

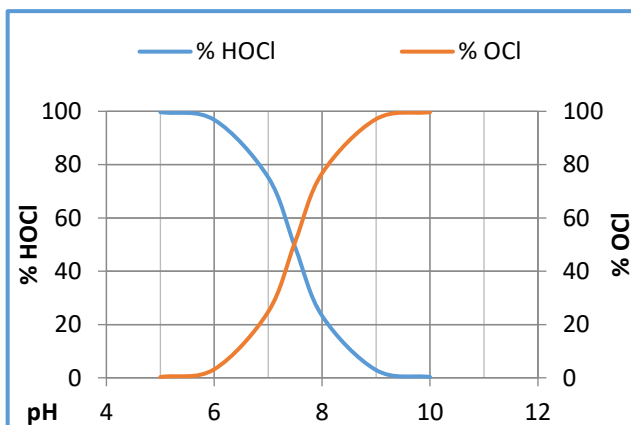
CROSS SMART SENSOR

DG7-FC: Free Chlorine Sensor

Reduced pH dependence



The **DG7-FC** is a panel-mount, ready-to-use Free Chlorine Sensor. It is designed to monitor free chlorine in drinking water, rinse water, cooling water and any other fresh water samples. The sensor provides two measurement ranges, the standard 0.05~10.00ppm, and the extended 0.01~5.00ppm for low values. The DG7-FC is compliant with EPA method 334.0 for measuring drinking water.



Free Chlorine exists in a pH-dependent solution with a mixed ratio of hypochlorous acid (HOCl) (~100% at pH 5) and OCl⁻ (~100% at pH 10). Free Chlorine is the sum of HOCl and OCl⁻ in the sample. The Free Chlorine Sensor measures only the HOCl component whereby the analyzer calculates the balance of the free chlorine components by either a measured or a user defined value and finally gives out the free chlorine number. The utilization of the pH sensor provides an accurate compensation for samples with pH between 6 and 9.5, which eliminates the expensive sample conditioning system commonly required for controlling the pH of the test solution.

SPECIFICATIONS	
Measuring system	Membrane-covered, amperometric 3-electrode system with integrated electronic
Range	(0.05~5.00/10.00)mg/l, ppm
Accuracy	0.005mg/l (0~2.000) mg/l, ppm 0.05mg/l (0~20.00) mg/l, ppm
Resolution	0.001mg/l
Repeatability	±1%FS
Operate Temp.	41 to 149 °F (5 to 65 °C)
Temp. Compensation	Automatically, by an integrated temperature sensor
Operating Pressure	Max. 0.5 bar, no pressure impulses and/or vibrations
Sample Flow Rate	30L/h
pH-range	pH 4 to pH 9, reduced pH dependence
Run-in Time	First start-up 2 hours
Response Time	T90: <2 min
Slope adjustment	At the device, by analytical determination of the chlorine concentration, DPD-1-method
Interferences	ClO ₂ : Slope -75 mV/ppm, d. s. 75 % of the ClO ₂ concentration O ₃ : Slope -80 mV/ppm, d. s. 80 % of the O ₃ concentration Combined chlorine may increase the measurement value!
Power	24VDC, 40mA
Digital Interface	RS485 Modbus RTU
Material	Microporous hydrophilic membrane , PVC-U, 316SS
Dimensions	Diameter: 1" (25.4 mm). Length: 8.07" (205 mm)
Spare parts	Membrane cap: M48.1G Electrolyte: ECS2.1/GEL

ORDER CODE

DG7-FC: Free Chlorine Sensor with panel and flow cell		
	-H Low range for 2ppm -N High range for 20ppm	
		-C10 10' cable -C20 20' cable -C30 30' cable Other length contact factory.
DG7-FC	-N	-C30

TERMINALS

<p>GDC-01/02 Terminal Single or dual-channels</p> 	<p>GDC-04/06/08 Controller Multi-channels up to eight</p> 	<p>GDC-Ex Terminal Single channel Ex-proof</p> 
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DELTA-PHASE ELECTRONICS, INC.

1502 E. Warner Ave., Suite B, Santa Ana, CA 92705 U.S.A. TEL: (714) 866-8070 www.delta-phase.us