

WINECAP™ is a modular system for the acquisition, storage and transmission of data, acquired by the wireless sensor network, to adjustment and regulation systems. A solution to meet the needs of continuous monitoring of physical quantities allowing optimization and adjustment operations.

The **MWLI** (Modular Wireless Local Interface) gateways, coordinates the WSN and make available data using the MODBUS RTU interface. It allows the data export to third parties external devices (PLC, etc.). If necessary, radio range may be improved using up to 32 Routers (adaptive automatic repeaters), to manage up to 40 probes/dataloggers.

Using the provided **WineCapManager** (Data Collection and Export Tool) Windows™ software, user can:

- Configure the system, adding and removing probes and/or modules to the wireless sensor network.
- Display, in real time, on a PC screen the measures sampled by probes/dataloggers
- Verify, in real time, the system status, included the radio signal and the battery level

During the PC connection using the **WineCapManager** software, the RS485 bus is unavailable.

The www.winecap.it Service Center is hosted in an external server-farm 24/7 monitored, allows Internet data access, everytime and everywhere and data integration in third parties softwares using Web Services functions.

Moreover, with email alert messages, involved subjects are informed when needed and allows.



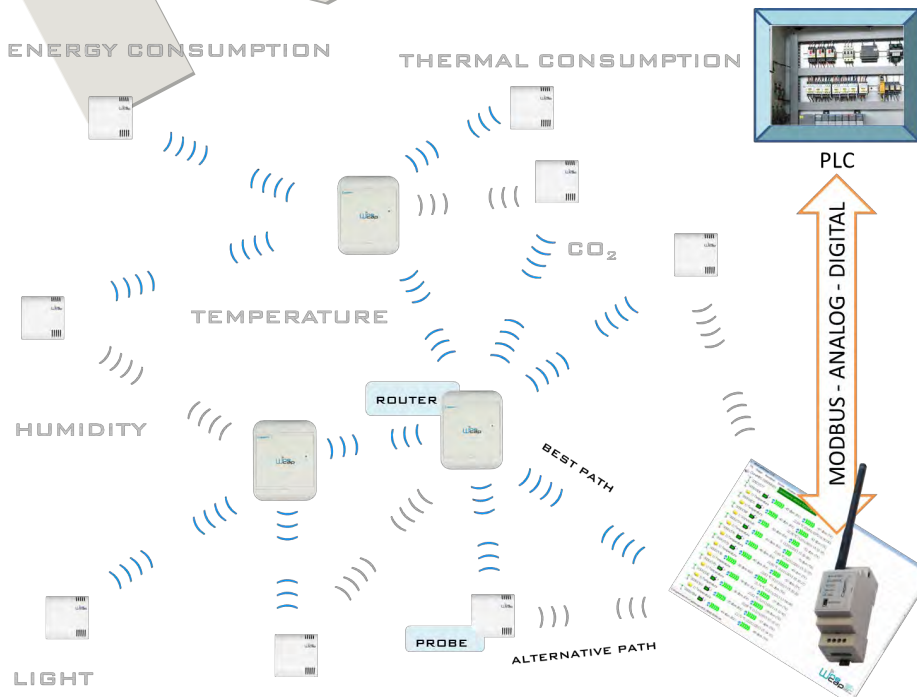
MWLI-MB

Ultra Low Power Wireless Solutions

Application areas:

- Energy Monitoring
- HVAC Thermoregulation
- Operative Energy Certification
- Energy Cadastre Creation
- Environmental Requalification
- Energy Efficiency
- Energy Consumption Measurement
- Building/Plants Energy Performance

WINECAP™ Sensor Network Dynamic and adaptive automatic wireless routing



WINECAP™ is easy to install and easy to use:

- WIRELESS, no cable needed
- MODULAR, radio routers available suitable for large deployments (ex. Hospitals)
- INTEGRABLE, with thermoregulation and remote controlled systems, BMS HVAC and other acquisition systems
- SIMPLE, data are remotely available using a web browser web, no software needed
- SAFE, alarm threshold may be set for each channel, to notify, by email, occurred overcomings

The features shown may be subject to change without notice.

WB0326E Rev.03

MODEL	Analog Outputs	Relays Output	Modbus
MWLI-MB	-	-	RS485
MWLI-MB-4AO*	4 (0-10V)	2	RS485



MWLI-MB-4AO

Relays and analog outputs.

The **MWLI-MB-4AO** version is equipped with analog outputs (0-10V) used to convert measures acquired by probes and make them available for PLC or regulation systems. The gateway is provided with four analog outputs for external reading devices and allows the connection of **EXP4IO** modules to extend the maximum number of available ports up to 40.

The programming of the correspondence between the wireless probes, the outputs and the conversion scale is made using the **WineCapManager**.

The relay outputs (*NC/NO contact*) provides a field feedback respectively on malfunction events of the wireless network and sensor alarm thresholds.

Diagnostic leds allows to check the output update status.

Modularity (with EXP4IO module)

It's possible to expand inputs and outputs of **MWLI** gateways using **EXP4IO** modules up to four units reaching a total of 16 I/Os.

Each **EXP4IO** module can be configured to have 4 I/Os selected from:

- Four 0-10Vdc/0-5Vdc/4-20mA Analog Inputs
- Four Digital Inputs
- Four NTC Inputs
- Four 0-10Vdc or 0-5Vdc Analog Outputs
- Four NTC10K Analog Outputs (emulation)
- Four Open Drain Digital Outputs

Modbus Connection

MWLI gateways are equipped with a serial communication port with MODBUS protocol, on RS485 connection, to export measures towards adjustment systems as PLC, remote control systems or generic telematic devices.

The correspondence between the sampled measures and MODBUS channels is programmable using the **WineCapManager** software

MAIN FEATURES

- Radio range of 300m on sight extensible using battery powered routers
- Network forming with automatic routing algorithm
- 868MHz ISM band (*Industrial, Scientific and Medical*) frequency
- The Web Service Center allow access to data without local software
- E-mail alerts from Service Center
- Data export in CSV e XLS format

Technical Information

Power supply	12-24Vdc (not included)
Protection fuse	Automatic, self resetting
Included Antennas	External WSN antenna - 3m cable (optional: 5m extension cord)
Power Consumption	2 W
Radio Frequency	ISM 868MHz
Connections	USB, RS485 MODBUS
Operating Conditions	Temperature: -20 - +60°C Humidity: 0 - 90% (without condensate)
Sealing	IP30

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