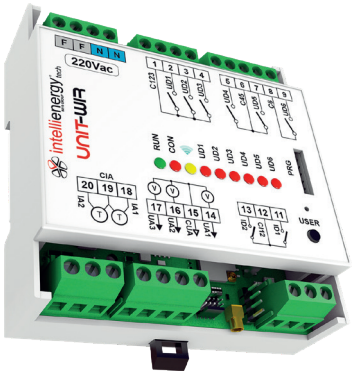
UNIT WIR

ORDER CODE	COMM. CODE
IWCXX	UNIT-WIR

Wireless LoRa® | 220 Vac | IP30 | Smart Readiness Indicator



Wireless Controller for Fan Coils and other HVAC Terminals

- BMS functions
- Room control
- Integrated with wireless Intellienergy tech system
- Programmable with free LoRa® Seeder tool

Wireless controller for monitoring and managing Fan Coils or other HVAC terminals. It functions as a configurable controller within the Wireless Intellienergy tech system. Architecturally, it can be seen as a configurable controller (via LoRa® Seeder) equipped with a LoRa® transceiver with an external antenna connector. It has 6 relay outputs (capable of switching loads up to 6A at 230Vac) and 2 analogue inputs for PT1000 sensors, 2 digital inputs for potential-free contacts and 3 analogue outputs (0–10V). The controller uses the transmission technology required by the LoRa® standard, which guarantees broad coverage, with no need for signal repeaters. The controller is fitted with an MMCX connector to connect an external 868 MHz ISM band antenna. In operational terms, it functions as a receiver on CH1 for the wireless probe/panel, which provides it with the information for controlling the monitored Fan Coil. It works as a terminal device on CH2 to an IGW02 receiver or an EDGE (IW-MON), which makes it manageable by the BMS infrastructure. The **UNIT-WIR** device is powered directly from the mains voltage (220Vac). It does not have an internal RTC maintenance battery, so time updates or timings must be provided by the BMS infrastructure. The device is configurable via the LoRA® Seeder utility program, which allows selection of the program and operating mode. The user interface consists of nine LED for signalling device status, communication and output status; in addition, a USER button allows a series of commands to be given to the device (association to the BMS network, connection to the reference probe, device status, configuration, etc.).

APPLICATIONS
Industry and tertiary sector
Smart Building
Metering
Temperature regulation

CERTIFICATIONS

EN60730-1:2011. Automatic electrical controls for household and similar use.

EN60730-2:2011. Particular requirements for energy controllers.

EN60730-3:2011. Home and Building Electronic System HBES.

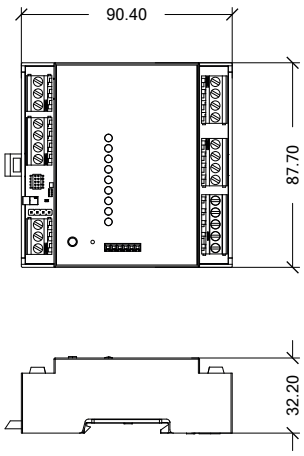
EN61010-1:2010. Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements.

EN61326–1:2012. Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements. For article 3.2 : Effective use of spectrum allocated. For article 3.1b : Electromagnetic Compatibility.

EN 300 220 - 1 V3.1.1
EN 300 220 - 2 V3.1.1
EN 301 489 - 1 V2.2.0 (2017–03)
EN 50581:2012 RoHS

ACCESSORIES

RANxx, LoRa® Seeder



TECHNICAL CHARACTERISTICS

USER INTERFACE	9 LED (RUN, CON, LoRa® and one for the status of each output) and 1 USER button. The device is configurable via the LoRa Seeder utility program.
ANTENNA	MMCX female connector for external antenna over the 868MHz ISM band.
FASTENING	DIN BAR
OPERATING TEMP.	-40 ... +80 (°C)
STORAGE TEMP.	-40 ... +80 (°C)
CONTAINER MATERIAL	Self-extinguishing ABS UL 94 V0
POWER SUPPLY	Direct Current (220 VDC)
DIGITAL INPUTS	2 Digital inputs (clean contact)
ANALOGUE INPUTS	2 IA PT1000 (-50/+150°C)
DIGITAL OUTPUTS	6 Digital relay outputs; switching capacity 6A@220Vac loads
ANALOGUE OUTPUTS	3 Analogue outputs 0–10V
TRANSMISSION FREQ.	ISM 868 Mhz band
TRANSMISSION POWER	From 2.5 to 25 mW (25mW nominal with automatic reduction)
OUTDOOR DISTANCE	Typical 5 km in free air
CONNECTIVITY	Wireless LoRa®
RADIO DISTURBANCES	EN 61000–6 EN 55024:2010–11

LoRa® SEEDER

LoRa® Seeder is the software tool for configuring the LoRa® Wireless Monitoring system by Intellienergy Tech®. It is compatible with Microsoft's Windows 8® and Windows 10® platforms and will soon be available on the LINUX platform. LoRa® Seeder allows you to modify the operating configurations of all probe models (temperature, humidity, brightness, level, VOC, CO2, 20WGI-Master Modbus, etc.) using an accessory connected to the USB port of the PC (Dongle LoRa®).

On the other hand, it connects directly, via a USB port, to the IGW0xx receivers, making the association operations between probes and receivers simple and fast, also allowing to automatically produce the mapping documentation of the Modbus® registers for the System Integrators.

For receivers equipped with the Data Logger function, Seeder allows you to download data from the receiver and store them on its database, to view them graphically and export them in CSV format.

I-Lo®-View

I-Lo®-View, thanks to the use of a LoRa® USB DONGLE (available as an accessory), it transforms any Windows 10® PC into a powerful datalogger server capable of managing all models of Intellienergy wireless probes. On the same PC, or on any other fixed or mobile device (Smatphone, Tablet) connected to the same network, it is possible to consult or manage the entire wireless system, simply by using a Web browser (such as Chrome).

Several users can be connected to I-Lo®-View at the same time and access the probe data, both real-time and historical data, being able to compare multiple sensors simultaneously. In addition to the specific sensor data (temperature, humidity, brightness, VOC air quality, CO2 concentration, etc.). I-Lo®-View also displays and stores "service" data, such as communication quality and battery levels. If the user has administrator permissions, he can also change the operating parameters of the probes (for example the sampling intervals of the sensors and those for sending measurements).

I-Lo®-View it is installed in the Windows environment as a service and is therefore active even if no user is connected to the PC where it is installed. A version is also available for Linux (x86 / x64 / arm) that can be installed as a normal application.