

# Signet 5900 Salinity Monitor

Member of the ProPoint™ Family of Monitors



## Features



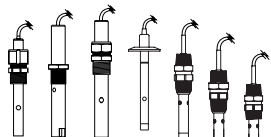

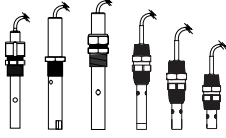
- Direct reading and calibration in PPT
- Dual proportional control capability
- Scaleable 4 to 20 mA output (active) internally powered
- Two programmable relays
- Tamper-proof security code
- Analog and digital display
- Non-volatile memory
- Compatible with ALL Signet conductivity electrodes
- Versatile low voltage power requirement
- NEMA 4X/IP65

## Description

The Signet 5900 Salinity Monitor utilizes conductivity sensors to provide direct reading, including calibration, of salinity in parts per thousand (PPT). Equipped with a scaleable 4 to 20 mA output and two programmable relays, the monitor requires 12 to 24 Volts, AC or DC, and is compatible with Signet 10 cm<sup>-1</sup> or 20 cm<sup>-1</sup> conductivity cells. Temperature is selectable for display in either °C or °F, and compensation is automatic. Calibration is simplified

with single-point salinity and temperature entry via the wet-cal menu sequence. The four-button keypad arrangement with intuitive software design is user-friendly, and is offered with a hard-coated, high impact, and UV resistant polycarbonate front face. The front panel is rated NEMA 4X/IP65 and an optional splashproof cover is available to protect the back of the instrument.

## System Overview

In-Line Sensor Installation	Submersible Sensor Installation
<p>Panel Mount Signet 5900 Instrument</p> 	<p>Panel Mount Signet 5900 Instrument</p> 
<p>Signet Conductivity Electrode (sold separately)</p> 	<p>Pipe extension or conduit with 3/4 in. NPT or ISO 7/1-R 3/4 threads</p> 
<p>Fittings - Customer supplied</p>	<p>Signet Conductivity Electrode (sold separately)</p> 

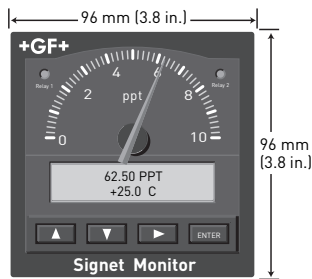
Note: Submersible installation not applicable for Sanitary Conductivity Electrode.

## Application

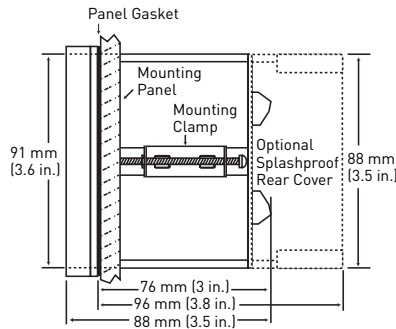
- Desalination
- Saltwater Production
- Aquatic Animal Life Support Systems
- Aquaculture
- Environmental Studies



## Dimensions



**Front View**



**Side View**

## Specifications

### General

Operating Range:

- Salinity: 1 to 80 ppt (parts per thousand)
- Temp.: -5°C to 100°C (23°F to 212°F)

Display:

- Analog: Reversible dials: 0 to 2, 4, 6, 8, 10 and 100
- Digital: Backlit LCD, 2x16 alphanumeric characters

### Electrical

Power Requirements:

12 to 24 Volts, AC or DC, unregulated,  
50 to 60 Hz, 10W max.

Current Output:

- 4 to 20mA, non-isolated, active, internally powered
- Loop impedance:  
350Ω max. @ 12V  
950Ω max. @ 24V
- Accuracy: ± 0.1%

Alarm Contacts:

- Two SPDT relays:  
5A @ 30VDC  
5A @ 125VAC  
3A @ 250VAC max.
- High/Low/Pulse programmable with adjustable hysteresis
- Dual proportional control capability, up to 300 pulses per minute
- Accuracy: ± 2% of reading

### Materials

- Enclosure: ABS Plastic
- Keypad: Silicone Rubber
- Panel and case gasket: Neoprene
- Window: Hard-coated polycarbonate

**Shipping Weight:** 0.8 kg (1.76 lb.)

### Environmental

Enclosure rating: NEMA 4X/IP65 front

Operating temperature:

-10°C to 55°C (14°F to 131°F)

Relative humidity:

0 to 95%, non-condensing

### Standards and Approvals

- CE, UL
- Immunity: EN50082-2
- Emissions: EN55011
- Safety: EN61010-1
- Manufactured under ISO 9001:2000 for Quality and ISO 14001:2004 for Environmental Management

Conductivity/  
Resistivity

### Model 5900

#### Ordering Notes:

- 1) Panel cutout should be 92 x 92 mm (3.62 x 3.62 in.)
- 2) Reversible dials are included and are scaled from 0 to 2, 0 to 4, 0 to 6, 0 to 8, 0 to 10, 0 to 100.
- 3) An optional splash proof rear cover can be ordered separately if needed for outdoor environments.
- 4) Use RC filter kits to protect relays from voltage spikes.

**Please refer to Wiring, Installation and Accessories sections for more information.**

## Ordering Information

Mfr. Part No.	Code	Description
3-5900	<b>198 825 008</b>	Salinity Monitor with 4 to 20mA output and two relays

## Accessories and Replacement Parts

Mfr. Part No.	Code	Description
<b>Mounting</b>		
3-5000.395	<b>198 840 227</b>	Splashproof rear cover kit
3-5000.598	<b>198 840 225</b>	Surface mount bracket
3-5000.399	<b>198 840 224</b>	5x5 inch adapter plate for Signet retrofit
3-8050.392	<b>159 000 640</b>	Model 200 retrofit adapter
3-0000.596	<b>159 000 641</b>	Heavy duty bracket for wall mounting
<b>Liquid Tight Connectors</b>		
3-9000.392	<b>159 000 368</b>	Liquid tight connector kit for rear cover (3 connectors)
3-9000.392-1	<b>159 000 839</b>	Liquid tight connector kit, NPT (1 piece)
3-9000.392-2	<b>159 000 841</b>	Liquid tight connector kit, PG13.5 (1 piece)
<b>Miscellaneous</b>		
3-5000.390	<b>159 000 323</b>	Installation kit
3-5000.397	<b>159 000 326</b>	5000 series window kit (window, keypad, and screws)
3-5000.525-1	<b>198 840 226</b>	Bezel, 5000 series
3-5500.390	<b>159 000 347</b>	Dial kit
3-5500.612	<b>198 840 230</b>	Unit tags
3-5000.398	<b>159 000 646</b>	Protective Overlay kit (10 pcs)
3-8050.396	<b>159 000 617</b>	RC Filter kit (for relay use), 2 per kit