+GF+ SIGNET 5800CR ProPoint™ Conductivity/Resistivity Monitor

3-5800CR

Features

- **Display units: µS, mS, kΩ, MΩ, PPM (TDS)**
- **Temperature Compensation**
- **Two Programmable Relays**
- **Meets USP Requirements**
- **Dual Proportional Control Capability**
- **Scaleable 4 to 20 mA Output (active)**
- **Analog and Digital display**
- **Backlit LCD**
- **Simple push-button operation**
- **Intuitive software**
- **Non-volatile memory**
- **Versatile low voltage power requirement**
- **1/4 DIN, NEMA 4X/IP65 enclosure**
- **Hard-coated, High Impact & UV resistant polycarbonate front face**

Description

The +GF+ SIGNET SIGNET 5800CR Conductivity/Resistivity Monitor is equipped with a scaleable 4 to 20 mA output and two programmable relays for simple and convenient process control and monitoring. Temperature is selectable for display in either °C or °F, and compensation is automatic and programmable (meets USP requirements).

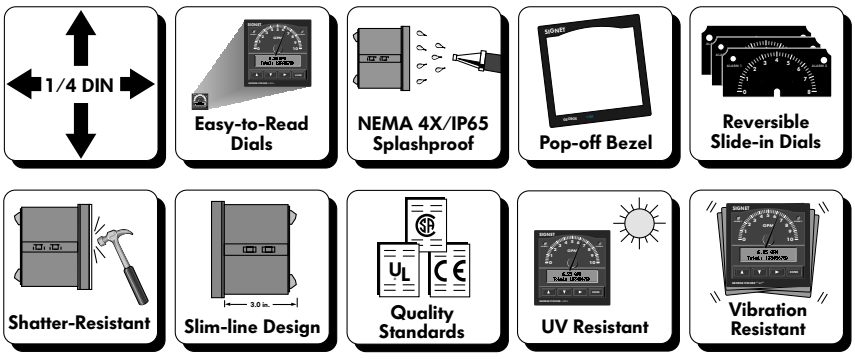
The monitor requires 12 to 24 Volts, AC or DC, and can be used with the +GF+ SIGNET Conductivity Electrodes listed below. The four-button keypad arrangement with intuitive software design is user-friendly, and the NEMA 4X/IP65 integrity of the front panel can be extended to the entire enclosure by using the optional Rear Cover Kit.

Application

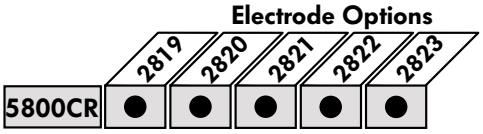
- **Water Quality Monitoring**
- **Reverse Osmosis**
- **Demineralizer Regeneration and Rinse**
- **Cooling Tower & Boiler Protection**
- **Chemical Concentration**
- **Rinse Tanks**
- **Desalinization**
- **Artificial Saltwater Production**
- **Aquatic Animal Life Support Systems**
- **Aquaculture**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

Technical Features

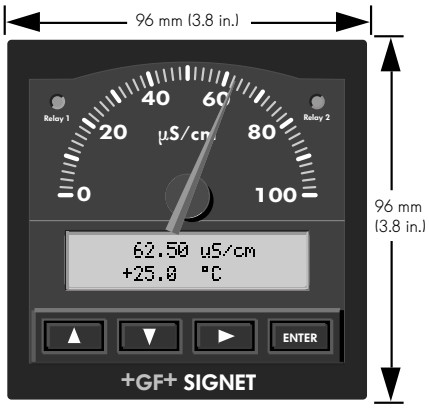
Pro-Point Family Features



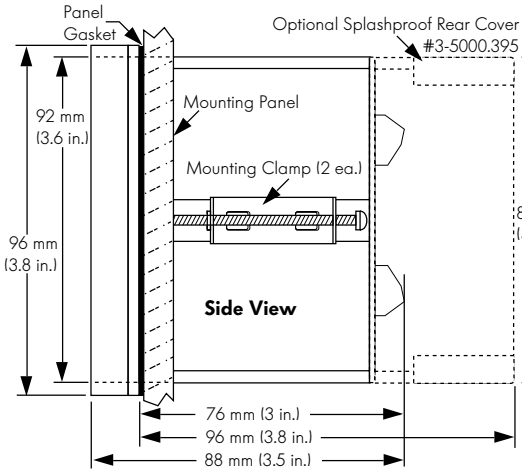
Options

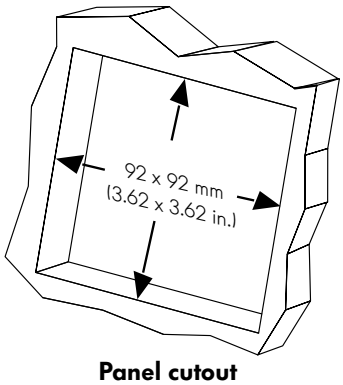


Dimensions



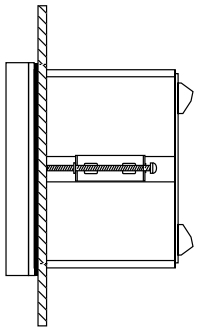
Front View



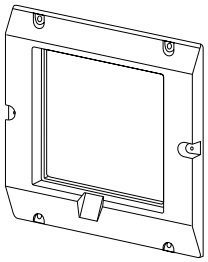


Panel cutout

Installation

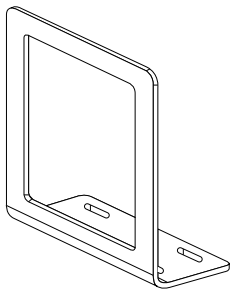


- Panel mount (standard)

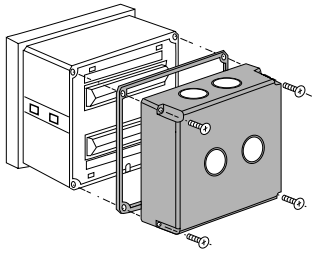


- Optional 5 x 5 inch adapter plate for Signet retrofit (3-5000.399)

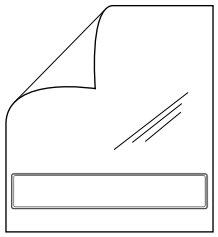
- The front panel provides NEMA 4X/IP65 splashproof protection.
- Standard 1/4 DIN panel cutout
- 76 mm (3 in.) mounting depth including rear terminals
- Optional splashproof rear cover kit with knockout ports for cable access.
- 96 mm (3.8 in.) mounting depth with optional splashproof rear cover installed
- Up to 30 m (100 ft.) max. cable length between sensor and instrument. Up to 7.6 m (25 ft.) max cable length for measurements from 10 MΩ to 18 MΩ (0.055 µS to 0.1 µS).



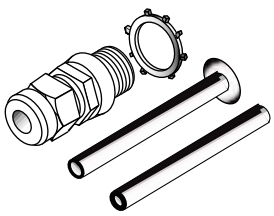
- Optional surface mounting bracket (3-5000.598)



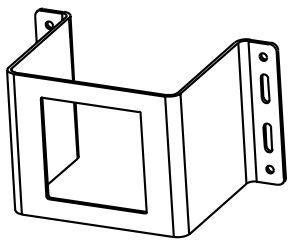
- Optional splashproof rear cover kit (3-5000.395)



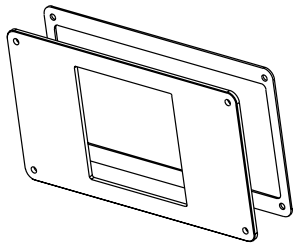
- Protective Overlay kit (10 pcs) (3-5000.398)



- Liquid Tight Connector Kit - 3 sets per kit (3-9000.392 - 3 sets per kit) (3-9000.392-1 - 1 set per kit)

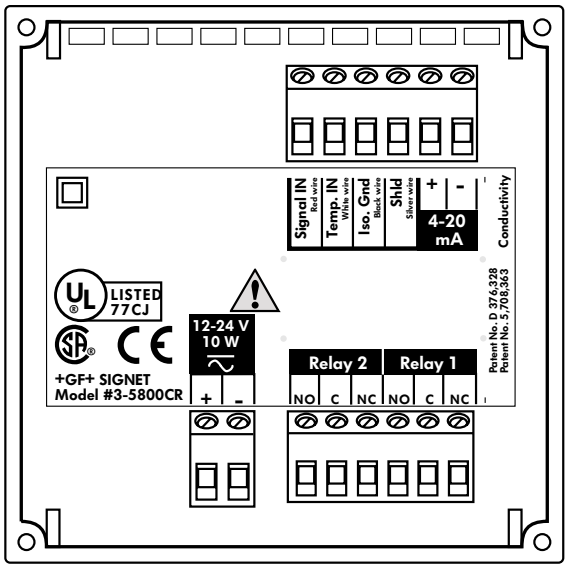


- Optional heavy duty wall mount bracket (3-0000.596)



- Optional 200 retrofit adapter (3-8050.392)

Rear Terminal View



Rear View

Technical Data

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 to 100°C (32 to 212°F) using PT-1000
Power Requirements:	12 to 24 Volts, AC or DC, unregulated, 50 to 60 Hz, 10W max.
Display:	Analog: Reversible dials: 0 to 2, 4, 6, 8, 10 and 100 Digital: Backlit LCD, 2x16 alphanumeric character
Current Output:	4 to 20 mA, non-isolated, internally powered (active) Loop impedance: 350Ω max. @ 12V, 950Ω max. @ 24V Accuracy: ± 0.1%
Alarm Contacts:	Two SPDT relays: 5A @ 30VDC, 5A @ 125VAC, or 3A @ 250VAC max. High/Low/Pulse programmable with adjustable hysteresis Dual Proportional Control Capability
Temperature Comp.:	Programmable 0 to 10% per °C
TDS Conversion Factor:	Programmable 0.00 to 3.00 µS/ppm (default 2.00)
Accuracy:	± 2% of reading
Materials:	Enclosure: ABS Plastic, NEMA 4X/IP65 Keypad: Silicone Rubber Panel and case gasket: Neoprene Window: Hard-coated polycarbonate
Shipping Weight:	0.8 kg (1.76 lb)

Environmental

Operating temperature:
-10 to 55°C (14 to 131°F)
Relative humidity:
0 to 95%, non-condensing

Standards and Approvals

- CE, CSA, UL
- Immunity: EN50082-1
- Emissions: EN55011
- Safety: EN61010-1
- Manufactured under ISO 9001 & ISO 14001

Description

Mfr. Part No.	Code	Description
3-5800CR	198 825 005	Conductivity/Resistivity Monitor • Reversible dial face kit included (0-2, 4, 6, 8, 10, 100) • Assorted unit/multiplier decals included

Accessories

Mfr. Part No.	Code	Description
3-5000.395	198 840 227	Splashproof rear cover kit (NEMA 4X/IP65)
3-9000.392	159 000 368	Liquid tight connector kit for rear cover (includes 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)
3-5000.399	198 840 224	5 x 5 inch adapter plate for +GF+ Signet retrofit
3-5000.598	198 840 225	Surface mount bracket
3-8050.392	159 000 640	Model 200 retrofit adapter
3-0000.596	159 000 641	Heavy duty wall mount bracket
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
3-5000.398	159 000 646	Protective Overlay kit (10 pcs)
3-8050.396	159 000 617	RC Filter kit (for relay use)
3-5000.397	159 000 326	5000 Series Window

Engineering Specifications for +GF+ SIGNET 5800CR Conductivity, Resistivity and TDS Monitors

- Sealed to NEMA 4X/IP65.
- Manufactured under ISO 9001 and ISO 14001 certified processes, and shall meet USP requirements.
- Programmable with front panel keys for calibration, to set conversion factors, and to select display functions.
- Analog indicator which shall accept replaceable dial faces, provided by the manufacturer, to display a variety of engineering units in ranges including: 0-2; 0-4; 0-6; 0-8; 0-10; and 0-100 with multiply or divide by indication.
- Analog display accuracy shall be ±1 % of digital reading.
- Backlit 2 x 16-character alphanumeric LCD display.
- 4 to 20 mA non-isolated, internally powered two wire current loop output.
- Two SPDT relays.
- +GF+ SIGNET 5800CR Conductivity/Resistivity Monitor.

Engineering Specifications for +GF+ SIGNET 5800CR Conductivity Monitor

- CSA, UL and CE standards, including EN50082-1 requirements for electromagnetic immunity, EN55011 requirements for electromagnetic emissions, and EN61010-1 for safety.
- Input shall accommodate compatible sensor signals corresponding to conductance from 0.055 µS to 400,000 µS.
- Programmable temperature compensation from 0% to 10% per °C, or alternatively may be programmed for no temperature compensation.
- Compatible with the +GF+ SIGNET 3-28XX-1 series conductivity electrodes.

Engineering Specifications for +GF+ SIGNET 5800CR Resistivity Monitor

- CSA, UL and CE standards, including EN50082-1 requirements for electromagnetic immunity, EN55011 requirements for electromagnetic emissions, and EN61010-1 for safety.
- Accommodate compatible sensor signals corresponding to resistance from 10 KΩ to 18.2 MΩ in solutions from 20 to 100°C.
- Automatic temperature compensation from 0% to 10% per °C, or alternatively may be programmed for no temperature compensation.
- Compatible with the +GF+ SIGNET 3-2819-1 resistivity electrodes.

Engineering Specifications for +GF+ SIGNET 5800CR TDS Monitor

- CSA, UL and CE standards, including EN50082-1 requirements for electromagnetic immunity, EN55011 requirements for electromagnetic emissions, and EN61010-1 for safety.
- Accommodate compatible sensor signals corresponding to parts per million (ppm) of Total Dissolved Solids (TDS) from 0.027 ppm (TDS) to 200,000 ppm (TDS).
- Programmable temperature compensation from 0% to 10% per °C.
- Compatible with the +GF+ SIGNET 3-28XX-1 series conductivity electrodes.