![Blue I Water Technologies logo]

HYDROGUARD HG-702

Accurate free and/or total chlorine testing for water analysis and control

Customized Multi-Parameter Systems

The **HYDROGUARD HG-702** adapts to each sites unique needs by **a**llowing any combination of measurements in a single system including: Colorimetric Free and/or Total Chlorine, pH, Temperature, Turbidity, Conductivity and Flow. A complete, flexible solution to fit any application.

Applications

- Municipal Water Treatment
- Power Industry
- Pharmaceuticals
- Food and Beverage
- Cooling Towers
- Desalination Plants

Reduced Total Cost of Ownership

With HydroGuard, you benefit from much **longer maintenance intervals** than with conventional systems. Detailed maintenance **reminders and alarms** provide useful information about incidents, timing and causes so that you can respond effectively.
HydroGuard Analyzers perform **self-calibration**, **self-cleaning and long-term stabilization**. Manual procedures such as periodic reagent replacement are easy to perform and do not require specialized skills.

Proven Result

Based on HYDROGUARDs proven platform, the HydroGuard, HYDROGUARD HG-702 provides the best accuracy and resolution in the low chlorine range with a fast response time.

➜ **Free and/or Total Chlorine 0-10ppm**

➜ **Configurable Measurement Interval: 2 to 10 minutes**

➜ **Low Reagents (DPD) consumption (~0.03ml/sample)**

➜ **Self zero before each reading, enables "0" reading**

➜ **Self-Cleaning Photocell**

➜ **Working in harsh conditions (sea water, colored water and water with oil)**

➜ **Accurate and Reliable Measurements**

➜ **Multiple Parameters in a Single System**

➜ **Meets IP-65 (NEMA 4) Standards**

Your Water Quality Partner

MECHANICAL DATA

Dimensions (controller) (W x H x D)	13" x 26.4" x 5" (330 x 670 x 130mm)
Cable entries	Pg 9 Cable Glands
Ingress protection	IP 65 (NEMA 4 equivalent)
Max. ambient temperature	15^oF to 131^oF (-10^oC to 55^oC)
Weight Approx.	11 lbs. (4.5kg)

ELECTRICAL CONNECTION

Power supply	100-120VAC/1A 210-230VAC/0.5A; 50Hz/60Hz
Power consumption	Approx 60 VA
Power supply for RTC memory	3.6V Lithium Battery

DATA SERIAL OUTPUT SIGNAL OUTPUT

RS 485	Standard
4-20mA	Optional

RELAYS

CL (Chlorine) set point 1	250VAC/DC 4A Max
CL (Chlorine) set point 2	250VAC/DC 4A Max
pH 1	250VAC/DC Max
Turbidity control* 1	250VAC/DC 4A Max
General Alarm	250VAC/DC 4A Max
Temperature control	250VAC/DC 4A Max

DISPLAY

5.5" Large Graphic Monochrome Display

Character LCD with background light alarms and status

pH MEASUREMENT

Measurement range	0-14
Sensor	Ceramic diaphragm and gel filling
Input impedance	$0.5 . 10^{12} \Omega$

ORP (REDOX)* MEASUREMENT

Measurement range	0-2000mV
Sensor	Ceramic diaphragm and gel filling

TEMPERATURE MEASUREMENT

Sensor	PT-100
Measuring range	32^oF to 212^oF (0^oC to 100^oC)

Cl MEASUREMENTs

Indicator	Free and/or Total chlorine
Measurement principle	Colorimetric multi spectrum sensor
Working temperature	33.8^oF to 113^oF (1°C to 45°C)
Measuring range	0…10 ppm
Max. operating pressure	14.5 psi (1 bar)
Measuring interval	2-10 min

REAGENTS

Reagent type	DPD1, DPD3, DPD4
Reagent use	~0.033 ml per sample
Average consumption	1-2 months
Shelf life	1 year unmixed, 2 months mixed

FLOW MONITORING

Sensor	Rotary flow switch
Output signal	Dry Contact
Inlet Pressure	14.5 psi (1 bar)
Outlet Pressure Close Cell	13 psi (0.9 bar)
Measuring Cell Flow Rate	30…49 l/h

pH VALUE 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	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

LOGGER DATA

Memory	256K
Lines	1000
Recording interval	1-360 min
Event logger	Yes
Total relay on time	Yes

SECURITY

Operation Password	Yes
Technician Password	Yes

*Optional Feature