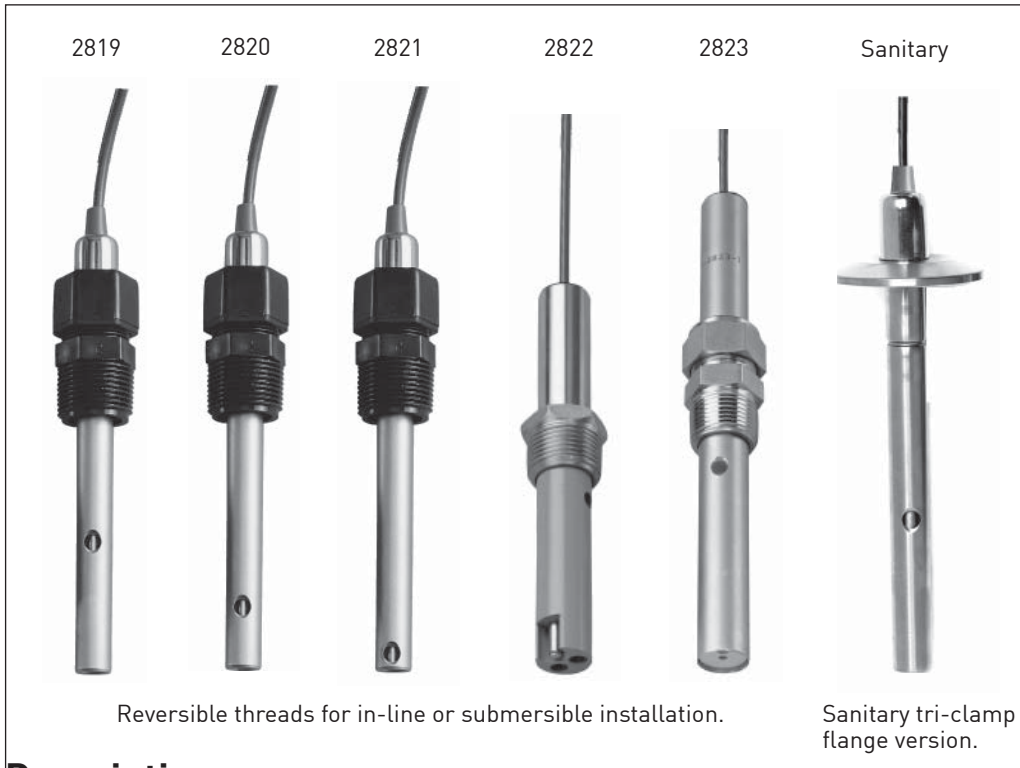


Signet 2819-2823 Conductivity/Resistivity Electrodes



Description

Signet 2819-2823 Conductivity/Resistivity Electrodes are designed to provide versatile installation and accurate sensing across a very broad dynamic range. These electrodes are built with a controlled surface finish to ensure accuracy and repeatability. The standard electrode is constructed 316SS or Titanium, but there are other materials available for maximum chemical compatibility. Reversible threads or sanitary flanges allow for maximum

installation versatility. Sanitary flange versions are available with an optional NIST Traceability Certificate to meet USP requirements. Coupled with Signet patented measuring circuitry, a three decade measurement range is achieved without the need for troublesome electrode platinization. A platinum RTD (PT-1000) located within the electrode allows optimal temperature sensing.



Features

- Standard process connections
 - $\frac{3}{4}$ " NPT Polypro
 - Tri-clamp 1 - $1\frac{1}{2}$ ", 2"
 - Opt. $\frac{1}{2}$ " NPT 316 SS
- 316 SS or Titanium standard electrode
- Alternative electrode materials available
 - Hastelloy-C
 - Monel
- In-line or submersible mounting
- NIST traceable certified cells $\pm 1\%$ meet USP requirements

Application

- Pure Water Treatment
 - Reverse Osmosis
 - Deionization
 - Distillation
- Boiler Condensate
- Semiconductor Water Production
- Rinse Water Monitoring and Control
- Chemical Concentrations
- Cleaner and Degreaser Concentrations
- TDS (Total Dissolved Solids)
- Salinity
- USP Purified Water
- WFI Water Production
- Ultra Pure Water

System Overview

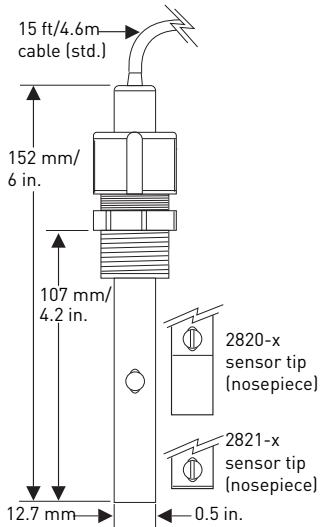
In-Line Installation				Submersible Installation*			
Panel Mount Signet Conductivity Instrument (sold separately) 8850 8860 5800CR 	Pipe, Tank, Wall Mount Signet Conductivity Instrument (sold separately) 8850 8860 5800CR 	Integral Mount Signet Conductivity Instrument (sold separately) 8850 	Panel Mount Signet 8900 Instrument (sold separately) 	4 to 20 mA Input Programmable Logic Controller 	Panel Mount Signet 8900 Instrument (sold separately) 	4 to 20 mA Input Programmable Logic Controller 	Panel, Pipe, Tank, Wall Mount Signet Cond. Instrument 8850 8860 8900 5800CR
Universal Adapter Kit (3-8050) (sold separately) 		Integral Adapter Kit (3-8052) (sold separately) 		Signet 2850 Universal Mount 			
Signet 2819-2823 Conductivity Electrodes 	Signet 2819-2823 Conductivity Electrodes 	Signet 2819-2823 Conductivity Electrodes 	Signet 2819-2823 Conductivity Electrodes 	Signet 2850 Universal Mount or Threaded J-Box 	Pipe extension or conduit with 3/4 in. FNPT threads (customer supplied) 		
Fittings - Customer supplied				Signet 2819-2823 Conductivity Electrodes 			

*Submersible installation not applicable for Sanitary Conductivity Electrode.

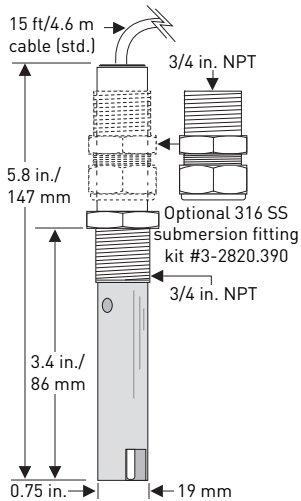


Dimensions

2819, 2820, 2821



2822



Specifications

Models 3-2819-1* (0.01 cm⁻¹ Cell)

Models 3-2820-1* (0.1 cm⁻¹ Cell)

Models 3-2821-1* (1.0 cm⁻¹ Cell)

* Certified versions available (add "C" suffix to part no.)

General

Range:

- 3-2819: 0.055 to 100 μS (18.2MΩ to 10KΩ) (0.02 to 50 ppm)
- 3-2820: 1 to 1000 μS (1MΩ to 1KΩ) (0.5 to 500 ppm)
- 3-2821: 10 to 10,000 μS (5 to 5,000 ppm)

Accuracy: ±2% of reading (certified cells ±1%)

Temp. comp. device: PT1000

Cable Length:

- 4.6 m/15 ft (standard)
- 30m/100ft (maximum)
- 7.6m/25ft for > 10MΩ (no splices)

Wetted Materials

- O-rings: EPR
- Insulator material: PTFE
- Electrodes: 316 Stainless Steel (1.4408, DIN 17440) or Titanium

Max. Temperature/Pressure Rating

- Standard Polypro fitting: 6.9 bar (100 psi) @ 100°C (212 °F)
- Optional 316 SS fitting (3-2820.392): 13.8 bar (200 psi) @ 120°C (248 °F)
- Sanitary Connection: 6.9 bar (100 psi) @ 120°C (248°F)

Temperature response, τ:

- 7 sec. (0.01 cell)
- 53 sec. (0.1 cell)
- 21 sec. (1.0 cell)

Temperature accuracy: 0.3°C

Shipping weight: 0.4 kg (0.8 lbs.)

Standards and Approvals

- CE
- Manufactured under ISO 9001:2000 for Quality and ISO 14001:2004 for Environmental Management

Model 3-2822-1 (10.0 cm⁻¹ Cell)

General

Range:

100 to 200,000 μS (50 to 100,000 ppm)

Accuracy:

±2% of reading (certified cells ±1%)

Temp. comp. device: PT1000

Cable Length:

- 4.6 m/15 ft (standard)
- 30m/100 ft (maximum)

Wetted Materials

- O-rings: EPR
- Body: CPVC
- Electrodes: 316 Stainless Steel (1.4408, DIN 17440)

Process Connection:

- Standard 316 SS fitting: 3/4 in. NPT threads
- Optional 316 SS submersion adapter fitting (3-2820.390): 3/4 in. NPT threads

Max. Temperature/Pressure Rating

6.9 bar (100 psi) @ 95°C (203°F)

Temp. response, τ: 5 seconds

Temp. accuracy: 0.3°C

See Temperature and Pressure graphs for more information.

Shipping weight: 0.4 kg (0.8 lbs.)

Standards and Approvals

- CE
- Manufactured under ISO 9001:2000 for Quality and ISO 14001:2004 for Environmental Management

Specifications

Model 3-2823-1 (20.0 cm⁻¹ Cell)

General

Range:

- 200 to 400,000 μS (100 to 200,000 ppm)

Accuracy:

±2% of reading

Temp. comp. device: PT1000

Cable Length:

- 4.6m/15 ft (standard)
- 30m/100 ft (maximum)

Wetted Materials

- O-rings: EPR
- Insulator material: PTFE

Process Connection

- Electrodes: 316 Stainless Steel (1.4408, DIN 17440)
- Std. 316 SS fitting: 3/4 in. NPT thread

Max. Temperature/Pressure Rating

6.9 bar (100 psi) @ 150°C (302°F)

Temp. response, τ: 120 seconds

Temp. accuracy: ±0.3°C

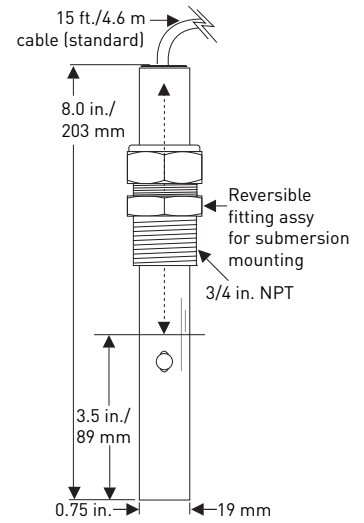
Shipping weight: 0.3 kg (0.6 lbs.)

Standards and Approvals

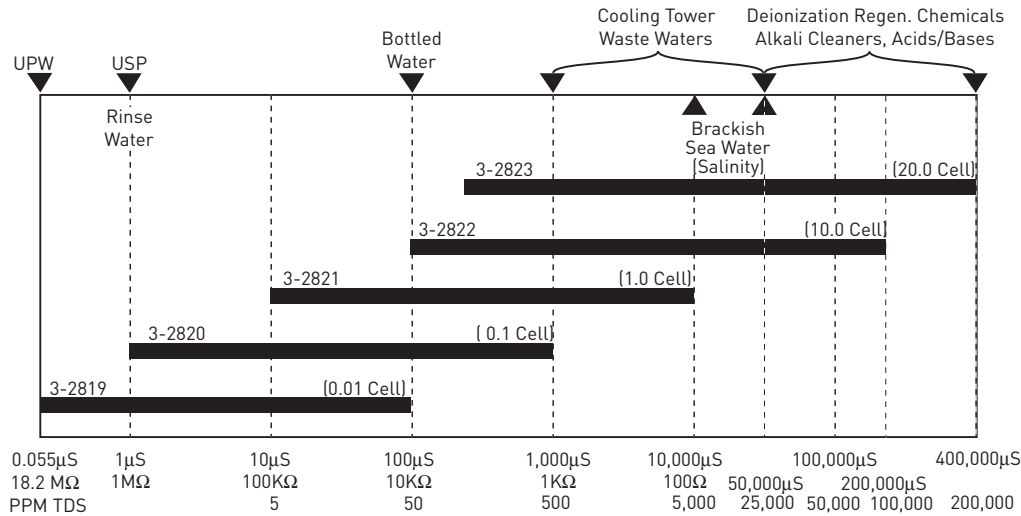
- CE
- Manufactured under ISO 9001:2000 for Quality and ISO 14001:2004 for Environmental Management

Dimensions

2823



Operating Range Chart



Sanitary

Note: Tri-clamp is available for 2819, 2820, 2821 only. T1 or S1 is for 1 to 1.5 in. tees. T2 or S2 is for 2 in. tees.

