



alpha DO2000 Series Dissolved Oxygen Analyzer/Controller



Product Features

- v **Available in both Galvanic (alpha DO2000) and Polarographic (alpha DO2000PG) versions.**
- v Programmable for On/Off, Proportional, or PI (Proportional integral CONTROL) - ideal for most demanding precision process control applications
- v Calibration is quick and easy using the atmospheric air as the calibration media for 100% air saturation
- v User-Customization through Advanced Setup Menu offers flexibility in matching the controller's functions to suit individual's specific requirement
- v Includes Barometer pressure, Salinity, Temperature Compensation
- v 0 to 2000 Second Time Delay Adjustment on control and alarm delays
- v Non-Volatile Memory retains all stored parameters and calibration data even if power fails
- v Backlit 14 segments display with symbols for status information and On/Off selectable with four levels of brightness control
- v Adjustable Hysteresis (Dead Band) prevents rapid contact switching near set point
- v Three-Level Password Protection prevents unauthorized tampering with settings
- v Wash Contact Relay controls electrodes cleaning systems at desired duration and frequency
- v Universal Power Supply Input from 85 to 250 VAC/DC allows use at multiple sites and withstands voltage fluctuations
- v Choice of Temperature Sensor Pt100/Pt1000 with 2-wire or 3-wire temperature input selection
- v Dual Display shows Dissolved Oxygen value with temperature simultaneously - features clear multiple icons, set points, and status messages
- v Rugged NEMA 4X housing protects controller from the elements and dirty industrial applications
- v Easy Installation and Wiring with detachable plug-in connectors



Applications

General: Useful for monitoring temperature and control of DO in wastewater treatment and aquaculture applications. Use with valves, blowers or aerators to ensure proper system operation.

Specifications

Product Specification	Description
DO Range	Galvanic: 0.00 – 25.00 mg/l or 0.00 – 300% Saturation Amperometric: 0.00 – 20.00 mg/l or 0.00 – 200% Saturation
Resolution	0.01 mg/l or ppm or 0.1 %
Accuracy	Galvanic: ± 1.5 % full scale Amperometric: ± 1 % full scale
Temperature Range	-10.0 to 125 °C (14.0 to 257.0 °F)
Resolution & Relative Accuracy	0.1 °C / °F & ± 0.5 °C / ± 1.0 °F
Temperature Sensor	Galvanic: Pt100/ Pt1000 (jumper selectable); 2 or 3 wire Amperometric: NTC 22 k Ω Thermistor
Temperature Compensation	Auto / Manual
Salinity Compensation	0.0 to 50.00 ppt (Manual setting and Automatic correction)
Pressure Compensation	0.740 to 3.000 Bar; 555 to 2250 mmHg; 10.73 to 43.51 PSI (Manual setting and Automatic correction)
Set Point and Controller Functions	
Integral Time	0 to 999.9 minutes
Switching Hysteresis	Galvanic: 0 to 10% full scale Amperometric: 0.1 to 1.0 mg/l or 1.0 to 10.00 %
Function (Switchable)	P/PI control (Pulse Length / Pulse Frequency); Limit Control; Off
Adjustable Period with Pulse Length Controller	0.5 to 20 seconds
Adjustable Period with Pulse Frequency Controller	60 to 120 pulses/min
Pickup / Dropout Delay	0 to 2000 seconds
Wash Cycle	0.1 to 200.0 hours
Wash Duration	1 to 2000 seconds
Contact Outputs, controller	1 SPDT, 3 SPST relays
Switching Voltage / Current /	Max 250 VAC / Max 3A / Max 600VA



Power		
Alarm Functions		
Function (Switchable)	Latching / pulse	
Pickup Delay	0 to 2000 seconds	
Display		
LCD	UV coat, backlit 14 segments display with symbols for status information	
Backlight	On/Off selectable with four levels of brightness control	
Electromagnetic Compliance (EMC) Specifications		
Emitted Interference	According to EN 61326	
Immunity to Interference	According to EN 61326	
Environmental Conditions		
Ambient Temperature	0 to 50 °C	
Operating Range		
Maximum Relative Humidity	80% up to 31 °C decreasing linearly to 50% at 40 °C	
Power Supply		
Input	80 to 250 VAC/DC 50/60 Hz Approx. 10 VA	
Main Fuse	Galvanic: 315 mA Anti-surge, 250 V Amperometric: 250 mA, Anti-surge	
Pollution Degree	2	
Transient Overvoltage	II	
Category		
Electrical Data and Connections		
Transmitter Function	Two 0/4 to 20 mA scalable outputs for pH/ORP and temperature, galvanically isolated	
Load	Max 600 W	
DO Input	Screw terminals	
Connection Terminal (Galvanic)	5-pin, 8-pin, 9-pin and 13-pin terminal, detachable blocks	
Connection Terminal (Amperometric)	Wall mount: 2x3-pin, 8-pin 9-pin and 13-pin terminal blocks Panel mount: 3-pin, 9-pin and 19-pin terminal blocks	
Mechanical Specifications		
Dimensions (W x H x D)	Wall-mount (Galvanic)	144 x 144 x 111.5 mm
	Wall-mount (Amperometric)	144 x 144 x 110 mm
	Panel-mount	175 x 96 X 96 mm
Weight	Wall-mount	745g (Unit) / 1100g (Packed)
	Panel-mount	700g (Unit) / 850g (Packed)



Environmental Rating	Wall-mount	IP66 (NEMA 4X)
	Panel-mount	IP54 (front panel)