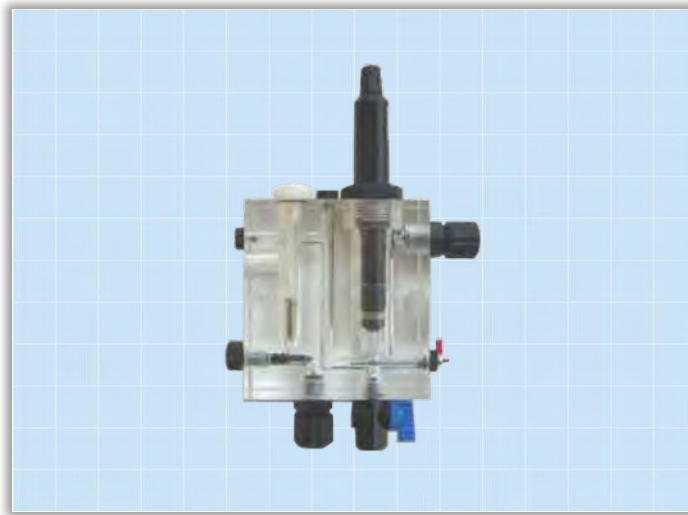


CROSS SMART SENSOR

DG7-FC: Free Chlorine Sensor

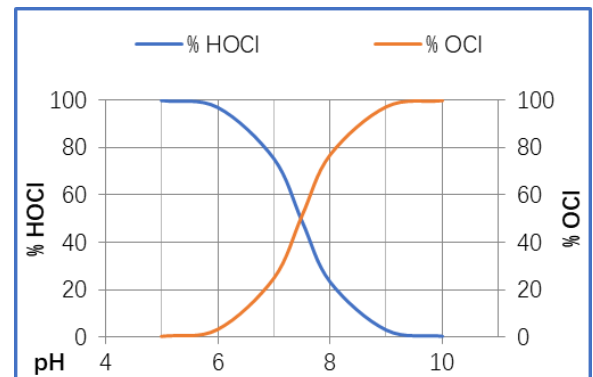
REDUCED PH DEPENDENCE



DESCRIPTION

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	0.005~2.000 mg/l, ppm; 0.05~20.00 mg/l, ppm; 0.5~200.0 mg/l, ppm;
Resolution	0.001 mg/l for (0.005~2.000 mg/l, ppm); 0.01 mg/l for (0.05~20.00 mg/l, ppm); 0.1mg/l for (0.5~200.0 mg/l, ppm);
Accuracy	< 1% FS
Slope drift	Approx. -1% per month @ repeatability conditions (25 °C, pH 7,2 in drinking water)
Operate Temp.	32 to 113 °F or 0 to 45 °C (no ice in water)
Temp. Compensation	Automatically, by an integrated temperature sensor
Operating Pressure	Typical 0.5 to 3 bar, no pressure impulses and/or vibrations
Sample Flow Rate	Typical 15 to 30 L/H
pH-range	pH 4 to 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	Sensor: Microporous hydrophilic membrane, PVC, PEEK, 316SS; PMMA FLC and PVC panel.
Dimensions	Sensor: Dia. 1" (25.4 mm), Length: 8.07" (205 mm); Flow cell: 3.54x4.72x2 inch or 90x120x50 mm (WxHxD) Panel: 16.54x13.78 inch or 420x350 mm (WxH)
Spare parts	Membrane cap, typically change once a year. Electrolyte 100ml GEL, typically refill once 3-6 months.;

Specifications subject to change without notice.

ORDER CODE

DG7-FC: Free Chlorine Sensor with panel and flow cell			
	-	0.005~2.000ppm	
	-L	0.05~20.00ppm	
	-H	0.5~200.0ppm	
		-C10	10' cable
		-C20	20' cable
		-C30	30' cable
Other length contact factory.			
DG7-FC	-N	-C30	



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