Technical Information:

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Subject: Conductivity Calibration With Temperature Compensation
Product: D1C / LFWS / DMT
Category: Calibration Overview
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Conductivity Calibration With Temperature Compensation.

Conductivity measurements are based on an internationally used reference temperature of 25° C. If the temperature of a process changes, typically the measured value will change unless it is temperature compensated.

For most accurate calibration, use the following guidelines.

1. Use a conductivity standard solution of known conductivity at 25° C. e.g. 1000 µS/cm
2. Adjust the temperature to 25°C.
3. Adjust the cell constant of the conductivity sensor until the display reads the conductivity standard value.
4. Take a sample of the process fluid and adjust the temperature to 25°C.
5. This will be the conductivity of the solution.
6. Increase the temperature of the solution by approx 10°C.
7. Adjust the α (factor) until the value reads the same as it did at 25°C.
8. The calibration is done.

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