There are three choices for calibration of the ISC 40 sensor and the ISC 450 analyzer. The simplest, is to select cell constant (automatic). However, there is less than one inch around the sensor to the pipe an inline process calibration can be done. Alternatively, the instrument can be calibrated using the process solution measured with a standard instrument. Care must be taken to make the measurement at the reference temperature since differences in the type of temperature compensation of the instruments may cause an error. With this method the sensor is not removed from the process. This method is the most convenient method of calibrating the ISC 450G converter. Since the sensor is immersed in the process, errors caused by installation characteristics are compensated for.

This Tech Note is designed to guide you through the steps required for in process calibration.

1.) At the opening Screen - Press the WRENCH Key

2.) Press the Calibration diamond
### Calibration

- Cell constant (manual)
- Cell constant (automatic)
- Air calibration
- Sample
- Temperature coefficient
- Temperature calibration

3.) Press the **Sample** diamond

### Sample

- SC1 (compensation = NaCl)
- SC2 (compensation = None)

4.) Press the **SC1** diamond

### Sample Cal. (SC1)

Tag: EXAxt ISC450

- 3.759 mS/cm
- 25.0 °C

5.) Press the **Take Sample** diamond

- **Take Sample**
- **Quit without sampling**
6.) While the sample is taking the reading it will flash “Checking Stability”.

7.) Once the reading is stabilize you will see the following screen. Press the HOME icon, to end calibration and return to normal measuring mode.

If and when the cell has been subjected to abrasion (erosion or coating) calibration may be necessary. The screens will look a little different and there is an additional step.
1.) At the opening Screen – **Press the WRENCH Key**

2.) Press the **Calibration** diamond

3.) Press the **Sample** diamond

4.) Press the **SC1** diamond
5.) This time the screen looks different because it shows the stored data from the last calibration. Press the **Start Calibration** diamond.

6.) This will generate a screen that will prompt you to specify what the conductivity value of the sample is. Use the numeric key pad to enter the value you press **Enter**.

7.) If the cell constant did not change the following message will appear. Press the **HOME** icon, to end calibration and return to normal measuring mode.
8.) If the cell constant has changed the following screen will appear. Press the **Accept Data** diamond, to end calibration. It will take you back to the sample screen.

9.) Press the **HOME** icon, to return to normal measuring mode.