

2839-2842 DryLoc™ Conductivity/Resistivity Electrodes

3-2840.099 (A-10/02)



Features

- DryLoc™ electrode connector for use with 2850 Conductivity/Resistivity Sensor Electronics
- Controlled surface finish ensures accuracy and repeatability
- 316SS electrodes with injection molded PEEK™ process connections and insulators
- Compact electrode length for easy in-line installation
- Replaceable insulator on Model 2842 (10.0 cell constant)
- Triple orifice flow-through design reduces clogging and bubble entrapment
- 3/4 in. NPT or ISO 7/1 - R 3/4 process connections
- Cell constants may be traceable to NIST and certified to within $\pm 1\%$ of value

Description

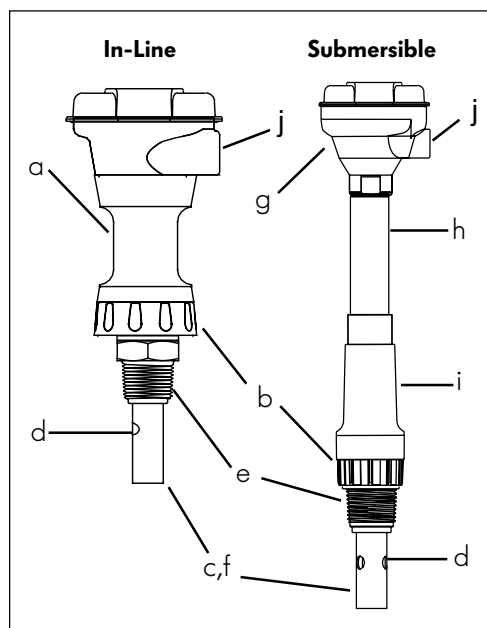
The 2839-2842 DryLoc™ Conductivity/Resistivity Electrodes are available in four cell constants from 0.01 to 10.0, and are suitable for a wide variety of applications from high purity water quality monitoring to demineralizer regeneration. 316SS electrode surface finishes are controlled in a precision bead blasting operation to ensure measurement

accuracy and repeatability, and the PEEK™ insulator and process connections are injection over-molded to minimize variance between electrodes. The DryLoc™ electrode connector quickly forms a robust assembly with the 2850 Conductivity/Resistivity Sensor for submersible and in-line installations.

System Features

These electrodes are compatible only with +GF+ SIGNET 2850 Conductivity/Resistivity Sensor Electronics.

- 2850-1, -2 Conductivity/Resistivity Sensor Electronics (sold separately)
- DryLoc™ electrode connector
- 2839-2842 DryLoc™ electrode
- Triple orifice flow-through design
- Injection over-molded 3/4 in. NPT or ISO 7/1 - R 3/4
- Compact electrode length
- 8052-1CR, -2CR junction box (sold separately)
- Extension pipe (customer supplied)
- 2850-3, -4 Conductivity/Resistivity Sensor (sold separately)
- S³L™ or 4 to 20mA output (field selectable)



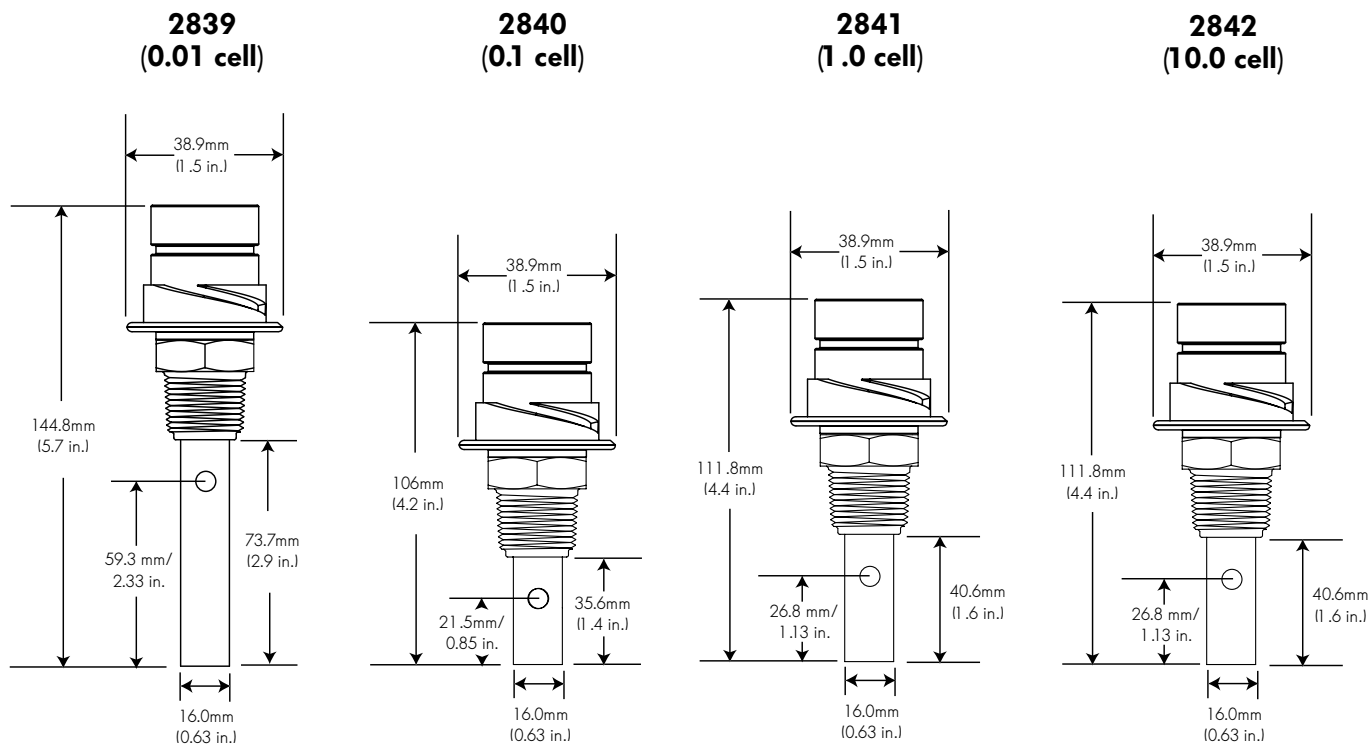
Applications

- Water Treatment & Water Quality Monitoring
- Reverse Osmosis
- Deionization
- Cooling tower and Boiler Protection
- Distillation
- Desalination
- Demineralizer
- Semiconductor
- Aquatic Animal Life Support Systems

Options

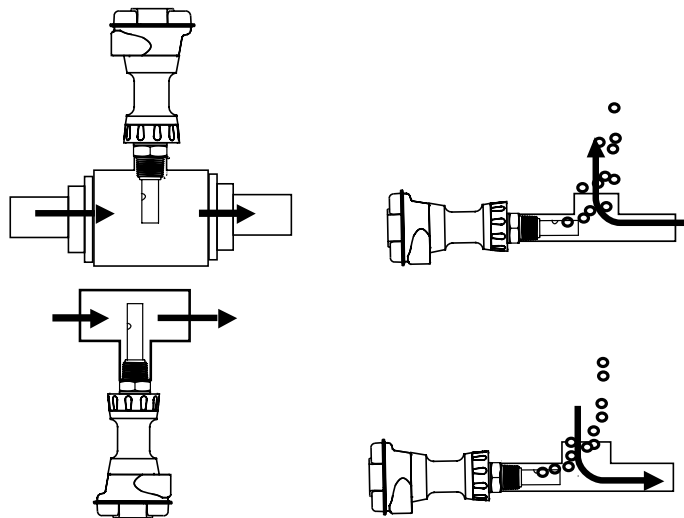


Dimensions



Installation

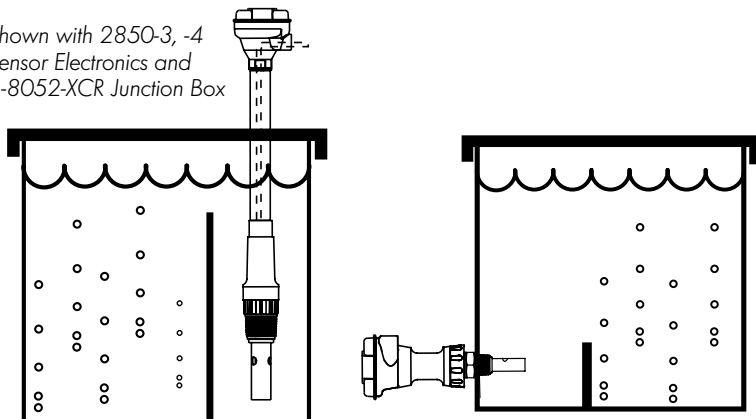
Shown with 2850-1, -2 Sensor Electronics



In-line Installation

- Position the electrode to avoid entrapment of air bubbles.
- The preferred installation for in-line applications directs flow straight into the electrode.
- If the electrode is mounted vertically in a tee, do not recess the orifices inside the tee. Mounting upside down may help prevent air entrapment.
- An oversized tee or flow cell may be helpful for in-line installations.

Shown with 2850-3, -4 Sensor Electronics and 3-8052-XCR Junction Box

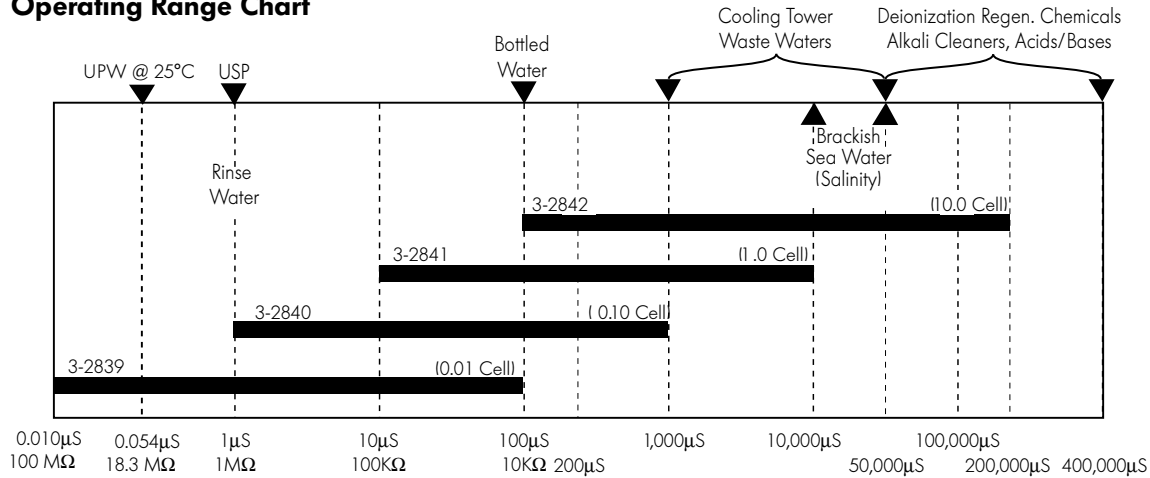


Submersible/Tank Installation

- If installed in an aerated vessel, ensure that the electrode is in a stillwell to avoid entrapment of air bubbles.
- Select a location that will remain free of sediment.
- To prevent moisture accumulation at the cable-end of the electrode, fill the lower 3 to 4 in. of conduit or extension pipe with a flexible sealant, such as silicone.

Specifications

Operating Range Chart



General

Compatibility: +GF+ SIGNET 2850 Conductivity/Resistivity Sensor (see data sheets for more information)

Accuracy: ±2% of cell constant value (standard)
Cell constants can be traceable to NIST and certified to within ±1% of value (contact factory)

Temperature element: PT-1000

Temp. response, τ: 5 sec. (0.01 cell), 10 sec. (0.10 cell), 20 sec. (1.0 cell), 30 sec. (10.0 cell)

Temp. accuracy: ±0.5°C

Wetted materials

- DryLoc™ connection to 2850: CPVC
- Internal O-ring (2841 and 2842): FPM
- Insulator material: PEEK™
- Electrode material: 316SS

Shipping Weight

- 2839: 0.34 kg (0.74 lb)
- 2840, 2841, 2842: 0.30 kg (0.66 lb)

Process Connection (PEEK™)

- -2 versions: 3/4 in. NPT
- -2D versions: ISO 7/1 - R 3/4

Environmental

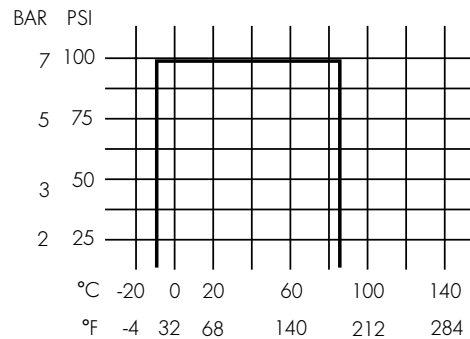
Operating temperature/pressure:

-10° to 85°C @ 6.9 bar (14° to 185°F @ 100 psi)

Storage temperature: -20° to 85°C (-4° to 185°F)

Standards and Approvals

- CE
- Manufactured under ISO 9001 and ISO 14001



Ordering Information

Mfr. Part No.	Code	Description
3-2839-2	159 000 922	Cell 0.01, DryLoc™, 3/4 in. NPT
3-2839-2D	159 000 924	Cell 0.01, DryLoc™, ISO 7/1-R 3/4
3-2840-2	159 000 787	Cell 0.1, DryLoc™, 3/4 in. NPT
3-2840-2D	159 000 789	Cell 0.1, DryLoc™, ISO 7/1-R 3/4
3-2841-2	159 000 791	Cell 1.0, DryLoc™, 3/4 in. NPT
3-2841-2D	159 000 793	Cell 1.0, DryLoc™, ISO 7/1-R 3/4
3-2842-2	159 000 795	Cell 10.0, DryLoc™, 3/4 in. NPT
3-2842-2D	159 000 797	Cell 10.0, DryLoc™, ISO 7/1-R 3/4

Accessories

Mfr. Part No.	Code	Description
3-2850-1	159 000 783	In-line Sensor Electronics w/Junction Box
3-2850-2	159 000 784	In-line Sensor Electronics w/Junction Box & EasyCal
3-2850-3	159 000 785	Submersible Sensor Electronics, NPT
3-2850-4	159 000 857	Submersible Sensor Electronics, ISO
3-2831	159 000 888	Conductivity Recertification Tool
3-8050-1CR	159 000 889	Universal Mount Junction Box w/CR Cell Ranges
3-8050-2CR	159 000 802	Universal Mount Junction Box w/CR EasyCal
3-8052-1CR	159 000 890	3/4 in. NPT Mount Junction Box w/CR Cell Ranges
3-8052-2CR	159 000 803	3/4 in. NPT Mount Junction Box w/EasyCal
3-9000.392-1	159 000 839	Liquid-tight Connector Kit, 1 set, 1/2 in. NPT
3-9000.392-2	159 000 841	Liquid-tight Connector Kit, 1 set, PG 13.5
3-2842.390	159 000 925	2842 replacement insulator, PEEK™ w/FPM O-ring

Engineering Specifications

- The electrodes shall be constructed of 316SS and PEEK™.
- The electrodes shall have an injection molded 3/4 in. process connection in PEEK™ (NPT or ISO).
- The electrodes shall have an accuracy of $\pm 2\%$ of cell constant.
- The electrode with a 10.0 cell constant shall have a replaceable insulator.
- The electrodes shall have a triple orifice design to reduce clogging and bubble entrapment.
- The electrodes shall have an operating temperature of -10° to 85°C @ 6.9 bar (14° to 185°F @ 100 psi).
- The electrodes shall be supplied with a PT-1000 platinum RTD.
- The electrodes shall be available with +GF+ SIGNET DryLoc™ for connection to 2850.
- The electrodes shall meet CE standards and be manufactured under ISO 9001 and ISO 14001.
- The electrodes shall be +GF+ SIGNET Models 2839-2842 C/R Electrodes.

For more information on these products, please contact your local sales company:

A	Georg Fischer Rohrleitungssysteme GmbH, Sandgasse 16, A-3130 Herzogenburg, Tel. 02782/56 43-0, Fax 02782/51 56
AUS	George Fischer IPS Pty Ltd., 186-190 Kingsgrove Road, Kingsgrove, NSW 2208, Tel. 02 9554 3977, Fax 02 9502 2561
B/L	Georg Fischer N.V./S.A., Digue du Canal 109-111 – Vaartdijk 109-111, B-1070 Bruxelles/Brussel, Tél. 02/556 40 20, Fax 02/524 34 26
BAR	George Fischer Ltda Av. dos Nações Unidas, 21689 CEP 04795-100 - S.Paulo - SP Tel.: 155111 247 1311 Fax: 155111 247 6009
CH	Georg Fischer Rohrleitungssysteme (Schweiz) AG, Amster-Laffon-Strasse 1, Postfach, CH-8201 Schaffhausen, Tel. 052/631 3026, Fax 052/631 2897
D	Georg Fischer GmbH, Daimlerstraße 6, Postfach 1154, D-73093 Albershausen, Tel. 07161/302-0, Telex 7278 67, Fax 07161/302259
DK	Georg Fischer A/S, Klintehøj Vænge 17, DK-3460 Birkerød, Tel. 42/81 1975, Fax 42/81 1622
E	Georg Fischer S.A., Sistemas de tuberías para la industria, Calle Isla de la Palma, 32 – Nave 1, E-28700 San Sebastián de los Reyes (Madrid), Tel. 91/663 80 00, Fax 91/663 81 76
F	George Fischer S.A., 105-113, rue Charles Michels, B.P.174, F-93208 Saint-Denis Cedex 1, Tél. 1/49 22 13 41, Fax 1/49 22 13 00
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J	Georg Fischer Ltd., 2-47, Shikitsuhigashi, 1-chome, Naniwa-ku, Osaka 556, Tel. 6/6 48 28 38, Telex 526 77 85, Fax 6/6 48 25 65
N	Georg Fischer A.S., Bygdøy Allé 23, Postboks 3223 Elisenberg, N-0208 Oslo 2, Tel. 22/44 41 10, Fax 22/43 40 19
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RA	George Fischer Inc., Lavalle 2614, 1640 Martinez Buenos Aires, Tel. 01/798 74 01, Fax 01/798 40 74
NL	Georg Fischer N.V., Lange Veenteweg 19, Postbus 35, NL-8160 AA Epe, Tel. 0578678222, Fax 0578621768
S/SF	Georg Fischer AB, Box 113, S-12523 Alvsjö-Stockholm, Tel. 08/7274700, Fax 08/7492370
SGP	George Fischer Pte. Ltd., 15 Kaki Bukit Road 2, KB Warehouse Complex, SGP-417 845 Singapore/Singapore, Tel. 747 06 11, Fax 747 05 77
USA*	George Fischer Inc., 2882 Dow Ave., Tustin, CA 92780-7285, Tel. 714/731-8800, Toll Free 800/854-4090, Fax 714/731-4688, e-mail: info@us.piping.georgefischer.com, Internet: http://www.us.piping.georgefischer.com

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