



Series RPH-250 Residual Chlorine Analyzer

- Amperometric Probe-Style Residual Analyzer (Free or Total Chlorine)
- Available with pH & temperature compensation without buffer chemicals for Free Chlorine
- Includes complete PID control program (standard)
- Provides four analog outputs (selectable between residual, pH/ORP, Temperature, Turbidity, and control signals) and four alarm relays
- Optional Data Logger
- Adjustable measurement range
- Continuous Measurement/Fast Response
- 2 line x 20 character LCD Display
- Open flow cell with bubble trap for most applications
- Optional free chlorine probe with self cleaning in pressurized flow cell
- Modbus RS-485 Two-way communication



DESCRIPTION:

The Series RPH-250 Analyzer makes use of the Amperometric method to determine residual levels in the sample water. The measurement is continuous, not relying on sample and hold methods, thereby allowing for better process control. The chlorine measurement probes are easily accessible and serviceable.

The Series RPH-250 Chlorine Analyzer is optionally available with pH compensation performed in software. This analyzer includes a complete PID control program as a standard feature.

Because Chlorine residual measurement probes are sensitive to pressure and flow fluctuations, the RPH-250 includes an open flow cell with bubble trap to maintain constant low pressure, stable flow and avoid bubbles. For units using probes with exposed electrodes a cleaning head is used to keep the electrodes clean and free of bubbles. The cleaning head requires a higher sample water flow rate and pressure and so these probes are mounted in a closed flow cell.



INSTRUMENTS



Basic Specifications:

MEASUREMENT

Sample Water Flow Rate:	15-30 l/hr (4-8 gal/h) for open flow cell 45-90 l/hr (12-24 gal/h) for F3 probe with CEH-F3 cleaning head
Sample Pressure:	5 PSI (0.3 bar) for open flow cell 15 PSI (1 bar) for F3 probe with CEH-F3 cleaning head
Sample Supply:	Continuous. Note: Probes with a membrane cap must be kept wet.
Speed of Response:	T ₉₀ : Approx. 30 sec.
Resolution:	0.01 ppm or +/-1% of range, whichever is larger.

ELECTRICAL

Power Requirements:	100-250 VAC, 50/60 Hz or 24 VDC
4 Analog Outputs:	(4) isolated 4-20 mA (residual, pH/ORP, Temperature, Turbidity, or control)
4 Relay Contacts:	10 Amps @ 120 VAC or 24 VDC, resistive load, 5 Amps @ 240 VAC, resistive load
P&ID Input Signal:	4-20 mA (flow)
Modbus:	RS-485 Two-way communication
Data Logger:	Optional data logging writes data on a removable MicroSD card

RPH-250 Residual Analyzer Ordering Information

Model: RPH-250—A—B—C

Position	Feature	Description
A. Measurement	-	Select probe and enter Probe No. (See Tables I, II, III and IV)
B. pH Probe	0	None
	1	Included
C. Data Logger	0	None
	1	Included

TABLE I

Probe Information	Range	Probe No.
Free Chlorine, F1 (6-8 pH, 0-45°C / 0-113°F) Membrane-covered, amperometric 2-electrode	0-0.50 PPM	F1-05
	0-2.00 PPM	F1-2
	0-5.00 PPM	F1-5
	0-10.0 PPM	F1-10
	0-20.0 PPM	F1-20

TABLE II

Probe Information	Range	Probe No.
Free Chlorine, F2 (4-9 pH, 0-45°C / 0-113°F) Membrane-covered, amperometric 3-electrode	0.5-200 PPM	F2-200

TABLE III

Probe Information	Range	Probe No.
Free Chlorine, F3 (5-9 pH, 0-50°C / 0-122°F) Open measurement (i.e. does not use a membrane cap), potentiostatic 3-electrode	0-1.00 PPM	F3-1
	0-2.00 PPM	F3-2
	0-5.00 PPM	F3-5
	0-10.0 PPM	F3-10
	0-20.0 PPM	F3-20

TABLE IV

Probe Information	Range	Probe No.
Total Chlorine, T1 (4-12 pH, 0-45°C / 0-113°F) Membrane-covered, amperometric 3-electrode	0-0.50 PPM	T1-05
	0-2.00 PPM	T1-2
	0-5.00 PPM	T1-5
	0-10.0 PPM	T1-10
	0-20.0 PPM	T1-20



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