



FG-Wi CONVERTER

RS-485 ⇔ WIRELESS CONVERTER

Ver.01



FGWICONV01-04T-10994

1. DESCRIPTION

The **FG-Wi Converter** wireless communication system allows interconnecting Full Gauge controllers to Sitrad supervisory software through RF communication, thus replacing the wiring used by RS-485 serial communication. The system comprises one radio (called Master) connected to the computer running Sitrad, and one or more radios (called Slaves) connected to the instruments. The Master and Slave radios operating together form the FG-Wi wireless network. The connection between the Master radio and the computer and between the Slave radios and the instrument is by means of RS-485 serial communication.

2. APPLICATION

• Replacement of RS-485 serial communication by wireless communication.

*The **FG-Wi Converter** is designed to work with Full Gauge Controls devices only.

3. TECHNICAL SPECIFICATIONS

- **Power supply:** 100 - 240 Vac (50/60 Hz) or in 12Vdc version
- **Operating frequency:** 433 MHz +/- 100 kHz
- **Output power:** 10 dBm
- **Sensitivity:** -100 dBm
- **Range without obstacles:** 50m
- **Size (W x H x L):** 81 x 30 x 63mm
- **Operating temperature:** 0 to 50°C
- **Operating humidity:** 10 to 90% RH

NOTE: This equipment has secondary operating characteristics, i.e., is not eligible for protection against harmful interference, even from stations of the same type, and must not cause interference to systems with primary operating characteristics.

4. INSTALLATION AND OPERATION

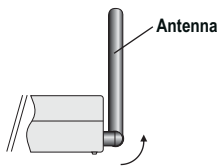
To install the FG-Wi network, one radio must be connected to the computer (which will run Sitrad) by means of a RS-232/RS-485 or USB/RS-485 converter (CONV32, CONV96, or CONV256), and to the electrical power. That radio will be the FG-Wi network Master.

After the Master radio is physically installed, the procedure to configure the FG-Wi network must be performed. The entire process is performed through Sitrad, and must be performed for every radio in the FG-Wi network.

The configuration process comprises the following steps:

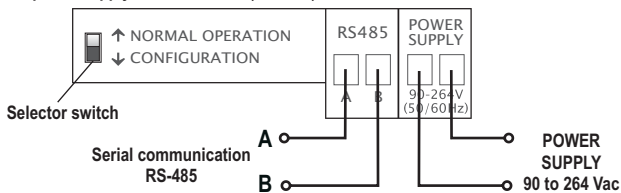
- Install the Master radio.
 - Run Sitrad, go to "Setup" and click "Options". In the new window, select the option "The installation has a wireless FG-Wi Converter."
 - Exit from the "Setup options" window, and click "Setup" again, then click "FG-Wi" and "Network setup".
 - Follow Sitrad's on-screen instructions. That's it! The FG-Wi network is now configured and ready to be used. The stations can be located by Sitrad and operated normally.
- If needed to add another Slave radio to the network, run Sitrad, click "Setup", then click "FG-Wi" and "Network setup". Click "Set channel for a new device" and follow Sitrad's on-screen instructions.

NOTE: For a better performance, the antenna has to be placed perpendicularly to FG-Wi CONVERTER device.

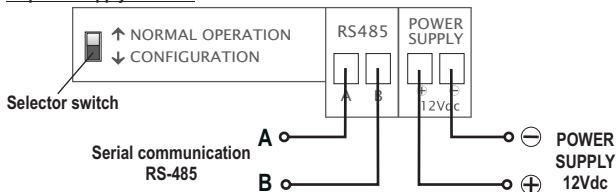


5. WIRING DIAGRAM

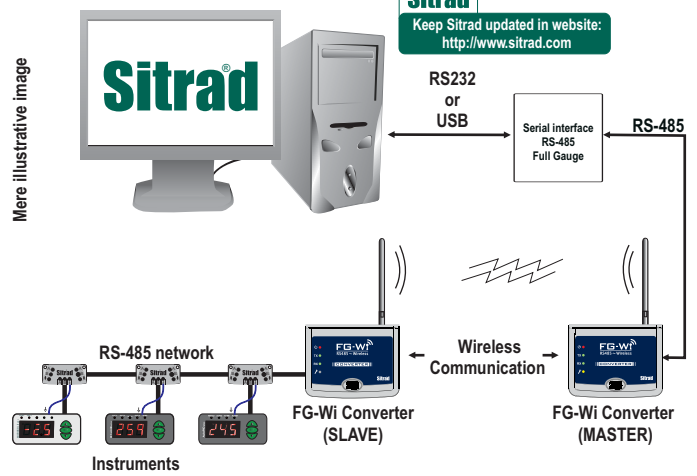
To power supply of 100 - 240Vac (50/60Hz)



To power supply of 12Vdc



Basic topology of Wi-FG network



IMPORTANT

According to the chapters of norm IEC 60364:

- 1: Install protector against overvoltage on the power supply
- 2: Signal cables of the computer may not be joined with electric conduit through which the electric input and the activation of the loads run.

For more information, please contact our Technical Support by e-mail: support@fullgauge.com or by phone +55 51 3475.3308.



ENVIRONMENTAL INFORMATION

Packaging:

The materials used in the packaging of Full Gauge products are 100% recyclable. Try to perform disposal through specialized recyclers.

Product:

The components used in Full Gauge controllers can be recycled and reused if disassembled by specialized companies.

Disposal:

Do not incinerate or dispose the controllers that have reached the end of their service as household garbage. Observe the laws in your area regarding disposal of electronic waste. If in doubt, please contact Full Gauge Controls.

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