

# 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<sup>®</sup> 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<sup>®</sup> 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:

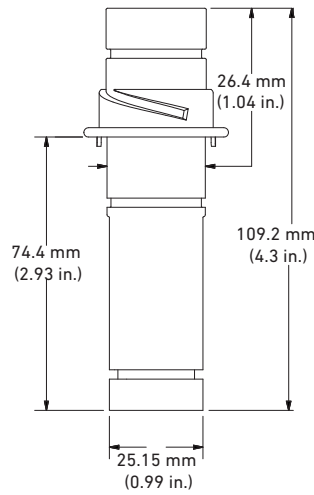
- Water Distribution
- Ground Water
- Surface Water
- HVAC Applications (cooling water)
- Boiler Feed Water
- Food and Beverage
- Swimming Pools
- Aquariums
- Water Parks

# Specifications

General			
Polarization 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 complete with all components and connections		
Mounting	Signet DryLoc connection		
Materials	CPVC		
Free Chlorine			
Membrane Material	PTFE		
O-ring Material	FKM		
Working Electrode	Gold		
Counter Reference Electrode	Silver halide		
Wetted Material			
	PVC, PTFE, FKM, Nylon, Silicone		
Performance			
Electrode			
Repeatability	±0.08 ppm (mg/l) or 3% of selected range whichever is less		
Slope	15 to 85 nA/ppm (mg/l)		
Response Time, T90	< 2 minutes		
System (including electronics and instrument)			
Accuracy	< ±3% of electrode signal after calibration		
Resolution	±0.5% of electrode range		
Sensor Conditioning			
New, first start-up	4 hours maximum before calibration		
Subsequent start-ups	2 hours maximum		
Temperature Element	Pt1000, Class B		
Operational Ranges and Limits			
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 8.2 pH		
Maximum Media Temperature	0 °C to 45 °C	32 °F to 113 °F	
Maximum 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 <sub>2</sub> , 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

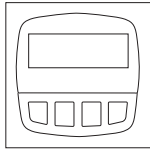
## 3-2630-X



# System Overview

## Panel Mount

Signet Instrument  
8630-3P



Signet Amperometric Electronics  
2650-7

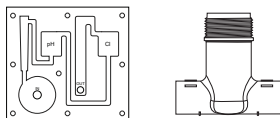


## Signet 2630-X Electrode



All sold separately

Signet Flow Cell  
Signet Fitting  
3610



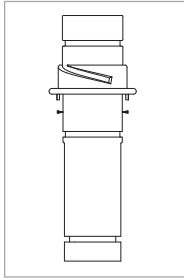
## Application Tips

- 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	<b>159 001 746</b>	Free Chlorine Electrode, 0.02 to 2 ppm (mg/l)
3-2630-2	<b>159 001 662</b>	Free Chlorine Electrode, 0.05 to 5 ppm (mg/l)
3-2630-3	<b>159 001 747</b>	Free Chlorine Electrode, 0.1 to 20 ppm (mg/l)

## Accessories and Replacement Parts

Mfr. Part No.	Code	Description
3-2630.391	<b>159 001 674</b>	Electrolyte Kit, 30 ml (2) bottles with syringe and needle
3-2630.394	<b>159 310 164</b>	Free Chlorine replacement PTFE membrane (1)
3-2630.398	<b>159 310 166</b>	Free Chlorine Sensor Maintenance Kit - (2) electrolyte and (2) PTFE membranes, (2) silicone bands, polishing papers
3-3610-1	<b>159 001 683</b>	Flow Cell, Clear PVC 1/2" Tee
3-3610-2	<b>159 001 684</b>	Flow Cell, Clear PVC 1/2" Tee, Barb Conn
3-2600.510	<b>159 500 422</b>	Silicone Band, Chlorine Sensor