

4100-iSIC Quick Start Guide

This guide will help you get started. Detailed instructions and reference information are available on the iChart CD.

Overview...

The NexSens 4100-iSIC (Intelligent Sensor Interface and Control) data logger is designed for environmental monitoring applications. It arrives ready for deployment. All electronics are housed in a rugged, NEMA 4X enclosure with a long-life, rechargeable battery. Polymer-coated circuit boards, sealed connectors, corrosion-resistant stainless steel hardware, and built-in lightning protection ensure reliable performance in the harshest conditions. A spread spectrum radio modem is mounted to the circuit board and protected under a stainless steel plate. An N-Style RF connector is standard for connection to RF cables and antennas.



What's Included:

The iSIC Data Logger is a plug-and-play system that includes:

- NEMA 4x enclosure with integral stainless steel plate, iSIC data logger circuit board and spread spectrum radio
- (2) Gland Fittings
- (1) 8.5 AHr battery
- (5) Desiccant packs
- (1) RS232 interface cable
- (4) 56 Ohm resistors for 4-20mA sensor connections

Getting Started with a 4100-iSIC Data Logger...

The 4100-iSIC is an easy to use data logger with intuitive software. Follow these steps to prepare a 4100-iSIC for field installation:

- Step 1.** Unpack the 4100-iSIC data logger. It ships in custom foam packaging to ensure it will not get damaged during shipping. Open the enclosure and remove the SA1020 iSIC Kit from the enclosure. Take out the RS232 iSIC Interface Cable from the kit.
- Step 2.** Power the iSIC by connecting the red battery lead to the red battery terminal and the black battery lead to the black terminal. Once powered, install iChart software to the PC that will be used to communicate to the iSIC.
- Step 3.** Program the 4100-iSIC address as described in the iSIC manual section *4100-iSIC Spread Spectrum Radio Telemetry*.
- Step 4.** Connect a 4100-base to a PC with iChart, a 4200-iSIC to an analog phone line, or a 3200-iSIC to a cellular antenna. Power the communication device.
- Step 5.** Wire sensors to the data logger and add them in iChart following the *Configuring an iSIC Data Logger* section.

Installing an iSIC Data Logger ...

When ready to install the system in the field, simply:

- Step 1.** Mount the iSIC to a wall, pole, or any secure location above flood stage using an A55 mounting plate, or the potted nuts located on the back of the enclosure.
- Step 2.** Ground the iSIC using an A38 Grounding Kit or other grounding wire connected to the grounding lug located outside the iSIC enclosure. See iSIC manual section *Sensor Wiring* for more information.
- Step 3.** Attach and mount an RF cable and radio antenna.
- Step 4.** Wire sensors to the data logger's green terminal strips located inside of the enclosure. Bring any cables into the enclosure by removing a port plug and installing a gland fitting from the SA1020 iSIC Kit.

See iSIC manual section *Field Deployment* for more information.

Configuring a 4100-iSIC Data Logger...

Configuring a data logger is easy with iChart software. Simply:

- Step 1.** Wire sensors to and power the iSIC.
- Step 2.** If adding to an existing iChart project, select *Project | Setup Device Wizard* otherwise select *File | New Project*.
- Step 3.** Follow the wizard to add a site name, then select 4100-iSIC from the drop down list of data loggers. Select "4100-base", "4200-iSIC" or "3200-iSIC" as the "Connect Through" path depending on what telemetry you are using to communicate to the 4100-iSIC. The address will be "1" unless it has been changed according to the iSIC address section of the iSIC Manual.
- Step 4.** Add any sensors connected to the data logger by selecting the sensor manufacturer and then model number. If the sensor is not in the predefined list, you can add it generically by selecting "Generic" as the sensor manufacturer.

See iSIC manual section *iChart Setup and Operation* for more information on adding and configuring specific sensors.

For More Information ...

For more information see the iSIC manual which is available on your iChart software CD. The latest version of the manual can also be downloaded from the Support section of www.NexSens.com.



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