12/15)

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