IW MON

CODICE ORDINE
IGW0X

ModBUS RTU · LoRa® · 7-40 VDC · IP30 · LTE 2G/3G/4G · ModBUS IP · LoRaWAN® · WM-Bus · WiFi · Ethernet · OTA · USB

Wireless gateway

- BMS functions
- Standard Protocol LoRa®
- Suitable for professional use

The gateway provides up to two wireless channels (SubGiga 868Mhz, LoRa, LoRa-WAN, Wireless Meterbus etc.) LAN connectivity and WiFi. LAN and WiFi allow to use the already existing infrastructures for Internet access. Furthermore it is also available a version equipped with a micro SIM slot modem to access to the public mobile network. An RS485 port is included on board and it implements ModBUS RTU (Master or Slave). It allows to connect directly to the gateway any external devices, such as Power Meter. Furthermore **IW-MON** integrates a ModBUS TCP/IP server which allows the connection to SCADA systems, (PLC) and human-machine interfaces (HMI). Thanks to use of Web Server and API REST it is always possible to get fully interoperability with third-part CMS, In addition it is possible to send data with MQTT protocol. The receiver is provided by an RCT with a button battery (replaceable) which allows to keep the clock alive even in case of power failure.

APPLICATIONS

- Industry and Services
- Smart Building
- Smart City
- Metering
- Thermoregulation

AVAILABLE VERSIONS

- **IW-MON**: Gateway with IP connectivity by WiFi and LAN.
- **IW-MON-WAN**: Gateway with IP connectivity by WiFi, LAN and public mobile network.

CERTIFICATIONS

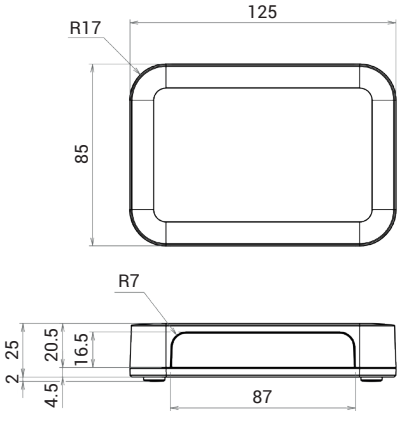
2014/53/UE SAFETY
EN 62368-1:2014
EN 62311:2008
EMC emissions and immunity
ETSI EN 301489-1 V2.1.1 class B
ETSI EN 301489-17 V3.2.0
ERM (Art. 3.2 RED)
ETSI EN 300328 V2.2.2:2019 DTA

NECESSARY ACCESSORIES

RAL01, RAN05, RAN06, RAN07

BMS FUNCTIONS

These gateways are suitable to manage BMS structures, interoperability with third-part equipments with SCADA systems and integration through ModBUS RTU protocol.



TECHNICAL FEATURES

USER INTERFACE	User button; 8 status LED **IW-MON** is provided by a Web server (**I-Lo®-View**) for device configuration.
ANTENNAS	Depending on the version and on the quantity of installed wireless channels, **IW-MON** makes available from one to three female SMA connectors for external antennas equipped with a male SMA connector.
MOUNTING	Desktop or DIN-RAIL (through a special accessory)

Mechanical features:

OPERATING TEMP. RANGE	-40 … +80 (°C)
STORAGE TEMP. RANGE	-40 … +80 (°C)
MODULE IP CLASS	IP30
CASE MATERIAL	Self - extinguishing ABS UL94V0
WEIGHT	130 g

Electrical features:

POWER SUPPLY	(7 - 40 Vdc)
RTC LITHIUM BATTERY LIFE	Around 5 years
MODULE IP CLASS	IP30
RADIO INTERFERENCES	EN 61000-6; EN 55024:2010-11
CONSTRUC. STANDARDS	CEI

Connectivity:

RF1 CHANNEL: LoRa®	ISM 868 Mhz broadband
TRANSMISSION POWER	25 mW
OUTDOOR RANGE	5 (Km)
CHANNEL RF2 (optional)	LoRa®, LoRaWAN®, Mesh IE, Wireless MeterBUS
LAN	10 - 100 Mbit
WIFI/BT	IEEE 802.11 b/g/n, BT 2.1 + EDR and BLE 4.2
WAN (opzionale)	GPRS/UMTS/HSPA/LTE (slot per µSIM)
USB	Type A
RS485 port	RS485 port for ModBUS RTU (Master o Slave)

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LoRa® SEEDER

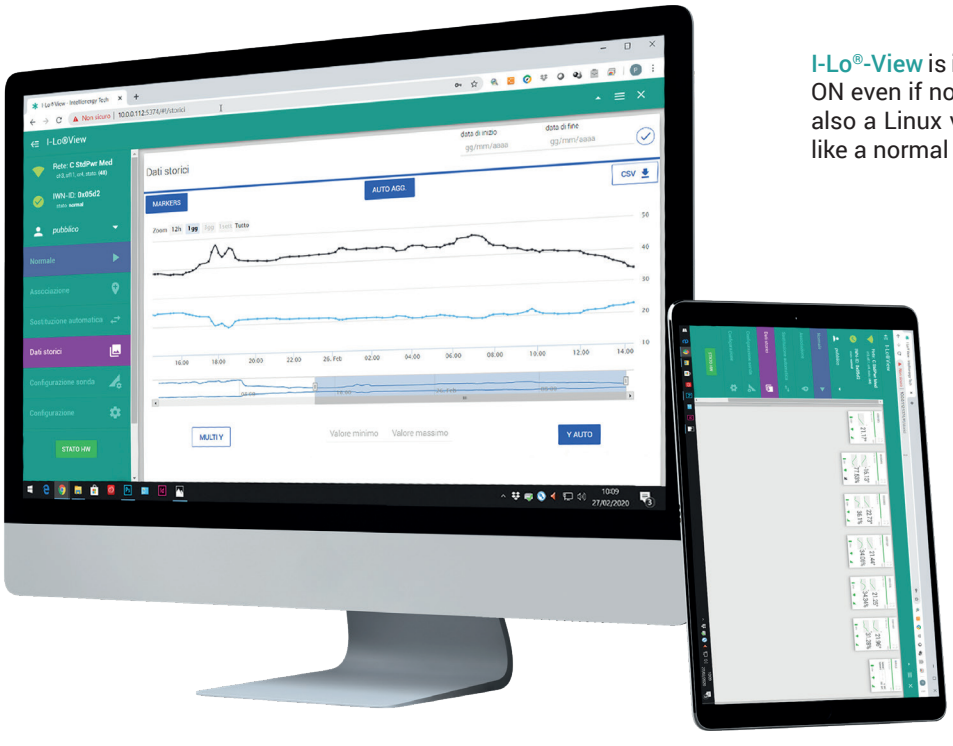
LoRa® Seeder is the configuration tool software of **LoRa® Wireless Monitoring Intellienergy Tech® system**. It is fully compatible with Microsoft Windows 8 and Windows 10 platform and will be soon compatible also with the LINUX one. LoRa® Seeder allows to modify the operative configuration to the complete range of monitoring devices (**temperature, humidity, brightness, level, VOC, CO2, 20WGI-Master Modbus, etc**) using an accessory connected to the PC USB port (Dongle LoRa®).

Through an USB port it can be also connected directly to the **IGW0xx** receivers, making fast and easy any pairing between sensors and receivers. Furthermore it allows to generate automatically the mapping documentation of ModBUS registers for system integrators. In case of receiver equipped with Data Logger functionality, Seeder allows to download data from the receiver and store them on its own data base. It allows also to get a graphic view and export them in CSV format.

I-Lo®-View

Thanks to use an USB **LoRa®** DONGLE (available as accessory), I-Lo®-View transform whatever Windows 10 PC to a powerful data logger server, able to manage the complete range of wireless Intellienergy sensors. On the same PC, or to whatever desktop and mobile device (smartphone, tablet) connected to the same net, it is possible to consult or manage the whole wireless system, simply using a Web browser (f. expl. Chrome)

Different users can be simultaneously connected to I-Lo®-View and access to sensors' data, both to them in real time and to the stored historical ones so that different sensors can be compared at the same time. Besides the specific data of the sensors (temperature, humidity, brightness, VOC air quality, CO2 concentration etc.). I-Lo®-View shows and save also the "service data", like communication and battery levels. If the user has the administrator license, it can also modify the operating parameters of the sensors (f. expl sampling sensors and measurement sending timing).



I-Lo®-View is installed on Windows platform and it is always ON even if none user is connected to the PC. It is available also a Linux version (x86/x64/arm) which can be installed like a normal APP.