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do controller & monitor: dissolved oxygen control | acniti

Acniti offers dissolved oxygen controllers and handheld monitors designed for nanobubble generators and oxygen generators. The DO controller automates aeration using PLC-based setpoint control, while the Polaris handheld sensor provides portable DO measurement with NFC and Bluetooth. Both target aquaculture, shrimp farming, and high-DO water treatment applications.


Polaris C
ESC
OK

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dissolved oxygen controllers and monitors for nanobubble systems

- High quality and accurate DO monitor with control system
- Measures dissolved oxygen levels until 40 PPM
- Dissolved Oxygen monitor with ability to log DO measurement, data can be easily transferred via a USB stick.
- Dissolved Oxygen Control System

control on do levels

In the product line of control and monitoring, acniti delivers a DO controller and monitoring system. Acniti also offers a Nanobubble sensor system which approximates the bubble concentration in your process water. The controller and monitoring system is developed to work with any of our nanobubble generators and the oxiti oxygen concentrators. The DO controller is especially important for industries where too much of dissolved oxygen can do harm, for example in fish cultivation, shrimp and koi carps. The cost of energy in aeration applications is a big deal. Often aeration is the highest energy consumer, so running your systems fewer hours means savings, compared to using timers or do manual control.

operate during set times

The DO controller consists of a DO sensor, a PLC a start stop output for the oxygen concentrator, a start stop output for a small pump if a larger pump in the setup is required a dry contact to start stop the pump is also available. In the DO controller set the DO value, below the set-point the Ultrafine bubble mixer will run until the set-point is achieved. In the PLC, you can set a delay interval of 2 minutes to 16 minutes between starting and stopping the ultrafine bubble mixer to avoid that it turns on and off frequently. The controller can also be used without a DO sensor, without a DO sensor there is a possibility to set a day program and run it in certain hours. The DO controller comes in a wall-mounted enclosure with a door of fiberglass reinforced, non-saturated polyester. Protection category IP 56 or IP 66. High stability thanks to use of fiber-glass reinforced plastic. The DO sensor is a membrane covered galvanic oxygen probe with built-in transmitter. The probe is connected to a DC supply and draws a current of between 4 and 20 mA corresponding to the oxygen concentration.

monitor oxygen levels

For research and historic data, the DO controller can log data at a set interval time. The shortest interval is 1 second, the longest interval is over 2 hours. Transfer data easily to a USB flash drive by simply inserting the stick into the PLC. The unit has a capability of storing 10,000 measurement, when the maximum number of measurements is reached the oldest data entry will

be overwritten.

do-controller: nanobubble do monitor & plc control | acniti

	General		
1	Model name	Dissolved Oxygen Controllers and Monitors for Nanobubble Systems	
2	Model number	sensor-do-controller_sensor	
	Liquid	**Metric**	**Imperial**
3	water temperature minimum	0 °C	32 °F
4	water temperature maximum	50 °C	122 °F
5	Strainer availability and size		
	Ambient	**Metric**	**Imperial**
6	Ambient temperature maximum	55 °C	131 °F
7	Relative humidity minimum	10 %	
8	Relative humidity maximum	95 %	

	Gas	Metric	Imperial
9	Gas quality		
10	Gas remark		

	Electrical	Metric	Imperial
11	Unit phase Ø voltage	100 - 240 VAC	
12	Unit power consumption	30 watts	
13	Wetted parts		
14	Pump model		
15	Pump phase Ø voltage		
16	Pump phase Ø voltage 60Hz		
17	Pump pressure setting		
18	Control	PLC controller with timer and DO sensor input	

	Connections
19	Water inlet
20	Water outlet
21	Gas inlet

	Dimensions & weight	Metric	Imperial
22	Dim. (w) x (d) x (h)	200 x 190 x 340 mm	7.9 x 7.5 x 13.4 inch
23	weight	5.5 Kg	12.1 lbs.
24	HS code	9027.1000	
25	Shipping dim. (w)x(d)x(h)	30 x 40 x 30 cm	12 x 16 x 12 inch
26	Shipping weight	7.5 Kg	17 lbs.

		Remarks
27	Other remarks	✓ Weight excluding sensor only the control box ✓ Measurement of DO levels from 0 - 40 PPM ✓ Sensor cable length standard 7 meter, weight sensor including cable 0.7 kg.

polaris: handheld dissolved oxygen sensor nfc bt | acniti

	General		
1	Model name	Dissolved Oxygen Controllers and Monitors for Nanobubble Systems	
2	Model number	DO_sensor_Polaris	
	Liquid	**Metric**	**Imperial**
3	water temperature minimum	-5 °C	23 °F
4	water temperature maximum	40 °C	104 °F
5	Strainer availability and size		
	Ambient	**Metric**	**Imperial**
6	Ambient temperature minimum	-20 °C	-4 °F
7	Ambient temperature maximum	60 °C	140 °F

	Gas	Metric	Imperial
8	Gas quality		
9	Gas remark		

	Connections
10	Water inlet
11	Water outlet
12	Gas inlet

	Dimensions & weight	Metric	Imperial
13	HS code	9027.1000	

	Remarks	
14	Other remarks	✓ Cable length: 3 meters / 10 ft. ✓ Meter water resistance IP67-rated, allowing short-term immersion up to 1 m / 3 ft