

CROSS SMART SENSOR

DG7-OZ: Dissolved Ozone

Digital technology for optimized measures



The **DG7-OZ** is a panel-mount, ready-to-use dissolved Ozone (O_3) sensor. It provides several measurement ranges to accommodate various applications: 0 ~ 2.00 ppm for disinfection and 0 ~ 10.00 ppm for oxidation and bleaching. Ozone is a colorless to pale blue gas, when in low concentrations; it gives off an irritating acidic odor. Ozone is a strong oxidizer, stronger than chlorine and chlorine dioxide. It reacts quickly, disintegrates into oxygen gas, and increases the amount of oxygen in water when applied to water treatment.

Ozone is widely used in drinking water and waste water industries. In the processing of drinking water, it works as an oxidizer that removes metals from well water, and gets rid of organics, odors and color from surface water. For waste water treatment, Ozone serves as a strong disinfectant in cooling towers as well as in municipal waste water treatment plants. Unlike many chlorine based products, Ozone is an effective bactericide that simply decomposes into oxygen gas without forming any harmful Disinfection By-Products (DBP) or residual in the water. The harmful residual in water treatment is common to most chlorine chemistries, and it has to be removed from the treated water.

Amperometric Ozone sensor is flow sensitive. To make the measurement flow independent, it requires a minimum flow speed of 0.5 ft/sec. A "Constant-head" Flow-control Device (CFD) maintains an optimum flow that passes over the sensor over a wide range of incoming sample flow rates. The minimum flow required for the CFD is 10 gal/hr and the maximum is 80 gal/hr when a sample drains at a normal atmospheric pressure.

SPECIFICATIONS	
Measurement Principle	Membrane-Covered, amperometric 2-electrode system
Range	(0.05 ~ 0.50 / 2.00 / 5.00 / 10.00) mg/l, ppm
Resolution	0.01 mg/l, ppm
Operating Temp.	41 to 122 °F (5 to 50 °C)
Temp. compensation	Automatically, by integrated temperature sensor, Changes of temperature: <5 °C per hour
Max. allowed Operating Pressure	1.0 bar, no pressure impulses and/or vibrations
Flow Rate	Approx. 30 L/h
pH Range	2 ~ 12 pH
Run-in Time	First start-up approx. 1 hour
Response Time	T90: approx. 50 sec.
Zero Point Adjustment	Not necessary
Slop Calibration	At the device, by analytical determination
Material	PVC-U, 316L
Power Supply	24VDC by GDC
Dimensions	Diameter: 1" (25.4 mm), Length: 8.66" (220mm)
Storage	Probe: Can be stored frost-free, dry and without electrolyte for unlimited time at 5 ~ 40 °C Membrane Cap: Used membrane caps cannot be stored! Electrolyte: In original bottle and protected from sun light at least 1 year at 5 ~ 25 °C
Maintenance	Regular control of the measuring signal: at least once a week Replacement of the membrane cap: once a year (depending on the water quality) Replacement of the electrolyte: every 3 ~ 6 months
Spare Parts	Membrane Cap: M7N O3 for below 0.5ppm; M7D O3 for over 2 ppm Electrolyte: EOZ7/W

ORDER CODE

DG7-OZ Dissolved Ozone Sensor with panel and flow cell		
	-MA0.2	0.05 ~ 0.20 ppm
	-MA0.5	0.05 ~ 0.50 ppm
	-MA2	0.05 ~ 2.00 ppm
	-MA5	0.05 ~ 5.00 ppm
	-MA10	0.05 ~ 10.00 ppm
	-C20	20' cable
	-C30	30' cable
		More cable length contact factory
DG7-OZ	-MA5	-C30

Terminals

GDC-01/02 Terminal
Single or dual-channels



GDC-04/06/08 Controller
Multi-channels up to eight



GDC-Ex Terminal
Ex-proof



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