

Signet 2630 Amperometric Chlorine Electrode



Description

The Signet 2630 Amperometric Chlorine electrode is designed to measure free chlorine in drinking water and wastewater treatment applications. The electrodes are available with a measurement range of 0 to 5 ppm. This electrode requires the Signet 2650 Amperometric Electronics module to communicate with the Signet 8630-3 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 8630-3 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

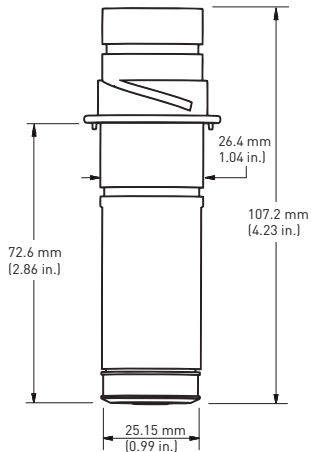
System Overview

Panel Mount Signet Transmitter (sold separately) 3-8630-3P	
Signet 2650 Chlorine Amperometric Electronics (sold separately)	
Signet 3-2630-2 Chlorine Electrode (Sold Separately)	
Signet 3610 Fitting (sold separately)	



Dimensions

3-2630-2



Model 263X

Ordering Notes

- The sensor must have a stable and constant flow of water past its membrane for accurate free chlorine measurement. Set the flow rate through the flow cell from 0.75 - 2.25 l/min. (0.2 - 0.6 gpm).

Application Tips

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

Specifications

General

Polarization Source: Signet 2650 Amperometric Electronics
 Compatibility: 3-3610-1
 3-3610-2
 3-4630.392

Mounting: Signet DryLoc connection

Materials: CPVC

Free Chlorine:
 Membrane Material: PVDF
 O-ring Material: FPM
 Working Electrode: Gold
 Counter Reference Electrode: Silver halide

Wetted Material

- PVC, PVDF, FPM

Performance

Electrode:
 Repeatability: +/- 0.08 ppm (mg/l) or 3% of selected range whichever is less
 Slope: 10 to 60 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

Performance (continued)

Operational Ranges and Limits:

- Free Chlorine Range: 0 to 5 ppm (mg/l)
- Free Chlorine pH Operating Range: 5.5 to 9.0 pH

Operating 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:

ClO₂, ozone, bromine

Chemical Compatibility:

- < 50% ethanol/water,
- < 50% glycerol/water

Environmental

Storage Temperature (dry): -10 °C to 60 °C (-4 °F to 140 °F)

Operating Temperature: 0 °C to 45 °C (32 °F to 113 °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
- Manufactured under ISO 9001 for Quality
- RoHs compliant
- China RoHS

Ordering Information

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

Accessories and Replacement Parts

Mfr. Part No.	Code	Description
3-2630.391	159 001 674	Free Chlorine electrolyte, 30 ml
3-2630.392	159 001 675	Free Chlorine replacement membrane (1)
3-2630.396	159 001 676	Free Chlorine replacement kit - (2) electrolyte and (2) membranes
3-0700.390	198 864 403	pH Buffer Kit (1 each 4, 7, 10 pH buffer in powder form, makes 50 mL)
3822-7004	159 001 581	pH 4.01 buffer solution, 1 pint (473 ml)
3822-7007	159 001 582	pH 7.00 buffer solution, 1 pint (473 ml)
3822-7010	159 001 583	pH 10.00 buffer solution, 1 pint (473 ml)
3-2700.395	159 001 605	Calibration kit: included 3 polypropylene cups, box used as cup stand, 1 pint pH 4.01, 1 pint pH 7.00

3-2630.099 Rev B (10/10)

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