

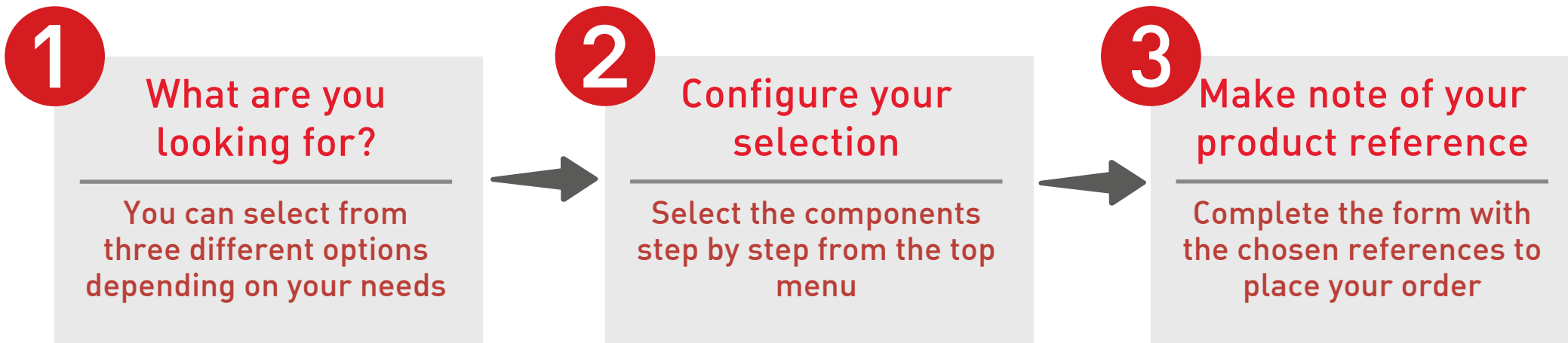
product


catalogue

2019






FOLLOW THESE STEPS TO FIND YOUR LIBELIUM SOLUTION





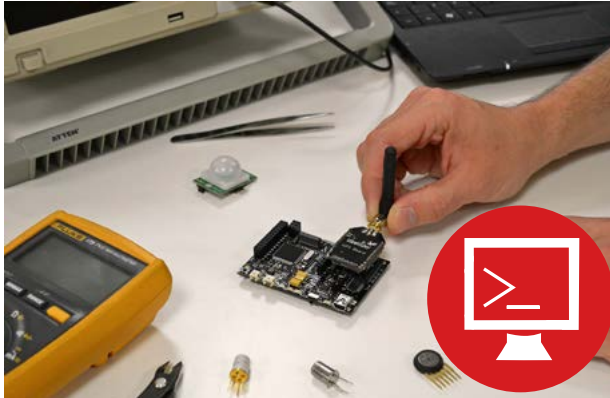






-  Try our technology for IoT
Out-of-the-Box IoT Vertical Kits
-  Ready to install solution
Wasmote Plug & Sense!
-  Research and development
Wasmote OEM

-  1° Customize your device
Sensors + Connectivity + Power Options
- +
-  2° Decide the way to access the data
Extracting the Data
- +
-  3° Choose Support & Training options
Support Section

-  Ref. Make note
Product reference
-  Complete the
Order Form
-  @ Send to your
Sales Agent

WHAT ARE YOU LOOKING FOR?

| | | | |
|-----------------|--|--|---|
| You are | <h3>Testing IoT Market!</h3>   | <h3>Looking for a ready to install solution</h3>   | <h3>Doing research and development</h3>   |
| You need to | <ul style="list-style-type: none"> • Decide quickly the components to test • Use your time to check if technology meets your requirements, not programming • Maximize your budget: test the market with the minimum risk | <ul style="list-style-type: none"> • Reduce your time to market. • Save in development costs • Focus on the solution | <ul style="list-style-type: none"> • Get the maximum flexibility in programming • Use your extra time to save on support options |
| The best option | <h3>Out-of-the-Box IoT Vertical Kits</h3> <ul style="list-style-type: none"> • Out-of-the-Box working demos • Data visualization tool • Includes online consultancy bonus  | <h3>Waspnote Plug & Sense!</h3> <ul style="list-style-type: none"> • Encapsulated and robust solution ready to install outdoors • Factory programmed and configured devices • Customized online support  | <h3>Waspnote OEM</h3> <ul style="list-style-type: none"> • Select the components one by one to test at the laboratory • Free support through our forums and documentation • Join our Free Overview Webinars to get quick insights about our technology  |

Intro

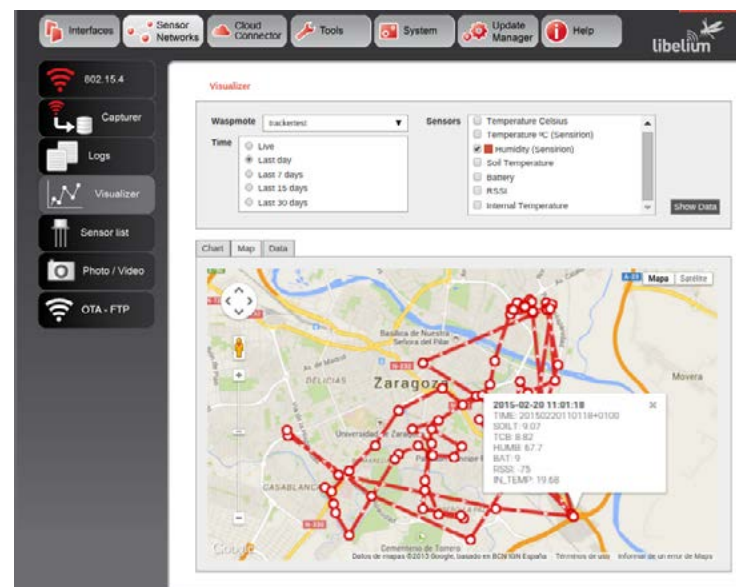
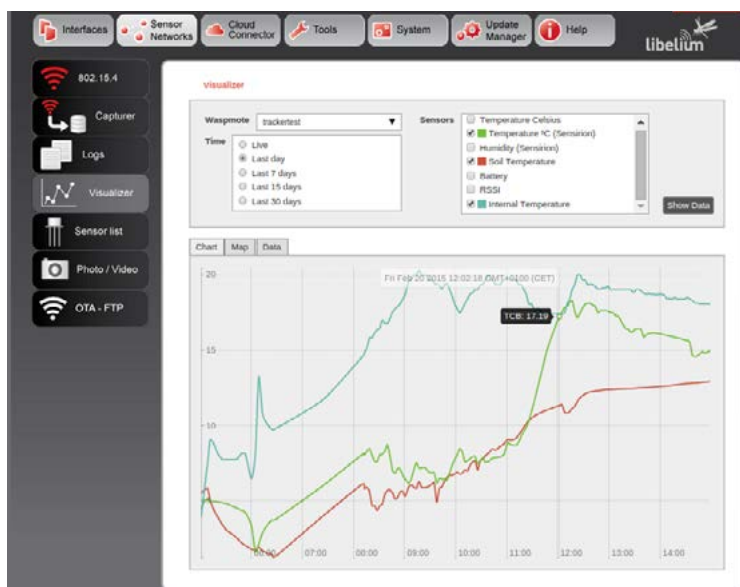
Configure your Hardware

Orders

Technology to get new customers

If you are exploring IoT possibilities with a pilot project, setting up a demo to engage with potential customers or just comparing technology options, time is the most important factor.

We have created five different IoT Vertical Kits addressing the most dynamic IoT verticals and one evaluator kit to ensure you get started in as fast as possible. The vertical kits are factory programmed with basic codes, include a visualization plugin in Meshlium¹ and 2 hours of technical consultancy so that you can have a working demo just by powering on the devices.



1.- Visualization plugin only available in IoT Vertical Kits and Solution Kits with Meshlium. The service is valid for Libelium standard sensors..

Intro

Configure your Hardware

Orders

Smart Cities IoT Vertical Kit



Application examples:

| Application | Description | Sensors |
|------------------|--|---|
| Noise Urban Maps | Sound monitoring in bar areas and centric zones in real time | Noise / Soun Level (LeqA in dBA) |
| Smart Lighting | Intelligent and weather adaptive lighting in street lights | Luminosity (luxes accuracy) |
| Air Quality | Control of the pollution levels | CO, NO ₂ , O ₃ |
| Weather Control | Monitor atmospheric conditions | Humidity, luminosity (Luxes), temperature, atmospheric pressure |

Intro

Configure your Hardware

Orders

List of items included in the Smart Cities IoT Vertical Kit:

| Item | Ref. | Quantity |
|--|---------------|----------|
| Plug & Sense! Smart Cities 802.15.4 <i>(EU version is provided for the European kit)</i> | SCPB-802 | 1 |
| Plug & Sense! SEP 802.15.4 <i>(EU version is provided for the European kit)</i> | SEPB-802 | 1 |
| Noise Level sensor probe | NLS | 1 |
| Luminosity (luxes accuracy) | 9325-P | 1 |
| Temperature, Humidity and Pressure Sensor Probe | 9370-P | 1 |
| Carbon Monoxide (CO) for low concentrations Sensor Probe (Calibrated)* | 9371-LC-P | 1 |
| Nitric Dioxide high accuracy (NO ₂) Sensor Probe (Calibrated)* | 9376-HA-P | 1 |
| Ozone (O ₃) Sensor Probe (Calibrated)* | 9374-P | 1 |
| External solar panel (power accessory for Plug & Sense!) | PAPS-ESP | 2 |
| Outdoors USB cable | 256369 | 2 |
| International adapter | 10280 | 3 |
| Meshlium 4G 802.15.4 AP <i>(EU/BR, US or AU versions are provided, depending on kit)</i> <i>(EU/BR and US versions feature a GPS receiver)</i> | M4G-802 | 1 |
| Technical consultancy 2 hrs | TC-2 | 1 |
| P&S! Programming Service (kit of Marketplace) | PROG-Mktplace | 1 |
| Meshlium visualization interface | MVIS | 1 |



| Ref / Total Price | SCIVK-EU/ | 5,400 € |
|-------------------|------------|---------|
| | SCIVK-USA/ | 5,400 € |
| | SCIVK-BR/ | 5,400 € |
| | SCIVK-AU/ | 5,400 € |

Includes Meshlium Sensor Visualizer interface – 100 times free access limit. After 100 log-ins a license fee can be acquired to keep on using it.
We do not provide these codes, the nodes are already programmed in Libelium. Do not overwrite the code.
*Calibrated gas sensors are manufactured once the order has been placed to ensure maximum durability of the calibration feature. Manufacturing process and delivery may take from 4 to 6 weeks. Lifetime of calibrated gas sensors is 6 months working at maximum accuracy. We strongly encourage our customers to buy extra gas sensor probes to replace the original ones after that time to ensure maximum accuracy and performance.

We provide prices in USD to US customers. Please submit your RFQ, and we will provide you with the USD prices.

Intro

Configure your Hardware

Orders

Libelium Smart Parking Solution Kits with cloud partners



Application examples:

| Application | Description | Sensors |
|---------------|---------------------------------|--|
| Smart Parking | Detection of free parking spots | Electromagnetic field sensor. It is designed to be installed on the surface of parking spaces and to detect the arrival and departure of vehicles with an electromagnetic field sensor. It includes a polyamide casing |

Intro

Configure your Hardware

Orders

| Item | Ref. | Price |
|--|-------------------|---------|
| Libelium-Yazamtec SmartParking Sigfox Solution Kit EU | SP-YAZ-SF-SK-EU | 2,850 € |
| Libelium-Yazamtec SmartParking Sigfox Solution Kit US | SP-YAZ-SF-SK-US | 2,850 € |
| Libelium-Yazamtec SmartParking Sigfox Solution Kit AU / APAC / LATAM | SP-YAZ-SF-SK-AAPL | 2,850 € |

Licenses for Sigfox connectivity are included, as well as the subscription for the partner's cloud service.

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List of items included in the Libelium Smart Parking Solution Kits, LoRaWAN version:

| Item | Ref. | Quantity |
|--|--|----------|
| Smart Parking node <i>(versions are provided, depending on kit)</i> | SP-EU SP-US SP-APLA-AU SP-APLA-AS | 10 |
| Smart Parking USB Programmer | SP-USB | 1 |
| Smart Parking Installation Key | SP-IK | 1 |
| Magnet for contactless reset | 10342 | 1 |
| Smart Parking Configuration Service | SP-CFG | 1 |
| Technical consultancy 2 hrs | TC-2 | 1 |



Intro

Configure your Hardware

Orders

| Item | Ref. | Price |
|---|-------------------------------|---------|
| Libelium-Simfony LoRaWAN Smart Parking SK BS Multitech EU | SP SIMFONY LORAWAN SK-EU | 4,250 € |
| Libelium-Simfony LoRaWAN Smart Parking SK BS Multitech US | SP SIMFONY LORAWAN SK-US | 4,250 € |
| Libelium-Simfony LoRaWAN Smart Parking SK BS Multitech APLA AU | SP SIMFONY LORAWAN SK-APLA AU | 4,250 € |
| Libelium-Simfony LoRaWAN Smart Parking SK BS Multitech IN | SP SIMFONY LORAWAN SK-IN | 4,250 € |
| Libelium-Simfony LoRaWAN Smart Parking SK BS Multitech APLA AS | SP SIMFONY LORAWAN SK-APLA AS | 4,250 € |
| Libelium-Yazamtec-Loriot LW Smart Parking SK BS Multitech EU | SP-YAZ-Loriot-LW-SK-EU | 4,250 € |
| Libelium-Yazamtec-Loriot LW Smart Parking SK BS Multitech US | SP-YAZ-Loriot-LW-SK-US | 4,250 € |
| Libelium-Yazamtec-Loriot LW Smart Parking SK BS Multitech APLA AU | SP-YAZ-Loriot-LW-SK-APLA AU | 4,250 € |
| Libelium-Yazamtec-Loriot LW Smart Parking SK BS Multitech IN | SP-YAZ-Loriot-LW-SK-IN | 4,250 € |
| Libelium-Yazamtec-Loriot LW Smart Parking SK BS Multitech APLA AS | SP-YAZ-Loriot-LW-SK-APLA AS | 4,250 € |
| Libelium-Yazamtec-TTN LW Smart Parking SK BS Multitech EU | SP-YAZ-TTN-LW-SK-EU | 4,250 € |
| Libelium-Yazamtec-TTN LW Smart Parking SK BS Multitech US | SP-YAZ-TTN-LW-SK-US | 4,250 € |
| Libelium-Yazamtec-TTN LW Smart Parking SK BS Multitech APLA AU | SP-YAZ-TTN-LW-SK-APLA AU | 4,250 € |
| Libelium-Yazamtec-TTN LW Smart Parking SK BS Multitech IN | SP-YAZ-TTN-LW-SK-IN | 4,250 € |
| Libelium-Yazamtec-TTN LW Smart Parking SK BS Multitech APLA AS | SP-YAZ-TTN-LW-SK-APLA AS | 4,250 € |

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List of items included in the Libelium Smart Parking Solution Kits, LoRaWAN version:

| Item | Ref. | Quantity |
|--|---|----------|
| Smart Parking node <i>(versions are provided, depending on kit)</i> | SP-EU SP-US SP-APLA-AU SP-IN SP-APLA-AS | 10 |
| Smart Parking USB Programmer | SP-USB | 1 |
| Smart Parking Installation Key | SP-IK | 1 |
| Magnet for contactless reset | 10342 | 1 |
| Smart Parking Configuration Service | SP-CFG | 1 |
| Technical consultancy 2 hrs | TC-2 | 1 |
| Multitech LoRaWAN Base Station | | 1 |

Licenses for LoRaWAN connectivity are included, as well as the subscription for the partner's cloud service.



Intro

Configure your Hardware

Orders

Smart Agriculture IoT Vertical Kit



Application examples:

| Application | Description | Sensors |
|-------------------------|--|---|
| Wine Quality Enhancing | Monitoring soil moisture in vineyards to control the amount of sugar in grapes and grapevine health | Soil moisture, soil temperature, humidity, leaf wetness, atmospheric pressure |
| Greenhouses | Control micro-climate conditions to maximize the production of fruits and vegetables | Soil moisture, soil temperature, humidity, leaf wetness, atmospheric pressure |
| Golf Courses Irrigation | Selective irrigation in dry zones to reduce the water resources required in the green | Soil moisture (3 levels of depth) |
| Compost | Control of humidity and temperature levels in alfalfa, hay, straw, etc. to prevent fungus and other microbial contaminants | Humidity, soil moisture, soil temperature |

List of items included in the Smart Agriculture IoT Vertical Kit:

| Item | Ref. | Quantity |
|---|---------------|----------|
| Plug & Sense! Smart Agriculture-PRO 868/900 <i>EU [868], US, BR or AU [900] versions are provided, depending on kit)</i> | SAPB-868/900 | 1 |
| Plug & Sense! Smart Agriculture 868/900 <i>EU [868], US, BR or AU [900] versions are provided, depending on kit)</i> | SAB-868/900 | 1 |
| Temperature, Humidity and Pressure probe | 9370-P | 2 |
| Soil moisture 1.5 m sensor probe | 9248-P | 1 |
| Soil moisture 4.5 m sensor probe | 9324-P | 2 |
| Solar radiation (PAR) sensor probe | 9251-P | 1 |
| Soil/Water temperature (Pt-1000) sensor probe | 9255-P | 1 |
| Soil temperature (DS18B20) Probe | 86949-P | 1 |
| Leaf wetness sensor probe | 9249-P | 2 |
| WS-3000 (anemometer + wind vane + pluviometer) sensor probe | 9256-P | 1 |
| External solar panel (power accessory for Plug & Sense!) | PAPS-ESP | 2 |
| Outdoors USB cable | 256369 | 2 |
| International adapter | 10280 | 3 |
| Meshlium 4G 868/900 AP <i>(EU/BR, US or AU versions are provided, depending on kit)</i> <i>(EU/BR and US versions feature a GPS receiver)</i> | M4G-868/900 | 1 |
| Technical consultancy 2 hrs | TC-2 | 1 |
| P&S! Programming Service (kit of Marketplace) | PROG-Mktplace | 1 |
| Meshlium visualization interface | MVIS | 1 |



Ref / Total Price

SAIVK-EU/ 4,150 €
SAIVK-US/ 4,150 €
SAIVK-BR/ 4,150 €
SAIVK-AU/ 4,150 €

*Includes Meshlium Sensor Visualizer interface – 100 times free access limit. After 100 log-ins a license fee can be acquired to keep on using it.
We do not provide these codes, the nodes are already programmed in Libelium. Do not overwrite the code.*

Intro

Configure your Hardware

Orders

Smart Agriculture Xtreme IoT Vertical Kits



Application examples:

| Application | Description | Sensors |
|------------------------|--|--|
| Wine Quality Enhancing | Monitoring soil moisture and temperature, humidity and leaf wetness sensors, allows to control the grapevine health and grape quality, as well as to control micro-climate conditions to maximize the production | Ambient parameters (weather conditions, radiation...), soil moisture, conductivity and temperature, leaf wetness |
| Greenhouses | Production of 4th generation of crops: baby leaves, strawberries, tomatoes... | Radiation, air temperature and humidity, leaf wetness, soil moisture, conductivity and temperature |
| Parks and Gardens | Controlling the irrigation system and the usage of water resources | Soil moisture, conductivity and temperature |
| Fruit Production | Improving crops production and reducing pests: olive, orchards, bananas... | Ambient parameters (weather conditions, radiation...), soil moisture, conductivity and temperature, leaf wetness |

Intro

Configure your Hardware

Orders

List of items included in the Smart Agriculture Xtreme IoT Vertical Kit:

| Item | Ref. | Quantity |
|---|---------------|----------|
| Plug & Sense! Smart Agriculture Xtreme 868/900 <i>EU [868], US, BR or AU [900] versions are provided, depending on kit)</i> | SAXB-868/900 | 2 |
| Weather station GMX-240 (W-PO) probe | 9463-P | 1 |
| Vapor pressure, humidity, temperature and pressure in soil and air probe | 9471-P | 2 |
| Conductivity, water content and soil temperature 5TE probe | 9402-P | 2 |
| Leaf wetness Phytos 31 probe | 9466-P | 2 |
| Solar radiation (PAR) probe for Smart Agriculture Xtreme | 9251-PX | 1 |
| External solar panel (power accessory for Plug & Sense!) | PAPS-ESP | 2 |
| Outdoors USB cable | 256369 | 2 |
| International adapter | 10280 | 3 |
| Meshlium 4G 868/900 AP <i>(EU/BR, US or AU versions are provided, depending on kit) (EU/BR and US versions feature a GPS receiver)</i> | M4G-868/900 | 1 |
| Technical consultancy 2 hrs | TC-2 | 1 |
| P&S! Programming Service (kit of Marketplace) | PROG-Mktplace | 1 |
| Meshlium visualization interface | MVIS | 1 |

*Includes Meshlium Sensor Visualizer interface – 100 times free access limit. After 100 log-ins a license fee can be acquired to keep on using it.
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Ref / Total Price

SAXIVK-EU – 7,350 €
SAXIVK-US – 7,350 €
SAXIVK-BR – 7,350 €
SAXIVK-AU – 7,350 €

Intro

Configure your Hardware

Orders

List of items included in the Smart Agriculture Xtreme Basic IoT Vertical Kit:

BASIC

| Item | Ref. | Quantity |
|---|---------------|----------|
| Plug & Sense! Smart Agriculture Xtreme 868/900 <i>EU [868], US, BR or AU [900] versions are provided, depending on kit)</i> | SAXB-868/900 | 1 |
| Weather station GMX-240 (W-PO) probe | 9463-P | 1 |
| Vapor pressure, humidity, temperature and pressure in soil and air probe | 9471-P | 1 |
| Conductivity, water content and soil temperature 5TE probe | 9402-P | 1 |
| Leaf wetness Phytos 31 probe | 9466-P | 1 |
| Solar radiation (PAR) probe for Smart Agriculture Xtreme | 9251-PX | 1 |
| External solar panel (power accessory for Plug & Sense!) | PAPS-ESP | 1 |
| Outdoors USB cable | 256369 | 1 |
| International adapter | 10280 | 2 |
| Meshlium 4G 868/900 AP <i>(EU/BR, US or AU versions are provided, depending on kit) (EU/BR and US versions feature a GPS receiver)</i> | M4G-868/900 | 1 |
| Technical consultancy 2 hrs | TC-2 | 1 |
| P&S! Programming Service (kit of Marketplace) | PROG-Mktplace | 1 |
| Meshlium visualization interface | MVIS | 1 |

*Includes Meshlium Sensor Visualizer interface – 100 times free access limit. After 100 log-ins a license fee can be acquired to keep on using it.
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Ref / Total Price

SAXBIVK-EU – 5,600 €
SAXBIVK-US – 5,600 €
SAXBIVK-BR – 5,600 €
SAXBIVK-AU – 5,600 €

Intro

Configure your Hardware

Orders

Smart Environment IoT Vertical Kit



Application examples:

| Application | Description | Sensors |
|-----------------------|---|---|
| Forest Fire Detection | Monitoring of combustion gases and preemptive fire conditions to define alert zones | CO, CO ₂ , temperature, humidity |
| Air Pollution | Control of CO ₂ emissions, pollution from cars and toxic gases generated in factories or farms | CO, CO ₂ |
| Indoor Air Quality | Monitoring of gas levels and environmental conditions inside chemical plants to ensure workers and goods safety | CO, CO ₂ , temperature, humidity |

Intro

Configure your Hardware

Orders

List of items included in the Smart Environment IoT Vertical Kit:

| Item | Ref. | Quantity |
|---|------------------|----------------|
| Plug & Sense! Smart Environment-PRO 868/900 <i>EU [868], US, BR or AU [900] versions are provided, depending on kit)</i> | SEP8-868/900 | 1 |
| Plug & Sense! Smart Agriculture 868/900 <i>EU [868], US, BR or AU [900] versions are provided, depending on kit)</i> | SAB-868/900 | 1 |
| Temperature, Humidity and Pressure Sensor Probe | 9370-P | 1 |
| Carbon Monoxide (CO) for low concentrations Sensor Probe (Calibrated)* | 9371-LC-P | 1 |
| Carbon Dioxide (CO ₂) Sensor Probe (Calibrated)* | 9372-P | 1 |
| WS-3000 (anemometer + wind vane + pluviometer) sensor probe | 9256-P | 1 |
| External solar panel (power accessory for Plug & Sense!) | PAPS-ESP | 2 |
| Outdoors USB cable | 256369 | 2 |
| International adapter | 10280 | 3 |
| Meshlium 4G 868/900 AP <i>(EU/BR, US or AU versions are provided, depending on kit) (EU/BR and US versions feature a GPS receiver)</i> | M4G-868/900 | 1 |
| Technical consultancy 2 hrs | TC-2 | 1 |
| P&S! Programming Service (kit of Marketplace) | PROG-Mktplace | 1 |
| Meshlium visualization interface | MVIS | 1 |
| Ref / Total Price | SEIVK-EU/ | 4,500 € |
| | SEIVK-US/ | 4,500 € |
| | SEIVK-BR/ | 4,500 € |
| | SEIVK-AU/ | 4,500 € |



Includes Meshlium Sensor Visualizer interface – 100 times free access limit. After 100 log-ins a license fee can be acquired to keep on using it.
We do not provide these codes, the nodes are already programmed in Libelium. Do not overwrite the code.
*Calibrated gas sensors are manufactured once the order has been placed to ensure maximum durability of the calibration feature. Manufacturing process and delivery may take from 4 to 6 weeks. Lifetime of calibrated gas sensors is 6 months working at maximum accuracy. We strongly encourage our customers to buy extra gas sensor probes to replace the original ones after that time to ensure maximum accuracy and performance.

Intro

Configure your Hardware

Orders

Smart Water IoT Vertical Kit



Application examples:

| Application | Description | Sensors |
|--|--|-------------------------------------|
| Water treatment plants | Monitor the quality of water in treatment plants | pH, ORP, DO, Conductivity, Salinity |
| Water quality monitoring in irrigation | Tanks and lakes can be monitored to ensure the quality in irrigation for Agriculture | pH, ORP, DO |
| Fishfarmings | The efficiency in fishfarming production can be increased by monitoring the quality of water | pH, ORP, DO, Conductivity, Salinity |
| Chemical leakages | Detect leakages and wastes of factories in rivers. Extreme pH values signal chemical spills. | pH, DO |
| Swimming pool remote measurement | Control remotely the swimming pool conditions | pH, ORP |

Intro

Configure your Hardware

Orders

List of items included in the Smart Water IoT Vertical Kit:

| Item | Ref. | Quantity |
|--|---------------|----------|
| Plug & Sense! Smart Water 868/900 <i>(EU [868], US, BR or AU [900] versions are provided, depending on kit)</i> | SWB-868/900 | 2 |
| Conductivity Sensor Probe | 9326-P | 2 |
| pH Sensor Probe | 9328 | 2 |
| Oxidation Reduction Potential Sensor Probe | 9329 | 2 |
| Conductivity Calibration Kit, K=0.1 | 9339 | 1 |
| Conductivity Calibration Kit, K=1 | 9340 | 1 |
| Conductivity Calibration Kit, K=10 | 9341 | 1 |
| ORP Calibration Solution | 9344 | 1 |
| pH Calibration Kit | 9343 | 1 |
| Dissolved Oxygen Sensor Probe | 9327 | 2 |
| DO Calibration Kit | 9342 | 1 |
| External solar panel (power accessory for Plug & Sense!) | PAPS-ESP | 2 |
| Outdoors USB cable | 256369 | 2 |
| International adapter | 10280 | 3 |
| Meshlium 4G 868/900 AP <i>((EU/BR, US or AU versions are provided, depending on kit) (EU/BR and US versions feature a GPS receiver)</i> | M4G-868/900 | 1 |
| Technical consultancy 2 hrs | TC-2 | 1 |
| Plug & Sense! Programming Service (kit of Marketplace) | PROG-mktplace | 1 |
| Meshlium visualization interface | MVIS | 1 |



Ref / Total Price

| | |
|-----------|---------|
| SWIVK-EU/ | 5,200 € |
| SWIVK-US/ | 5,200 € |
| SWIVK-BR/ | 5,200 € |
| SWIVK-AU/ | 5,200 € |

Includes Meshlium Sensor Visualizer interface – 100 times free access limit. After 100 log-ins a license fee can be acquired to keep on using it.
We do not provide these codes, the nodes are already programmed in Libelium. Do not overwrite the code.
(* Soil/Water temperature (Pt-1000) included in Plug & Sense! Smart Water.

Intro

Configure your Hardware

Orders

Smart Water Xtreme IoT Vertical Kit



Application examples:

| Application | Description | Sensors |
|--|--|--|
| Water treatment plants | Monitor the quality of water in treatment plants | pH, ORP, DO, Conductivity, Salinity, Suspended Solid and Turbidity |
| Water quality monitoring in irrigation | Tanks and lakes can be monitored to ensure the quality in irrigation for Agriculture | pH, ORP, DO |
| Fishfarmings | The efficiency in fishfarming production can be increased by monitoring the quality of water | pH, ORP, DO, Conductivity, Salinity |
| Chemical leakages | Detect leakages and wastes of factories in rivers. Extreme pH values signal chemical spills. | pH, DO |
| Swimming pool remote measurement | Control remotely the swimming pool conditions | pH, ORP |

Intro

Configure your Hardware

Orders

List of items included in the Smart Water Xtreme IoT Vertical Kit:

| Item | Ref. | Quantity |
|--|--------------|----------|
| Plug & Sense! Smart Water Xtreme 868/900 <i>(EU [868], US, BR or AU [900] versions are provided, depending on kit)</i> | SWXB-868/900 | 1 |
| pH, ORP and temperature PHEHT sensor probe | 9485-P | 1 |
| Conductivity, salinity and temperature C4E sensor probe | 9486-P | 1 |
| Optical dissolved oxygen and temperature OPTOD sensor probe | 9488-P | 1 |
| Suspended solid, turbidity, sludge blanket and temperature MESS5 sensor probe | 9490-P | 1 |
| pH Calibration Kit | 9343 | 1 |
| ORP Calibration Solution | 9344 | 1 |
| Conductivity Calibration Kit, K=0.1 | 9339 | 1 |
| Conductivity Calibration Kit, K=1 | 9340 | 1 |
| Conductivity Calibration Kit, K=10 | 9341 | 1 |
| DO Calibration Kit | 9342 | 1 |
| Turbidity calibration solution, 4000 NTU | 72465 | 1 |
| Storage solution for PHEHT probe | 72464 | 1 |
| External solar panel (power accessory for Plug & Sense!) | PAPS-ESP | 1 |
| 220V - USB adapter | 6006 | 1 |
| Outdoors USB cable | 256369 | 1 |
| International adapter | 10280 | 2 |
| Meshlium 4G 868/900 AP <i>((EU/BR, US or AU versions are provided, depending on kit) (EU/BR and US versions feature a GPS receiver)</i> | M4G-868/900 | 1 |

| Item | Ref. | Quantity |
|--|---------------|----------|
| Technical consultancy 2 hrs | TC-2 | 1 |
| Plug & Sense! Programming Service (kit of Marketplace) | PROG-mktplace | 1 |
| Meshlium visualization interface | MVIS | 1 |



Includes Meshlium Sensor Visualizer interface – 100 times free access limit. After 100 log-ins a license fee can be acquired to keep on using it.
We do not provide these codes, the nodes are already programmed in Libelium. Do not overwrite the code.

Ref / Total Price

SWXIVK-EU – 10,950 €
SWXIVK-US – 10,950 €
SWXIVK-BR – 10,950 €
SWXIVK-AU – 10,950 €

Intro

Configure your Hardware

Orders

List of items included in the Smart Water Xtreme Basic IoT Vertical Kit:

| Item | Ref. | Quantity |
|--|--------------|----------|
| Plug & Sense! Smart Water Xtreme 868/900 <i>(EU [868], US, BR or AU [900] versions are provided, depending on kit)</i> | SWXB-868/900 | 1 |
| pH, ORP and temperature PHEHT sensor probe | 9485-P | 1 |
| Conductivity, salinity and temperature C4E sensor probe | 9486-P | 1 |
| Optical dissolved oxygen and temperature OPTOD sensor probe | 9488-P | 1 |
| pH Calibration Kit | 9343 | 1 |
| ORP Calibration Solution | 9344 | 1 |
| Conductivity Calibration Kit, K=0.1 | 9339 | 1 |
| Conductivity Calibration Kit, K=1 | 9340 | 1 |
| Conductivity Calibration Kit, K=10 | 9341 | 1 |
| DO Calibration Kit | 9342 | 1 |
| Storage solution for PHEHT probe | 72464 | 1 |
| External solar panel (power accessory for Plug & Sense!) | PAPS-ESP | 1 |
| 220V - USB adapter | 6006 | 1 |
| Outdoors USB cable | 256369 | 1 |
| International adapter | 10280 | 2 |
| Meshlium 4G 868/900 AP <i>((EU/BR, US or AU versions are provided, depending on kit) (EU/BR and US versions feature a GPS receiver)</i> | M4G-868/900 | 1 |
| Technical consultancy 2 hrs | TC-2 | 1 |

| Item | Ref. | Quantity |
|--|---------------|----------|
| Plug & Sense! Programming Service (kit of Marketplace) | PROG-mktplace | 1 |
| Meshlium visualization interface | MVIS | 1 |



Includes Meshlium Sensor Visualizer Interface – 100 times free access limit. After 100 log-ins a license fee can be acquired to keep on using it.
We do not provide these codes, the nodes are already programmed in Libelium. Do not overwrite the code.

Ref / Total Price

SWXBIVK-EU – 6,000 €
SWXBIVK-US – 6,000 €
SWXBIVK-BR – 6,000 €
SWXBIVK-AU – 6,000 €

Intro

Configure your Hardware

Orders

Air Quality Index IoT Vertical Kit



Application examples:

| Application | Description | Sensors |
|------------------------------|---|--|
| Air Quality Index monitoring | Monitor the overall quality of the air with maximum accuracy and according to international standards | Temperature, Humidity and Pressure, Carbon Monoxide (CO), Ozone (O ₃), Nitric Dioxide (NO ₂), Sulfur Dioxide (SO ₂), Particle Matter (PM1 / PM2.5 / PM10) - Dust |

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List of items included in the Air Quality Index IoT Vertical Kit:

| Item | Ref. | Quantity |
|--|---------------|----------|
| P&S! SE-PRO 802.15.4 <i>(EU version is provided for the European kit)</i> | SEP8-802 | 1 |
| Temperature, Humidity and Pressure | 9370-P | 1 |
| Carbon Monoxide (CO) for low concentrations (Calibrated)* | 9371-LC-P | 1 |
| Ozone (O ₃) (Calibrated)* | 9374-P | 1 |
| Nitric Dioxide high accuracy (NO ₂) (Calibrated)* | 9376-HA-P | 1 |
| Sulfur Dioxide high accuracy (SO ₂) (Calibrated)* | 9377-HA-P | 1 |
| Particle Matter (PM1 / PM2.5 / PM10) - Dust | 9387-P | 1 |
| External solar panel (power accessory for Plug & Sense!) | PAPS-ESP | 1 |
| Outdoors USB cable | 256369 | 2 |
| International adapter | 10280 | 3 |
| Meshlium 4G 802.15.4 AP <i>(EU/BR, US or AU versions are provided, depending on kit)</i> <i>(EU/BR and US versions feature a GPS receiver)</i> | M4G-802 | 1 |
| Technical consultancy 2 hrs | TC-2 | 1 |
| Plug & Sense! Programming Service (kit of Marketplace) | PROG-mktplace | 1 |
| Meshlium visualization interface | MVIS | 1 |



Includes Meshlium Sensor Visualizer interface – 100 times free access limit. After 100 log-ins a license fee can be acquired to keep on using it.
We do not provide these codes, the nodes are already programmed in Libelium. Do not overwrite the code.
*Calibrated gas sensors are manufactured once the order has been placed to ensure maximum durability of the calibration feature. Manufacturing process and delivery may take from 4 to 6 weeks. Lifetime of calibrated gas sensors is 6 months working at maximum accuracy. We strongly encourage our customers to buy extra gas sensor probes to replace the original ones after that time to ensure maximum accuracy and performance.

| Ref / Total Price | |
|-------------------|--------------------|
| | AQIIVK-EU/ 5,350 € |
| | AQIIVK-US/ 5,350 € |
| | AQIIVK-BR/ 5,350 € |
| | AQIIVK-AU/ 5,350 € |

Intro

Configure your Hardware

Orders

Smart Industrial Protocols IoT Vertical Kit



Application examples:

| Application | Description |
|---|--|
| Connect any sensor to an existing industrial bus (RS-485 in this kit) | Plug & Sense! can be configured to work as a node in the network, inserting sensor data into the industrial bus already present |
| Add wireless connectivity to wired buses | Plug & Sense! can be configured to read the information coming from the bus and send it to Meshlium using any of the wireless radio modules available (802.15.4 in this kit) |
| Connect industrial devices to the Cloud | Plug & Sense! can be configured to read the information coming from the bus and send it directly to the Cloud using 4G or WiFi radio modules (not present in this kit). Additionally, Meshlium offers different cloud connectors that flow data directly to cloud platforms. |

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Configure your Hardware

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List of items included in the Smart Industrial Protocols IoT Vertical Kit:

| Item | Ref. | Quantity |
|--|---------------|----------|
| Plug & Sense! 4-20 mA 802.15.4 (Industrial ready) <i>(EU version is provided for the European kit)</i> | 420B-802-IIPP | 1 |
| Plug & Sense! AC 802.15.4 (Industrial ready) <i>(EU version is provided for the European kit)</i> | ACB-802-IIPP | 1 |
| RS-485 / Modbus Module | RS-485-PS | 2 |
| Temperature, Humidity and Pressure | 9370-P | 1 |
| Terminal box probe (accessory for Plug & Sense!) | 9270-P | 6 |
| DB9 probe (accessory for Plug & Sense!) | DB9-P | 2 |
| 220V adapter (power accessory for Plug & Sense!) | PAPS-220V | 2 |
| Outdoors USB cable | 256369 | 2 |
| International adapter | 10280 | 3 |
| Meshlium 4G 802.15.4 AP <i>(EU/BR, US or AU versions are provided, depending on kit)</i> <i>(EU/BR and US versions feature a GPS receiver)</i> | M4G-802 | 1 |
| Technical consultancy 2 hrs | TC-2 | 1 |
| Meshlium visualization interface | MVIS | 1 |



This kit does NOT include any programming service because the software cannot be standardized: each code will depend much on the chosen industrial device. That means the user will need to implement the code for the Plug & Sense! units.

Includes Meshlium Sensor Visualizer interface – 100 times free access limit. After 100 log-ins a license fee can be acquired to keep on using it. Meshlium Visualizer will show sensor data only if the codes create data frames as specified in the Technical Guides.

Ref / Total Price

SIPIVK-EU – 3,250 €

SIPIVK-US – 3,250 €

SIPIVK-BR – 3,250 €

SIPIVK-AU – 3,250 €

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More and New kits available at The IoT Marketplace!



The IoT Marketplace

———— Make it real ————

Interested in complete IoT kits?

Check our out-of-the-box kits containing programmed sensor devices connected to the best Cloud applications for use in pilots or proof of concept projects in the minimum time to market.

Get fully integrated solutions from hardware sensors to cloud applications to speed up IoT adoption.

www.the-iot-marketplace.com

Intro

Configure your Hardware

Orders

Evaluator Kit

This kit is designed to compare different radio technologies or create customized demos. It contains the most demanded products in our catalogue, so that you do not need to spend lots of time configuring your order. Four different versions are available for the markets of Europe, US&Canada, Brazil and Australia.

To ensure you start testing the products as soon as possible, we include 1 attendee place at Libelium Basic Training Course where you will learn from installing the IDE to program Waspote (more info about training courses on section [Support](#)).

Finally, we also include a 3-hour package of online technical consultancy, to solve quickly any doubt you may have when getting your hands on Waspote. Both training courses and consultancy hours are driven by Libelium R&D engineers.



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Configure your Hardware

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List of items included in the Evaluator Kit:

| | Item | Pieces | | Item | Pieces | | |
|---------------|--|--------------------|-------------|---|---------|---|-----------------------------|
| Communication | Waspnote 802.15.4 5 dBi <i>(EU version of the radio is provided for the European kit)</i> | 4 | Sensors | Temperature, humidity and pressure sensor | 2 | | |
| | Waspnote Gateway 802.15.4 5 dBi <i>(EU version of the radio is provided for the European kit)</i> | 1 | | Presence sensor (PIR) | 1 | | |
| | GSM / GPRS Module | 1 | | Luminosity (Luxes accuracy) sensor | 1 | | |
| | GPS Module | 1 | | Oxygen (O ₂) [Calibrated] | 1 | | |
| | 4G Module <i>(EU/BR, US or AU versions are provided, depending on kit) (EU/BR and US versions feature a GPS receiver)</i> | 1 | | Ultrasound sensor (indoor) | 1 | | |
| | Bluetooth Module PRO 5 dBi | 1 | | Soil / Water temperature sensor | 1 | | |
| | RS-485 Serial / Modbus Module, DB9 cable | 1 | | Soil moisture sensor | 1 | | |
| | WiFi module SMA5 | 1 | | Solar radiation (PAR) sensor | 1 | | |
| | | | | Weather Station WS-3000 (anemometer + wind vane + pluviometer) | 1 | | |
| | | | | Conductivity | 1 | | |
| Sensor Boards | Events Board | 1 | PH | 1 | Support | Attendee place at Libelium Basic Training Course* | 1 |
| | Smart Cities PRO Board | 1 | | | | Technical consultancy – 3 hours package | 1 |
| | Agriculture PRO Board | 1 | Accessories | Rigid Solar Panel 7V – 500mA | 2 | Ref/Price | WEVA-EU/ 3,300 €** ~4,600€ |
| | Smart Water | 1 | | 6600 mAh rechargeable battery | 4 | | WEVA-USA/ 3,300 €** ~4,600€ |
| | 4-20 mA (Current Loop) | 1 | | MicroSD 16GB card pack (5 units) | 1 | | WEVA-BR/ 3,300 €** ~4,600€ |
| | Expansion Radio Board Module | 2 | | Conductivity calibration kit, K=1 | 1 | | WEVA-AU/ 3,300 €** ~4,600€ |
| | | pH calibration kit | 1 | | | | |

* Please check our website or Support section for training courses calendar.
** When purchased as a kit, you save almost 35% on the retail price of these separate items.



Now that you have configured your hardware, go to the **Orders** section to place your order.



Intro

Configure your Hardware

Orders

MySignals SW and HW Complete Kits (eHealth Medical Development Platform): new version

MySignals is a development platform for medical devices and eHealth applications. You can use MySignals to develop your eHealth web, Android or iOS applications or even to add your own sensors to build new medical devices.

MySignals Kits include more than 17 sensors which can be used to monitor biometric signals; now they can be plugged on-the-fly. All the data gathered by MySignals is encrypted and sent via secure HTTPS to the user's private account at Libelium Cloud through WiFi or Bluetooth. The data can be displayed on the node's TFT screen or on a tablet or smartphone with Android or iPhone apps. Developers may use their own Cloud too to store the information.

Libelium offers an API's for developers to access the information. The API Cloud allows to access to the user's private account and get the information previously stored, to be displayed on a third party platform (data can also be stored in a third party Cloud).



More info at :
<http://www.my-signals.com>

Intro

Configure your Hardware

Orders

MySignals SW Complete Kit includes:

- MySignals SW (new version)
- Snore Sensor [PRO]
- Patient Position Sensor [PRO]
- ECG Sensor [PRO]
- EMG Sensor [PRO]
- GSR Sensor [PRO]
- Airflow (Breathing) Sensor [PRO]
- Body Temperature Sensor [PRO]
- Spirometer Sensor [PRO]
- Glucometer Sensor [PRO]
- Blood Pressure Sensor (Sphygmomanometer) [PRO]
- SPO2 Sensor [PRO] (Basic User Cloud plan)



| MySignals SW Complete Kit. | Ref. | Price |
|----------------------------|--------------|---------|
| Europe version | MS-SW-E KIT | 1,647 € |
| America version | MS-SW-A KIT | 1,647 € |
| UK version | MS-SW-UK KIT | 1,647 € |

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Configure your Hardware

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MySignals SW BLE Complete Kit includes:

- MySignals SW (new version)
- Snore Sensor [PRO]
- Patient Position Sensor [PRO]
- ECG Sensor [PRO]
- EMG Sensor [PRO]
- GSR Sensor [PRO]
- Airflow (Breathing) Sensor [PRO]
- Body Temperature Sensor [PRO] – Wireless [PRO] (battery included)
- Spirometer Sensor [PRO]
- SPO2 Sensor – Wireless [PRO] (batteries included)
- Blood Pressure Sensor (Sphygmomanometer) – Wireless [PRO] (rechargeable battery included)
- Glucometer Sensor – Wireless [PRO] (batteries included)
- Weight Sensor – Wireless [PRO] (batteries included)
- Alarm/Emergency Button – Wireless [PRO] (battery included)



| MySignals SW BLE Complete Kit. | Ref. | Price |
|--------------------------------|------------------|---------|
| Europe version | MS-SW-BLE-E KIT | 1,778 € |
| America version | MS-SW-BLE-A KIT | 1,778 € |
| UK version | MS-SW-BLE-UK KIT | 1,778 € |

Intro

Configure your Hardware

Orders

MySignals HW Complete Kit includes:

- MySignals HW
- Snore Sensor [PRO]
- Patient Position Sensor [PRO]
- ECG Sensor [PRO]
- EMG Sensor [PRO]
- GSR Sensor [PRO]
- Airflow (Breathing) Sensor [PRO]
- Body Temperature Sensor [PRO]
- Spirometer Sensor [PRO]
- Glucometer Sensor [PRO]
- Blood Pressure Sensor (Sphygmomanometer) [PRO]
- SPO2 Sensor [PRO]



| MySignals HW Complete Kit. | Ref. | Price |
|----------------------------|--------------|---------|
| Europe version | MS-HW-E KIT | 1,212 € |
| America version | MS-HW-A KIT | 1,212 € |
| UK version | MS-HW-UK KIT | 1,212 € |

This Kit needs an Arduino Uno.

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Configure your Hardware

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MySignals HW BLE Complete Kit includes:

- MySignals HW
- Snore Sensor [PRO]
- Patient Position Sensor [PRO]
- ECG Sensor [PRO]
- EMG Sensor [PRO]
- GSR Sensor [PRO]
- Airflow (Breathing) Sensor [PRO]
- Spirometer Sensor [PRO]
- Body Temperature Sensor – Wireless [PRO] (battery included)
- Spirometer Sensor [PRO]
- SPO2 Sensor – Wireless [PRO] (batteries included)
- Blood Pressure Sensor (Sphygmomanometer) – Wireless [PRO] (batteries included)
- Glucometer Sensor – Wireless [PRO] (batteries included)
- Weight Sensor – Wireless [PRO] (batteries included)
- Alarm/Emergency Button – Wireless [PRO] (battery included)



| MySignals HW BLE Complete Kit. | Ref. | Price |
|--------------------------------|------------------|---------|
| Europe version | MS-HW-BLE-E KIT | 1,343 € |
| America version | MS-HW-BLE-A KIT | 1,343 € |
| UK version | MS-HW-BLE-UK KIT | 1,343 € |

This Kit needs an Arduino Uno.

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Configure your Hardware

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There are plans for regular users and for developers depending on what usage you want to give to MySignals.

User Cloud Plans

The user plans are meant to be used to test the performance of MySignals. These are the best plans if you want to try in a quick and easy way the MySignals Kit including all the sensors on different users as each one can have its own profile. All the data is sent to the Libelium Cloud, so users do not need to set up their own servers.

| | Basic | PRO | Elite |
|--|--------------------------------------|-------------------------------------|--|
| Usage | Platform testing | Small Dev. Deployment | Professional Dev. Deployment |
| User profiles (members) | 5 | 50 | Unlimited |
| Departments | 1 | 10 | Unlimited |
| MySignals devices ¹ | 1 | 1 | 1 |
| Database storage | 0.1 GB (10 Million registers Approx) | 2 GB (200 Million registers Approx) | 6 GB ³ (600 Million registers Approx) |
| Traffic I/O ² | 2 GB | 5 GB | 15 GB ³ |
| Android / iOS Apps | ✓ | ✓ | ✓ |
| Point-to-point encryption | ✓ | ✓ | ✓ |
| Libelium Cloud access | ✓ | ✓ | ✓ |
| API Cloud (necessary to extract the information in third party servers) | X | X | X |
| Price | 99 €/year | 199 €/year | 499 €/year |

Important: You can always use MySignals at no cost in the standalone mode

^{*1} Note that each licence is per MySignals Device

^{*2} To avoid illicit use of the network, there is a daily max transmission rate

^{*3} For specific plans contact our Business Dev Team (sales@libelium.com)

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Developer Cloud Plans

The developers plans are the best option for users who want to store the data gathered by MySignals in their own servers. This type of plans allow to use the Cloud API to read the information from the Libelium Cloud and write it in their own Cloud platforms.

| | Basic | PRO | Elite |
|---|--------------------------------------|-------------------------------------|--|
| Usage | Platform testing | Small Dev. Deployment | Professional Dev. Deployment |
| User Profiles (members) | 5 | 50 | Unlimited |
| Departments | 1 | 10 | Unlimited |
| MySignals Devices ¹ | 1 | 1 | 1 |
| DB storage | 0.1 GB (10 Million registers Approx) | 2 GB (200 Million registers Approx) | 6 GB ³ (600 Million registers Approx) |
| Traffic I/O ² | 5 GB | 15 GB | 50 GB ³ |
| Android / iOS Apps | ✓ | ✓ | ✓ |
| Encryption Point to Point | ✓ | ✓ | ✓ |
| Libelium Cloud Access | ✓ | ✓ | ✓ |
| API Cloud (Necessary to extract the information to a third party server) | ✓ | ✓ | ✓ |
| Price | 199€/year | 299€/year | 599€/year |

Important: You can always use MySignals at no cost in the standalone mode

*1 Note that each licence is per MySignals Device

*2 To avoid illicit use of the network, there is a daily max transmission rate

*3 For specific plans contact our Business Dev Team (sales@libelium.com)



Now that you have configured your hardware, go to the **Orders** section to place your order.



Intro Models Power Options Accessories Data Support Orders

Wasmote Plug & Sense!: technology ready to install

Wasmote Plug & Sense! is the the best option to use in commercial deployments. It has been designed with a robust waterproof enclosure that simplifies installation and maintenance process. Moreover, you can order them factory-programmed saving you development costs and time. The result is a ready to install and easy to deploy sensor device that reduces time to market in any application. You can focus on your customer and forget about the sensing part. Besides, the platform is market-ready because it is certified for the main regions in the world.

| | |
|-------------------|---|
| Any scenario | <ul style="list-style-type: none"> • 120+ sensors available, up to 6 sensors per sensor device • Communication: 802.15.4, 868 MHz, 900 MHz, WiFi, 4G, Sigfox and LoRaWAN • Industrial protocols: RS-485, Modbus, CAN Bus • GPS receiver |
| For real projects | <ul style="list-style-type: none"> • Robust waterproof IP65 enclosure • Solar powered, external panel option |
| Fast installation | <ul style="list-style-type: none"> • Factory-programmed and configured • Special holders and brackets to install in street lights and building fronts • On / Off external button • External socket for SIM card |
| Easy maintenance | <ul style="list-style-type: none"> • Remote firmware upgrades of multiple nodes at once (OTAP) • Replace or add a sensor probe in seconds • External, contactless device-reset with magnet |
| Fully certified | <ul style="list-style-type: none"> • CE (Europe) • FCC (US) • IC (Canada) • ANATEL (Brazil) • RCM (Australia) • PTCRB (cellular certification for US) • AT&T (cellular certification for US) |



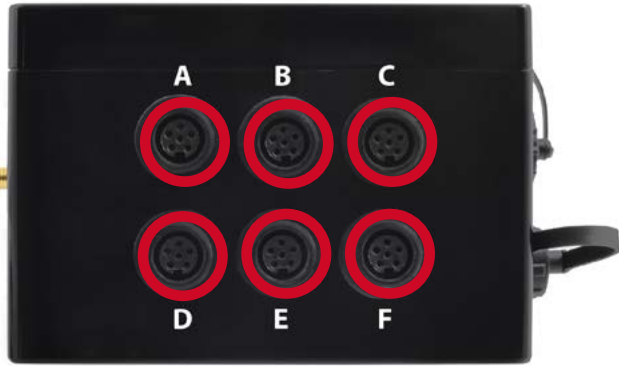
Configuring your Plug & Sense! device

You can customize any Wasmote Plug & Sense! model by choosing the radio, power option, sensors and optional accessories. Any Plug & Sense! always comes with a rechargeable 6600 mA·h battery included.

Since each sensor has different power requirements and dedicated circuitry, sensor probes can be attached only to certain sockets (named A - F in the figure). There is a sensors table in all the models explaining all the possible connections between sensor probes and sockets.

Each socket supports **one sensor at the same time**




Each socket supports one sensor at the same time



| Sensor | Sockets | | | | | |
|-----------------|---------|---|---|---|---|---|
| | A | B | C | D | E | F |
| Temperature | ✓ | | | | | |
| Humidity | | ✓ | | | | |
| CO ₂ | | | ✓ | | | |
| NO ₂ | | | | ✓ | | |
| O ₂ | | | | | ✓ | |
| CO | ✓ | | | | | ✓ |

In this example the CO Sensor can be connected to the socket A or F indistinctly

Choosing your Plug & Sense! model

| Smart Agriculture | Smart Agriculture PRO | Smart Agriculture Xtreme | |
|---|---|--|--|
|  |  |  | |
| <ul style="list-style-type: none"> - Temperature, Humidity and Pressure - Anemometer + Wind vane + Pluviometer - Soil moisture (1.5, 4.5, 8 m) - Soil temperature - Leaf wetness - Luminosity (Luxes accuracy) - Ultrasound (outdoor IP67) | <ul style="list-style-type: none"> - Soil / Water temperature - Solar radiation (PAR) - Trunk diameter - Stem diameter - Fruit diameter - Temperature, Humidity and Pressure - Soil moisture (1.5, 4.5, 8 m) - Leaf wetness - Anemometer + Wind vane + Pluviometer - Luminosity (Luxes accuracy) - Ultrasound (outdoor IP67) | <ul style="list-style-type: none"> - Non-contact surface temperature measurement SI-411 - Leaf and flower bud temperature SF-421 - Conductivity, water content and soil temperature GS3 - Conductivity, water content and soil temperature 5TE - Soil temperature and volumetric water content 5TM - Vapor pressure, humidity, temperature, and atmospheric pressure in soil and air VP-4 - Soil water potentials MPS-6 - Leaf wetness Phytos 31 - Wind and precipitations - Solar radiation (PAR) SQ-110 - Ultraviolet radiation SU-100 - Trunk diameter DC2 - Soil oxygen level SO-411 - Shortwave radiation SP-510 - Stem diameter DD-S - Fruit diameter DF | |

Intro **Models** Power Options Accessories Data Support Orders

Smart Environment PRO Smart Water Smart Water Xtreme Smart Water Ions Smart Cities PRO



| | | | | |
|---|--|--|---|---|
| <ul style="list-style-type: none"> - Particle Matter (PM1 / PM2.5 / PM10) Dust Sensor - CO - H₂ - Cl₂ - CO₂ - H₂S - NH₃ - O₂ - HCl - SO₂ - O₃ - HCN - NO - PH₃ - NO₂ - ETO - CH₄ (and other combustible gases) - Temperature, Humidity and Pressure - Luminosity (Luxes accuracy) - Ultrasound (outdoor IP67) | <ul style="list-style-type: none"> - Soil / Water temperature - Conductivity - Dissolved Oxygen - pH - Oxidation-Reduction Potential - Turbidity | <ul style="list-style-type: none"> - Optical dissolved oxygen and temperature OPTOD - Titanium optical dissolved oxygen and temperature OPTOD - pH, ORP and temperature PHEHT - Conductivity, salinity and temperature C4E - Inductive conductivity, salinity and temperature CTZN - Turbidity and temperature NTU - Suspended solids, turbidity, sludge blanket and temperature MESS - Temperature, Humidity and Pressure - Luminosity (Luxes accuracy) - Ultrasound (outdoor IP67) - Manta+ 40 - Chlorophyll - BGA - Nitrate - Organic matter CDOM/FDOM | <ul style="list-style-type: none"> - Ammonium (NH₄⁺)NH₃ - Bromide (Br⁻) - H₂ - Calcium (Ca²⁺) - H₂S - Chloride (Cl⁻) - HCl - Cupric (Cu²⁺) - HCN - Fluoride (F⁻) - PH₃ - Iodide (I⁻) - ETO - Fluoroborate (BF₄⁻) - Lithium (Li⁺) - Nitrate (NO₃⁻) - Nitrite (NO₂⁻) - Magnesium (Mg²⁺) - Perchlorate (ClO₄⁻) - Potassium (K⁺) - Silver (Ag⁺) - Sodium (Na⁺) - pH - Soil / Water Temperature | <ul style="list-style-type: none"> - Noise / Sound Level - Particle Matter (PM1 / PM2.5 / PM10) - Dust Sensor - CO - CO₂ - O₂ - O₃ - NO - NO₂ - SO₂ - Cl₂ - CH₄ (and other combustible gases) - Temperature, Humidity and Pressure - Luminosity (Luxes accuracy) - Ultrasound (outdoor IP67) |
|---|--|--|---|---|

Intro **Models** Power Options Accessories Data Support Orders

Smart Parking Smart Security 4 - 20 mA (Current Loop) Radiation Control Ambient Control Traffic Congestion



| | | | | | |
|--|--|--|--|---|--|
| <ul style="list-style-type: none"> - Magnetic field (3 axis): <ul style="list-style-type: none"> · X axis · Y axis · Z axis | <ul style="list-style-type: none"> - Temperature, Humidity and Pressure - Presence (PIR) - Horizontal liquid level (water / combustibles) - Water leakage (point / line) - Hall effect - Water flow small - Water flow medium - Water flow large - Relay Input-Output - Luminosity (Luxes accuracy) - Ultrasound (outdoor IP67) | <ul style="list-style-type: none"> - Sensors and instruments - Remote transducers - Monitoring processes - Data transmission in industrial ambients - The user can choose among a wide variety of standard sensors <ul style="list-style-type: none"> - Chloride - Sodium - Calcium - Ammonium | <ul style="list-style-type: none"> - Geiger tube [β, γ] (Beta and Gamma) | <ul style="list-style-type: none"> - Temperature, Humidity and Pressure - Luminosity (LDR) - Luminosity (Luxes accuracy) | <ul style="list-style-type: none"> - As well as working as IoT gateway for the Wasmote and Plug & Sense! sensor nodes, Meshlium can detect WiFi and Bluetooth devices, like smart-phones and tablets. This enables the user to calculate the number of people passing through the range area. |
|--|--|--|--|---|--|

Smart Agriculture

This model allows the deployment of any Precision Agriculture application. Due to the complexity of some sensors, there are two versions: Smart Agriculture and Smart Agriculture-PRO.

| Communication options | Ref. | Price |
|--|--------------|-------|
| Plug & Sense! SA 802.15.4 EU | SAB-802-EU | 570 € |
| Plug & Sense! SA 802.15.4 | SAB-802 | 570 € |
| Plug & Sense! SA WiFi | SAB-W | 570 € |
| Plug & Sense! SA 868 | SAB-868 | 571 € |
| Plug & Sense! SA 900 US | SAB-900-US | 600 € |
| Plug & Sense! SA 900 BR | SAB-900-BR | 600 € |
| Plug & Sense! SA 900 AU | SAB-900-AU | 600 € |
| Plug & Sense! SA 4G EU/BR* | SAB-4G-EU/BR | 816 € |
| Plug & Sense! SA 4G US* | SAB-4G-US | 816 € |
| Plug & Sense! SA 4G AU | SAB-4G-AU | 744 € |
| Plug & Sense! SA LoRaWAN EU | SAB-LW-EU | 552 € |
| Plug & Sense! SA LoRaWAN US | SAB-LW-US | 552 € |
| Plug & Sense! SA LoRaWAN AU | SAB-LW-AU | 552 € |
| Plug & Sense! SA LoRaWAN IN | SAB-LW-IN | 552 € |
| Plug & Sense! SA LoRaWAN ASIA-PAC / LATAM | SAB-LW-APL | 552 € |
| Plug & Sense! SA Sigfox EU ** | SAB-SF-EU | 552 € |
| Plug & Sense! SA Sigfox US ** | SAB-SF-US | 558 € |
| Plug & Sense! SA Sigfox AU / APAC / LATAM ** | SAB-SF-AAPL | 558 € |



**Looking for a working and programmed demo with this product?
Try our out-of-the-box IoT Vertical kits!**

** This device includes a GPS receiver. ** Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country. Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our [Sales Team](#) for more info.*

We provide prices in USD to US customers. Please submit your RFQ, and we will provide you with the USD prices.

Intro **Models** Power Options Accessories Data Support Orders

| Sensor | Sockets | | | | | | Ref. | Price |
|--|---------|---|---|---|---|---|---------|-------|
| | A | B | C | D | E | F | | |
| Temperature, Humidity and Pressure | | | | ✓ | | ✓ | 9370-P | 55 € |
| Soil moisture 1.5 m | | ✓ | ✓ | | ✓ | | 9248-P | 65 € |
| Soil moisture 4.5 m | | ✓ | ✓ | | ✓ | | 9324-P | 80 € |
| Soil moisture 8 m | | ✓ | ✓ | | ✓ | | 9323-P | 90 € |
| Soil temperature (DS18B20) | | | | ✓ | | | 86949-P | 19 € |
| WS-3000 (anemometer + wind vane + pluviometer) | ✓ | | | | | | 9256-P | 75 € |
| Leaf wetness | | | | | ✓ | | 9249-P | 10 € |
| Luminosity (Luxes accuracy) | | | | ✓ | | ✓ | 9325-P | 47 € |
| Ultrasound | | | | ✓ | | ✓ | 9246-P | 275 € |

Smart Agriculture PRO

The PRO version accepts more sensors than the Standard version.

| Communication options | Ref. | Price |
|--|---------------|-------|
| Plug & Sense! SA-PRO 802.15.4 EU | SAPB-802-EU | 600 € |
| Plug & Sense! SA-PRO 802.15.4 | SAPB-802 | 600 € |
| Plug & Sense! SA-PRO WiFi | SAPB-W | 600 € |
| Plug & Sense! SA-PRO 868 | SAPB-868 | 601 € |
| Plug & Sense! SA-PRO 900 US | SAPB-900-US | 636 € |
| Plug & Sense! SA-PRO 900 BR | SAPB-900-BR | 636 € |
| Plug & Sense! SA-PRO 900 AU | SAPB-900-AU | 636 € |
| Plug & Sense! SA-PRO 4G EU/BR* | SAPB-4G-EU/BR | 864 € |
| Plug & Sense! SA-PRO 4G US* | SAPB-4G-US | 864 € |
| Plug & Sense! SA-PRO 4G AU | SAPB-4G-AU | 792 € |
| Plug & Sense! SA-PRO LoRaWAN EU | SAPB-LW-EU | 570 € |
| Plug & Sense! SA-PRO LoRaWAN US | SAPB-LW-US | 570 € |
| Plug & Sense! SA-PRO LoRaWAN AU | SAPB-LW-AU | 570 € |
| Plug & Sense! SA-PRO LoRaWAN IN | SAPB-LW-IN | 570 € |
| Plug & Sense! SA-PRO LoRaWAN ASIA-PAC / LATAM | SAPB-LW-APL | 570 € |
| Plug & Sense! SA-PRO Sigfox EU ** | SAPB-SF-EU | 570 € |
| Plug & Sense! SA-PRO Sigfox US ** | SAPB-SF-US | 582 € |
| Plug & Sense! SA-PRO Sigfox AU / APAC / LATAM ** | SAPB-SF-AAPL | 582 € |



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Try our out-of-the-box IoT Vertical kits!

** This device includes a GPS receiver. ** Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country. Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our Sales Team for more info.*

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Sensors available:

| Sensor | Sockets | | | | | | Ref. | Price |
|--|---------|---|---|---|---|---|--------|-------|
| | A | B | C | D | E | F | | |
| Temperature, Humidity and Pressure | | | | ✓ | | ✓ | 9370-P | 55 € |
| Soil/Water temperature (Pt-1000) | | | | ✓ | | | 9255-P | 30 € |
| Solar radiation (PAR) | | ✓ | | | | | 9251-P | 250 € |
| Ultraviolet | | ✓ | | | | | 9257-P | 315 € |
| Soil moisture 1.5 m | | ✓ | ✓ | | ✓ | | 9248-P | 65 € |
| Soil moisture 4.5 m | | ✓ | ✓ | | ✓ | | 9324-P | 80 € |
| Soil moisture 8 m | | ✓ | ✓ | | ✓ | | 9323-P | 90 € |
| WS-3000 (anemometer + wind vane + pluviometer) | ✓ | | | | | | 9256-P | 75 € |
| Leaf wetness | | | | | ✓ | | 9249-P | 10 € |
| Trunk diameter | | | ✓ | | | | 9252-P | 500 € |
| Stem diameter | | | ✓ | | | | 9253-P | 475 € |
| Fruit diameter | | | ✓ | | | | 9254-P | 475 € |
| Luminosity (Luxes accuracy) | | | | ✓ | | ✓ | 9325-P | 47 € |
| Ultrasound | | | | ✓ | | ✓ | 9246-P | 275 € |

An accessory composed of a mounting bracket and a leveling plate is advised for the Solar radiation (PAR) and Ultraviolet sensor probes (check delivery time with your sales agent):

| Item | Ref. | Price |
|----------------------------------|------|-------|
| Solar Sensors Mounting Accessory | SSMA | 85 € |

Smart Agriculture Xtreme

This Plug & Sense! is an evolution of our Agriculture line with a new selection of high-end professional sensors. There are sensors for atmospheric and soil monitoring and plants health. Up to 32 sensors can be connected.

| Communication options | Ref. | Price |
|--|---------------|-------|
| Plug & Sense! SA-XTR 802.15.4 EU | SAXB-802-EU | 650 € |
| Plug & Sense! SA-XTR 802.15.4 | SAXB-802 | 650 € |
| Plug & Sense! SA-XTR WiFi | SAXB-W | 650 € |
| Plug & Sense! SA-XTR 868 | SAXB-868 | 651 € |
| Plug & Sense! SA-XTR 900 US | SAXB-900-US | 686 € |
| Plug & Sense! SA-XTR 900 BR | SAXB-900-BR | 686 € |
| Plug & Sense! SA-XTR 900 AU | SAXB-900-AU | 686 € |
| Plug & Sense! SA-XTR 4G EU/BR * | SAXB-4G-EU/BR | 914 € |
| Plug & Sense! SA-XTR 4G US * | SAXB-4G-US | 914 € |
| Plug & Sense! SA-XTR 4G AU | SAXB-4G-AU | 842 € |
| Plug & Sense! SA-XTR LoRaWAN EU | SAXB-LW-EU | 620 € |
| Plug & Sense! SA-XTR LoRaWAN US | SAXB-LW-US | 620 € |
| Plug & Sense! SA-XTR LoRaWAN AU | SAXB-LW-AU | 620 € |
| Plug & Sense! SA-XTR LoRaWAN IN | SAXB-LW-IN | 620 € |
| Plug & Sense! SA-XTR LoRaWAN ASIA-PAC / LATAM | SAXB-LW-APL | 620 € |
| Plug & Sense! SA-XTR Sigfox EU ** | SAXB-SF-EU | 620 € |
| Plug & Sense! SA-XTR Sigfox US** | SAXB-SF-US | 632 € |
| Plug & Sense! SA-XTR Sigfox AU / APAC / LATAM ** | SAXB-SF-AAPL | 632 € |



**Looking for a working and programmed demo with this product?
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** This device includes a GPS receiver. ** Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country. Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our [Sales Team](#) for more info.*

Sensors available:

| Sensor | Sockets | | | | | | Ref. | Price |
|--|---------|---|---|---|---|---|---------|-------|
| | A | B | C | D | E | F | | |
| Non-contact surface temperature measurement SI-411 | ✓ | ✓ | ✓ | ✓ | | | 9468-P | 720 € |
| Leaf and flower bud temperature SF-421 | ✓ | ✓ | ✓ | ✓ | | | 9467-P | 255 € |
| Soil oxygen level SO-411 | ✓ | ✓ | ✓ | ✓ | | | 9469-P | 330 € |
| Shortwave radiation SP-510 | | ✓ | ✓ | | ✓ | ✓ | 9470-P | 280 € |
| Solar radiation (PAR) SQ-110 for Smart Agriculture Xtreme | | ✓ | ✓ | | ✓ | ✓ | 9251-PX | 250 € |
| Ultraviolet radiation SU-100 for Smart Agriculture Xtreme | | ✓ | ✓ | | ✓ | ✓ | 9257-PX | 315 € |
| Temperature, air humidity and pressure | ✓ | | | ✓ | | | 9370-P | 55 € |
| Conductivity, water content and soil temperature GS3 | ✓ | ✓ | ✓ | ✓ | | | 9464-P | 390 € |
| Conductivity, water content and soil temperature 5TE | ✓ | ✓ | ✓ | ✓ | | | 9402-P | 455 € |
| Soil temperature and volumetric water content 5TM | ✓ | ✓ | ✓ | ✓ | | | 9460-P | 255 € |
| Soil water potentials MPS-6 | ✓ | ✓ | ✓ | ✓ | | | 9465-P | 310 € |
| Vapor pressure, humidity, temperature, and atmospheric pressure in soil and air VP-4 | ✓ | ✓ | ✓ | ✓ | | | 9471-P | 390 € |
| Leaf wetness Phytos 31 | | ✓ | | | | | 9466-P | 175 € |
| Trunk diameter DC2 for Smart Agriculture Xtreme | | | ✓ | | | | 9252-PX | 500 € |
| Stem diameter DD-S for Smart Agriculture Xtreme | | | ✓ | | | | 9253-PX | 475 € |
| Fruit diameter DF for Smart Agriculture Xtreme | | | ✓ | | | | 9254-PX | 475 € |
| Luminosity (Luxes accuracy) | ✓ | | | ✓ | | | 9325-P | 47 € |
| Ultrasound | ✓ | | | ✓ | | | 9246-P | 275 € |
| Weather station GMX-100 (PO) | | | | | ✓ | | 9472-P | 760 € |

| Sensor | Sockets | | | | | | Ref. | Price |
|---|---------|---|---|---|---|---|--------|---------|
| | A | B | C | D | E | F | | |
| Weather station GMX-101 (R) | | | | | ✓ | | 9473-P | 1,370 € |
| Weather station GMX-200 (W) ¹ | | | | | ✓ | | 9474-P | 1,140 € |
| Weather station GMX-240 (W-PO) ¹ | | | | | ✓ | | 9463-P | 1,520 € |
| Weather station GMX-300 (T-H-AP) | | | | | ✓ | | 9475-P | 870 € |
| Weather station GMX-301 (T-H-AP-R) | | | | | ✓ | | 9476-P | 2,040 € |
| Weather station GMX-400 (PO-T-H-AP) | | | | | ✓ | | 9477-P | 1,390 € |
| Weather station GMX-500 (W-T-H-AP) ¹ | | | | | ✓ | | 9478-P | 1,530 € |
| Weather station GMX-501 (W-T-H-AP-R) ¹ | | | | | ✓ | | 9479-P | 3,060 € |
| Weather station GMX-531 (W-PT-T-H-AP-R) ¹ | | | | | ✓ | | 9480-P | 3,500 € |
| Weather station GMX-541 (W-PO-T-H-AP-R) ¹ | | | | | ✓ | | 9481-P | 3,380 € |
| Weather station GMX-550 (W-x-T-H-AP) ^{1,2} | | | | | ✓ | | 9482-P | 1,950 € |
| Weather station GMX-551 (W-x-T-H-AP-R) ^{1,2} | | | | | ✓ | | 9483-P | 3,210 € |
| Weather station GMX-600 (W-PO-T-H-AP) ¹ | | | | | ✓ | | 9484-P | 2,270 € |

Several accessories are available:

1: This item can be ordered with a special accessory: a GPS receiver for wind corrections. Available on demand.
2: This item can accept a precipitation sensor (Kalyx rain gauge by Gill). Special accessory, on demand.

| Item | Ref. | Price |
|---|------|-------|
| Solar Sensors Mounting Accessory | SSMA | 85 € |
| Mounting bracket accessory | 9462 | 40 € |
| Diffusion head accessory for Soil oxigen level sensor | 9461 | 40 € |

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This table shows differences between the 14 weather stations:

| Weather station | Wind and compass | Precipitation | Temperature, relative humidity and pressure | Solar radiation | GPS |
|-------------------------|------------------|---------------------------|---|-----------------|----------|
| GMX-100 (PO) | | ✓ (optical) | | | |
| GMX-101 (R) | | | | ✓ | |
| GMX-200 (W) | ✓ | | | | Optional |
| GMX-240 (W-PO) | ✓ | ✓ (optical) | | | Optional |
| GMX-300 (T-H-AP) | | | ✓ | | |
| GMX-301 (T-H-AP-R) | | | ✓ | ✓ | |
| GMX-400 (PO-T-H-AP) | | ✓ (optical) | ✓ | | |
| GMX-500 (W-T-H-AP) | ✓ | | ✓ | | Optional |
| GMX-501 (W-T-H-AP-R) | ✓ | | ✓ | ✓ | Optional |
| GMX-531 (W-PT-T-H-AP-R) | ✓ | ✓ (Tipping bucket) | ✓ | ✓ | Optional |
| GMX-541 (W-PO-T-H-AP-R) | ✓ | ✓ (Optical) | ✓ | ✓ | Optional |
| GMX-550 (W-x-T-H-AP) | ✓ | Optional (Tipping bucket) | ✓ | | Optional |
| GMX-551 (W-x-T-H-AP-R) | ✓ | Optional (Tipping bucket) | ✓ | ✓ | Optional |
| GMX-600 (W-PO-T-H-AP) | ✓ | ✓ (Optical) | ✓ | | Optional |

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Smart Environment PRO

This model model has been created as an evolution of Smart Environment. It enables the user to implement pollution, air quality, industrial, environmental or farming projects with high requirements in terms of high accuracy, reliability and measurement range as the sensors come calibrated from factory.

| Communication options | Ref. | Price |
|---|---------------|-------|
| Plug & Sense! SE-PRO 802.15.4 EU | SEP8-802-EU | 588 € |
| Plug & Sense! SE-PRO 802.15.4 | SEP8-802 | 588 € |
| Plug & Sense! SE-PRO WiFi | SEP8-W | 588 € |
| Plug & Sense! SE-PRO 868 | SEP8-868 | 611 € |
| Plug & Sense! SE-PRO 900 US | SEP8-900-US | 630 € |
| Plug & Sense! SE-PRO 900 BR | SEP8-900-BR | 630 € |
| Plug & Sense! SE-PRO 900 AU | SEP8-900-AU | 630 € |
| Plug & Sense! SE-PRO 4G EU/BR* | SEP8-4G-EU/BR | 774 € |
| Plug & Sense! SE-PRO 4G US* | SEP8-4G-US | 774 € |
| Plug & Sense! SE-PRO 4G AU | SEP8-4G-AU | 708 € |
| Plug & Sense! SE-PRO LoRaWAN EU | SEP8-LW-EU | 528 € |
| Plug & Sense! SE-PRO LoRaWAN US | SEP8-LW-US | 528 € |
| Plug & Sense! SE-PRO LoRaWAN AU | SEP8-LW-AU | 528 € |
| Plug & Sense! SE-PRO LoRaWAN IN | SEP8-LW-IN | 528 € |
| Plug & Sense! SE-PRO LoRaWAN ASIA-PAC / LATAM | SEP8-LW-APL | 528 € |
| Plug & Sense! SE-PRO Sigfox EU ** | SEP8-SF-EU | 528 € |
| Plug & Sense! SE-PRO Sigfox US ** | SEP8-SF-US | 540 € |
| Plug & Sense! SE-PRO Sigfox AU/APAC/LATAM ** | SEP8-SF-AAPL | 540 € |



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| Sensor | Sockets | | | | | | Ref. | Price |
|--|---------|---|---|---|---|---|-----------|---------|
| | A | B | C | D | E | F | | |
| Temperature, Humidity and Pressure | | | | | ✓ | | 9370-P | 55 € |
| Carbon Monoxide (CO) for low concentrations (Calibrated) ¹ | ✓ | ✓ | ✓ | | | | 9371-LC-P | 276 € |
| Carbon Dioxide (CO ₂) (Calibrated)* ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9372-P | 648 € |
| Oxygen (O ₂) (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9373-P | 240 € |
| Ozone (O ₃) (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9374-P | 348 € |
| Nitric Oxide (NO) for low concentrations (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9375-LC-P | 288 € |
| Nitric Dioxide high accuracy (NO ₂) (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9376-HA-P | 276 € |
| Sulfur Dioxide high accuracy (SO ₂) (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9377-HA-P | 276 € |
| Ammonia (NH ₃) for low concentrations (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9378-LC-P | 444 € |
| Ammonia (NH ₃) for high concentrations (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9378-HC-P | 485 € |
| Methane (CH ₄) and Combustible Gas (Calibrated)* ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9379-P | 246 € |
| Hydrogen (H ₂) (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9380-P | 222 € |
| Hydrogen Sulfide (H ₂ S) (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9381-P | 228 € |
| Hydrogen Chloride (HCl) (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9382-P | 408 € |
| Hydrogen Cyanide (HCN) (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9383-P | 268 € |
| PH ₃ (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9384-P | 390 € |
| ETO (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9385-P | 288 € |
| Cl ₂ (Calibrated) ⁽¹⁾ | ✓ | ✓ | ✓ | | | ✓ | 9386-P | 300 € |
| Particle Matter (PM1 / PM2.5 / PM10) - Dust ⁽¹⁾ | | | | ✓ | | | 9387-P | 1,380 € |
| Luminosity (Luxes accuracy) | | | | | ✓ | | 9325-P | 47 € |
| Ultrasound | | | | | ✓ | | 9246-P | 275 € |

Smart Water

With this platform you can measure more than 6 parameters, including the most relevant for water control such as dissolved oxygen, oxidation-reduction potential, pH, conductivity and temperature. An extremely accurate turbidity sensor has been integrated as we''

| Communication options | Ref. | Price |
|---|--------------|-------|
| Plug & Sense! SW 802.15.4 EU | SWB-802-EU | 636 € |
| Plug & Sense! SW 802.15.4 | SWB-802 | 636 € |
| Plug & Sense! SW WiFi | SWB-W | 636 € |
| Plug & Sense! SW 868 | SWB-868 | 636 € |
| Plug & Sense! SW 900 US | SWB-900-US | 672 € |
| Plug & Sense! SW 900 BR | SWB-900-BR | 672 € |
| Plug & Sense! SW 900 AU | SWB-900-AU | 672 € |
| Plug & Sense! SW 4G EU/BR* | SWB-4G-EU/BR | 996 € |
| Plug & Sense! SW 4G US* | SWB-4G-US | 996 € |
| Plug & Sense! SW 4G AU | SWB-4G-AU | 900 € |
| Plug & Sense! SW LoRaWAN EU | SWB-LW-EU | 636 € |
| Plug & Sense! SW LoRaWAN US | SWB-LW-US | 636 € |
| Plug & Sense! SW LoRaWAN AU | SWB-LW-AU | 636 € |
| Plug & Sense! SW LoRaWAN IN | SWB-LW-IN | 636 € |
| Plug & Sense! SW LoRaWAN ASIA-PAC / LATAM | SWB-LW-APL | 636 € |
| Plug & Sense! SW Sigfox EU ** | SWB-SF-EU | 636 € |
| Plug & Sense! SW Sigfox US ** | SWB-SF-US | 648 € |
| Plug & Sense! SW Sigfox AU/APAC/LATAM ** | SWB-SF-AAPL | 648 € |



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** This device includes a GPS receiver. ** Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country. Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our [Sales Team](#) for more info.*

Sensors available:

| Sensor | Sockets | | | | | | Ref. | Price |
|-----------------------------------|---------|---|---|---|---|---|--------|---------|
| | A | B | C | D | E | F | | |
| Soil/Water temperature (Pt-1000)* | | | | | | ✓ | 9255-P | 30 € |
| Conductivity | | | ✓ | | | | 9326-P | 59 € |
| Dissolved Oxygen | | ✓ | | | | | 9327 | 600 € |
| pH | ✓ | | | | | | 9328 | 21 € |
| Oxidation Reduction Potential | | | | | ✓ | | 9329 | 54 € |
| Turbidity** | | | | | | ✓ | 9353-P | 3,594 € |

* Each Smart Water node includes a Soil/Water temperature probe in the price.

** The sensor is sold calibrated from factory. It must be purchased with its corresponding Plug & Sense! Smart Water node; available on demand.

For Smart Water sensors, it is highly recommended to purchase calibration solutions to calculate accurate measurement. One kit is enough for several sensor units.

| Calibration Kit | Ref. | Price |
|-------------------------------------|------|-------|
| Conductivity Calibration Kit, K=0.1 | 9339 | 28 € |
| Conductivity Calibration Kit, K=1 | 9340 | 28 € |
| Conductivity Calibration Kit, K=10 | 9341 | 28 € |
| DO Calibration Solution | 9342 | 42 € |
| Dissolved Oxygen Maintenance Kit | 9450 | 144 € |
| pH Calibration Kit | 9343 | 63 € |
| ORP Calibration Solution | 9344 | 42 € |
| Turbidity Calibration Kit (low) | TCL | 144 € |
| Turbidity Calibration Kit (high) | TCH | 186 € |



Smart Water Xtreme

This model was created as an evolution of Smart Water and integrates high-end sensors, calibrated in factory, with enhanced accuracy and performance. Their reduced recalibration requirements and robust design enlarge maintenance periods, making it more affordable to deploy remote Smart Water applications.

| Communication options | Ref. | Price |
|--|---------------|---------|
| Plug & Sense! SW-XTR 802.15.4 EU | SWXB-802-EU | 686 € |
| Plug & Sense! SW-XTR 802.15.4 | SWXB-802 | 686 € |
| Plug & Sense! SW-XTR WiFi | SWXB-W | 686 € |
| Plug & Sense! SW-XTR 868 | SWXB-868 | 686 € |
| Plug & Sense! SW-XTR 900 US | SWXB-900-US | 722 € |
| Plug & Sense! SW-XTR 900 BR | SWXB-900-BR | 722 € |
| Plug & Sense! SW-XTR 900 AU | SWXB-900-AU | 722 € |
| Plug & Sense! SW-XTR 4G EU/BR * | SWXB-4G-EU/BR | 1,046 € |
| Plug & Sense! SW-XTR 4G US * | SWXB-4G-US | 1,046 € |
| Plug & Sense! SW-XTR 4G AU | SWXB-4G-AU | 950 € |
| Plug & Sense! SW-XTR LoRaWAN EU | SWXB-LW-EU | 686 € |
| Plug & Sense! SW-XTR LoRaWAN US | SWXB-LW-US | 686 € |
| Plug & Sense! SW-XTR LoRaWAN AU | SWXB-LW-AU | 686 € |
| Plug & Sense! SW-XTR LoRaWAN IN | SWXB-LW-IN | 686 € |
| Plug & Sense! SW-XTR LoRaWAN ASIA-PAC / LATAM | SWXB-LW-APL | 686 € |
| Plug & Sense! SW-XTR Sigfox EU ** | SWXB-SF-EU | 686 € |
| Plug & Sense! SW-XTR Sigfox US ** | SWXB-SF-US | 698 € |
| Plug & Sense! SW-XTR Sigfox AU / APAC / LATAM ** | SWXB-SF-AAPL | 698 € |



**Looking for a working and programmed demo with this product?
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** This device includes a GPS receiver. ** Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country. Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our [Sales Team](#) for more info.*

Sensors available:

| Sensor | Sockets | | | | | | Ref. | Price |
|--|---------|---|---|---|---|---|---------|---------|
| | A | B | C | D | E | F | | |
| Optical dissolved oxygen and temperature OPTOD | ✓ | ✓ | ✓ | ✓ | ✓ | | 9488-P | 1,050 € |
| Titanium optical dissolved oxygen and temperature OPTOD | ✓ | ✓ | ✓ | ✓ | ✓ | | 9489-P | 1,250 € |
| pH, ORP and temperature PHEHT | ✓ | ✓ | ✓ | ✓ | ✓ | | 9485-P | 1,025 € |
| Conductivity, salinity and temperature C4E | ✓ | ✓ | ✓ | ✓ | ✓ | | 9486-P | 825 € |
| Inductive conductivity, salinity and temperature CTZN | ✓ | ✓ | ✓ | ✓ | ✓ | | 9487-P | 1,250 € |
| Turbidity and temperature NTU | ✓ | ✓ | ✓ | ✓ | ✓ | | 9353-PX | 3,594 € |
| Suspended solids, turbidity, sludge blanket and temperature MES5 | ✓ | ✓ | ✓ | ✓ | ✓ | | 9490-P | 4,900 € |
| Temperature, Humidity and Pressure | ✓ | | | ✓ | | | 9370-P | 55 € |
| Luminosity (luxes accuracy) | ✓ | | | ✓ | | | 9325-P | 47 € |
| Ultrasound | ✓ | | | ✓ | | | 9246-P | 275 € |
| Manta+ 40 | | | | | | ✓ | 9495-P | 6,900 € |
| Chlorophyll sensor for Manta probe* | | | | | | | 72470 | 3,700 € |
| BGA sensor for Manta probe* | | | | | | | 72471 | 3,700 € |
| Organic matter sensor CDOM/FDOM for Manta probe* | | | | | | | 72472 | 4,100 € |
| Ammonium sensor for Manta probe* | | | | | | | 72473 | 1,350 € |
| Nitrate sensor for Manta probe* | | | | | | | 72474 | 1,350 € |
| Chloride sensor for Manta probe* | | | | | | | 72475 | 1,350 € |



| Sensor | Sockets | | | | | | Ref. | Price |
|---------------------------------|---------|---|---|---|---|---|-------|---------|
| | A | B | C | D | E | F | | |
| Sodium sensor for Manta probe* | | | | | | | 72476 | 1,350 € |
| Calcium sensor for Manta probe* | | | | | | | 72477 | 1,350 € |

* These sensor probes need the Manta+ 40 probe. Available on demand. Check compatibility and leadtime with your Sales agent.

** The sensor is sold calibrated from factory. It must be purchased with its corresponding Plug & Sense! Smart Water node; available on demand.

For Smart Water Xtreme sensors, it is highly recommended to purchase calibration solutions to calculate accurate measurements. One kit is enough for several sensor units. Some sensors need storage solutions too. Also, we provide an accessory for protecting a sensor mechanically; from aquatic fauna, for instance:

| Accessory | Ref. | Price |
|--|-------|-------|
| Conductivity Calibration Kit, K=0.1 | 9339 | 28 € |
| Conductivity Calibration Kit, K=1 | 9340 | 28 € |
| Conductivity Calibration Kit, K=10 | 9341 | 28 € |
| DO Calibration Solution | 9342 | 42 € |
| pH Calibration Kit | 9343 | 63 € |
| ORP Calibration Solution | 9344 | 42 € |
| Turbidity calibration solution, 4000 NTU | 72465 | 55 € |
| Storage solution for PHEHT probe | 72464 | 20 € |
| Sensor protection accessory | 9493 | 300 € |

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For those users interested in measuring directly inside pipes, there are pipe segments with a protected measurement point. As an optional accessory for this sensor, Libelium offers pipe mounting adapters which can be connected to those special pipe segments:

| Mounting accessory | Ref. | Price |
|--|-------|---------|
| PVC pipe mounting accessory for OPTOD sensor probe | 72454 | 310 € |
| PVC pipe mounting accessory for PHEHT sensor probe | 72455 | 315 € |
| PVC pipe mounting accessory for C4E or sensor NTU probes | 72456 | 240 € |
| PVC pipe mounting accessory for CTZN sensor probe | 72457 | 220 € |
| PVC pipe mounting accessory for MES5 sensor probe | 72458 | 340 € |
| Steel pipe mounting accessory for OPTOD sensor probe | 72459 | 710 € |
| Steel pipe mounting accessory for PHEHT sensor probe | 72460 | 740 € |
| Steel pipe mounting accessory for C4E or NTU sensor probes | 72461 | 1,050 € |
| Steel pipe mounting accessory for CTZN sensor probe | 72462 | 1,050 € |

Smart Water Ions

The Smart Water Ions models specialize in the measurement of ions concentration for drinking water quality control, agriculture water monitoring, swimming pools or waste water treatment. Due to the existence of 3 types for the reference probe and 2 types of sensor probes ("normal" and PRO), there are 3 variants.

| Communication options | Ref. | Price |
|--|-----------------|-------|
| Plug & Sense! SWI Single 802.15.4 EU | SWIB-S-802-EU | 720 € |
| Plug & Sense! SWI Single 802.15.4 | SWIB-S-802 | 720 € |
| Plug & Sense! SWI Single WiFi | SWIB-S-W | 732 € |
| Plug & Sense! SWI Single 868 | SWIB-S-868 | 732 € |
| Plug & Sense! SWI Single 900 US | SWIB-S-900-US | 756 € |
| Plug & Sense! SWI Single 900 BR | SWIB-S-900-BR | 756 € |
| Plug & Sense! SWI Single 900 AU | SWIB-S-900-AU | 756 € |
| Plug & Sense! SWI Single 4G EU/BR* | SWIB-S-4G-EU/BR | 984 € |
| Plug & Sense! SWI Single 4G US* | SWIB-S-4G-US | 984 € |
| Plug & Sense! SWI Single 4G AU | SWIB-S-4G-AU | 912 € |
| Plug & Sense! SWI Single LoRaWAN EU | SWIB-S-LW-EU | 708 € |
| Plug & Sense! SWI Single LoRaWAN US | SWIB-S-LW-US | 708 € |
| Plug & Sense! SWI Single LoRaWAN AU | SWIB-S-LW-AU | 708 € |
| Plug & Sense! SWI Single LoRaWAN IN | SWIB-S-LW-IN | 708 € |
| Plug & Sense! SWI LoRaWAN ASIA-PAC / LATAM | SWIB-LW-APL | 708 € |
| Plug & Sense! SWI Single Sigfox EU ** | SWIB-S-SF-EU | 708 € |
| Plug & Sense! SWI Single Sigfox US ** | SWIB-S-SF-US | 720 € |
| Plug & Sense! SWI Single Sigfox AU/APAC/LATAM ** | SWIB-S-SF-AAPL | 720 € |



**Looking for a working and programmed demo with this product?
Try our out-of-the-box IoT Vertical kits!**

* This device includes a GPS receiver. ** Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country. Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our [Sales Team](#) for more info.

Sensors available :

| Sensor | Sockets | | | | | | Ref. | Price |
|--|---------|---|---|---|---|---|--------|-------|
| | A | B | C | D | E | F | | |
| Soil/Water temperature (Pt-1000)* | | | | | | ✓ | 9255-P | 30 € |
| Single Junction Reference* | | | | | ✓ | | 9350 | 78 € |
| Fluoride Ion (F ⁻) | ✓ | ✓ | ✓ | ✓ | | | 9353 | 204 € |
| Fluoroborate Ion (BF ₄ ⁻) | ✓ | ✓ | ✓ | ✓ | | | 9354 | 204 € |
| pH (for Smart Water Ions) | ✓ | ✓ | ✓ | ✓ | | | 9363 | 54 € |

* Each Smart Water Ions node, Single variant, includes a Soil/Water temperature probe and a Single Junction Reference probe in the price.

The Double variant accepts other type of sensors than the Single variant.

| Communication options | Ref. | Price |
|---|-----------------|---------|
| Plug & Sense! SWI Double 802.15.4 EU | SWIB-D-802-EU | 768 € |
| Plug & Sense! SWI Double 802.15.4 | SWIB-D-802 | 768 € |
| Plug & Sense! SWI Double WiFi | SWIB-D-W | 780 € |
| Plug & Sense! SWI Double 868 | SWIB-D-868 | 780 € |
| Plug & Sense! SWI Double 900 US | SWIB-D-900-US | 804 € |
| Plug & Sense! SWI Double 900 BR | SWIB-D-900-BR | 804 € |
| Plug & Sense! SWI Double 900 AU | SWIB-D-900-AU | 804 € |
| Plug & Sense! SWI Double 4G EU/BR* | SWIB-D-4G-EU/BR | 1,032 € |
| Plug & Sense! SWI Double 4G US* | SWIB-D-4G-US | 1,032 € |
| Plug & Sense! SWI Double 4G AU | SWIB-D-4G-AU | 954 € |
| Plug & Sense! SWI Double LoRaWAN EU | SWIB-D-LW-EU | 750 € |
| Plug & Sense! SWI Double LoRaWAN US | SWIB-D-LW-US | 750 € |
| Plug & Sense! SWI Double LoRaWAN AU | SWIB-D-LW-AU | 750 € |
| Plug & Sense! SWI Double LoRaWAN IN | SWIB-D-LW-IN | 750 € |
| Plug & Sense! SWI Double LoRaWAN ASIA-PAC / LATAM | SWIB-D-LW-APL | 750 € |
| Plug & Sense! SWI Double Sigfox EU ** | SWIB-D-SF-EU | 750 € |
| Plug & Sense! SWI Double Sigfox US ** | SWIB-D-SF-US | 762 € |
| Plug & Sense! SWI Double Sigfox AU/APAC/LATAM ** | SWIB-D-SF-AAPL | 762 € |



* This device includes a GPS receiver. ** Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our [Sales Team](#) for more info.

Sensors available (they are “normal”, not PRO):

| Sensor | Sockets | | | | | | Ref. | Price |
|-----------------------------------|---------|---|---|---|---|---|--------|-------|
| | A | B | C | D | E | F | | |
| Soil/Water temperature (Pt-1000)* | | | | | | ✓ | 9255-P | 30 € |
| Double Junction Reference* | | | | | ✓ | | 9351 | 120 € |
| Bromide Ion (Br ⁻) | ✓ | ✓ | ✓ | ✓ | | | 9356 | 204 € |
| Chloride Ion (Cl ⁻) | ✓ | ✓ | ✓ | ✓ | | | 9357 | 204 € |
| Cupric Ion (Cu ²⁺) | ✓ | ✓ | ✓ | ✓ | | | 9358 | 204 € |
| Iodide Ion (I ⁻) | ✓ | ✓ | ✓ | ✓ | | | 9360 | 204 € |
| Silver Ion (Ag ⁺) | ✓ | ✓ | ✓ | ✓ | | | 9362 | 204 € |
| pH (for Smart Water Ions) | ✓ | ✓ | ✓ | ✓ | | | 9363 | 54 € |

* Each Smart Water Ions node, Double variant, includes a Soil/Water temperature probe and a Double Junction Reference probe in the price.

The PRO variant is able to read PRO sensors, with higher performance than the “normal” sensors (Single or Double).

| Communication options | Ref. | Price |
|--|-----------------|---------|
| Plug & Sense! SWI PRO 802.15.4 EU | SWIB-P-802-EU | 1,092 € |
| Plug & Sense! SWI PRO 802.15.4 | SWIB-P-802 | 1,092 € |
| Plug & Sense! SWI PRO WiFi | SWIB-P-W | 1,104 € |
| Plug & Sense! SWI PRO 868 | SWIB-P-868 | 1,134 € |
| Plug & Sense! SWI PRO 900 US | SWIB-P-900-US | 1,134 € |
| Plug & Sense! SWI PRO 900 BR | SWIB-P-900-BR | 1,134 € |
| Plug & Sense! SWI PRO 900 AU | SWIB-P-900-AU | 1,134 € |
| Plug & Sense! SWI PRO 4G EU/BR* | SWIB-P-4G-EU/BR | 1,068 € |
| Plug & Sense! SWI PRO 4G US* | SWIB-P-4G-US | 1,068 € |
| Plug & Sense! SWI PRO 4G AU | SWIB-P-4G-AU | 996 € |
| Plug & Sense! SWI PRO LoRaWAN EU | SWIB-P-LW-EU | 972 € |
| Plug & Sense! SWI PRO LoRaWAN US | SWIB-P-LW-US | 972 € |
| Plug & Sense! SWI PRO LoRaWAN AU | SWIB-P-LW-AU | 972 € |
| Plug & Sense! SWI PRO LoRaWAN IN | SWIB-P-LW-IN | 972 € |
| Plug & Sense! SWI PRO LoRaWAN ASIA-PAC / LATAM | SWIB-P-LW-APL | 972 € |
| Plug & Sense! SWI PRO Sigfox EU ** | SWIB-P-SF-EU | 972 € |
| Plug & Sense! SWI PRO Sigfox US ** | SWIB-P-SF-US | 984 € |
| Plug & Sense! SWI PRO Sigfox AU/APAC/LATAM ** | SWIB-P-SF-AAPL | 984 € |



* This device includes a GPS receiver. ** Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country. Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our [Sales Team](#) for more info.

These are the PRO sensors available:

| Sensor | Sockets | | | | | | Ref. | Price |
|--|---------|---|---|---|---|---|--------|-------|
| | A | B | C | D | E | F | | |
| Soil/Water temperature (Pt-1000)* | | | | | | ✓ | 9255-P | 30 € |
| Reference [PRO]* | | | | | ✓ | | 9410 | 504 € |
| Ammonium Ion (NH ₄ ⁺) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9412 | 504 € |
| Bromide Ion (Br) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9413 | 918 € |
| Calcium Ion (Ca ²⁺) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9414 | 504 € |
| Chloride Ion (Cl) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9415 | 504 € |
| Cupric Ion (Cu ²⁺) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9416 | 918 € |
| Fluoride Ion (F) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9417 | 918 € |
| Iodide Ion (I) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9418 | 918 € |
| Lithium Ion (Li ⁺) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9419 | 918 € |
| Magnesium Ion (Mg ²⁺) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9420 | 504 € |
| Nitrate Ion (NO ₃ ⁻) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9421 | 504 € |
| Nitrite Ion (NO ₂ ⁻) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9422 | 918 € |
| Perchlorate Ion (ClO ₄ ⁻) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9423 | 918 € |
| Potassium Ion (K ⁺) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9424 | 504 € |
| Silver Ion (Ag ⁺) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9425 | 918 € |
| Sodium Ion (Na ⁺) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9426 | 504 € |
| pH (for Smart Water Ions) [PRO] | ✓ | ✓ | ✓ | ✓ | | | 9411 | 504 € |

* Each Smart Water Ions node, Pro variant, includes a Soil/Water temperature probe and a Pro Junction Reference probe in the price.

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For Smart Water Ions sensors, it is highly recommended to purchase calibration solutions to calculate accurate measurement. One kit is enough for several sensor units.

| Calibration Kit | Ref. | Price |
|---|------|-------|
| Reference Sensor Probe [PRO] Maintenance Solution | 9449 | 119 € |
| Multi-Ions Calibration Kit (Ammonium, Calcium, Chloride, Magnesium, Nitrate, Potassium, Sodium) | 9445 | 144 € |
| Bromide Calibration Kit | 9388 | 119 € |
| Calcium Calibration Kit | 9366 | 119 € |
| Chloride Calibration Kit | 9389 | 119 € |
| Cupric Calibration Kit | 9390 | 119 € |
| Fluoride Calibration Kit | 9367 | 119 € |
| Fluoroborate Calibration Kit | 9368 | 119 € |
| Iodide Calibration Kit | 9391 | 119 € |
| Lithium Calibration Kit | 9446 | 144 € |
| Nitrate Calibration Kit | 9369 | 119 € |
| Nitrite Calibration Kit | 9447 | 144 € |
| Perchlorate Calibration Kit | 9448 | 144 € |
| Silver Calibration Kit | 9392 | 119 € |
| pH Calibration Kit | 9343 | 63 € |



Smart Cities PRO

This model allows to deploy many Smart Cities and Smart Buildings applications.

| Communication options | Ref. | Price |
|--|---------------|-------|
| Plug & Sense! SCP 802.15.4 EU | SCPB-802-EU | 588 € |
| Plug & Sense! SCP 802.15.4 | SCPB-802 | 588 € |
| Plug & Sense! SCP WiFi | SCPB-W | 588 € |
| Plug & Sense! SCP 868 | SCPB-868 | 611 € |
| Plug & Sense! SCP 900 US | SCPB-900-US | 624 € |
| Plug & Sense! SCP 900 BR | SCPB-900-BR | 624 € |
| Plug & Sense! SCP 900 AU | SCPB-900-AU | 624 € |
| Plug & Sense! SCP 4G EU/BR* | SCPB-4G-EU/BR | 792 € |
| Plug & Sense! SCP 4G US* | SCPB-4G-US | 792 € |
| Plug & Sense! SCP 4G AU | SCPB-4G-AU | 720 € |
| Plug & Sense! SCP LoRaWAN EU | SCPB-LW-EU | 546 € |
| Plug & Sense! SCP LoRaWAN US | SCPB-LW-US | 546 € |
| Plug & Sense! SCP LoRaWAN AU | SCPB-LW-AU | 546 € |
| Plug & Sense! SCP LoRaWAN IN | SCPB-LW-IN | 546 € |
| Plug & Sense! SCP LoRaWAN ASIA-PAC / LATAM | SCPB-LW-APL | 546 € |
| Plug & Sense! SCP Sigfox EU ** | SCPB-SF-EU | 546 € |
| Plug & Sense! SCP Sigfox US ** | SCPB-SF-US | 558 € |
| Plug & Sense! SCP Sigfox AU/APAC/LATAM ** | SCPB-SF-AAAPL | 558 € |



Looking for a working and programmed demo with this product?
Try our out-of-the-box IoT Vertical kits!

** This device includes a GPS receiver. ** Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country. Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our [Sales Team](#) for more info.*

Sensors available:

| Sensor | Sockets | | | | | | Ref. | Price |
|--|---------|---|---|---|---|---|-----------|-------|
| | A | B | C | D | E | F | | |
| Temperature, Humidity and Pressure | ✓ | ✓ | ✓ | | ✓ | ✓ | 9370-P | 55 € |
| Noise Level (dBA)* | ✓ | | | | | | NLS | 995 € |
| Carbon Monoxide (CO) for low concentrations (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9371-LC-P | 276 € |
| Carbon Dioxide (CO ₂) (Calibrated) ^{1**} | | ✓ | ✓ | | | ✓ | 9372-P | 648 € |
| Oxygen (O ₂) (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9373-P | 240 € |
| Ozone (O ₃) (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9374-P | 348 € |
| Nitric Oxide (NO) for low concentrations (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9375-LC-P | 288 € |
| Nitric Dioxide high accuracy (NO ₂) (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9376-HA-P | 276 € |
| Sulfur Dioxide high accuracy (SO ₂) (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9377-HA-P | 276 € |
| Ammonia (NH ₃) for low concentrations (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9378-LC-P | 444 € |
| Ammonia (NH ₃) for high concentrations (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9378-HC-P | 485 € |
| Methane (CH ₄) and Combustible Gas (Calibrated) ^{1**} | | ✓ | ✓ | | | ✓ | 9379-P | 246 € |
| Hydrogen (H ₂) (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9380-P | 222 € |
| Hydrogen Sulfide (H ₂ S) (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9381-P | 228 € |
| Hydrogen Chloride (HCl) (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9382-P | 408 € |
| Hydrogen Cyanide (HCN) (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9383-P | 268 € |
| Phosphine (PH ₃) (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9384-P | 390 € |

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| Sensor | Sockets | | | | | | Ref. | Price |
|---|---------|---|---|---|---|---|--------|---------|
| | A | B | C | D | E | F | | |
| Ethylene (ETO) (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9385-P | 288 € |
| Chlorine (Cl ₂) (Calibrated) ¹ | | ✓ | ✓ | | | ✓ | 9386-P | 300 € |
| Particle Matter (PM1 / PM2.5 / PM10) - Dust 1 | | | | ✓ | | | 9387-P | 1,380 € |
| Luminosity (Luxes accuracy) | ✓ | ✓ | ✓ | | ✓ | ✓ | 9325-P | 47 € |
| Ultrasound | ✓ | ✓ | ✓ | | ✓ | ✓ | 9246-P | 275 € |

1: Calibrated gas sensors are manufactured once the order has been placed to ensure maximum durability of the calibration feature. Manufacturing process and delivery may take from 4 to 6 weeks. Lifetime of calibrated gas sensors is 6 months working at maximum accuracy. We strongly encourage our customers to buy extra gas sensor probes to replace the original ones after that time to ensure maximum accuracy and performance.

**: This sensor includes all the needed accessories (sensor, windshield, enclosure, cables, mounting kit, roof, etc).*

***.: Due to high power requirements, these sensors cannot work at the same time in the same Plug & Sense!.*

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Smart Parking

This model allows to detect free parking spots. It is designed to be screwed on the surface of parking slots and to detect the arrival and departure of vehicles with an electromagnetic field sensor. It includes a robust polyamide enclosure for a fast and easy surface installation.

This node comes with 2 radios, Sigfox and LoRaWAN, which benefit from all the LPWAN characteristics. The device is easily configured from a PC and can even be reconfigured with the Remote Manager, from the cloud. This model comes with a non-rechargeable battery of 10.4 Ah.

| Item | Ref. | Price |
|--|---------------|---------|
| Smart Parking Node 6 Units Bundle, Europe version ¹ | SP-6-E | 1,260 € |
| Smart Parking Node 10 Units Bundle, Europe version ¹ | SP-10-E | 2,100 € |
| Smart Parking Node 6 Units Bundle, America version ¹ | SP-6-A | 1,260 € |
| Smart Parking Node 10 Units Bundle, America version ¹ | SP-10-A | 2,100 € |
| Smart Parking Node 6 Units Bundle, APAC / LATAM / AU / AU915 version ^{1,2} | SP-6-APLA-AU | 1,260 € |
| Smart Parking Node 10 Units Bundle, APAC / LATAM / AU / AU915 version ^{1,2} | SP-10-APLA-AU | 2,100 € |
| Smart Parking Node 6 Units Bundle, IN version ^{1,3} | SP-6-IN | 1,260 € |
| Smart Parking Node 10 Units Bundle, IN version ^{1,3} | SP-10-IN | 2,100 € |
| Smart Parking Node 6 Units Bundle, APAC / LATAM / AU / AS923 version ^{1,4} | SP-6-APLA-AS | 1,260 € |
| Smart Parking Node 10 Units Bundle, APAC / LATAM / AU / AS923 version ^{1,4} | SP-10-APLA-AS | 2,100 € |
| Smart Parking Installation Kit ⁴⁵ | SP-INST | 102 € |



Looking for a working and programmed demo with this product?

Try our out-of-the-box IoT Vertical kits!

1.- Any Smart Parking bundle includes 'n' nodes. Each node includes, among others, PCB, battery, 2 antennas, enclosure, rubber isolators, 4 private ground screws and 4 ground screw anchors.

2.- The Sigfox radio of this version is also valid for countries in RC4 like Australia, New Zealand, Singapore, Taiwan, Hong Kong, Colombia, Argentina, Costa Rica, Thailand or Chile. The LoRaWAN radio of this version is valid for Australia.

3.- The LoRaWAN radio of this version is valid for India. The Sigfox radio of this version is disabled (no Sigfox network in India yet).

4.- The Sigfox radio of this version is also valid for countries in RC4 like Australia, New Zealand, Singapore, Taiwan, Hong Kong, Colombia, Argentina, Costa Rica, Thailand or Chile. The LoRaWAN radio of this version is valid for AS-923 countries (ASIA-PAC, LATAM, AU).

5.- The Smart Parking Installation Kit includes a magnet for contactless reset, a private screw key, a USB Programmer and a miniUSB cable. This Installation Kits not included in Smart Parking bundle, so remember to order at least one.

Smart Security

This model is designed to allow the detection of different events like movement, presence or water levels. Besides, a relay system allows this model to interact with external electrical machines.

| Communication options | Ref. | Price |
|---|--------------|-------|
| Plug & Sense! SS 802.15.4 EU | SSB-802-EU | 546 € |
| Plug & Sense! SS 802.15.4 | SSB-802 | 546 € |
| Plug & Sense! SS WiFi | SSB-W | 546 € |
| Plug & Sense! SS 868 | SSB-868 | 561 € |
| Plug & Sense! SS 900 US | SSB-900-US | 582 € |
| Plug & Sense! SS 900 BR | SSB-900-BR | 582 € |
| Plug & Sense! SS 900 AU | SSB-900-AU | 582 € |
| Plug & Sense! SS 4G EU/BR* | SSB-4G-EU/BR | 816 € |
| Plug & Sense! SS 4G US* | SSB-4G-US | 816 € |
| Plug & Sense! SS 4G AU | SSB-4G-AU | 744 € |
| Plug & Sense! SS LoRaWAN EU | SSB-LW-EU | 516 € |
| Plug & Sense! SS LoRaWAN US | SSB-LW-US | 516 € |
| Plug & Sense! SS LoRaWAN AU | SSB-LW-AU | 516 € |
| Plug & Sense! SS LoRaWAN IN | SSB-LW-IN | 516 € |
| Plug & Sense! SS LoRaWAN ASIA-PAC / LATAM | SSB-LW-APL | 516 € |
| Plug & Sense! SS Sigfox EU ** | SSB-SF-EU | 516 € |
| Plug & Sense! SS Sigfox US ** | SSB-SF-US | 528 € |
| Plug & Sense! SS Sigfox AU/APAC/LATAM ** | SSB-SF-AAPL | 528 € |



* This device includes a GPS receiver. ** Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country. Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our [Sales Team](#) for more info.

Sensors available:

| Sensor | Sockets | | | | | | Ref. | Price |
|--|---------|---|---|---|---|---|--------|-------|
| | A | B | C | D | E | F | | |
| Temperature, Humidity and Pressure | ✓ | | ✓ | ✓ | ✓ | | 9370-P | 55 € |
| Water flow small | | ✓ | | | | | 9296-P | 37 € |
| Water flow medium | | ✓ | | | | | 9297-P | 42 € |
| Water flow large | | ✓ | | | | | 9298-P | 45 € |
| Terminal box probe (accessory for Plug & Sense!) | | | | | | ✓ | 9270-P | 30 € |
| Presence (PIR) | ✓ | | ✓ | ✓ | ✓ | | 9212-P | 64 € |
| Water Leakage / Liquid Detection (Point) | ✓ | | ✓ | ✓ | ✓ | | 9243-P | 27 € |
| Water Leakage / Liquid Detection (Line) | ✓ | | ✓ | ✓ | ✓ | | 9295-P | 114 € |
| Horizontal liquid level (combustibles) | ✓ | | ✓ | ✓ | ✓ | | 9239-P | 36 € |
| Horizontal liquid level (water) | ✓ | | ✓ | ✓ | ✓ | | 9240-P | 22 € |
| Hall Effect | ✓ | | ✓ | ✓ | ✓ | | 9207-P | 42 € |
| Luminosity (Luxes accuracy) | ✓ | | ✓ | ✓ | ✓ | | 9325-P | 47 € |
| Ultrasound | ✓ | | ✓ | ✓ | ✓ | | 9246-P | 275 € |

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4-20 mA (Current Loop)

The applications for this Plug & Sense! model are focused on adding wireless connectivity to 4-20 mA devices and connecting them to the Cloud.

| Communication options | Ref. | Price |
|--|---------------|-------|
| Plug & Sense! 4-20 mA 802.15.4 EU | 420B-802-EU | 526 € |
| Plug & Sense! 4-20 mA 802.15.4 | 420B-802 | 526 € |
| Plug & Sense! 4-20 mA WiFi | 420B-W | 526 € |
| Plug & Sense! 4-20 mA 868 | 420B-868 | 526 € |
| Plug & Sense! 4-20 mA 900 US | 420B-900-US | 556 € |
| Plug & Sense! 4-20 mA 900 BR | 420B-900-BR | 556 € |
| Plug & Sense! 4-20 mA 900 AU | 420B-900-AU | 556 € |
| Plug & Sense! 4-20 mA 4G EU/BR* | 420B-4G-EU/BR | 826 € |
| Plug & Sense! 4-20 mA 4G US * | 420B-4G-US | 826 € |
| Plug & Sense! 4-20 mA 4G AU | 420B-4G-AU | 746 € |
| Plug & Sense! 4-20 mA LoRaWAN EU | 420B-LW-EU | 506 € |
| Plug & Sense! 4-20 mA LoRaWAN US | 420B-LW-US | 496 € |
| Plug & Sense! 4-20 mA LoRaWAN AU | 420B-LW-AU | 496 € |
| Plug & Sense! 4-20 mA LoRaWAN IN | 420B-LW-IN | 496 € |
| Plug & Sense! 4-20 mA LoRaWAN ASIA-PAC / LATAM | 420B-LW-APL | 496 € |
| Plug & Sense! 4-20 mA Sigfox EU ** | 420B-SF-EU | 496 € |
| Plug & Sense! 4-20 mA Sigfox US ** | 420B-SF-US | 516 € |
| Plug & Sense! 4-20 mA Sigfox AU/APAC/LATAM ** | 420B-SF-AAPL | 516 € |



* This device includes a GPS receiver. ** Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country. Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our [Sales Team](#) for more info.



Sensors available:

| Sensor | Sockets | | | | | | Ref. | Price |
|--------------------|---------|---|---|---|---|---|--------|-------|
| | A | B | C | D | E | F | | |
| Terminal box probe | ✓ | ✓ | ✓ | ✓ | | | 9270-P | 30 € |
| DB9 probe | ✓ | ✓ | ✓ | ✓ | | | DB9-P | 25 € |

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Radiation Control

This model can only attach one sensor for measuring radiation levels in nuclear centrals and surroundings.

| Communication options | Ref. | Price |
|---|--------------|-------|
| Plug & Sense! RA 802.15.4 EU | RAB-802-EU | 636 € |
| Plug & Sense! RA 802.15.4 | RAB-802 | 636 € |
| Plug & Sense! RA WiFi | RAB-W | 636 € |
| Plug & Sense! RA 868 | RAB-868 | 651 € |
| Plug & Sense! RA 900 US | RAB-900-US | 672 € |
| Plug & Sense! RA 900 BR | RAB-900-BR | 672 € |
| Plug & Sense! RA 900 AU | RAB-900-AU | 672 € |
| Plug & Sense! RA 4G EU/BR* | RAB-4G-EU/BR | 876 € |
| Plug & Sense! RA 4G US* | RAB-4G-US | 876 € |
| Plug & Sense! RA 4G AU | RAB-4G-AU | 804 € |
| Plug & Sense! RA LoRaWAN EU | RAB-LW-EU | 600 € |
| Plug & Sense! RA LoRaWAN US | RAB-LW-US | 600 € |
| Plug & Sense! RA LoRaWAN AU | RAB-LW-AU | 600 € |
| Plug & Sense! RA LoRaWAN IN | RAB-LW-IN | 600 € |
| Plug & Sense! RA LoRaWAN ASIA-PAC / LATAM | RAB-LW-APL | 600 € |
| Plug & Sense! RA Sigfox EU ** | RAB-SF-EU | 600 € |
| Plug & Sense! RA Sigfox US ** | RAB-SF-US | 624 € |
| Plug & Sense! RA Sigfox AU/APAC/LATAM ** | RAB-SF-AAPL | 624 € |



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Ambient Control

This model is advised for the large amount of scenarios that only need to monitor temperature, humidity, pressure and luminosity sensors.

| Communication options | Ref. | Price |
|---|--------------|-------|
| Plug & Sense! AC 802.15.4 EU | ACB-802-EU | 480 € |
| Plug & Sense! AC 802.15.4 | ACB-802 | 480 € |
| Plug & Sense! AC WiFi | ACB-W | 480 € |
| Plug & Sense! AC 868 | ACB-868 | 486 € |
| Plug & Sense! AC 900 US | ACB-900-US | 516 € |
| Plug & Sense! AC 900 BR | ACB-900-BR | 516 € |
| Plug & Sense! AC 900 AU | ACB-900-AU | 516 € |
| Plug & Sense! AC 4G EU/BR* | ACB-4G-EU/BR | 744 € |
| Plug & Sense! AC 4G US* | ACB-4G-US | 744 € |
| Plug & Sense! AC 4G AU | ACB-4G-AU | 672 € |
| Plug & Sense! AC LoRaWAN EU | ACB-LW-EU | 468 € |
| Plug & Sense! AC LoRaWAN US | ACB-LW-US | 468 € |
| Plug & Sense! AC LoRaWAN AU | ACB-LW-AU | 468 € |
| Plug & Sense! AC LoRaWAN IN | ACB-LW-IN | 468 € |
| Plug & Sense! AC LoRaWAN ASIA-PAC / LATAM | ACB-LW-APL | 468 € |
| Plug & Sense! AC Sigfox EU ** | ACB-SF-EU | 468 € |
| Plug & Sense! AC Sigfox US ** | ACB-SF-US | 480 € |
| Plug & Sense! AC Sigfox AU/APAC/LATAM ** | ACB-SF-AAPL | 480 € |



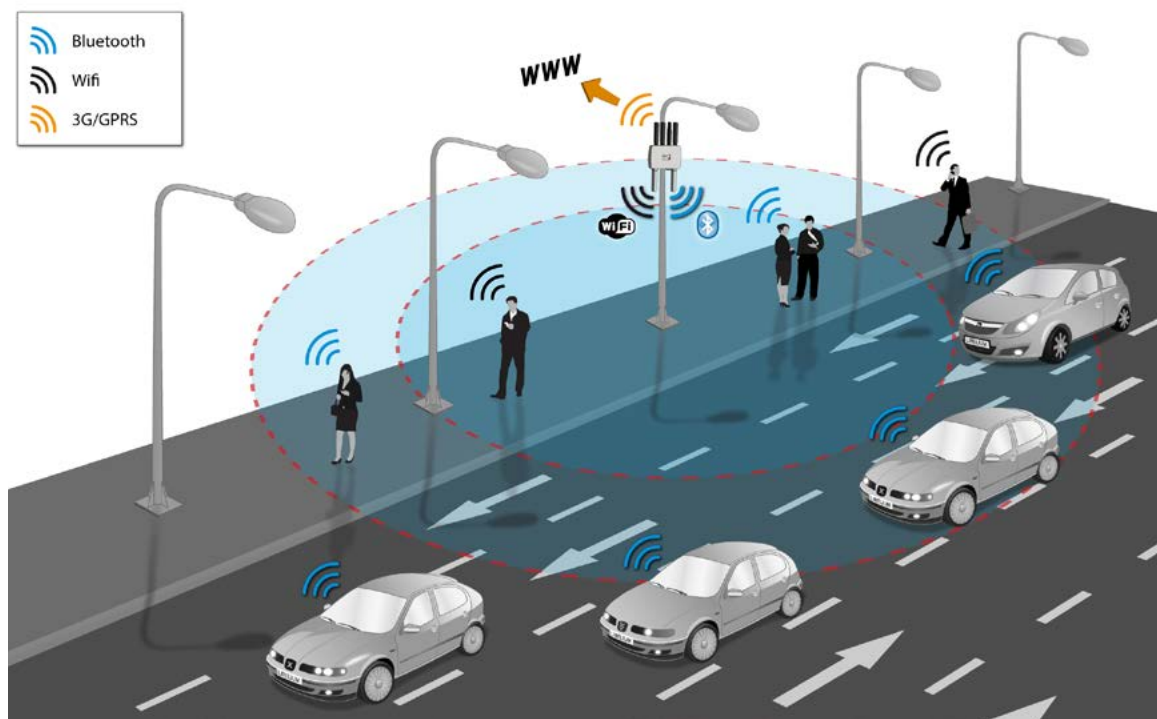
* This device includes a GPS receiver. ** Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country. Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our [Sales Team](#) for more info.

Sensors available:

| Sensor | Sockets | | | | | | Ref. | Price |
|------------------------------------|---------|---|---|---|---|---|--------|-------|
| | A | B | C | D | E | F | | |
| Temperature, Humidity and Pressure | ✓ | | | | | | 9370-P | 55 € |
| Luminosity (LDR) | | ✓ | | | | | 9205-P | 15 € |
| Luminosity (luxes accuracy) | | | ✓ | | | | 9325-P | 47 € |

Smartphone detection for traffic congestion and pedestrian counting

This application is performed with Meshlium and it is the only one that does not allow to attach any sensor. Meshlium can detect any smartphone in the area by measuring WiFi and Bluetooth activity. This way, pedestrian and traffic congestion can be determined in real time. Meshlium is also the Internet Gateway for Wasmote Plug & Sense! For more information about Meshlium models and prices [see Meshlium section](#).



Power options

One of the following options is necessary for each Plug & Sense! unit.

| Power options | Smart Environment PRO | Smart Agriculture | Smart Water | Smart Water Ions | Smart Cities PRO | Smart Parking ⁽³⁾ | Smart Security | 4-20 mA | Radiation Control | Ambient Control | Ref. | Price |
|--|-----------------------|-------------------|-------------|------------------|------------------|------------------------------|----------------|---------|-------------------|-----------------|---------------|-------|
| External solar panel 7V - 500mA (power accessory for Plug & Sense!) | ✓ | ✓ | ✓ | ✓ | ✓ | X | ✓ | ✓ | ✓ | ✓ | PAPS-ESP | 42 € |
| 220V adapter (power accessory for Plug & Sense!) | ✓ | ✓ | ✓ | ✓ | ✓ | X | ✓ | ✓ | ✓ | ✓ | PAPS-220V | 4 € |
| 220V adapter + outdoors USB cable (power accessory for Plug & Sense!) ⁽¹⁾ | ✓ | ✓ | ✓ | ✓ | ✓ | X | ✓ | ✓ | ✓ | ✓ | PAPS-220V-OUT | 16 € |
| 220V adapter + international plug adapter (power accessory for Plug & Sense!) ⁽²⁾ | ✓ | ✓ | ✓ | ✓ | ✓ | X | ✓ | ✓ | ✓ | ✓ | PAPS-220V-J | 11 € |

1.- Includes a special USB cable, waterproof in the Plug & Sense! end.

2.- Includes a plug adapter for the mains electricity in countries like USA, UK, Australia, Canada, China, Japan, Singapore or Hong Kong.

3.- Smart Parking comes by default with a 10.4 Ah non-rechargeable battery; other power options do not make sense.

You can also add this item as a power accessory (only valid for Plug & Sense! with rechargeable battery):

| Power options | PAPS-ESP | PAPS-220V | PAPS-220V-OUT | PAPS-220V-J | Smart Parking | Ref. | Price |
|-------------------------|----------|-----------|---------------|-------------|---------------|------|-------|
| External Battery Module | ✓ | ✓ | ✓ | ✓ | X | EBM | 180 € |

Industrial Protocols for Plug & Sense!

Plug & Sense! can incorporate an Industrial Protocol module as a secondary communication option. This feature opens a wide variety of applications for industrial sensing and automation, military, automobile, vehicle tracking or remote factory management. You can add the following accessories to your Plug & Sense! units:

| Accessories | Smart Env. PRO | Smart Agric. | Smart Water | Smart Water Ions | Smart Cities PRO | Smart Parking | Smart Security | 4-20 mA | Radiation Control | Ambient Control | Ref. | Price |
|------------------------------------|----------------|--------------|-------------|------------------|------------------|---------------|----------------|---------|-------------------|-----------------|--------------|-------|
| RS-485 / Modbus Module | ✓ | ✓ | ✗ | ✗ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ | RS-485-PS | 120 € |
| RS-485 / Modbus Module (4G models) | ✓ | ✓ | ✗ | ✗ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ | RS-485-PS-4G | 90 € |
| CAN Bus Module | ✓ | ✓ | ✗ | ✗ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ | CAN-PS | 110 € |
| CAN Bus Module (4G models) | ✓ | ✓ | ✗ | ✗ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ | CAN-PS-4G | 85 € |



Note: These accessories need special Plug & Sense! versions (called "Industrial Protocols ready"). Just remember to indicate to your sales agent the Plug & Sense! units where you want to use the Industrial modules.

In the case you chose any of the above options, you will need one or more of these accessories to connect your industrial devices to Plug & Sense!:

| Sensor | Ref. | Price |
|--------------------|--------|-------|
| Terminal box probe | 9270-P | 30 € |
| DB9 probe | DB9-P | 25 € |

Accessories

The following items are optional. Feel free to choose!

| Accessories | Ambient Control | Smart Cities PRO | Smart Parking | Smart Environment PRO | Smart Agriculture | Smart Security | Smart Water | Smart Water Ions | 4-20 mA | Radiation Control | Ref. | Price |
|---|-----------------|------------------|------------------|-----------------------|-------------------|----------------|------------------|------------------|---------|-------------------|--------|-------|
| GPS Module ⁽¹⁾ | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | GPS-PS | 80 € |
| Extension cord 1.5 m ⁽²⁾ | ✓ | ✗ | ✗ | ✗ | ✓ | ✓ | ✓ ⁽³⁾ | ✓ ⁽³⁾ | ✓ | ✗ | 10250 | 10 € |
| Extension cord 3 m ⁽²⁾ | ✓ | ✗ | ✗ | ✗ | ✓ | ✓ | ✓ ⁽³⁾ | ✓ ⁽³⁾ | ✓ | ✗ | 10251 | 12 € |
| Magnet for contactless reset ⁽⁴⁾ | ✓ | ✓ | ✓ ⁽⁵⁾ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 10342 | 30 € |

1.- You can add a GPS receiver to your Plug & Sense! units. That is great for locating each node and tracking applications. The GPS accessory needs special Plug & Sense! versions (called "GPS-ready"). Just remember to indicate to your sales agent the Plug & Sense! units where you want to have a GPS.

2.- Extension cords are compliant with most sensor probes (not compliant for example with I2C probes or other digital probes). One extension cord per sensor required.

3.- In Smart Water or Smart Water Ions, extension cords are only compliant with the Soil/Water temperature probe.

4.- A single magnet can be used for many motes. It is highly recommended.

5.- The magnet is EXTREMELY recommended for Smart Parking.



Now that you have configured your hardware, go to **Data** section to decide how to connect to the Cloud.



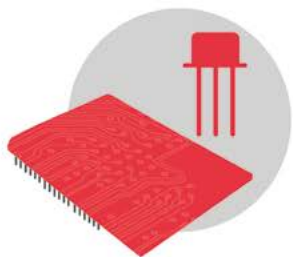
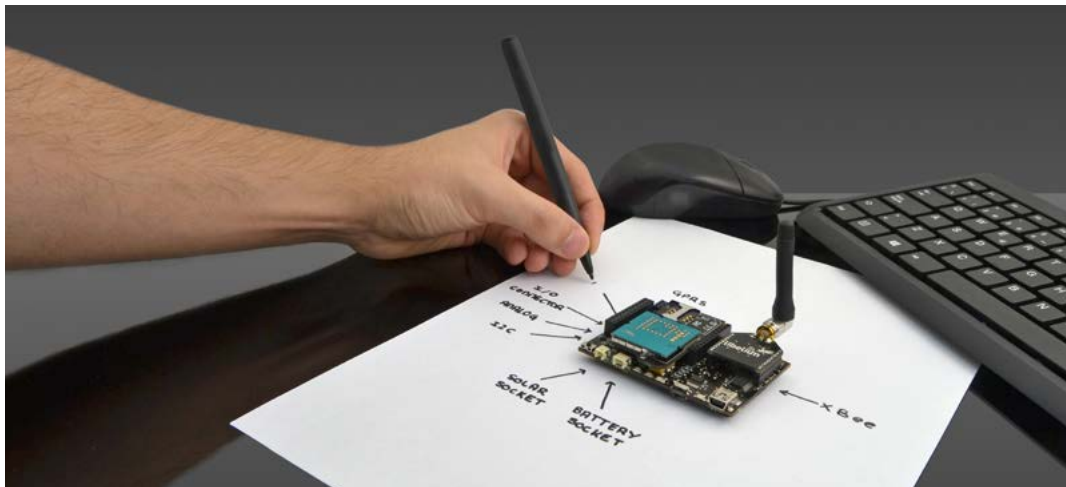
We provide prices in USD to US customers. Please submit your RFQ, and we will provide you with the USD prices.

Wasmote OEM: technology for developers

Wasmote OEM is the best option to research and develop. With a good C++ programming level, you can explore multiple possibilities with its Open Source API, 400+ online code examples and documentation.

Since it has no enclosure, you can try all kind of different hardware combinations, it is more handy to work with it at your lab table and you can use that extra money in getting more sensors and communication modules.

For configuring your hardware you will have to choose:



Board + Sensors

+



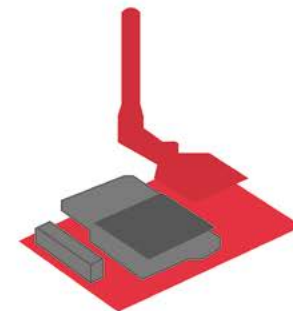
Communication Protocol

+



Power Supply

=



Your Custom Device

Sensors

To make the deployment of IoT sensor networks easier, we have created 10 sensor boards to integrate more than 110 different sensors.

Gases PRO



Events



Cities PRO



- Particle Matter (PM1 / PM2.5 / PM10) – Dust Sensor ⁽¹⁾
- CO - H₂
- CO₂ - H₂S
- O₂ - HCl
- O₃ - HCN
- NO - PH₃
- NO₂ - ETO
- SO₂ - Cl₂
- NH₃
- CH₄ (and other combustible gases)
- Temperature, Humidity and Pressure
- Luminosity (Luxes accuracy)
- Ultrasound (outdoor IP67)

WGASPRO - 50 €

- Temperature, Humidity and Pressure
- Presence PIR
- Horizontal liquid level (combustibles) / (water)
- Vertical liquid level (water)
- Water presence (point/line)
- Hall effect ⁽²⁾
- Water flow small
- Water flow medium
- Water flow large
- Relay Input-Output *
- Luminosity (Luxes accuracy)
- Ultrasound (outdoor IP67)

WEVENTS - 55 €

- Noise / Sound Level *
- Particle Matter (PM1 / PM2.5 / PM10) – Dust Sensor ⁽³⁾
- CO - CH₄
- CO₂ - H₂
- O₂ - H₂S
- O₃ - HCl
- NO - HCN
- NO₂ - PH₃
- SO₂ - ETO
- Cl₂
- NH₃ (and other combustible gases)
- Temperature + Humidity + Pressure
- Temperature, Humidity and Pressure
- Luminosity (Luxes accuracy)
- Ultrasound (outdoor IP67)




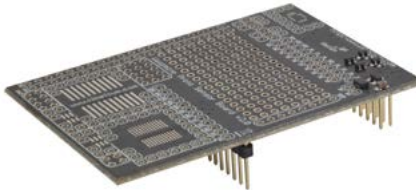
WCITIES - 55 €

1. Only available in the Plug & Sense! Smart Environment PRO line.

2. For doors and windows.
* Only available in the Plug & Sense! Smart Security line.

3. Only available in the Plug & Sense! Smart Cities PRO line.

Intro **Sensors** Connectivity Power Options Data Support Orders

| Parking * | Agriculture | Agriculture PRO | Prototyping |
|---|--|--|--|
|  |  |  |  |
| <ul style="list-style-type: none"> - Magnetic Field (3 axis): <p>* Always supplied with a Waspote.</p> <p>Note: Smart Parking is only available with the Plug & Sense! line.</p> | <ul style="list-style-type: none"> - Temperature, Humidity and Pressure - Anemometer + wind vane + pluviometer - Soil moisture ⁽⁴⁾ (1.5, 4.5, 8 m) - Leaf wetness - Luminosity (Luxes accuracy) - Ultrasound (outdoor IP67) | <ul style="list-style-type: none"> - Temperature, Humidity and PressureHumidity - Anemometer + wind vane + pluviometer - Soil moisture ⁽⁵⁾ (1.5, 4.5, 8 m) - Leaf wetness - Soil temperature (DS18B20) - Luminosity (Luxes accuracy) - Ultrasound (outdoor IP67) - Soil/Water temperature - Solar radiation (PAR) - Trunk diameter - Stem diameter - Fruit diameter | <ul style="list-style-type: none"> - Pad Area - Integrated Circuit Area - Analog-to-Digital Converter (16b) |
| | WAGR - 75 € | WAGRPRO - 99 € | WPROT - 35 € |

4. In each agriculture board 3 soil moistures can be connected in order to measure the parameter in different depth levels.

5. In each agriculture board 3 soil moistures can be connected in order to measure the parameter in different depth levels.

Intro **Sensors** Connectivity Power Options Data Support Orders

Radiation

4-20 mA (Current Loop)



- Geiger tube [β , γ]
(Beta and Gamma)

- Sensors and Instruments
- Remote transducers
- Monitoring processes
- Data transmission in industrial ambients

The user can choose among a wide variety of standard sensors

WRADIATION - 138 €

W420 - 54 €

Intro

Sensors

Connectivity

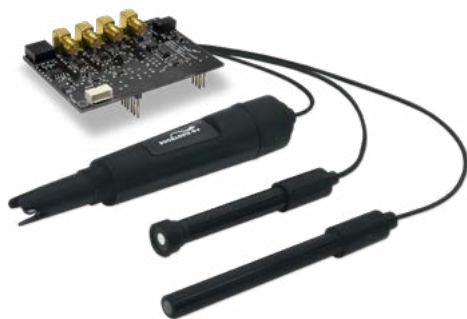
Power Options

Data

Support

Orders

Smart Water *



- Soil/Water Temperature
- Conductivity
- Dissolved Oxygen
- pH
- Oxidation-Reduction Potential
- Turbidity**

* Contains Soil/Water temperature sensor and 4 BNC pigtails.
** The sensor is sold calibrated from factory.

WWATER - 228 €

Smart Water Ions



- Ammonium (NH_4^+)
- Bromide (Br^-)
- Calcium (Ca^{2+})
- Chloride (Cl^-)
- Cupric (Cu^{2+})
- Fluoride (F^-)
- Iodide (I^-)
- Fluoroborate (BF_4^-)
- Lithium (Li^+)
- Nitrate (NO_3^-)
- Nitrite (NO_2^-)
- Magnesium (Mg^{2+})
- Perchlorate (ClO_4^-)
- Potassium (K^+)
- Silver (Ag^+)
- Sodium (Na^+)
- pH
- Soil / Water Temperature

- Single Junction Reference Probe
- Double Junction Reference Probe
- Reference Probe [PRO]

* Contains Soil/Water temperature sensor and 5 BNC pigtails. Ion sensors need Reference Probe.

WWIONS - 240 €

Intro

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| Sensor | Ref. | Price |
|--|---------|-------|
| Temperature, Humidity and Pressure | 9370 | 24 € |
| Luminosity (luxes accuracy) | 9325 | 10 € |
| Presence (PIR) | 9212 | 19 € |
| Horizontal liquid level (combustibles) | 9239 | 12 € |
| Horizontal liquid level (water) | 9240 | 24 € |
| Vertical liquid level (water) | 9242 | 24 € |
| Water Leakage / Liquid Detection (Point) | 9243 | 12 € |
| Water Leakage / Liquid Detection (line) | 9295 | 67 € |
| Hall effect ⁽¹⁾ | 9207 | 6 € |
| CO for low concentrations (Calibrated) ⁽³⁾ | 9371-LC | 264 € |
| CO ₂ (Calibrated) ⁽³⁾ | 9372 | 630 € |
| O ₂ (Calibrated) ⁽³⁾ | 9373 | 199 € |
| O ₃ (Calibrated) ⁽³⁾ | 9374 | 324 € |
| NO for low concentrations(Calibrated) ⁽³⁾ | 9375-LC | 264 € |
| NO ₂ high accuracy (Calibrated) ⁽³⁾ | 9376-HA | 264 € |
| SO ₂ high accuracy (Calibrated) ⁽³⁾ | 9377-HA | 264 € |
| NH ₃ (Calibrated) for low concentrations ⁽³⁾ | 9378-LC | 420 € |

| Sensor | Ref. | Price |
|---|---------|-------|
| NH ₃ (Calibrated) for high concentrations ⁽³⁾ | 9378-HC | 461 € |
| CH ₄ and Combustible Gas (Calibrated) ⁽³⁾ | 9379 | 234 € |
| H ₂ (Calibrated) ⁽³⁾ | 9380 | 198 € |
| H ₂ S (Calibrated) ⁽³⁾ | 9381 | 204 € |
| HCl (Calibrated) ⁽³⁾ | 9382 | 384 € |
| HCN (Calibrated) ⁽³⁾ | 9383 | 250 € |
| PH ₃ (Calibrated) ⁽³⁾ | 9384 | 372 € |
| ETO (Calibrated) ⁽³⁾ | 9385 | 276 € |
| Cl ₂ (Calibrated) ⁽³⁾ | 9386 | 276 € |
| Ultrasound (indoor) | 9213 | 45 € |
| Ultrasound (outdoor IP67) | 9246 | 110 € |
| Distance (by metallic pressure) | 9267 | 36 € |
| Water flow small | 9296 | 18 € |
| Water flow medium | 9297 | 17 € |
| Water flow large | 9298 | 23 € |
| Soil/Water temperature ⁽⁴⁾ | 9255 | 18 € |
| Solar radiation (PAR) | 9251 | 225 € |

| Sensor | Ref. | Price |
|--|-------|---------|
| Trunk diameter | 9252 | 500 € |
| Stem diameter | 9253 | 475 € |
| Fruit diameter | 9254 | 475 € |
| Anemometer + wind vane + pluviometer | 9256 | 73 € |
| Ultraviolet radiation | 9257 | 310 € |
| Soil moisture ⁽⁵⁾ (1.5m) | 9248 | 55 € |
| Soil moisture ⁽⁵⁾ (4.5m) | 9324 | 65 € |
| Soil moisture ⁽⁵⁾ (8m) | 9323 | 75 € |
| Leaf wetness | 9249 | 3 € |
| Soil temperature (DS18B20) | 86949 | 11 € |
| Conductivity | 9326 | 40 € |
| Dissolved Oxygen | 9327 | 600 € |
| pH | 9328 | 21 € |
| Oxidation Reduction Potential | 9329 | 54 € |
| Turbidity Sensor kit ⁽⁶⁾ | TSK | 3,924 € |
| Fluoride Ion (F ⁻) | 9353 | 204 € |
| Fluoroborate Ion (BF ₄ ⁻) | 9354 | 204 € |

Please note that each board is only compatible with certain sensors. Boards and sensors have to be purchased separately. Sensors are not included in the board price (unless stated otherwise)

Intro

Sensors

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| Sensor | Ref. | Price |
|--|------|-------|
| Bromide Ion (Br ⁻) | 9356 | 204 € |
| Chloride Ion (Cl ⁻) | 9357 | 204 € |
| Cupric Ion (Cu ²⁺) | 9358 | 204 € |
| Iodide Ion (I ⁻) | 9360 | 204 € |
| Silver Ion (Ag ⁺) | 9362 | 204 € |
| pH (for Smart Water Ions) | 9363 | 54 € |
| Ammonium Ion (NH ₄ ⁺) [PRO] | 9412 | 504 € |
| Bromide Ion (Br) [PRO] | 9413 | 918 € |
| Calcium Ion (Ca ²⁺) [PRO] | 9414 | 504 € |
| Chloride Ion (Cl) [PRO] | 9415 | 504 € |
| Cupric Ion (Cu ₂ ⁺) [PRO] | 9416 | 918 € |
| Fluoride Ion (F ⁻) [PRO] | 9417 | 918 € |
| Iodide Ion (I) [PRO] | 9418 | 918 € |
| Lithium Ion (Li ⁺) [PRO] | 9419 | 918 € |
| Nitrate Ion (NO ₃ ⁻) [PRO] | 9421 | 504 € |
| Nitrite Ion (NO ₂ ⁻) [PRO] | 9422 | 918 € |
| Magnesium Ion (Mg ²⁺) [PRO] | 9420 | 504 € |

| Sensor | Ref. | Price |
|--|------|-------|
| Perchlorate Ion (ClO ₄ ⁻) [PRO] | 9423 | 918 € |
| Potassium Ion (K ⁺) [PRO] | 9424 | 504 € |
| Silver Ion (Ag ⁺) [PRO] | 9425 | 918 € |
| Sodium Ion (Na ⁺) [PRO] | 9426 | 504 € |
| pH [PRO] | 9411 | 504 € |
| Single Junction Reference Probe ⁷ | 9350 | 78 € |
| Double Junction Reference Probe ⁸ | 9351 | 120 € |
| Reference Probe [PRO] ⁹ | 9410 | 504 € |

lons). It is not valid for the single or PRO type sensors.

9. This reference probe is **mandatory** for any ion sensor of the PRO type. It is not valid for the single or double type sensors.

1. For doors and windows.

2. VOC sensors are connected to the same socket, thus, it is not possible to have them working within the same board at the same time, but they are interchangeable.

3. Calibrated gas sensors are manufactured once the order has been placed to ensure maximum durability of the calibration feature. Manufacturing process and delivery may take from 4 to 6 weeks. Lifetime of calibrated gas sensors is 6 months working at maximum accuracy. We strongly encourage our customers to buy extra gas sensors to replace the original ones after that time to ensure maximum accuracy and performance.

4. Each Smart Water or Smart Water ions board includes a Soil/Water temperature sensor.

5. In each agriculture board, 3 soil moistures can be connected in order to measure the parameter in different depth levels.

6. This pack comprises the turbidity sensor and calibration kits. Sensor is calibrated in factory. Pack available on demand.

7. This reference probe is **mandatory** for ion sensors like Fluoride (F⁻), Fluoroborate (BF₄⁻), Nitrate (NO₃⁻) and pH (for Smart Water Ions). It is not valid for the double or PRO type sensors.

8. This reference probe is **mandatory** for ion sensors like Bromide (Br⁻), Chloride (Cl⁻), Cupric (Cu²⁺), Iodide (I⁻), Silver (Ag⁺) and pH (for Smart Water

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An accessory composed of a mounting bracket and a leveling plate is advised for the Solar radiation (PAR) and Ultraviolet sensor probes (check delivery time with your sales agent):

| Item | Ref. | Price |
|----------------------------------|------|-------|
| Solar Sensors Mounting Accessory | SSMA | 85 € |

For Smart Water and for Smart Water Ions sensors it is highly recommended to purchase calibration solutions to calculate accurate measurement.

One kit is enough for several sensor units:

| Calibration Kit | Ref. | Price |
|---|------|-------|
| Conductivity Calibration Kit, K=0.1 | 9339 | 28 € |
| Conductivity Calibration Kit, K=1 | 9340 | 28 € |
| Conductivity Calibration Kit, K=10 | 9341 | 28 € |
| DO Calibration Solution | 9342 | 42 € |
| Dissolved Oxygen Maintenance Kit | 9450 | 144 € |
| pH Calibration Kit | 9343 | 63 € |
| ORP Calibration Solution | 9344 | 42 € |
| Turbidity Calibration Kit (low) | TCL | 144 € |
| Turbidity Calibration Kit (high) | TCH | 186 € |
| Reference Sensor Probe [PRO] Maintenance Solution | 9449 | 119 € |
| Multi-Ions Calibration Kit (Ammonium, Calcium, Chloride, Magnesium, Nitrate, Potassium, Sodium) | 9445 | 144 € |

| Calibration Kit | Ref. | Price |
|------------------------------|------|-------|
| Bromide Calibration Kit | 9388 | 119 € |
| Calcium Calibration Kit | 9366 | 119 € |
| Chloride Calibration Kit | 9389 | 119 € |
| Cupric Calibration Kit | 9390 | 119 € |
| Fluoride Calibration Kit | 9367 | 119 € |
| Fluoroborate Calibration Kit | 9368 | 119 € |
| Iodide Calibration Kit | 9391 | 119 € |
| Lithium Calibration Kit | 9446 | 144 € |
| Nitrate Calibration Kit | 9369 | 119 € |
| Nitrite Calibration Kit | 9447 | 144 € |
| Perchlorate Calibration Kit | 9448 | 114 € |
| Silver Calibration Kit | 9392 | 119 € |

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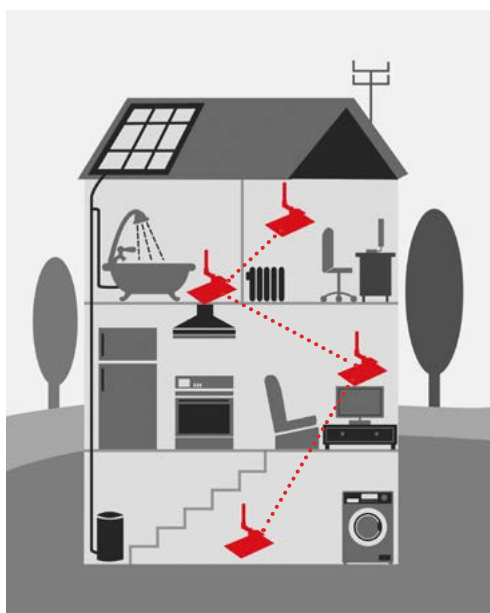
Data

Support

Orders

Configuring your Wasmotes: Connectivity

Wasmote model is determined by the selected communication radio. Each Wasmote model can have different types of antenna: 2dBi or 5dBi for 2.4 GHz models and 4.5dBi for the rest of frequencies.



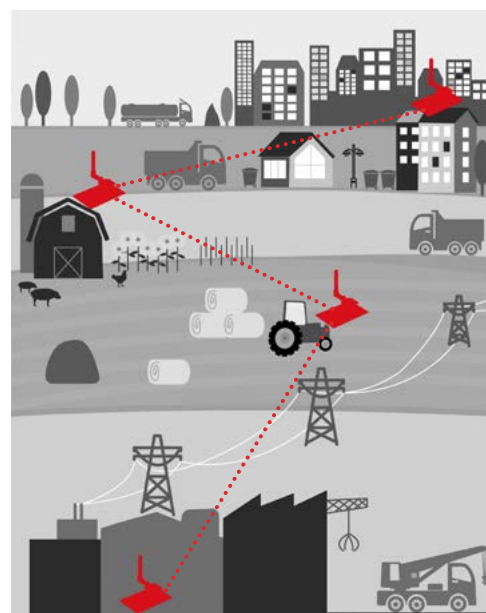
WiFi
Bluetooth
Bluetooth Low Energy

~ 0-300 m



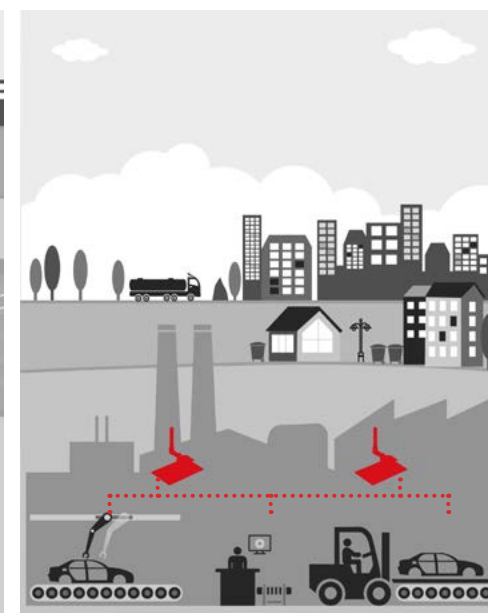
4G - NB-IoT - Cat-M - 3G - GPRS - Sigfox -
LoRaWAN

Typical carrier range



802.15.4
Digimesh
ZigBee-PRO
868 MHz
900 MHz
LoRa

~ 7-22+ Km



RS-485
4-20 mA
CAN Bus
Modbus

~ 0-200 m

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The following table compares the features of all available options according to frequency, use zone, protocol and range.

Wasmote price chart depending on model:

| Model | Frequency band | Use zone | Protocol | Distance outdoors ⁽¹⁾ | Ref. | Price |
|-------------------------------|----------------|--------------|------------|----------------------------------|---------------|-------|
| Wasmote 802.15.4 2dBi EU | 2.4 GHz | Europe | 802.15.4 | | W802P-SMA2-EU | 240 € |
| Wasmote 802.15.4 5dBi EU | 2.4 GHz | Europe | 802.15.4 | 750 m | W802P-SMA5-EU | 240 € |
| Wasmote 802.15.4 2dBi | 2.4 GHz | Worldwide | 802.15.4 | | W802P-SMA2 | 240 € |
| Wasmote 802.15.4 5dBi | 2.4 GHz | Worldwide | 802.15.4 | 1.6 km | W802P-SMA5 | 240 € |
| Wasmote Digimesh 2 dBi | 2.4 GHz | Worldwide | Digimesh | | WDMP-SMA2 | 240 € |
| Wasmote Digimesh 5 dBi | 2.4 GHz | Worldwide | Digimesh | 1.5 km | WDMP-SMA5 | 240 € |
| Wasmote ZigBee 2 dBi | 2.4 GHz | Worldwide | ZigBee-Pro | | WZB-SMA2 | 240 € |
| Wasmote ZigBee 5 dBi | 2.4 GHz | Worldwide | ZigBee-Pro | 1.2 km | WZB-SMA5 | 240 € |
| Wasmote 868 4.5 dBi | 868 MHz | Europe | RF | 8.4 km | W868-SMA4 | 250 € |
| Wasmote 900 4.5dBi US | 900 MHz | USA & Canada | RF | 15.5 km | W900-SMA4-US | 276 € |
| Wasmote 900 4.5dBi BR | 900 MHz | Brazil | RF | 15.5 km | W900-SMA4-BR | 276 € |
| Wasmote 900 4.5dBi AU | 900 MHz | Australia | RF | 15.5 km | W900-SMA4-AU | 276 € |
| Wasmote LoRaWAN 4.5 dBi - EU | 868 MHz | Europe | LoRaWAN | -km- Typical base station range | WLW-SMA4-EU | 228 € |
| Wasmote LoRaWAN 4.5 dBi - US | 900 MHz | USA & Canada | LoRaWAN | -km- Typical base station range | WLW-SMA4-US | 228 € |
| Wasmote LoRaWAN 4.5 dBi - 433 | 433 MHz | Worldwide | LoRaWAN | -km- Typical base station range | WLW-SMA4-433 | 228 € |

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Wasmote price chart depending on model:

| Model | Frequency band | Use zone | Protocol | Distance outdoors ⁽¹⁾ | Ref. | Price |
|---|---|---------------------------------------|-----------------|----------------------------------|----------------|-------|
| Wasmote LoRaWAN 4.5 dBi -AU | 900 MHz | Australia | LoRaWAN | -km- Typical base station range | WLW-SMA4-AU | 228 € |
| Wasmote LoRaWAN 4.5 dBi -IN | 865 MHz | India | LoRaWAN | -km- Typical base station range | WLW-SMA4-IN | 228 € |
| Wasmote LoRaWAN 4.5 dBi ASIA-PAC / LATAM | 923 MHz | AS923 | LoRaWAN | -km- Typical base station range | WLW-SMA4-APL | 228 € |
| Wasmote Sigfox 4.5 dBi EU ² | 868 MHz | Europe | Sigfox | -km- Typical base station range | WSF-SMA4-EU | 228 € |
| Wasmote Sigfox 4.5 dBi US ² | 900 MHz | USA & Canada | Sigfox | -km- Typical base station range | WSF-SMA4-US | 240 € |
| Wasmote Sigfox 4.5 dBi AU / APAC / LATAM ² | 900 MHz | Australia, Asia-Pacific, Latinamerica | Sigfox | -km- Typical base station range | WSF-SMA4-AAPL | 240 € |
| Wasmote LoRa 4.5 dBi - 868 | 868 MHz | Europe | RF | 22+ Km | WLoRa-SMA4-868 | 178 € |
| Wasmote LoRa 4.5 dBi - 900 | 900 MHz | USA & Canada | RF | 22+ Km | WLoRa-SMA4-900 | 178 € |
| Wasmote WiFi SMA5 | 2.4 GHz | Worldwide | 802.11b/g/n | 100 m | WWIFI-SMA5 | 264 € |
| Wasmote GPRS | 850/900/1800/1900 MHz | Worldwide | GSM – GPRS | - km - Typical carrier range | WA-GPRS | 234 € |
| Wasmote + 3G (Europe version) | Dual-band: WCDMA/ UMTS 900/2100 MHz Tri-band: GSM/GPRS/ EDGE 850/900/1800MHz | Europe | GSM – GPRS – 3G | - km - Typical carrier range | WA-3G-E | 316 € |

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Wasmote price chart depending on model:

| Model | Frequency band | Use zone | Protocol | Distance outdoors ⁽¹⁾ | Ref. | Price |
|---|---|------------------------|------------------------------------|----------------------------------|-------------|-------|
| Wasmote + 3G (America/Australia version) | Dual-band: WCDMA/ UMTS 850/1900 MHz Quad-band: GSM/ GPRS/EDGE 850/900/1800/1900 MHz | America / Australia | GSM – GPRS – 3G | - km - Typical carrier range | WA-3G-A | 316 € |
| Wasmote NB-IoT / Cat-M 3 | B1/B2/B3/B4/B5/B8/B12/ B13/B18/B19/B20/B25/ B26/B28/B39 | Worldwide | NB-IoT – Cat-M – EGPRS | - km - Typical carrier range | WA-NBCM | 290 € |
| Wasmote 4G EU/BR ³ | 2G: 900/1800 MHz WCDMA: 900/2100 MHz LTE: 800/900/1800/ 2100/2600 MHz | Europe & Brazil | GSM – GPRS – 3G – 4G | - km - Typical carrier range | WA-4G-EU/BR | 468 € |
| Wasmote 4G US ³ | 2G: 850/1900 MHz WCDMA: 850/1900 MHzTE: 700/850/1700/1900 MHz | USA & Canada | GSM – GPRS – 3G – 4G | - km - Typical carrier range | WA-4G-US | 468 € |
| Wasmote 4G AU | 4G: 700/1800/2600 MHz | Australia | 4G | - km - Typical carrier range | WA-4G-AU | 378 € |
| Wasmote Bluetooth 2dBi | WCDMA: 850/1900 MHz | Worldwide | Bluetooth 2.1 + EDR Class 2 | | WWBTS-SMA2 | 234 € |
| Wasmote Bluetooth 5dBi | LTE: 700/850/1700/1900 MHz | Worldwide | Bluetooth 2.1 + EDR Class 2 | 30-100 m | WWBTS-SMA5 | 234 € |
| Wasmote Bluetooth Low Energy 2dBi | 2.4 GHz | Worldwide | Bluetooth 4.0 / Bluetooth Smart | | WBLE-SMA2 | 204 € |
| Wasmote Bluetooth Low Energy 5dBi | 2.4 GHz | Worldwide | Bluetooth 4.0 / Bluetooth Smart | 100 m | WBLE-SMA5 | 204 € |

1- Tests performed with 5 dBi omnidirectional antenna, line-of-sight and Fresnel zone clearance conditions.

2- Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country. Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our Sales Team for more info.

3- This device includes a GPS receiver.

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Industrial Protocols

Waspote can integrate communication modules for the most common wired communication protocols: RS-485, CAN Bus and Modbus. These are widely used standards in the industrial and automation market for connecting devices and sensors, not in a wireless way but with cables. The user can interface Waspote ecosystem with these protocols.

Waspote allows to perform three main applications:

1. Connect any sensor to an existing industrial bus.
2. Add wireless connectivity to wired buses.
3. Connect to the Cloud industrial devices.

Waspote price chart depending on model:

| Model | Ref. | Price |
|-------------------------------------|--------|-------|
| Waspote RS-485 / Modbus + DB9 cable | WA-485 | 210 € |
| Waspote CAN Bus + DB9 cable | WA-CAN | 222 € |



Waspote RS-232 Serial / Modbus



Waspote RS-485 / Modbus



Waspote CAN Bus

1- Tests performed with 5 dBi omnidirectional antenna, line-of-sight and Fresnel zone clearance conditions.
3- This device includes a GPS receiver.

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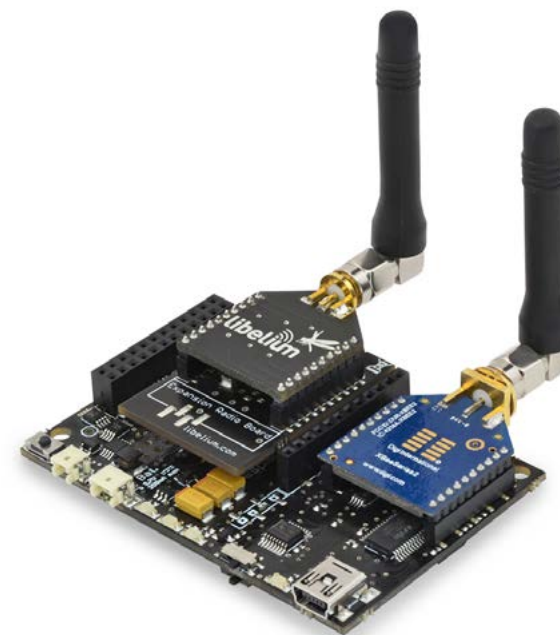
Orders

Expansion Radio Board

The Expansion Board allows to connect two radios at the same time. This means a lot of different combinations are possible using any of the radios available for Waspnote: 802.15.4, ZigBee, DigiMesh, 868 MHz, 900 MHz, LoRa, WiFi, GPRS, 3G, NB-IoT, Cat-M, 4G, Sigfox, LoRaWAN, Bluetooth Pro, Bluetooth Low Energy and RFID/NFC. Besides, the Expansion Radio Board can be utilized to connect the Industrial Protocols modules.

Applications:

- Multifrequency Sensor Networks: (2.4GHz – 868/900MHz, LoRa)
- Sigfox - ZigBee hybrid networks
- NFC (RFID) applications with GPRS
- LoRaWAN - WiFi hybrid networks
- Industrial Protocols – wireless hybrid networks



Expansion Radio Board: 2 radios connection

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| Model | Require Expansion Radio Board? | Direct connection to Waspote | Ref. | Price | Model | Require Expansion Radio Board? | Direct connection to Waspote | Ref. | Price |
|---------------------------------|--------------------------------|------------------------------|---------------|-------|--|--------------------------------|------------------------------|--------------|-------|
| Expansion Radio Board | - | - | WEXP | 30 € | Sigfox Module US ¹ | ✓ | | SF-SMA4-US | 78 € |
| XBee 802.15.4 5 dBi EU | ✓ | | X802P-SMA5-EU | 48 € | Sigfox Module AU/APAC/LATAM ¹ | ✓ | | SF-SMA4-AAPL | 78 € |
| XBee 802.15.4 5dBi | ✓ | | X802P-SMA5 | 48 € | WiFi Module SMA5 | ✓ | | WIFI-SMA5 | 108 € |
| XBee Digimesh 5dBi | ✓ | | XDMP-SMA5 | 48 € | GSM / GPRS Module | | ✓ | WGPRS | 84 € |
| XBee ZigBee 5dBi | ✓ | | XZB-SMA5 | 48 € | 3G Module (Europe version) | | ✓ | W3G-E | 174 € |
| XBee 868 4.5dBi | ✓ | | X868-SMA4 | 90 € | 3G Module (America/Australia version) | | ✓ | W3G-A | 174 € |
| XBee 900 4.5 dBi US | ✓ | | X900-SMA4-US | 79 € | NB-IoT / Cat-M Module ² | | ✓ | WNBCM | 199 € |
| XBee 900 4.5 dBi BR | ✓ | | X900-SMA4-BR | 79 € | 4G Module EU/BR ² | | ✓ | W4G-EU/BR | 264 € |
| XBee 900 4.5 dBi AU | ✓ | | X900-SMA4-AU | 79 € | 4G Module US ² | | ✓ | W4G-US | 264 € |
| LoRa module SMA 4.5 dBi - 868 | Only for socket 0 | | LoRa-SMA4-868 | 54 € | 4G Module AU | | ✓ | W4G-AU | 198 € |
| LoRa module SMA 4.5 dBi - 900 | Only for socket 0 | | LoRa-SMA4-900 | 54 € | | | | | |
| LoRaWAN Module EU | ✓ | | LW-SMA4-EU | 70 € | | | | | |
| LoRaWAN Module US | ✓ | | LW-SMA4-US | 70 € | | | | | |
| LoRaWAN Module 433 | ✓ | | LW-SMA4-433 | 70 € | | | | | |
| LoRaWAN Module AU | ✓ | | LW-SMA4-AU | 70 € | | | | | |
| LoRaWAN Module IN | ✓ | | LW-SMA4-IN | 70 € | | | | | |
| LoRaWAN Module ASIA-PAC / LATAM | ✓ | | LW-SMA4-APL | 70 € | | | | | |
| Sigfox Module EU ¹ | ✓ | | SF-SMA4-EU | 66 € | | | | | |



Sigfox module



Waspote 4G module

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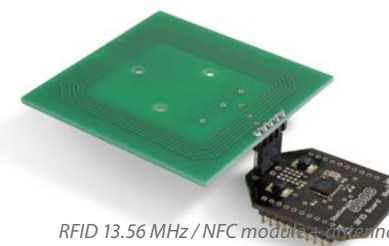
Power Options

Data

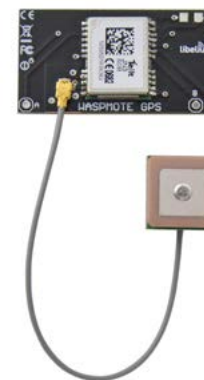
Support

Orders

| Model | Require Expansion Radio Board? | Direct connection to Wasp mote | Ref. | Price |
|--|--------------------------------|--------------------------------|-----------|-------|
| Bluetooth Module for device discovery ³ , 2 dBi antenna | ✓ | | WBTS-SMA2 | 90 € |
| Bluetooth Module for device discovery ³ , 5 dBi antenna | ✓ | | WBTS-SMA5 | 90 € |
| Bluetooth Low Energy Module, 2dBi antenna | ✓ | | BLE-SMA2 | 78 € |
| Bluetooth Low Energy Module, 5dBi antenna | ✓ | | BLE-SMA5 | 78 € |
| RFID 13.56 MHz / NFC Module + antenna* | ✓ | | W1356 | 60 € |
| GPS Module | | ✓ | WGPS | 60 € |
| RS-485 / Modbus module + DB9 cable | Only for socket 0 | | W485 | 60 € |
| CAN Bus module + DB9 cable | Only for socket 0 | | WCAN | 66 € |



RFID 13.56 MHz / NFC module + antenna



Wasp mote GPS module

¹ Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country. Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our [Sales Team](#) for more info.

² This radio includes a GPS receiver.

³ The Bluetooth module requires an SD card to save all data of discovered devices, see prices in the next section.

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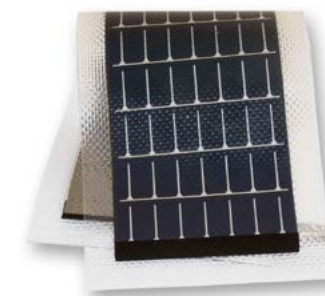
Power options

| Model | Features | Ref. | Price |
|---------------------------------|----------------------|-------|-------|
| 6600mA·h battery ⁽¹⁾ | Li-ion rechargeable | 6041 | 36 € |
| 52 A·h ^{(1) (2)} | Non-rechargeable | 6023 | 162 € |
| Rigid solar panel | 7 V – 500 mA | 6020 | 42 € |
| Flexible solar panel | 7.2 V – 100 mA | 6021 | 41 € |
| 220V - USB | USB connector option | 6006 | 4 € |
| International adapter | USB connector option | 10280 | 8 € |
| Car lighter - USB | USB connector option | 6007 | 4 € |

1.- Each Wasmote always requires a battery, even if it is powered from an external power supply.
2.- This power option is not available for GPRS, 3G, NB-IoT, Cat-M or 4G models.



Rigid Solar Panel 7V - 500mA



Flexible Solar Panel 7.2V - 100mA

We provide prices in USD to US customers. Please submit your RFQ, and we will provide you with the USD prices.

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Accessories

Optional complements for Waspote. Feel free to customize your Waspotes!

| Model | Features | Ref. | Price |
|---------------------------------|---------------------------------------|-------|-------|
| SD card* | 16 GB (5 cards pack) | WSD | 36 € |
| 13.56 MHz / NFC card | 5 units pack | 10156 | 3 € |
| 13.56 MHz / NFC keyring | 5 units pack | 10157 | 4 € |
| 13.56 MHz / NFC sticker | 5 units pack | 10166 | 4 € |
| OBD-II cable for CAN Bus Module | For connecting to compatible vehicles | OBD | 29 € |

* There are many SD card models; the only model that Libelium can assure that works with Waspote correctly is the model that Libelium distributes officially.



Now that you have configured your hardware, go to **Data** section to decide how to connect to the Cloud.



Demo Kits

Waspnote P&S!

Waspnote OEM

Data

Support

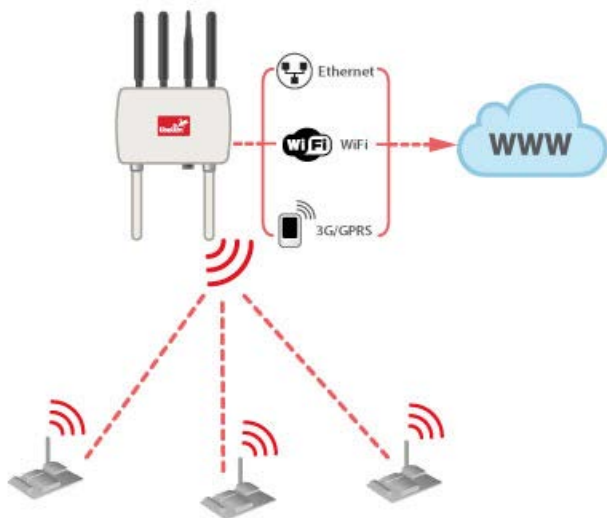
Orders

Extracting the data

The last point for configuring a sensor network is to decide the way to access the data. There are 3 alternatives:

Meshlium

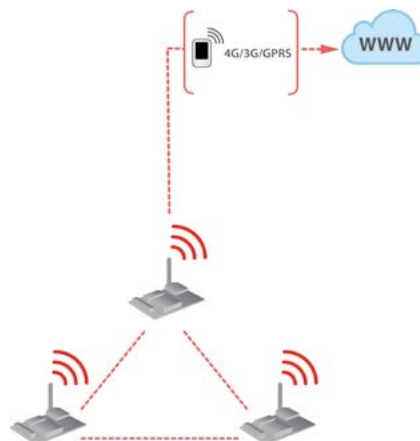
This is the most recommended option for outdoor networks since it is encased in a rugged, waterproof enclosure which protects it from the harshest conditions. It can receive, parse and store frames in its local database. Meshlium can also forward sensor data directly to the Internet via Ethernet or GPRS/3G/4G protocols, depending on the connectivity options available in the area.



Waspnote GPRS / 3G / NB-IoT / Cat-M / 4G / Sigfox / LoRaWAN

GPRS, 3G, NB-IoT, Cat-M or 4G can be used in networks placed in difficult access locations, when using a single point of data collection alone or in combination with the other two options, using the cellular radio only to send SMS alert messages.

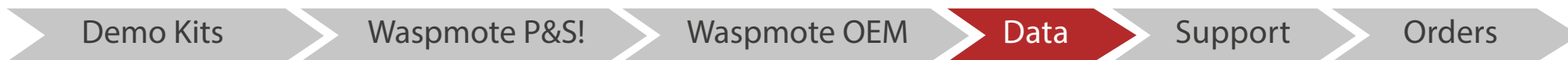
Sigfox and LoRaWAN are special cases of cellular communications: LPWAN (Low Power, Wide Area Network). They are indicated for many applications (Smart Cities, Smart Parking, security, etc). Nodes send data directly to the back-end with low power consumption and cheap fees.



Waspnote Gateway

Connected by USB to a computer. This is recommended for applications of few nodes that are indoors or for testing while configuring the network. The Waspnote Gateway is also used to send commands to the sensor network, thus at least one unit should be purchased with the first kit of Waspnotes.



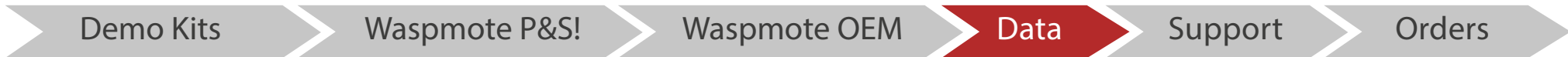


Meshlium

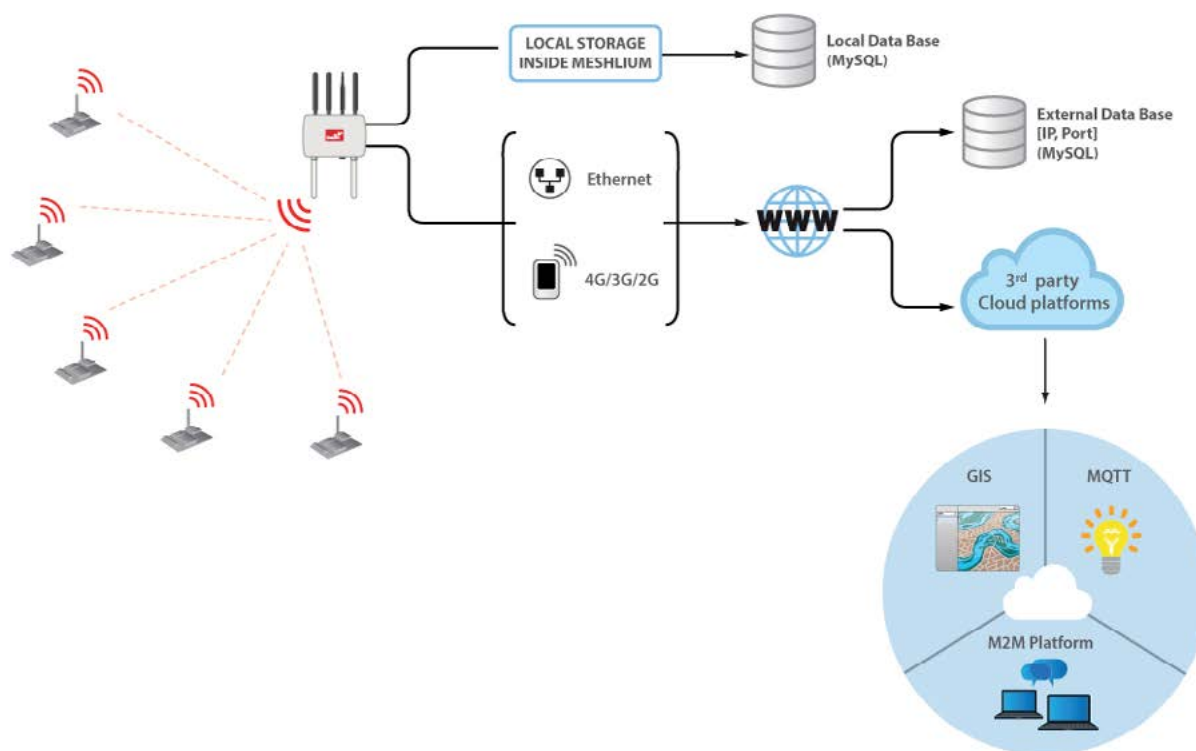
Meshlium is the best Internet Gateway for Wasp mote. It is a Linux-based router, totally modular and specially designed for harsh conditions without compromising flexibility in the installation. Meshlium can directly send sensor data from Wasp mote to many 3rd party Cloud platforms.

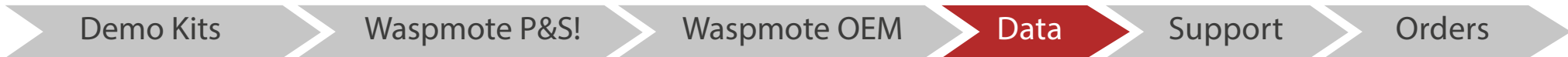
| | |
|--------------------|--|
| Any scenario | <ul style="list-style-type: none"> • Communication: <ul style="list-style-type: none"> - Wasp mote → Meshlium: 802.15.4, 868/900MHz - Meshlium → Internet: Ethernet and 4G/3G/GPRS • WiFi and Bluetooth interface detection to detect smartphones (traffic congestion applications) • GPS receiver |
| Fast configuration | <ul style="list-style-type: none"> • GUI to configure in a visual and easy way (includes factory presets to make installation even faster) • Integrated with 3rd party Cloud platforms, required agents installed by default in all Meshliums |
| Easy installation | <ul style="list-style-type: none"> • Special holders and brackets to install in street lights and building fronts • Elbow connectors included in all models to place antennas horizontally • External socket for SIM card |
| Easy maintenance | <ul style="list-style-type: none"> • Get the latest software version with just one click • Robust waterproof IP65 enclosure • Notifications buzzer |
| Fully certified | <ul style="list-style-type: none"> • CE (Europe) • FCC (US) • IC (Canada) • ANATEL (Brazil) • RCM (Australia) • PTCRB (cellular certification for US) • AT&T (cellular certification for US) |





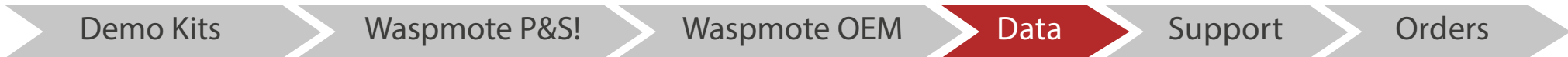
Libelium has partnered with the best Cloud software solution providers to offer you all the necessary components to deploy Internet of Things (IoT), machine-to-machine (M2M) or Smart Cities projects with minimum time to market. Meshlium is able to send data to the Cloud in a transparent way:





Meshlium includes internal software units called "Cloud Connectors" that allow the information gathered to be easily sent to any of the next Cloud Platforms. Note that data can be also stored in the internal database of Meshlium or even sent to any other Cloud Platform (for more info about how being part of the official Cloud Connectors Program go to <http://www.libelium.com/products/meshlium/wsn/>).



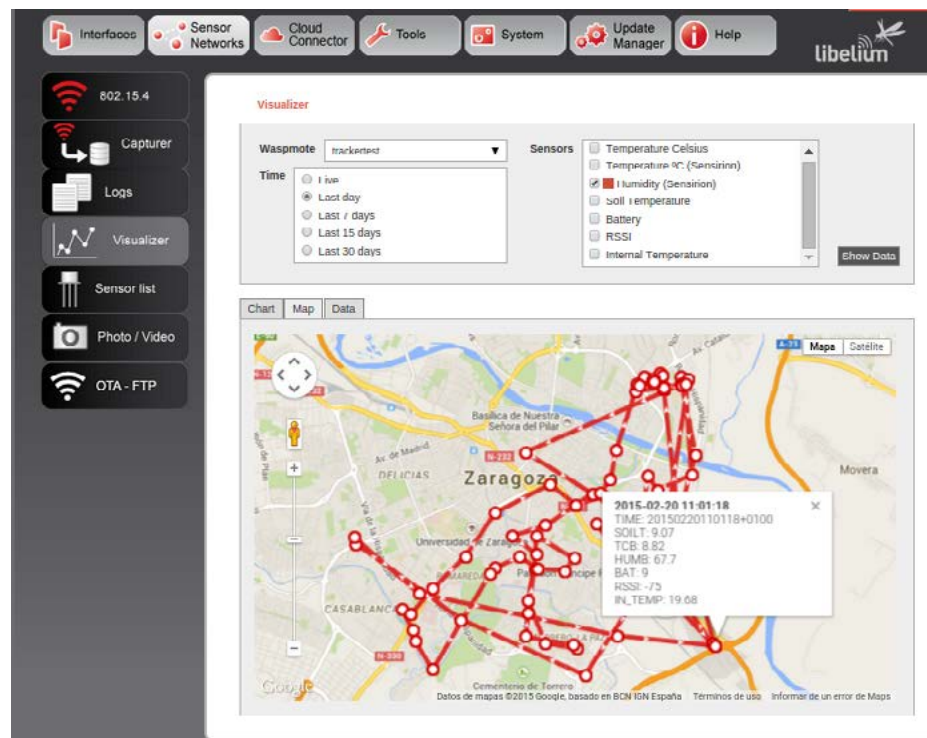


Meshlium Visualizer

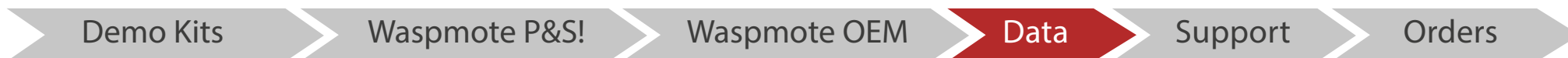
This software feature allows to plot beautiful graphs with Meshlium. Meshlium Visualizer is only included in IoT Vertical Kits and Solution Kits with Meshlium. The service is valid for Libelium standard sensors.



Meshlium Visualizer showing data series



Meshlium Visualizer geo-locating a moving Plug & Sense!



Meshlium price chart depending on model:

| Meshlium Model | Use zone | WiFi AP | 4G/3G/GPRS | GPS | 802.15.4 | 868/900 | WiFi & Bluetooth scanners | Ref. | Price |
|--------------------------------|-----------------|---------|---------------|-----|---------------|---------|---------------------------|----------------|---------|
| Meshlium 4G 802.15.4 AP 868 EU | Europe | ✓ | EU/BR version | ✓ | EU version | 868 | | M4G-802-868-EU | 1,590 € |
| Meshlium 4G 802.15.4 AP 900 US | USA & Canada | ✓ | US version | ✓ | World version | 900 US | | M4G-802-900-US | 1,590 € |
| Meshlium 4G 802.15.4 AP 900 BR | Brazil | ✓ | EU/BR version | ✓ | World version | 900 BR | | M4G-802-900-BR | 1,590 € |
| Meshlium 4G 802.15.4 AP 900 AU | Australia | ✓ | AU version | | World version | 900 AU | | M4G-802-900-AU | 1,590 € |
| Meshlium 4G AP 868 EU | Europe | ✓ | EU/BR version | ✓ | | 868 | | M4G-868-EU | 1,500 € |
| Meshlium 4G AP 900 US | USA & Canada | ✓ | US version | ✓ | | 900 US | | M4G-900-US | 1,500 € |
| Meshlium 4G AP 900 BR | Brazil | ✓ | EU/BR version | ✓ | | 900 BR | | M4G-900-BR | 1,500 € |
| Meshlium 4G AP 900 AU | Australia | ✓ | AU version | | | 900 AU | | M4G-900-AU | 1,500 € |
| Meshlium 4G 802.15.4 AP EU | Europe | ✓ | EU/BR version | ✓ | EU version | | | M4G-802-EU | 1,500 € |
| Meshlium 4G 802.15.4 AP US | USA & Canada | ✓ | US version | ✓ | World version | | | M4G-802-US | 1,500 € |
| Meshlium 4G 802.15.4 AP BR | Brazil | ✓ | EU/BR version | ✓ | World version | | | M4G-802-BR | 1,500 € |
| Meshlium 4G 802.15.4 AP AU | Australia | ✓ | AU version | | World version | | | M4G-802-AU | 1,500 € |
| Meshlium 4G AP Scanner EU/BR | Europe & Brazil | ✓ | EU/BR version | ✓ | | | ✓ | M4G-SCAN-EU/BR | 1,650 € |
| Meshlium 4G AP Scanner US | USA & Canada | ✓ | US version | ✓ | | | ✓ | M4G-SCAN-US | 1,650 € |
| Meshlium 4G AP Scanner AU | Australia | ✓ | AU version | | | | ✓ | M4G-SCAN-AU | 1,650 € |

The following accessory is optional.

| Item | Ref. | Price |
|---|-------|-------|
| International adapter * | 10280 | 8 € |
| Directional Antennas for Meshlium Scanner** | MDA | 150 € |

* Plug adapter for the mains electricity in countries like USA, UK, Australia, Canada, China, Japan, Singapore or Hong Kong. Highly recommended for powering Meshlium.

** This is a kit of 2 outdoors directional antennas (14 dB) for WiFi and Bluetooth, mounting kits, 3 m cables and adapters. The kit is specially indicated for Vehicle Detection applications because it enlarges the range area.



Directional antenna for Meshlium Scanner

We provide prices in USD to US customers. Please submit your RFQ, and we will provide you with the USD prices.

Demo Kits

Waspnote P&S!

Waspnote OEM

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Waspnote Gateway and cellular or LPWAN modules

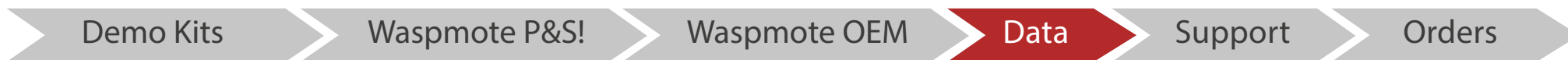
| Data extraction option | Ref. | Price |
|---|-----------------|-------|
| Waspnote Gateway 802.15.4 2dBi EU | WG802P-SMA2-EU | 74 € |
| Waspnote Gateway 802.15.4 2dBi | WG802P-SMA2 | 74 € |
| Waspnote Gateway 802.15.4 5dBi EU | WG802P-SMA5-EU | 74 € |
| Waspnote Gateway 802.15.4 5dBi | WG802P-SMA5 | 74 € |
| Waspnote Gateway Digimesh 2dBi | WGDMP-SMA2 | 70 € |
| Waspnote Gateway Digimesh 5dBi | WGDMP-SMA5 | 70 € |
| Waspnote Gateway ZigBee 2dBi | WGZB-SMA2 | 80 € |
| Waspnote Gateway ZigBee 5dBi | WGZB-SMA5 | 80 € |
| Waspnote Gateway 868 4.5 dBi | WG868-SMA4 | 82 € |
| Waspnote Gateway 900 4.5dBi US | WG900-SMA4-US | 99 € |
| Waspnote Gateway 900 4.5dBi BR | WG900-SMA4-BR | 99 € |
| Waspnote Gateway 900 4.5dBi AU | WG900-SMA4-AU | 99 € |
| Waspnote Gateway LoRa 868 | WGLoRa-SMA4-868 | 57 € |
| Waspnote Gateway LoRa 900 | WGLoRa-SMA4-900 | 57 € |
| Waspnote Gateway Bluetooth 2 dBi | WGBTS-SMA2 | 69 € |
| Waspnote Gateway Bluetooth 5 dBi | WGBTS-SMA5 | 69 € |
| Waspnote Gateway Bluetooth Low Energy 2 dBi | WGBLE-SMA2 | 60 € |
| Waspnote Gateway Bluetooth Low Energy 5 dBi | WGBLE-SMA5 | 60 € |

| Data extraction option | Ref. | Price |
|--|--------------|-------|
| Waspnote GSM/ GPRS module | WGPRS | 84 € |
| Waspnote 3G module (Europe version) | W3G-E | 174 € |
| Waspnote 3G module (America/Australia version) | W3G-A | 174 € |
| NB-IoT / Cat-M Module * | WNBCM | 199 € |
| 4G Module EU/BR * | W4G-EU/BR | 264 € |
| 4G Module US * | W4G-US | 264 € |
| 4G Module AU | W4G-AU | 198 € |
| LoRaWAN Module EU | LW-SMA4-EU | 70 € |
| LoRaWAN Module US | LW-SMA4-US | 70 € |
| LoRaWAN Module 433 | LW-SMA4-433 | 70 € |
| LoRaWAN Module AU | LW-SMA4-AU | 70 € |
| LoRaWAN Module IN | LW-SMA4-IN | 70 € |
| LoRaWAN Module ASIA-PAC / LATAM | LW-SMA4-APL | 70 € |
| Waspnote Sigfox module EU** | SF-SMA4-EU | 66 € |
| Waspnote Sigfox module US** | SF-SMA4-US | 78 € |
| Waspnote Sigfox module AU/APA/LATAM** | SF-SMA4-AAPL | 78 € |

* This radio includes a GPS receiver.

**Does NOT include Sigfox connectivity, the user must hire this service directly from Sigfox. Check network availability in your country.

Libelium offers Sigfox radios with 1-year license in the Sigfox IoT Starter Kit. Contact our [Sales Team](#) for more info.



LoRaWAN base stations

Libelium distributes base stations for LoRaWAN networks. They are manufactured by the company MultiTech. All of them have LoRaWAN and Ethernet connection; some feature 4G connectivity too. These base stations are ready to work outdoors (IP67 grade), and come with lightning arrestor and grounding protection, PoE powering system, a mounting kit and all needed cables and antennas. They run the AEP operating system (enhanced closed-source Linux distro).

There are EU, US and AU versions, and some of them come pre-configured for some LoRaWAN cloud servers:

| Model | User Zone | Operating system | Pre-configured for LoRaWAN servers | 4G connectivity? | Ref. | Price |
|---|-----------|------------------|--|------------------|----------------------|---------|
| Multitech Conduit LoRaWAN Base Station, 4G, AEP, EU version (embedded Network Server) | EU | AEP | No, but has an embedded LoRaWAN Network Server | ✓ | MLRWBS-4G-AEP-ENS-EU | 1,400 € |
| Multitech Conduit LoRaWAN Base Station, 4G, AEP, US version (embedded Network Server) | US | AEP | No, but has an embedded LoRaWAN Network Server | ✓ | MLRWBS-4G-AEP-ENS-US | 1,400 € |
| Multitech Conduit LoRaWAN Base Station, AEP, AU version (embedded Network Server) | AU | AEP | No, but has an embedded LoRaWAN Network Server | ✗ | MLRWBS-AEP-ENS-AU | 1,200 € |
| Multitech Conduit LoRaWAN Base Station, 4G, AEP, EU version (configured for Lorient) | EU | AEP | Yes, Lorient | ✓ | MLRWBS-4G-AEP-L-EU | 1,400 € |
| Multitech Conduit LoRaWAN Base Station, 4G, AEP, US version (configured for Lorient) | US | AEP | Yes, Lorient | ✓ | MLRWBS-4G-AEP-L-US | 1,400 € |
| Multitech Conduit LoRaWAN Base Station, AEP, AU version (configured for Lorient) | AU | AEP | Yes, Lorient | ✗ | MLRWBS-AEP-L-AU | 1,200 € |

Demo Kits

Waspnote P&S!

Waspnote OEM

Data

Support

Orders



MultiTech's LoRaWAN base station



Now that you know how to extract the Data go to the **Support** section and see our training formulas.



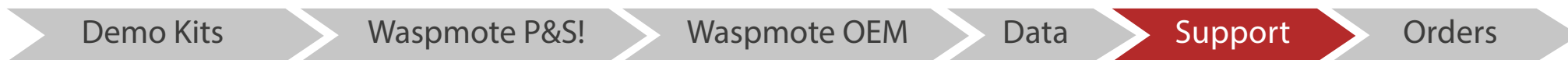
Getting support

Waspnote Plug & Sense! devices factory-programmed

If you want to save time and development costs you do not need to program anything, we can ask you about the requirements and ship your devices factory-programmed and ready to plug and sense.

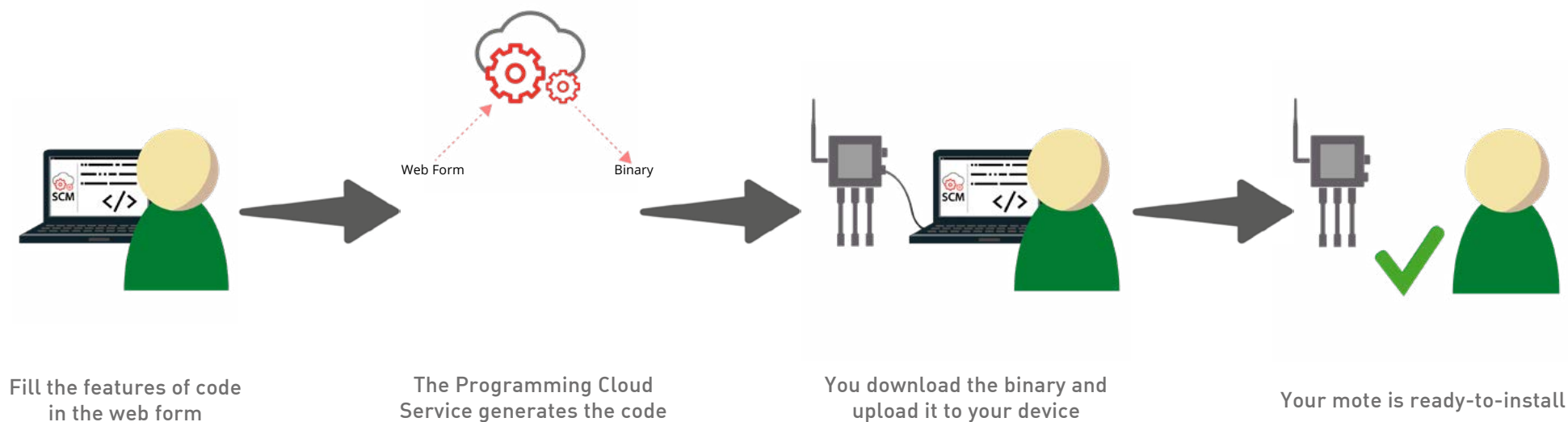
| | | |
|---|----------|---------------|
| Plug & Sense! Programming Service (includes the creation of up to 3 different binaries and the upload of them into 5 Plug & Sense! nodes) | PROG | 600 € |
| Additional Nodes Upload Service | PROG-UPL | 24 € per node |

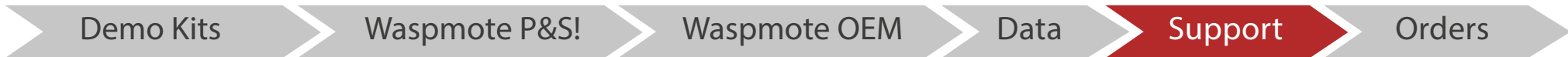




Waspnote Plug & Sense! programmer on the cloud

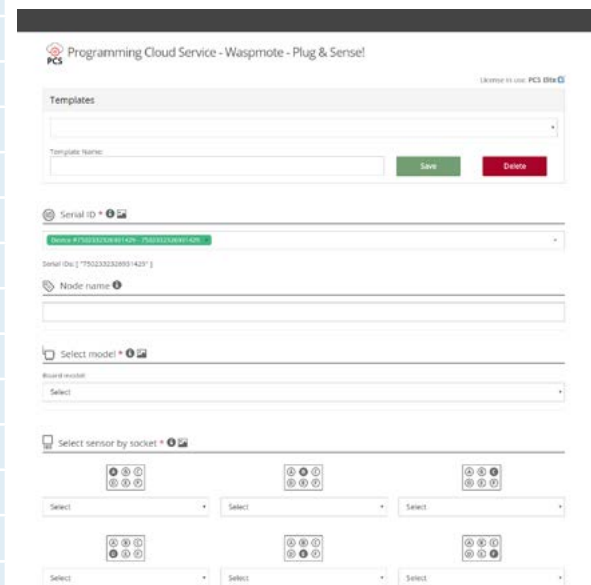
The **Programming Cloud Service** is an intuitive graphic interface which creates code automatically. The user just needs to fill a web form to obtain binaries for Plug & Sense!.





Advanced programming options are available, depending on the license selected:

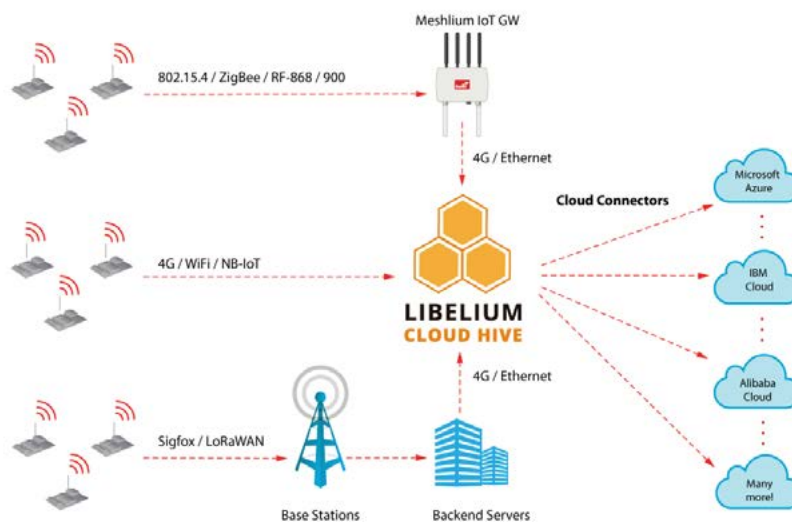
| | Basic | PRO | Elite |
|--|-------|-------|---------|
| Nodes to program | 6 | 20 | 100 |
| Plug & Sense! models supported | All | All | All |
| Sensors supported | All | All | All |
| Actuators control (Relay on/off in Plug & Sense! Smart Security) | ✓ | ✓ | ✓ |
| Sigfox/LoRaWAN settings setup | ✓ | ✓ | ✓ |
| 802.15.4 / RF 868/900 MHz settings setup | ✓ | ✓ | ✓ |
| 4G/WiFi settings setup | ✓ | ✓ | ✓ |
| GPS settings setup | ✓ | ✓ | ✓ |
| HTTP (4G/WiFi) | ✓ | ✓ | ✓ |
| HTTPS (4G/WiFi) | ✓ | ✓ | ✓ |
| RF link encryption (802.15.4 / RF 868/900) | ✓ | ✓ | ✓ |
| AES-256 payload encryption | ✓ | ✓ | ✓ |
| Industrial Protocols support (Modbus over RS485, CAN Bus) | X | ✓ | ✓ |
| Low battery warning | ✓ | ✓ | ✓ |
| Templates manager | ✓ | ✓ | ✓ |
| Batch programming (generate up to 100 binaries in one click) | X | X | ✓ |
| Price (per year) | 200 € | 300 € | 1,499 € |
| Ref. | PCS-B | PCS-P | PCS-E |



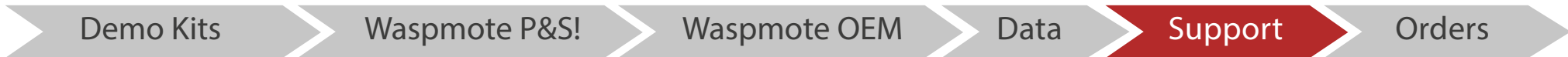
Programming Cloud Service web form

The Hive

The **Libelium Cloud Hive** is a service which sends information from any IoT device to the main worldwide cloud platforms simultaneously and without having to implement each specific cloud protocol or authentication methodology, including Alibaba Cloud, Amazon Web Services, Cumulocity, IBM Bluemix, Microsoft Azure, MQTT, SAP by Techedge and Telefónica.



| | Freemium License | License | Extension of License |
|---------------------------------|------------------|---------|----------------------|
| Number of register transactions | 100,000 | 200,000 | 2,000,000 |
| Price (per year) | 0 € | 399 € | 499 € |
| Ref. | H-FL | H-L | H-EL |



Support options

Programming Waspnote on your own requires an advanced level in C++ and object oriented coding. Our [Development site](#) shows 400+ code examples, tutorials and technical guides. Do not worry if you are not a skilled programmer yet, we offer different training formulas so that you can achieve easily a good level.

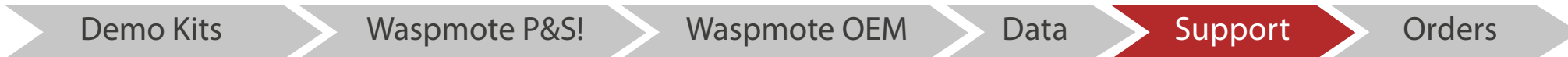
|  Forum |  Technical Consultancy | |  Training Workshops | |  Free Live IoT Overview Webinars |  Special Projects Consultancy |
|--|---|-------------------|---|--|---|---|
| <ul style="list-style-type: none"> • Answered once a day in best-effort way by our engineers • Online: text • Useful for: <ul style="list-style-type: none"> - Solving doubts about API usage, compilation problems, IDE options or basic questions - Reporting bugs - Tier-1 troubleshooting - Staying up to date about new API releases, tutorials, code examples, etc | <ul style="list-style-type: none"> • Arranged in 1 hour time-slots • Online and interactive video conference sessions: text, screen share, mic and webcam • Useful for: <ul style="list-style-type: none"> - Solving urgent questions that cannot wait the Forum's response time - Guiding you step by step - Helping you to design a system architecture - Improving your program to reduce power consumption, make it more efficient, etc | | <ul style="list-style-type: none"> • Celebrated every quarter during 3 days / 21 hours • Face-to-face • Useful for: <ul style="list-style-type: none"> - Learning how to program Waspnote step by step - Achieving an advanced programming level in just 3 days | | <ul style="list-style-type: none"> • Online master class: text, screen share, mic and webcam • Useful for: <ul style="list-style-type: none"> - Getting an overview on the IoT market - Discovering in just 1 hour the latest trends on smart cities, smart environment, precision agriculture, smart water, logistics, IoT... - Finding the inspiration to develop new projects learning about our success stories - Taking advantage of our professional experience on IoT projects - Approaching to Libelium ecosystem | <ul style="list-style-type: none"> • On request. <p>Even although we have a very modular and complete solution, sometimes you need something else...integrating a new sensor, connect with a specific cloud platform, adapt the board for a vertical application, etc. In these cases, we arrange a meeting with our Project Manager to gather the requirements and after that he analyzes with the R&D team the viability of the solution and returns you an implementation proposal.</p> |
| Free and exclusive for customers ¹ | 2 hours | TC-2 → 110 € | Basic Training course (2 first days) | Free ² / 1,600 € ³ | See the calendar and register | PAS → 300 € |
| | 3 hours | Free ² | Advanced Training course (3 rd day) | 800 € ³ | | |
| | 5 hours | TC-5 → 280 € | Basic + Advanced Training course (3 days) | 2,000 € ³ | | |
| | 10 hours | TC-10 → 550 € | In-Company Training Course ⁴ | 14,000 € | | |

1.- Customers get exclusive access when they formalize the 1st purchase order.

2.-For customers that acquired an Evaluator Kit, 3 hours of Technical Consultancy and 1 place at a Basic Training Course are included.

3.- Discounts available: 2nd attendee: 25% off. 3rd, 4th, etc, attendees: 50% off.

4.- One engineer travels to your facilities to teach the Basic + Advanced Training Course. Recommended for groups from 7 to 20 attendees. Travel expenses not included.






Calendar - Libelium Training Courses 2018

| January | | | | | | | February | | | | | | | March | | | | | | | April | | | | | | |
|---------|----|----|----|----|----|----|----------|----|----|----|----|----|----|-------|----|----|----|----|----|----|-------|----|----|----|----|----|----|
| Su | Mo | Tu | We | Th | Fr | Sa | Su | Mo | Tu | We | Th | Fr | Sa | Su | Mo | Tu | We | Th | Fr | Sa | Su | Mo | Tu | We | Th | Fr | Sa |
| 31 | 1 | 2 | 3 | 4 | 5 | 6 | 28 | 29 | 30 | 31 | 1 | 2 | 3 | 25 | 26 | 27 | 28 | 1 | 2 | 3 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 28 | 29 | 30 | 31 | | | | 25 | 26 | 27 | 28 | | | | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 29 | 30 | | | | | |

| May | | | | | | | June | | | | | | | July | | | | | | | August | | | | | | |
|-----|----|----|----|----|----|----|------|----|----|----|----|----|----|------|----|----|----|----|----|----|--------|----|----|----|----|----|----|
| Su | Mo | Tu | We | Th | Fr | Sa | Su | Mo | Tu | We | Th | Fr | Sa | Su | Mo | Tu | We | Th | Fr | Sa | Su | Mo | Tu | We | Th | Fr | Sa |
| 30 | 31 | 1 | 2 | 3 | 4 | 5 | 27 | 28 | 29 | 30 | 31 | 1 | 2 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 29 | 30 | 31 | 1 | 2 | 3 | 4 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 27 | 28 | 29 | 30 | 31 | | | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 29 | 30 | 31 | | | | | 26 | 27 | 28 | 29 | 30 | 31 | |

| September | | | | | | | October | | | | | | | November | | | | | | | December | | | | | | |
|-----------|----|----|----|----|----|----|---------|----|----|----|----|----|----|----------|----|----|----|----|----|----|----------|----|----|----|----|----|----|
| Su | Mo | Tu | We | Th | Fr | Sa | Su | Mo | Tu | We | Th | Fr | Sa | Su | Mo | Tu | We | Th | Fr | Sa | Su | Mo | Tu | We | Th | Fr | Sa |
| 26 | 27 | 28 | 29 | 30 | 31 | 1 | 30 | 1 | 2 | 3 | 4 | 5 | 6 | 28 | 29 | 30 | 31 | 1 | 2 | 3 | 26 | 27 | 28 | 29 | 30 | 1 | |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 | 28 | 29 | 30 | 31 | | | | 25 | 26 | 27 | 28 | 29 | 30 | | 23 | 24 | 25 | 26 | 27 | 28 | 29 |

-  Waspnote Face-to-Face Workshops
-  Advanced Waspnote Face-to-Face Workshops
-  Internet of Things Webinars



Now that you have chosen a Support option go to the **Orders** section to place your order.



Demo Kits

Waspnote P&S!

Waspnote OEM

Data

Support

Orders

Order placement

To place an order, you must complete the form available in: http://www.libelium.com/order_form and send it back to your sales agent.

If sales agent has not yet been assigned, please send it back to: sales@libelium.com

You can consult our Terms & Conditions in: <http://www.libelium.com/legal>. Should you have any doubt, please, contact our sales department.

- E-mail: sales@libelium.com
- Tlf: +34 976 54 74 92

Order Form





www.libelium.com

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