Signet 2630 Amperometric Chlorine Electrode





The Signet 2630 Amperometric Chlorine electrode is designed to measure free chlorine in fresh water treatment applications. The electrode is available with a measurement range of 0.02 to 2 ppm, 0.05 to 5 ppm or 0.1 to 20 ppm. This electrode requires the Signet 2650 Amperometric Electronics module to communicate with the Signet 8630-3P Chlorine Transmitter.

Utilizing smart-sensor technology, this electrode has a unique embedded memory chip and can communicate a wide variety of information to the Signet 2650 electronics and Signet 8630-3P Transmitter.

Displayed information includes electrode type, factory calibration data, service time, chlorine range, high and low pH (with optional Signet pH electrode), temperature values and more.

Signet's patented DryLoc[®] connector provides quick assembly and a secure connection. Gold-plated contacts and an O-ring seal ensure a waterproof and reliable interconnect to the Signet 2650 Amperometric Electronics.

The Signet 2630 Amperometric Chlorine Electrode has an integrated temperature element for automatic temperature compensation.

Features

- Embedded memory chip accessible via the Signet 8630 transmitter
- Quick assembly with Signet's patented DryLoc[®] connector
- Integrated temperature element for automatic temperature compensation
- Separate drive electronics (Signet 2650), for easy electrode replacement without running new cable



Applications

Residual Chlorine Monitoring:

- Water Distribution
- Ground Water
- Surface Water
- HVAC Applications (cooling water)
- Boiler Feed Water
- Gray Water Dechlorination
- Food and Beverage
- RO Membrane Protection
- Swimming Pools
- Aquariums
- Water Parks

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Specifications

General						
Pola	rization Source	Signet 2650 Amperometric Electronics				
Compatibility		3-3610-1 Flow Cell, Clear PVC 1/2" Tee				
		3-3610-2 Flow Cell, Clear PVC 1/2" Tee, Barb Conn				
		3-4630.392 Acrylic flow cell c	omplete with all components and connections			
Mounting		Signet DryLoc connection				
Materials		CPVC				
Free	Chlorine	!				
	Membrane Material	PTFE				
	0-ring Material	FPM				
	Working Electrode	Gold				
	Counter Reference Electrode	Silver halide				
Wett	ed Material					
		PVC, PTFE, FPM				
Perf	ormance					
Elec	rode					
	Repeatability	±0.08 ppm (mg/l) or 3% of sel	ected range whichever is less			
	Slope	10 to 60 nA/ppm (mg/l)	5			
	Response Time, T90	< 2 minutes				
System (including electronics and in		nstrument				
	Accuracy	$< \pm 3\%$ of electrode signal after	er calibration			
	Resolution	±0.5% of electrode range				
Sens	or Conditioning	5				
	New. first start-up	4 hours maximum before cali	bration			
	Subsequent start-ups	2 hours maximum				
Temperature Element		PT1000 Class B				
Operational Ranges and Limits						
- 1	Free Chlorine Range	0.02 to 2 ppm (mg/l)	0.05 to 5 ppm (mg/l) 0.1 to 20 ppm (mg/l)			
	Free Chlorine pH Operating Range	5.0 to 8.5 pH				
Maxi	mum Media Temperature	0 °C to 45 °C	32 °F to 113 °F			
Max	mum Operating Pressure					
Membrane 0.48 bar @ 25 °C (7 psi @ 77 °F)						
Flow Velocity Across Membrane Surface						
	Minimum	15 cm/s (0.49 ft/s)				
	Maximum	30 cm/s (0.98 ft/s)				
Interferences		ClO ₂ , ozone, bromine				
Chemical Compatibility		< 50% ethanol/water, < 50% glycerol/water				
Environmental						
System Temperature		-10 °C to 60 °C	-4 °F to 140 °F			
Storage Temperature		-10 °C to 60 °C	-4 °F to 140 °F			
Relative Humidity		0 to 95% indoor/outdoor non-condensing to rated ambient				
Shipping Weight						
		0.14 kg	0.30 lb			
Standards and Approvals						
		CE, FCC				
		RoHS compliant, China RoHS				
		Manufactured under ISO 9001 for Quality				

Dimensions

3-2630-2





Application Tips

• The sensors should not be used in water containing surfactants, oils, organic chlorine or stabilizers such as cyanuric acid.

Ordering Notes

 The sensor must have a stable and constant flow of water past its membrane for accurate free chlorine measurement. Typical flow rate should be 30.24 -45.36 lph (8 - 12 gph).

Ordering Information



Mfr. Part No.	Code	Description
3-2630-1	159 001 746	Free Chlorine electrode, 0 to 2 ppm (mg/l)
3-2630-2	159 001 662	Free Chlorine electrode, 0 to 5 ppm (mg/l)
3-2630-3	159 001 747	Free Chlorine electrode, 0 to 20 ppm (mg/l)

Accessories and Replacement Parts

Mfr. Part No.	Code	Description
3-2630.391	159 001 674	Electrolyte kit, 30 ml bottle with syringe and needle
3-2630.392	159 001 675	Free Chlorine replacement PVDF membrane (1) (sensors sold prior to Nov 1, 2012)
3-2630.394	159 310 164	Free Chlorine Replacement PTFE membrane (1) (sensors sold after Nov 1, 2012)
3-2630.396	159 001 676	Free Chlorine maintenance kit - (2) electrolyte and (2) PVDF membranes, polishing papers (sensors sold prior to Nov 1, 2012)
3-2630.398	159 310 166	Free Chlorine Sensor maintenance kit - (2) electrolyte and (2) PTFE membranes, (2) silicone bands, polishing papers (sensors sold after Nov 1, 2012)
3-3610-1	159 001 683	Flow Cell, Clear PVC 1/2" Tee
3-3610-2	159 001 684	Flow Cell, Clear PVC 1/2" Tee, Barb Conn
3-2600.510	159 500 422	Silicone band, chlorine sensor