Signet 5800CR Conductivity/Resistivity Monitor

+GF+

Member of the ProPoint® Family of Monitors

Analog and Digital Display

Features

- **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**
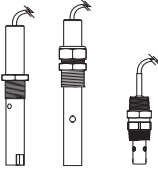- **12 to 24 VAC or VDC power**
- **NEMA 4X/IP65**

Description

The Signet 5800CR ProPoint® Conductivity/Resistivity 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 20 mA current. The monitor requires 12 to 24 VAC or VDC ±10%, regulated and is packaged in a convenient ¼ DIN, NEMA 4X/IP65 front panel. The enclosure is hard-coated, high-impact, UV resistant polycarbonate.
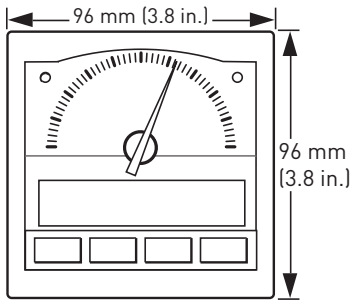
In addition to programmable outputs and relays, the unit can also be set up to measure raw conductivity values, hence meeting USP requirements.

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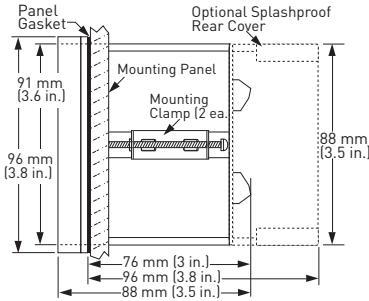
- **Water Quality Monitoring**
- **Reverse Osmosis**
- **Demineralizer Regeneration and Rinse**
- **Cooling Tower & Boiler Protection**
- **Chemical Concentration**
- **Rinse Tanks**
- **Desalination**
- **Artificial Saltwater Production**
- **Aquatic Animal Life Support Systems**
- **Aquaculture**
-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

System Overview

In-line Sensor Installation	Submersible Sensor Installation
Panel Mount **Signet 5800CR Conductivity/Resistivity Monitor** 	**Panel Mount** **Signet 5800CR Conductivity/Resistivity Monitor**
	Pipe extension or conduit with 3/4 in. FNPT threads (customer supplied)

Signet 2822-2823, & 2842 Conductivity Electrodes (sold separately)

Note: Submersible installation not applicable for Sanitary Electrode.

In-Line Installation - Fittings (Customer supplied)

CE c(UL)us LISTED MEASURING EQUIPMENT 77CJ

Dimensions

Front View

Side View

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.

Specifications

General
Operating Range:
- Conductivity: 0.055 to 400,000 µS/cm
- Resistivity: 10 kΩ•cm to 18.2 MΩ•cm (0.055 to 100 µS/cm)

Solution temperature must be greater than 20 °C for Resistivity above 10 MΩ•cm
- Temperature: 0 °C to 100 °C (32 °F to 212 °F) using PT1000

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

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

Electrical
Power Requirements:
12 to 24 VAC or VDC ±10%, regulated recommended, 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: ± 0.1%

Electrical (continued)
Alarm Contacts:
- Two SPDT relays:
  5A @ 30 VDC,
  5 A @ 125 VAC, or
  3A @ 250 VAC max.
- High/low/pulse programmable with adjustable hysteresis

Environmental
Operating Temperature:
-10 °C to 55 °C (14 °F to 131 °F)
Relative Humidity:
0 to 95%, non-condensing
Enclosure: NEMA 4X/IP65 front

Shipping Weight   0.8 kg   1.76 lb

Standards and Approvals
- CE, UL, CUL
- Manufactured under ISO 9001 for Quality & ISO 14001 for Environmental Management

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 (panel mount only)
3-0000.596	**159 000 641**	Heavy duty wall mount bracket (panel mount only)
3-5000.399	**198 840 224**	5 x 5 inch adapter plate to retrofit older Signet installation
3-8050.392	**159 000 640**	¼ DIN 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 connector)
3-9000.392-2	**159 000 841**	Liquid tight connector kit PG 13.5 (1 connector)
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