

## HYDROGUARD® HG-202

### *Amperometric Free Chlorine and pH Controller for Swimming Pools & Spas*

#### Customized Multi-Parameter System

The HYDROGUARD® HG-202 delivers a high-precision solution for monitoring and dosing control of free chlorine and pH for swimming pools. The HG-202 provides reliable measurement and control with automatic compensation for pH and temperature. It is as simple as plug and play.

#### Versatile Chlorine Measurement & Control

The HG-202 enables users to accurately disinfect the pool by using a wide range of chemicals, such as calcium/sodium hypochlorite disinfectants. A range of safety features assures smooth and secure operation.

#### Flexible Options

Beyond its powerful standard features, the HG-202's performance is enhanced with optional measurements including a low-range turbidity sensor, flow meter and redox control.

#### Wireless Communication

The HG-202 wireless communication capabilities transfer data directly to the user's computer or mobile phone, providing real-time data and alarms. Enables offsite management of pool conditions – anytime, anywhere.

#### Proven Results

Based on HYDROGUARD®'s proven platform, the HYDROGUARD® HG-202 reduces pool maintenance time and increases pool owner satisfaction.

*Automated monitoring and dosing saves chemicals*



#### → Parameters

**Free chlorine: 0-10ppm**

**pH: 4-10**

**Temperature: 0-50°C**

#### → Optional parameters

**Turbidity (NTU)**

**Redox (ORP)**

**Flow meter**

**Temperature control**

**Wireless communication**

#### → Simple user-friendly menus and functions

Your Water Quality Partner



# HYDROGUARD® HG-202 SPECIFICATIONS

MECHANICAL DATA	
Dimensions (controller) (W x H x D)	230 x 330 x 130mm (9.1" x 13" x 5.1")
Dimensions (mounting board)	800 x 550 x 5 mm (31.5" x 21.7" x 0.2")
Cable entries	Pg 9 Cable Glands
Ingress protection	IP 65 (NEMA 4 equivalent)
Max. ambient temperature	2°C to 50°C (35.6°F to 122°F)
Weight approx.	7.5 kg (16.5 lbs)
ELECTRICAL CONNECTION	
Power supply	100-115 VAC/1A; 200-230 VAC/0.5A; 50Hz/60Hz
Power consumption	Approx. 60 VA
Power supply for RTC	3.6V Lithium Battery
DATA SERIAL OUTPUT / SIGNAL OUTPUT	
RS 485	Standard half-duplex
RELAYS	
Chlorine set point 1	250VAC/DC 4A Max
Chlorine set point 2	250VAC/DC 4A Max
pH	250VAC/DC Max
Turbidity control*	250VAC/DC 4A Max
General alarm	250VAC/DC 4A Max
Temperature control	250VAC/DC 4A Max
DISPLAY	
2 line 24 character LCD with background light	
2x7 Segments Red display 3 digits	
CL MEASUREMENTS	
Indicator	Free Chlorine
Measurement principle	Amperometric sensor with gold Cathode and silver/Silver chloride anode
Measurement range	0.05 to 10 ppm
pH range	4 to 10
Working temperature	10°C to 45°C (50°F to 113°F)
Max. Inlet pressure	1 bar (14.5 psi)
Flow rate	30 to 60 LPH (7.9 to 15.9 GPH)
pH MEASUREMENT	
Measurement range	4 to 10
Sensor	Ceramic diaphragm and gel filling
Input impedance	0.5 · 10 <sup>12</sup> Ω
ORP* (REDOX) MEASUREMENT	
Measurement range	0 to 1000mv
Sensor	Ceramic diaphragm and gel filling
TEMPERATURE MEASUREMENT	
Measurement range	2°C to 50°C (35.6°F to 122°F)
Sensor	PT-100

FLOW REQUIREMENTS	
Measuring cell flow rate	35L/h - 60l/h
Inlet pressure	0.3 bar (4.4 psi) to 1 bar (14.5 psi)
Outlet pressure closed cell	Up to 0.9 bar (13 psi)
Flow switch type	Inductive proximity sensor
FLOW MEASUREMENT	
Frequency input	via I/O card
or	
4-20mA input	via NTU card
Measurement range	0-1,000 m3/hour
MEASURING CELL	
Material	Acrylic
Temperature	40°C (104°F) at 1 bar (14.5 psi)
Flow range	30 to 100 LPH (recommended 40)
Inlet pressure	1 bar (14.5 psi) at 25°C (77°F)
pH range	2-12
PRESSURE REQUIREMENTS	
Inlet Pressure	0.3 bar (4.4 psi) to 1 bar (14.5 psi)
Outlet Pressure Close Cell	Up to 0.9 bar (13 psi)
Outlet pressure open cell	Gravity
pH VALUE CONTROL	
Control function	Proportional or On/Off
Characteristics	Normal/Inverted
Relay function	Pulse length proportional controller Pulse frequency proportional controller
Proportional band	Yes
CHLORINE CONTROL #1	
Control function	Proportional or On/Off
Proportional band	Yes
Relay function	Pulse length proportional controller Pulse frequency proportional controller
CHLORINE CONTROL #2	
Control function	On/Off
Proportional band	No
Integration action time	No
DATA LOGGER	
Memory	256 bit
Lines	1000
Recording interval	1-360
Event logger	Yes
Total relay on time	Yes
SECURITY	
Operation password	Yes
Technician password	Yes

\*Optional Features



[www.blueitechnologies.com](http://www.blueitechnologies.com)

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