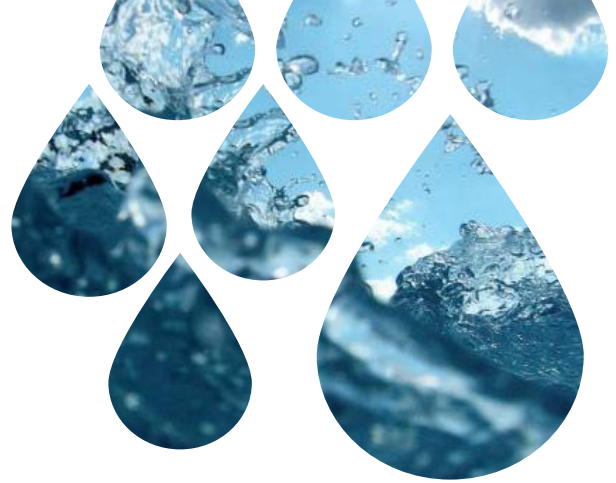


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Residual Chlorine Transmitter



Model Q45H/62-63

ATI's Residual Chlorine Transmitter is designed for on-line monitoring and control of chlorination systems. It is available in two versions: a Free Chlorine Monitor for drinking and cooling water systems, and a Combined Chlorine Monitor ideally suited for "chloraminated" drinking water. The Combined Chlorine System can also be used in wastewater effluents where sufficient ammonia is present prior to chlorination to result in a predominantly monochloramine residual.

Unlike on-line colorimetric and most amperometric monitors, Q45H systems utilize a membrane-covered polarographic sensor that does not require the addition of chemical reagents. That means no more costly reagents to purchase or flow cells that require frequent cleaning. All that's needed is a constant flow of water across the face of the sensor, and this is provided by a sample constant-head flowcell.

The Q45H system has no moving parts, so there are no pumps or motors that burn out, or tubing breaks that create maintenance nightmares. All normal maintenance items are included with each system. The Q45H Chlorine Monitoring System is easy to operate, requires minimal maintenance, and will not eat a hole in your operating budget with ongoing reagent requirements or component replacement costs.

Applications

Potable Water Treatment
RO Membrane Protection
Chloramination Systems

Cooling Towers
Wastewater Treatment
Food Wash Water

Features

- Free or Combined Chlorine monitoring
- Loop-powered or battery operation
- External 5-17 VDC version for solar power applications
- Reagent free measurement
- pH compensation for operation to pH of 9.5
- Measurement from 0-200 ppb to 0-200 ppm
- Constant-head flowcell simplifies operation
- 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 & Flowcell Options



Sealed Flowcell



Constant Head Flowcell



Submersible Sensor

Model Q45H/62-63 SPECIFICATIONS

ELECTRONIC TRANSMITTER

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: 17-30 VDC, 25 mA maximum Battery unit: Two AA Alkaline batteries External DC: 5-17 VDC, 10 mA maximum
Analog Outputs	2-Wire unit: Single 4-20 mA DC, 450 ohms maximum Battery unit: Two 0-2.5 VDC, 50K ohms minimum External DC: Two 0-2.5 VDC, 50K ohms minimum
Output Isolation	600 V Galvanic isolation
Enclosure	NEMA 4X (IP-66) Polycarbonate, V-0 flammability
Mounting Options	Wall or pipe mounting bracket supplied
Conduit Entries	Two PG-9 cord grips, 0.16-0.31" diameter cable
Ambient Temperature	Operating: -40° to + 60°C Storage: -40° to + 70°C
Ambient Humidity	0-95%, Non-condensing
Size	4.4"H x 4.4"W x 3.5"D (111 x 111 x 90 mm)
Weight	2-Wire or External DC unit: 1 lb (0.45 Kg) Battery unit: 2 lbs (0.9 Kg)
Certifications	CE marked to BS EN 61326-1:2006 Standard UL and CSA General Purpose

SENSOR & FLOWCELL SPECIFICATIONS

Chlorine Sensor	Membrane-covered Amperometric (Polarographic)
Optional pH Sensor	pH sensor, with or without preamplifier
Materials	PVC & 316 stainless steel
Response Time	90% in 60 seconds
Temperature Limits	0-50°C
Pressure Limit	0-50 psig
Sensor Cable	25 ft. (7.5 m) standard
Sensor Flowcell	Clear acrylic constant-head overflow or sealed acrylic flowcell
Sample Flow rate	7-15 GPH (0.5-1.0 LPM)

ORDERING INFORMATION

Model Q45H-A-B-C-D Residual Chlorine Transmitter

Suffix A - Measurement Type

- 62 - Free Chlorine
- 63 - Combined Chlorine

Suffix B - Power

- 1 - 24 VDC, 2-wire (single output only)
- 4 - Battery operated with two 0-2.5 VDC outputs
- 5 - External 5-17 VDC with two 0-2.5 VDC outputs

Suffix C - Sensor Style

- 1 - Sensor with constant head flowcell and 25' cable
- 2 - Submersible sensor with 25' cable (Chloramine sensor only)
- 3 - Sensor with sealed low-volume flowcell
- 4 - Sensor with 1-1/2" Flow "T" (Chloramine sensor only)
- 5 - Sensor with sealed flowcell

Suffix D - 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

ACCESSORIES

- 07-0100** Universal junction box, NEMA 4X
- 31-0001** 5-c sensor interconnect cable, max. 100 ft. (Cl₂ only)
- 31-0038** 7-c sensor interconnect cable, max. 100 ft. (Cl₂ / pH systems)
- 00-0628** Mounting bracket kit for submersible sensor
- 00-0930** Monitor pipe mounting bracket kit
- 00-0570** Free Chlorine polarizer, flow cell style
- 00-0572** Combined Chlorine polarizer, flow cell style
- 00-0573** Combined Chlorine polarizer, submersible style
- 47-0005** 2" U-bolt, 304SS
- 55-0048** Fixed flow regulator, 400 cc/min., 1/4" inlet & outlet

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 - Flowcell for Cl₂ systems should be kept within 25 feet of monitor.
- 3 - Pipe mount requires two 2" U-bolts (47-0005).



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