HYDROGUARD HG-DOx

Accurate control for Dissolved Oxygen Applications

Customized Multi-Parameter Systems

The **HYDROGUARD HG-DOx** adapts to each sites unique needs by allowing any combination of measurements in a single system including: Dissolved Oxygen, pH, Temperature, ORP, Turbidity, Conductivity and Flow. A complete, flexible solution to fit your high-level chlorine application.

Applications

The perfect fit for your applications requiring chlorine monitoring and control

- Sewage treatment plants
- Water quality monitoring
- Water treatment status
- Fish farming

Reduced Total Cost of Ownership

Save Time and eliminate the need for manual testing and control of dissolved oxygen levels. Able to monitor accurately dissolved oxygen levels with height , pressure and temp compensation.
Ability to control

- Blower based on dissolved oxygen levels and 2 chlorine dosing systems
- Cleaning interval simultaneously allowing for back-up systems to be
- Automatically activated ensuring constant operation and safety.

Proven Results

Based on HYDROGUARDs proven platform, the **HYDROGUARD HG-DOx** provides reliable measurement and control of dissolved oxygen levels.

- **Dissolved Oxygen up to 20ppm**
- **Accurate and Reliable Measurements**
- **Automatic Temperature**
- **Multiple Parameters in a Single System**
- **Simple, User-friendly Menus and Functions**
- **Meets IP-65 (NEMA 4) Standards**

Your Water Quality Partner

HYDROGUARD HG-DOx SPECIFICATIONS

MECHANICAL DATA	
Dimensions (controller) (W x H x D)	14" x 7" x 5" (340 x 220 x 120mm)
Cable entries	Pg 9 Cable Glands
Ingress protection	IP 65 (NEMA 4 equivalent)
Max. ambient temperature	15°F to 113°F (-10°C to 45°C)
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	3.6 V Lithium Battery

DATA SERIAL OUTPUT SIGNAL OUTPUT	
RS 485	Standard
4-20mA	Optional

RELAYS	
CL (as DO) set point # 1	250VAC/DC 4A Max
CL (cleaning interval) # 2	250VAC/DC 4A Max
pH 1	250VAC/DC 4A 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	
Measuring Range	0-14
Sensor	Ceramic diaphragm and gel filling
Input impedance	0.5 . $10^{12}\Omega$

DISSOLVED OXYGEN MEASUREMENTs	
Indicator	Dissolved Oxygen
Measurement principle	Passive-operated sensor with gold cathode and Silver / silver bromide anode
Measuring range	0.05 … 20 ppm
Operating pressure	Up to 145 psi (10bar)
Temp range	**–5 to 50°C (20 to 120°F)**
Flow rate	30 … 40l/h

TEMPERATURE MEASUREMENT	
Sensor	PT-100
Measuring range	32°F to 122°F (0°C to 50°C)*

FLOW MONITORING	
Sensor	Rotary flow switch
Output signal	Dry Contact
Inlet Pressure	1 bar (15 psi)
Outlet Pressure Close Cell	0.9 bar (13 psi)

pH VALUE CONTROL	
Control function	P or PI, or On/Off
Characteristics	Normal / Inverted
Relay function	Pulse Length proportional controller Pulse Frequency proportional controller

CHLORINE CONTROL Relay #1	
Control function	PI, or On/Off Blower based on DO
Proportional band	Yes
Relay function	Pulse Length proportional controller Pulse Frequency proportional controller

CHLORINE CONTROL Relay #2	
Control function	On/Off Auto-Clean cycle
Oxygen cleaning Interval	1-240 min

DATA LOGGER	
Memory	256K
Lines	1000
Recording interval	1-360 min
Event logger	Yes

SECURITY	
Operation Password	Yes
Technician Password	Yes

* Optional Feature