

# Signet 4630 Chlorine Analyzer System

## Features

- Reagent free measuring
- Complete panel system allows for quick and easy installation
- Built-in flow regulator maintains constant flow and pressure to the sensors
- Panel includes a 100-240 VAC power supply, two 4 to 20 mA outputs and two mechanical relays
- Optional automatic pH and temperature compensation

## 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**



## Description

The Signet 4630 Chlorine Analyzer System is an integrated all-in-one system designed to measure free chlorine. The 3-4630-21 chlorine panel with the optional pH sensor is used to accurately calculate free chlorine in applications that have varying pH values ( $\pm 0.20$  pH units).

In applications where the pH is stable, the pH sensor is not required and the pH value is manually entered into the transmitter to calculate the chlorine levels. (-20 version).

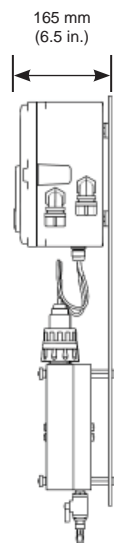
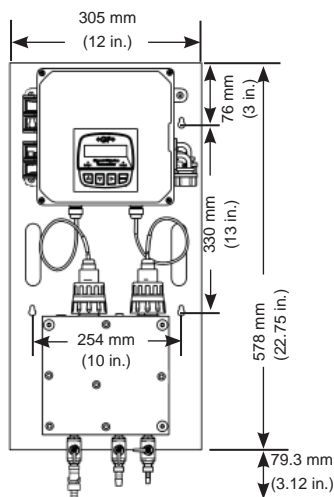
The unique integrated clear flow cell combines sensors, flow regulator, filter and variable area flow indicator in one compact unit. An integrated flow regulator with removable filter accepts inlet pressures of 1 to 8 bar (15 to 120 psi), while maintaining constant flow and minimal pressure to the sensors.

Water flows vertically into sensor tip eliminates bubble entrapment. The flow cell is designed to maintain a minimum amount of water to ensure sensors stay submerged, even when the system and flow is turned off.

The Signet 4630 Chlorine Analyzer System allows quick setup and easy installation and is supplied with a 100-240 VAC power supply, two 4 to 20 mA outputs and two dry contact mechanical relays. The flow cell accommodates two sensors; one chlorine and an optional pH sensor.

## Dimensions

3-4630



## Specifications

### General

Compatible Electrode:  
 Signet 3-2630-2 Free Chlorine Electrode  
 Signet 3-2724-00 Flat pH Electrode

### Materials

- Panel: Black Acrylic
- Flow Cell: Acrylic
- Wiring Enclosure: Polycarbonate

### Wetted Materials

- Flow Cell, Spacer Rings: Acrylic
- Flow Regulator Housing: Polycarbonate
- Strainer, E-clip, Regulator Spring, Float: Stainless Steel
- Valves, Vent: Polypropylene
- Flow Cell O-rings, Diaphragm: EPDM, FKM
- Chlorine Electrode: PVC, PVDF, FPM
- pH electrode: PPS, Glass, UHMW PE, FPM
- Sealing Tape on Valves, Plug and Vent: PTFE
- Plug: Polyethylene

### Max. Temperature/Pressure Rating

System Inlet Pressure Rating:  
 1 to 8 bar (15 to 120 psi)  
 Pressure Regulator:  
 < 0.69 bar (10 psi) variation over all ranges of flow and pressure

### Max. Temperature/Pressure Rating (cont.)

Flow Tolerance:  
 ± 15% or rated specification above  
 Flow Rate Limits:  
 30.24 to 45.36 LPH (8 to 12 US gal/h)  
 Storage Temperature:  
 0 °C to 65 °C (32 °F to 149 °F)  
 Operating Temperature:  
 0 °C to 45 °C (32 °F to 113 °F)

### Electrical

AC Input - Standard Configuration:  
 100 to 240 VAC nominal  
 50 to 60 Hz, 0.17 A at 100 VAC  
 DC Input - Optional Configuration: (with AC power cable removed)  
 12 to 24 VDC ±10% regulated,  
 250 mA max.

### Environmental

Relative Humidity: 0 to 95%  
 Maximum Altitude: 2000 m (6,562 ft)  
 Enclosure: NEMA 4X (with output wire glands sealed)

**Shipping Weight** 10 kg 22 lb

### Standards and Approvals

- CE
- Manufactured under ISO 9001 for Quality and ISO 14001 for Environmental Management
- China RoHS
- UL Pending

## Ordering information

Mfr. Part No.	Code	Description
3-4630-20	<b>159 001 691</b>	Chlorine panel, transmitter, free chlorine sensor (0 to 5 ppm) with electronics (no pH sensor)
3-4630-21	<b>159 001 692</b>	Chlorine panel, transmitter, free chlorine sensor (0 to 5 ppm) with sensor electronics, pH sensor with electronics

## Accessories and Replacement Parts

Mfr. Part No.	Code	Description
3-2630-2	<b>159 001 662</b>	Free Chlorine sensor, 0 to 5 ppm (mg/l)
3-2724-00	<b>159 001 545</b>	pH sensor, flat glass, PT1000 temp element, 3/4 in. MNPT
3-2650-7	<b>159 001 670</b>	Chlorine - Inline Amperometric Electronics, Digital (S <sup>3</sup> L), 4.6 m (15 ft) cable
3-2750-7	<b>159 001 671</b>	pH - Inline Electronics, Digital (S <sup>3</sup> L), 4.6 m (15 ft) cable
3-8630-3P	<b>159 001 673</b>	Panel mount chlorine and pH transmitter
3-4630.390	<b>159 001 688</b>	Rebuild kit, O-rings, boots, screws, 1 filter screen
3-4630.391	<b>159 001 689</b>	Pressure regulator with 1 spare filter screen
3-4630.392	<b>159 001 690</b>	Acrylic flow cell complete with all components and connections
7300-0024	<b>159 001 693</b>	24 VDC Power Supply
3-2630.391	<b>159 001 674</b>	Free Chlorine electrolyte, 30 ml
3-2630.392	<b>159 001 675</b>	Free Chlorine replacement membrane with syringe (1)
3-2630.396	<b>159 001 676</b>	Free Chlorine replacement kit - (2) electrolyte and (2) membranes with syringe
3-0700.390	<b>198 864 403</b>	pH Buffer Kit (1 each 4, 7, 10 pH buffer in powder form, makes 50 ml of each)
3822-7004	<b>159 001 581</b>	pH 4.01 buffer solution, 1 pint (473 ml) bottle
3822-7007	<b>159 001 582</b>	pH 7.00 buffer solution, 1 pint (473 ml) bottle
3822-7010	<b>159 001 583</b>	pH 10.00 buffer solution, 1 pint (473 ml) bottle
3-2700.395	<b>159 001 605</b>	Calibration kit: included 3 polypropylene cups, box used as cup stand, 1 pint pH 4.01, 1 pint pH 7.00

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