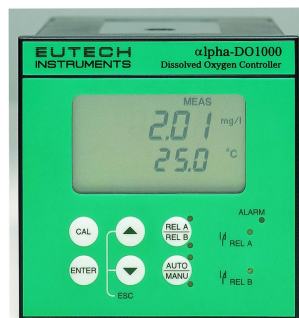




## alpha-DO1002 1/4 DIN Dissolved Oxygen Controller



### Product Features

- v Built-In Programmable Limit, Proportional (Pulse Length or Pulse Frequency) - ideal for precision process control applications
- v User-Customization through Advanced Setup Menu offers flexibility in matching the controller's functions to suit individual's specific requirement
- v Readout in mg/L, pm or % saturation
- v Barometric and Salinity Automatic Compensation after manual input
- v Hold Relay for use with float switches/flow switches and other controllers as a failsafe function
- v Two Level Password Protection prevents un authorized tampering with settings
- v 0 to 2000 Second Time Delay Adjustment on control and alarm delays
- v Galvanically Isolated Scaleable 0-20/4-20 mA Outputs
- v Wash Contact Relay controls electrodes cleaning systems at desired duration and frequency
- v Choice of General Purpose or Low DO measurement for wider applications
- v Adjustable Hysteresis (Dead Band) prevents rapid contact switching near set point
- v Non-Volatile Memory retains all stored parameters and calibration data even if power fails
- v Large Dual Display shows DO with temperature simultaneously - features clear multiple icons, set points, and status messages
- v Choice of Temperature Sensor Pt100/Pt1000 with 2-wire or 3-wire temperature input selection
- 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
<b>DO Range</b>	mg/l of oxygen: 0.00 – 20.00 mg/l % saturation of oxygen: 0.0 to 200.0% saturation
<b>Resolution &amp; Accuracy</b>	0.01 mg/l or 0.1% ± 1.5% of full scale reading
<b>No. of calibration Points</b>	1 (100% saturation) or 2 (100% and 0% saturation) points
<b>Flow rate</b>	±1 – 2 cm/sec (dependent on both Temperature & Oxygen level)
<b>Response Time</b>	40 – 50 secs to attain 95%
<b>Temperature Range</b>	-9.9 to 125 °C
<b>Resolution &amp; Relative Accuracy</b>	0.1 °C & ±0.5 °C
<b>Temperature Sensor</b>	Pt 100
<b>Temperature Response</b>	Approx. 1 min/ °C
<b>Temperature Compensation</b>	Auto / Manual (reference at 25 °C)
<b>Pressure Input</b>	K. Pas/mm Hg (Manual input and Automatic correction)
<b>Salinity Input</b>	0.0 to 50.0 ppt (Manual inout and Automatic correction)
<b>Set Point and Controller Functions</b>	
<b>Function</b>	Limit / Proportional (pulse or frequency) controller
<b>Adjustable Period with Pulse Length Controller</b>	0.5 to 20 secs
<b>Adjustable Period with Pulse Frequency Controller</b>	60 to 120 pulses/min
<b>Switching Hysteresis</b>	0.1 to 1.0 mg/l or 0 to 10.0%
<b>Pickup / Dropout Delay</b>	0 to 2000 seconds
<b>Contact Outputs, Controller</b>	2 potential free change-over contacts
<b>Switching Voltage / Current / Power</b>	Max 250 VAC / Max 3A / Max 600VA
<b>Alarm Functions</b>	
<b>Function (Switchable)</b>	Launching or Pulse
<b>Pickup Delay</b>	0 to 2000 seconds
<b>Switching Voltage / Current / Power</b>	Max 250 VAC / Max 3A / Max 600VA
<b>Electrical Data and Connections</b>	



<b>Power requirement</b>	110/ 220 VAC (jumper selection)
<b>Frequency</b>	48 to 62Hz
<b>Signal Output</b>	0/4 to 20mA, galvanically isolated
<b>Load</b>	Max. 600 $\Omega$
<b>Connection Terminal</b>	Terminal blocks 5-pole/ 17-pole, removable
<b>Main Fuse/ Fine Wire Fuse</b>	Slow-blow 250 V/ 100 mA
<b>EMC Specifications</b>	
<b>Emitted Interference</b>	According to EN 50081-1
<b>Immunity to Interference</b>	According to EN EN 50082-1
<b>Environmental Conditions</b>	
<b>Maximum Relative Humidity</b>	10 to 95%, non-condensing
<b>Ambient Temp. Operating Range</b>	0 to 50 °C
<b>Mechanical Specifications</b>	
<b>Dimensions</b>	175 x 96 x 96 mm
<b>Weights</b>	Max. 0.7kg
<b>Material</b>	ABS with polycarbonate
<b>Insulation</b>	IP 54/ IP 40