WG-702

SUPERIOR WATER SOLUTIONS

High accuracy, self-calibrating chlorine analyzer for water analysis & control

Customized Multi-Parameter System

Waterguard® WG-702 brings the most accurate method for measuring free and/or total residual chlorine to online water quality measurements with the colorimetric DPD (N, N-diethyl p-phenylenediamine) chemistry which is the most accurate method for measuring free and/or total residual chlorine. The analyzer adapts to each site's unique needs by allowing a combination of measurements, such as pH, temperature, turbidity, conductivity, and flow along with chemistry and process control in a single system.

Reduced total cost of ownership

Waterguard® WG-702 assures longer maintenance intervals. Detailed maintenance reminders and alarms provide useful data on events, timing, and causes so that you can respond effectively. WG-702 analyzers perform self-calibration and self-cleaning and show long-term stabilization. Manual procedures such as periodic reagent replacement, are easy to perform and do not require specialized skills.

Proven Results

Based on Waterguards proven platform, Waterguard® WG-702 provides the best accuracy and resolution in the low chlorine range with a fast response time.

Product improvements

- New solid body acrylic sampling cell designed for higher durability and flow geometry
- Proximity style flow switch does not need to be changed annually which reduces maintenance costs.
- New I/O card provides universal power supply. Power supply automatically switches between available voltages, along with interchangeable relays
- New durable corrosion resistant aluminum powder coated mounting board.
- Check valves installed in reagent feed lines which prevents "loss of prime"

Applications

- Potable water
- Waste water
- Process water
- Drinking water
- Cooling towers

- **Accurate and reliable measurements**
- **Multiple parameters in a single system**
- **Free and/or total chlorine 0-10ppm**
- **Turbidity 0-200 NTU (optional)**
- **Conductivity 0-10,000µS/cm (optional)**
- **Configurable measurement interval: 2 to 10 minutes**
- **Low reagent usage (DPD) (~0.03ml/sample)**
- **Self-zero measurement before each reading, enables "0" reading**
- **Reagent mixing, sample de-bubbling and cell cleaning all performed by one unit**
- **Reagent level alarm alerts you when reagent is running low.**

WATERGUARD® WG-702
SPECIFICATIONS

Mechanical Data	
Dimensions (controller) (W x H x D)	26.4" x 13" x 5.1" (670 x 330 x 130mm)
Dimensions (mounting board)	31.5" x 21.7" x 0.2" (800 x 550 x 5mm)
Cable Entries	PG9 Cable Glands
Max Ambient Temperature	35.6°F to 122°F (2°C to 50°C)
Approx. Weight	24.3 lbs. (11KG)
Elecrical Connection	
Power Supply	100-120VAC / 1A 200-230VAC / 0.5A 50-60Hz 12 volts DC
Power Consumption	Approx. 60VA
Power supply for RTC	3.6v lithium battery (CR2032)
Data Output	
RS-485	Standard
4-20ma	2 Standard / 4 or 6 Optional
Relays	
CL (chlorine) set point 1	Dry Contact 250VAC/DC 4A MAX
CL (chlorine) set point 2	Dry Contact 250VAC/DC 4A MAX
pH 1	Dry Contact 250VAC/DC 4A MAX
Turbidity Control*	Dry Contact 250VAC/DC 4A MAX
General Alarm	Dry Contact 250VAC/DC 4A MAX
Temperature control	Dry Contact 250VAC/DC 4A MAX
Display	
5.5" Large Graphic Monochrome Display	
Chlorine Measurement	
Measurement	Free and/or Total Chlorine (DPD Method / N,N-diethyl-p-phenylenediamine
Sensor	Colorimetric multi-spectrum sensor
Cell Cleaning	Patented automatic self cleaning mechanism
Mixing Technology	Patented inner-colorimeter solenoid activated mixer
Measurement Range	0-10 ppm
Measuring Interval	Free or Total 2-10 minute user selectable interval Free and Total 2:30-10 minute user selectable interval
Max. Inlet Operating Pressure	14.5psi (1 BAR)
Colorimetric Cell Flow Rate	0.75GPH-36GPH @14.5psi (3-12LPH @ 1 BAR)
Working Temperature	33.8°F - 113°F (1°C - 45°C)
Reagents	
Reagent Type	DPD1, DPD3, DPD4
Reagent Consumption	Min. ~0.033 ml per sample
Shelf Life	Unmixed DPD1 & 4 - 3 Years DPD3 - 15 months Mixed: 60 days (reccomended)
Ph Measurement*	
Measurement Range	0-14
Sensor	Ceramic diaphragm with gel filling
Input Impedence	0.5 - 1.12KΩ

ORP (REDOX)* measurement	
Measurement Range	0-2000mv
Sensor	Ceramic diaphragm with gel filling
Temperature* measurement	
Sensor	PT-100
Measurement Range	32°F - 212°F (0C° 100°C)
Measuring Cell	
Working Temperature	33.8°F - 113°F (1°C - 45°C)
Flow Requirements	
Measuring Cell Flow Rate	9-16 GPH (35-60 lph)
Inlet Pressure	4.4-14.5 psi (0.3-1 BAR)
Outlet Pressure Closed Cell	Up to 13 psi (0.9 BAR)
Flow Switch Type	Inductive Proximity Sensor with Stainless Steel Float
Flow Measurement	
Frequency Input	Via I/O card
or	
4-20ma Input	Via NTU Card
Measurement Range	0-256,000GPH (1-1000 m3/H)
pH Control	
Control Function	P or PI or ON/OFF or Frequency
Characteristics	Normal / Inverted
Relay Function	Pulse Length proportional controller Pulse Frequency proportional controller
ORP (REDOX) Control	
Control Function	High Alarm as Chlorine Override
Chlorine Control #1	
Control Function	P or PI or ON/OFF or Frequency
Proportional Band	YES
Relay Function	Pulse Length proportional controller Pulse Frequency proportional controller
Chlorine Control #2	
Control Function	ON / OFF
Proportional Band	NO
Relay Function	Pulse Length proportional controller Pulse Frequency proportional controller
Data Logger	
Memory	256Kbit
Lines	1000
Recording Interval	1-360 min
Event Logger	YES
Total Relay On Time	YES
Security	
Operator Password	YES
Technician Password	YES
*Optional Feature	

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