

Signet 5800CR Conductivity Monitor

Member of the ProPoint™ Family of Monitors



Analog and Digital Display

Features

- Meets USP requirements for raw conductivity/resistivity measurements
- Display units: µS, mS, kΩ, MΩ, PPM (TDS)
- Temperature compensation
- Two programmable relays
- Dual proportional control capability
- Scaleable 4 to 20 mA output
- Simple push-button operation
- Intuitive software
- Non-volatile memory
- Compatible with ALL Signet conductivity electrodes
- 12 to 24VAC or VDC power
- NEMA 4X/IP65

Description

The Signet 5800 ProPoint™ Conductivity Monitor features a unique analog/digital display, making it the preferred measurement instrument for applications requiring routine monitoring. The digital display guides the user through the simple menu system and provides precision information, while the analog dial serves as a quick, at-a-glance indicator of the measurement process. The 5800CR offers 2 fully programmable dry contact relays and a 4 to 20mA

current. The monitor requires 12 to 24 VAC or VDC and is packaged in a convenient 1/4 DIN, NEMA 4X/IP65 front panel. The enclosure is hard-coated, high-impact, UV resistant polycarbonate.

In addition to programmable outputs and relays, the unit can also be set up to measure raw conductivity values, hence meeting USP requirements.

System Overview

In-line Sensor Installation	Submersible Sensor Installation
<p>Panel Mount</p> <p>Signet 5800CR Conductivity Monitor</p>	<p>Panel Mount</p> <p>Signet 5800CR Conductivity Monitor</p>
<p>Signet 2819-2823 in-line, submersible, sanitary versions; 2839-2842 Threaded Conductivity Electrodes (sold separately)</p>	<p>Pipe extension or conduit with 3/4 in. FNPT threads (customer supplied)</p>
<p>Fittings - Customer supplied</p>	<p>Signet 2819-2823, 2839-2842 Conductivity Electrodes (sold separately)</p>

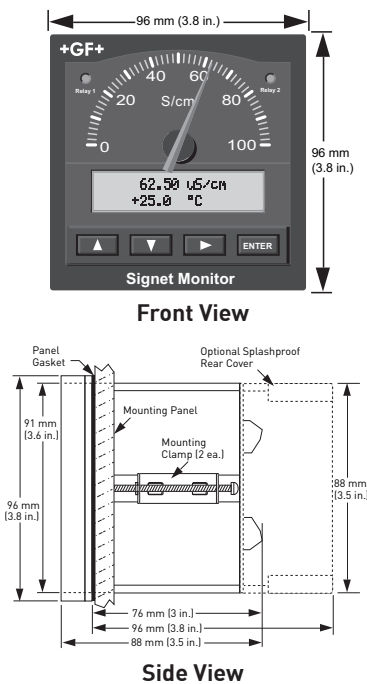
Note: Submersible installation not applicable for Sanitary Electrode.

Application

- Water Quality Monitoring
- Reverse Osmosis
- Demineralizer Regeneration and Rinse
- Cooling Tower & Boiler Protection
- Chemical Concentration
- Rinse Tanks
- Desalination
- Artificial Saltwater Production
- Aquatic Animal Life Support Systems
- Aquaculture
- Environmental Studies



Dimensions



Model 5800CR

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, and 0 to 100.
- 3) An optional splash proof rear cover can be ordered separately if needed.
- 4) Unit tags are provided for labeling dials.
- 5) Use RC filter kits to protect relays from voltage spikes.

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

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Specifications

General

Operating Range:

- Conductivity: 0.055 to 400,000 $\mu\text{S}/\text{cm}$
- Resistivity: 10 $\text{k}\Omega\cdot\text{cm}$ to 18.2 $\text{M}\Omega\cdot\text{cm}$ (0.055 to 100 $\mu\text{S}/\text{cm}$)

Solution temperature must be greater than 20°C for Resistivity above 10 $\text{M}\Omega\cdot\text{cm}$

- Temperature: 0°C to 100°C (32°F to 212°F) using PT-1000

Display

- Analog: Reversible dials: 0 to 2, 4, 6, 8, 10 and 100
- Digital: Backlit LCD, 2x16 alpha numeric character

Electrical

Power Requirements:

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

Current Output

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

Alarm Contacts:

- Two SPDT relays: 5A @ 30VDC, 5A @ 125VAC, or 3A @ 250VAC max.
- High/Low/Pulse programmable with adjustable hysteresis

Materials

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

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

Shipping Weight:

0.8 kg (1.76 lb)

Standards and Approvals

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

Conductivity/
Resistivity

Ordering Information

Mfr. Part No.	Code	Description
3-5800CR	198 825 005	Conductivity/Resistivity Monitor

Accessories and Replacement Parts

Mfr. Part No.	Code	Description
Mounting		
3-5000.395	198 840 227	Splashproof rear cover kit
3-5000.598	198 840 225	Surface mount bracket
3-0000.596	159 000 641	Heavy duty bracket for wall mounting
3-5000.399	198 840 224	5 x 5 inch adapter plate for Signet retrofit
3-8050.392	159 000 640	Model 200 retrofit adapter
Liquid tight connectors		
3-9000.392	159 000 368	Liquid tight connector kit for rear cover (3 connectors)
3-9000.392-1	159 000 839	Liquid tight connector kit, NPT (1 piece)
3-9000.392-2	159 000 841	Liquid tight connector kit PG13.5 (1 piece)
Replacement Parts		
3-5000.390	159 000 323	Installation kit
3-5000.525-1	198 840 226	Bezel, 5000 series
3-5500.390	159 000 347	Dial kit
3-5500.611	198 840 230	Unit tags
3-5000.397	159 000 326	5000 Series Window (window, keypad, and screws)
Other		
3-5000.398	159 000 646	Protective Overlay kit (10 pcs)
3-8050.396	159 000 617	RC Filter kit (for relay use), 2 per kit