

Signet 2850 Upgrade - Frequently Asked Questions May 2006

1) *What sensors can I use with the new 2850?*

A. All conductivity/resistivity sensors from the following sensor families:

- i. Models 2819, 2820, 2821, 2822, 2823,
- ii. Models 2839, 2840, 2841, and 2842



2) *Can I use a sanitary flange sensor with the new 2850?*

A. Yes, the new 2850 will accept any Signet conductivity sensor input, including those with a sanitary flange.

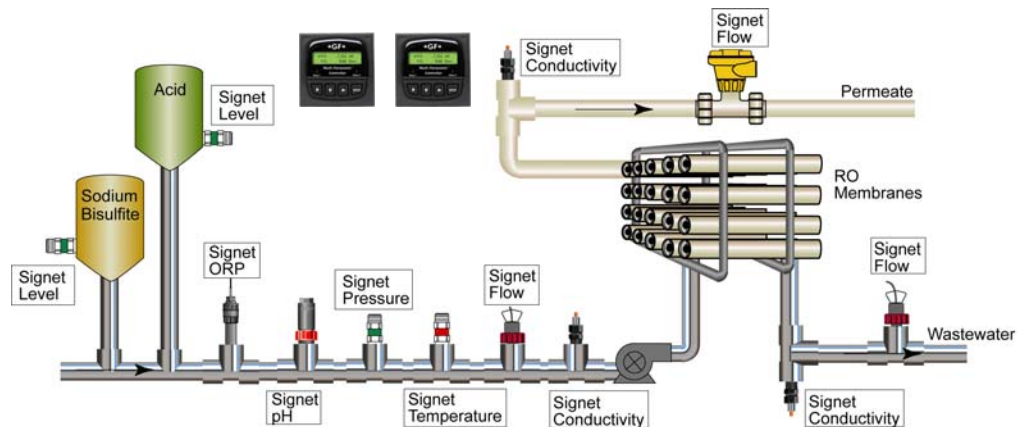
3) *What is the advantage of using the dual channel 2850?*

A. The dual channel unit allows the customer to connect two conductivity / resistivity sensors into the 2850 and send both signals over one cable (via the Signet (S³L) digital system) to the 8900. This saves the customer money by purchasing only one unit, reduces cable installation costs, and allows them to send the signal up to 1000 feet to the 8900.



4) *Can Signet provide some application examples for the dual channel 2850?*

A. Reverse osmosis, cooling towers, boilers, and deionization units all require two conductivity measurements. An 8900, used with a dual channel 2850, can be further enhanced to receive 2 or 4 more inputs from Signet flow, pH, ORP, pressure, level, and temperature sensors. Review the [8900 data sheet](#) for more information.



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Example: Reverse osmosis system with various required and optional measurements. In this example, two 6 channel 8900's can be used with one dual channel 2850 and one single channel 2850 (optional).

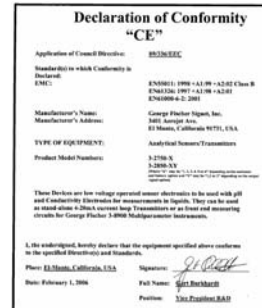
- 5) What is the maximum sensor cable length that can be run to the 2850 remote unit?
 A. 15 ft. which is standard on all Signet conductivity / resistivity sensors.



- 6) What is the maximum length of the extension cable coming out of the 2850?
 A. 1000 feet

- 7) Can the two output digital signals run on one wire?
 A. Yes

- 8) Is the new 2850 CE certified?
 A. Yes and a copy of the certificate is available on the Signet website.



- 9) Does the new 2850 offer an option for EasyCal calibration?
 A. Yes, all new 2850 units are available with EasyCal at no additional charge.

- 10) What is EasyCal?

- A. The 2850 has a feature in the unit that allows for automatic recognition of standard conductivity test solutions.

- 11) Who supplies the standard conductivity solutions that EasyCal recognizes?

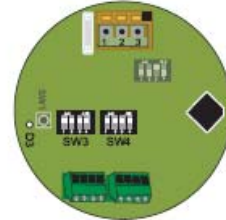
- A. Most laboratory chemical suppliers offer standard conductivity solutions. Alternatively, conductivity solutions can be made using potassium chloride (KCl) salts dissolved in distilled water (as stated in ASTM standard D 1125-95). For instance, a 1408.8 μS solution (at 25°C) can be made by diluting 0.7440 g of KCl (weighed in air) in 1 Liter of distilled water. Note that the grade of KCl and the purity of the distilled water may change the actual value of 1408.8 μS to a higher or lower value.

- 12) Can a dual channel unit be calibrated simultaneously?

- A. Yes, both channels can be calibrated at the same time when using the EasyCal function.

- 13) Does the dual channel unit have the ability to calibrate one sensor at a time?
- A. Yes, by disabling the second channel, the first channel can be calibrated. It is recommended that the larger cell constant sensor is placed on channel 1 because it is more likely that this sensor will need calibration more often.

- 14) How does the unit recognize different cells?
- A. There are switches on the inside of the unit. Putting the switches "SW3" and "SW4" in the "open" or "closed" position will enable the new 2850 to identify the correct sensor cell constant.



- 15) Is there an option to turn "off" the temperature compensation for use in USP applications?
- A. Yes, turning the temperature compensation "off" is simply done with turning switch "SW4" to the closed position. This is only valid for 2850's with a 4 to 20 mA output.
- B. For 2850's with digital (S³L) output, the unit is used with the 8900 Multi-parameter controller and therefore, the temperature compensation mode should be turned off in the 8900; it does not need to be turned off in the 2850.

- 16) What are the certification tools used for?
- A. For electronics calibration / verification according to ASTM standard test methods. Used for applications such as natural and treated waters like boiler water, boiler feed water, cooling water, and saline and brackish water. Also used for high purity water applications needing to meet USP requirements

- 17) Why did Signet redesign the 2850?
- A. All of the following prompted the 2850 redesign:
- Size reduction of 3.6 inches
 - Cost reductions of up to 36%
 - Enhanced software with temperature compensation on/off option
 - Wider selection of Signet conductivity/resistivity sensors
 - Overall, these improvements make Signet conductivity more desirable to use, especially with the 8900 multi-channel/multi-parameter instrument.

- 18) How long will the DryLoc sensors and electronics supported?
- A. The conductivity products with the DryLoc connection will be phased out from the market within 6 months of the introduction date of the new 2850 design. The part numbers include the DryLoc sensors (part numbers 3-2839-2/-2D, 3-2840-2/-2D, 3-2841-2/-2D, 3-2842-2/-2D) and DryLoc electronics (3-2850-1/-2/-3/-4). All of these parts will be supported through the repair department for 5 years beyond the phase out period.

19) *I have a number of conductivity DryLoc sensors in stock but want to use new 2850. What can I do to use these?*

- A. Use part number 3-2760-3 or 3-2760-4. These two part numbers are found in the pH/ORP product line under Model number 2760. They do not contain any pH/ORP electronics internally; they are simply DryLoc connectors inside of the same housing as the 2760. These connectors will enable a use to connect any DryLoc conductivity sensor directly to a new 2850 unit.

20) *Can I update an old 2850 with the new 2850 software?*

- A. No