

product

catalogue

2017



## FOLLOW THESE STEPS TO FIND YOUR LIBELIUM SOLUTION

1

### What are you looking for?

You can select from three different options depending on your needs

2

### Configure your selection

Select the components step by step from the top menu

3

### Make note of your product reference

Complete the form with the chosen references to place your order



Try our technology for IoT  
Out-of-the-Box IoT Vertical Kits



Ready to install solution  
Waspnote Plug & Sense!



Research and development  
Waspnote 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**



Make note  
**Product reference**





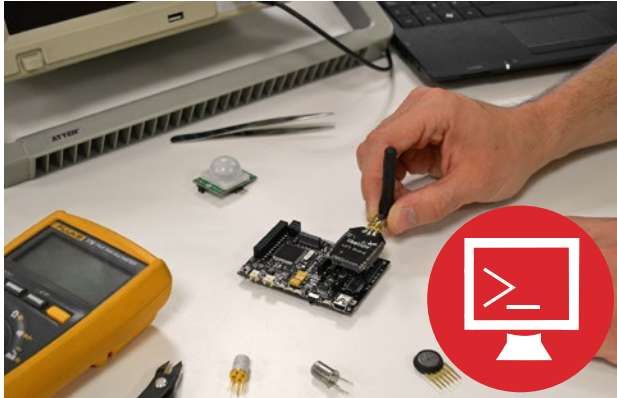



Complete the  
**Order Form**



Send to your  
**Sales Agent**

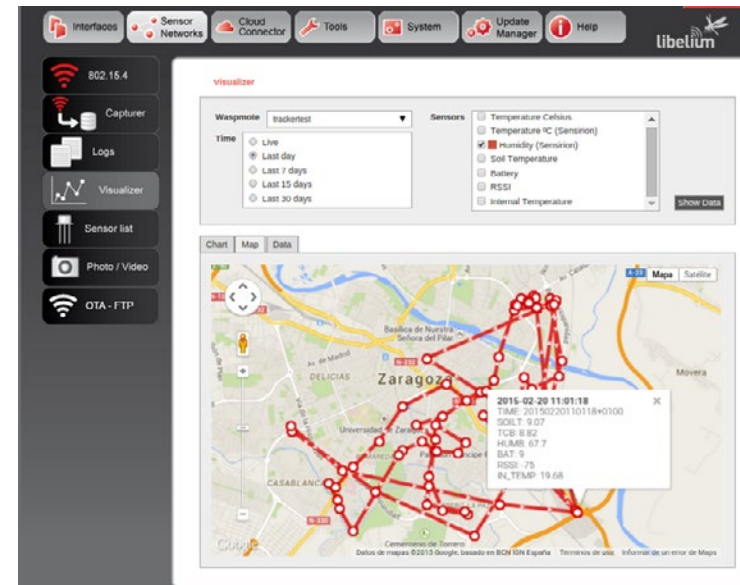
## WHAT ARE YOU LOOKING FOR?

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

## 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 Meshlium<sup>1</sup> 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.

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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## 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 <sub>2</sub> , O <sub>3</sub>
Weather Control	Monitor atmospheric conditions	Humidity, luminosity (Luxes), temperature, atmospheric pressure

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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>	SCP-802	1
Plug & Sense! SEP 802.15.4 <i>(EU version is provided for the European kit)</i>	SEP-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) Sensor Probe (Calibrated)*	9371-P	1
Nitric Dioxide high accuracy (NO <sub>2</sub> ) Sensor Probe (Calibrated)*	9376-HA-P	1
Ozone (O <sub>3</sub> ) Sensor Probe (Calibrated)*	9374-P	1
6600mAh rechargeable battery + external solar panel	6600-EXT	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/	5,500 €
SCIVK-USA/	5,500 €
SCIVK-BR/	5,500 €
SCIVK-AU/	5,500 €

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.

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## 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

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

Item	Ref.	Quantity
Smart Parking node <i>(EU or US versions are provided, depending on kit)</i>	SP-E U SP-US	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

10 x



Item	Ref.	Price
Libelium-Hirisens SmartParking Sigfox Solution Kit EU	SP-HIR-SF-SK-EU	2,850 €
Libelium-Hirisens SmartParking Sigfox Solution Kit US	SP-HIR-SF-SK-US	2,850 €
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 €

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>(EU or US versions are provided, depending on kit)</i>	SP-EU SP-US	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
LoRaWAN Base Station	9376-HA-P	1
LoRaWAN Base Station		1

10 x



Item	Ref.	Price
Libelium-Simfony LoRaWAN Smart Parking SK BS Multitech EU	SIMFONY LORAWAN EU SP SK	4,450 €
Libelium-Simfony LoRaWAN Smart Parking SK BS Multitech US	SIMFONY LORAWAN US SP SK	4,450 €

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





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## 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
Green Houses	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

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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>	SAP-868/900	1
Plug & Sense! Smart Agriculture 868/900 <i>EU [868], US, BR or AU [900] versions are provided, depending on kit)</i>	SA-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
6600mAh rechargeable battery + external solar panel	6600-EXT	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/ 4,300 €  
SAIVK-US/ 4,300 €  
SAIVK-BR/ 4,300 €  
SAIVK-AU/ 4,300 €

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.

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## 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 <sub>2</sub> , temperature, humidity
Air Pollution	Control of CO <sub>2</sub> emissions, pollution from cars and toxic gases generated in factories or farms	CO, CO <sub>2</sub>
Indoor Air Quality	Monitoring of gas levels and environmental conditions inside chemical plants to ensure workers and goods safety	CO, CO <sub>2</sub> , temperature, humidity

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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>	SEP-868/900	1
Plug & Sense! Smart Agriculture 868/900 <i>EU [868], US, BR or AU [900] versions are provided, depending on kit)</i>	SA-868/900	1
Temperature, Humidity and Pressure Sensor Probe	9370-P	1
Carbon Monoxide (CO) Sensor Probe (Calibrated)*	9371-P	1
Carbon Dioxide high accuracy (CO <sub>2</sub> ) Sensor Probe (Calibrated)*	9376-HA-P	1
WS-3000 (anemometer + wind vane + pluviometer) sensor probe	9256-P	1
6600mAh rechargeable battery + external solar panel	6600-EXT	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
<b>Ref / Total Price</b>		
		SEIVK-EU/ 4,650 €
		SEIVK-US/ 4,650 €
		SEIVK-BR/ 4,650 €
		SEIVK-AU/ 4,650 €



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.



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## Smart Water IoT Vertical Kit



Application examples:

Application	Description	Sensors
Potable water monitoring	Monitor the quality of tap water in cities	pH, ORP, Dissolved Oxygen (DO)
Chemical leakages	Detect leakages and wastes of factories in rivers	Extreme pH values signal chemical spills, Dissolved Oxygen (DO)
Swimming pool remote measurement	Control remotely the swimming pool conditions	pH, Oxidation Reduction Potential (ORP)
Pollution levels in the sea	Control real-time leakages and wastes in the sea	Conductivity (Salinity), pH, Dissolved Oxygen (DO)



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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>	SW-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
6600mAh rechargeable battery + external solar panel	6600-EXT	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
Plug & Sense! Programming Service (kit of Marketplace)	PROG-mktplace	1
Meshlium visualization interface	MVIS	1



Ref / Total Price

SWIVK-EU/	5,250 €
SWIVK-US/	5,250 €
SWIVK-BR/	5,250 €
SWIVK-AU/	5,250 €

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.

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## 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 <sub>3</sub> ), Nitric Dioxide (NO <sub>2</sub> ), Sulfur Dioxide (SO <sub>2</sub> ), 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>	SEP-802	1
Temperature, Humidity and Pressure	9370-P	1
Carbon Monoxide (CO) (Calibrated)*	9371-P	1
Ozone (O <sub>3</sub> ) (Calibrated)*	9374-P	1
Nitric Dioxide high accuracy (NO <sub>2</sub> ) (Calibrated)*	9376-HA-P	1
Sulfur Dioxide high accuracy (SO <sub>2</sub> ) (Calibrated)*	9377-HA-P	1
Particle Matter (PM1 / PM2.5 / PM10) - Dust	9387-P	1
6600mAh rechargeable battery + external solar panel	6600-EXT	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/ 5,300 €

AQIIVK-US/ 5,300 €

AQIIVK-BR/ 5,300 €

AQIIVK-AU/ 5,300 €

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## 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 Meshlimum 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, Meshlimum offers different cloud connectors that flow data directly to cloud platforms.

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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>	420-802-IIPP	1
Plug & Sense! AC 802.15.4 (Industrial ready) <i>(EU version is provided for the European kit)</i>	AC-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
6600mAh rechargeable battery + 220V adapter	6600-220V	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) (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

Ref / Total Price

SIPIVK-EU – 3,250 €

SIPIVK-US – 3,250 €

SIPIVK-BR – 3,250 €

SIPIVK-AU – 3,250 €



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.



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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](http://www.the-iot-marketplace.com)

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## 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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List of items included in the Evaluator Kit:

	Item	Pieces
Communication	Waspote 802.15.4 5 dBi <i>(EU version of the radio is provided for the European kit)</i>	4
	Waspote Gateway 802.15.4 5 dBi <i>(EU version of the radio is provided for the European kit)</i>	1
	GPRS + GPS Module	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
	Bluetooth Module PRO 5 dBi	1
	Waspote RFID/NFC 13.56 MHz	1
	13.56 MHz / NFC stickers (5 pack)	1
	WiFi module on-chip	1
Sensor Boards	Gases Board	2
	Events Board	2
	Smart Cities PRO Board	1
	Agriculture PRO Board	1
	Prototyping Board	1
	Expansion Radio Board Module	2

	Item	Pieces
Sensors	Temperature, humidity and pressure sensor	4
	CO sensor	1
	CO <sub>2</sub> sensor	1
	Air pollutants II sensor	1
	NO <sub>2</sub> sensor	1
	Presence sensor (PIR)	1
	Luminosity (Luxes accuracy) sensor	1
	Ultrasound sensor (indoor)	1
	Soil / Water temperature sensor	1
	Soil moisture sensor	1
	Solar radiation (PAR) sensor	1
	Weather Station WS-3000 (anemometer + wind vane + pluviometer)	1
Accessories	Rigid Solar Panel 7V – 500mA	2
	6600 mAh rechargeable battery	4
	MicroSD 2GB card pack (5 units)	1

	Item	Pieces
Support	Basic Training course*	1
	Technical consultancy – 3 hours package	1

Ref/Price	WEVA-EU/ 4,000 €**	~6,120 €
	WEVA-USA/ 4,000 €**	~6,120 €
	WEVA-BR/ 4,000 €**	~6,120 €
	WEVA-AU/ 4,000 €**	~6,120 €

\* 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.

[View Section](#)

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## MySignals SW and HW Complete Kits (eHealth Medical Development Platform)

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 15 sensors which can be used to monitor biometric signals. All the data gathered by MySignals is encrypted and sent to the user's private account at Libelium Cloud through WiFi or Bluetooth. The data can be displayed on a tablet or smartphone with Android or iPhone apps. Developers may use their own Cloud too to store the information.

Libelium offers two different API's for developers to access the information. The Android / iOS API allows to get information directly from MySignals using Bluetooth. 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>

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MySignals SW Complete Kit includes:

- MySignals SW
- 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]



One year of free Cloud storage!

MySignals SW Complete Kit.	Ref.	Price
Europe version	MS-SW-E KIT	1,860€ → 1,674 €
America version	MS-SW-A KIT	1,860€ → 1,674 €
UK version	MS-SW-UK KIT	1,860€ → 1,674 €



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MySignals SW BLE Complete Kit includes:

- MySignals SW
- 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]
- SPO2 Sensor – Wireless [PRO]
- Blood Pressure Sensor (Sphygmomanometer) – Wireless [PRO]
- Glucometer Sensor – Wireless [PRO]
- Weight Sensor – Wireless [PRO]



One year of free Cloud storage!

MySignals SW BLE Complete Kit.	Ref.	Price
Europe version	MS-SW-BLE-E KIT	1,955-€ → 1,760 €
America version	MS-SW-BLE-A KIT	1,955-€ → 1,760 €
UK version	MS-SW-BLE-UK KIT	1,955-€ → 1,760 €

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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]



One year of free Cloud storage!

MySignals HW Complete Kit.	Ref.	Price
Europe version	MS-HW-E KIT	1,430-€ → 1,287 €
America version	MS-HW-A KIT	1,430-€ → 1,287 €
UK version	MS-HW-UK KIT	1,430-€ → 1,287 €

*This Kit needs an Arduino Uno.*

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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 [PRO]
- SPO2 Sensor – Wireless [PRO]
- Blood Pressure Sensor (Sphygmomanometer) – Wireless [PRO]
- Glucometer Sensor – Wireless [PRO]
- Weight Sensor – Wireless [PRO]



One year of free Cloud storage!

MySignals SW BLE Complete Kit.	Ref.	Price
Europe version	MS-HW-BLE-E KIT	1,525-€ → 1,373 €
America version	MS-HW-BLE-A KIT	1,525-€ → 1,373 €
UK version	MS-HW-BLE-UK KIT	1,525-€ → 1,373 €

*This Kit needs an Arduino Uno.*



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

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## 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"> <li>• 110+ sensors available, up to 6 sensors per sensor device</li> <li>• Communication: 802.15.4, 868 MHz, 900 MHz, WiFi, 4G, Sigfox and LoRaWAN</li> <li>• Industrial protocols: RS-232, RS-485, Modbus, CAN Bus</li> <li>• GPS receiver</li> </ul>		
For real projects	<ul style="list-style-type: none"> <li>• Robust waterproof IP65 enclosure</li> <li>• Solar powered with internal and external panel options</li> </ul>		
Fast installation	<ul style="list-style-type: none"> <li>• Factory-programmed and configured</li> <li>• Special holders and brackets to install in street lights and building fronts</li> <li>• On / Off external button</li> <li>• External socket for SIM card</li> </ul>		
Easy maintenance	<ul style="list-style-type: none"> <li>• Remote firmware upgrades of multiple nodes at once (OTAP)</li> <li>• Replace or add a sensor probe in seconds</li> <li>• External, contactless device-reset with magnet</li> </ul>		
Fully certified	<ul style="list-style-type: none"> <li>• CE (Europe)</li> <li>• FCC (US)</li> <li>• IC (Canada)</li> </ul>	<ul style="list-style-type: none"> <li>• ANATEL (Brazil)</li> <li>• RCM (Australia)</li> <li>• PTCRB (cellular certification for US)</li> </ul>	<ul style="list-style-type: none"> <li>• AT&amp;T (cellular certification for US)</li> </ul>



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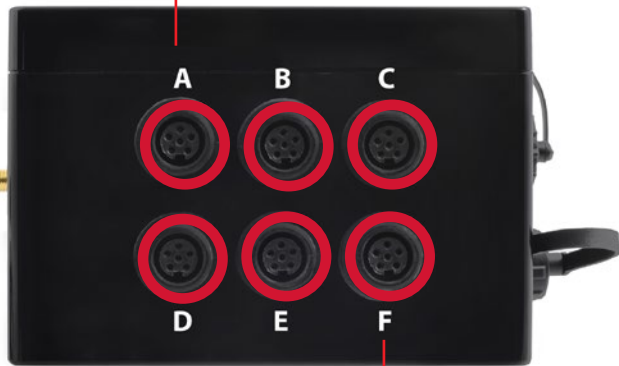
## Configuring your Plug & Sense! device

You can customize any Wasmote Plug & Sense! model by choosing the radio, power option, sensors and optional accessories.

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 <sub>2</sub>			✓			
NO <sub>2</sub>				✓		
O <sub>2</sub>					✓	
CO	✓					✓

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



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## Choosing your Plug & Sense! model

Smart Environment PRO



- Particle Matter (PM1 / PM2.5 / PM10) Dust Sensor
- CO - H<sub>2</sub> - Cl<sub>2</sub>
- CO<sub>2</sub> - H<sub>2</sub>S - NH<sub>3</sub>
- O<sub>2</sub> - HCl - SO<sub>2</sub>
- O<sub>3</sub> - HCN
- NO - PH<sub>3</sub>
- NO<sub>2</sub> - ETO
- CH<sub>4</sub> (and other combustible gases)
- Temperature, Humidity and Pressure
- Luminosity (Luxes accuracy)
- Ultrasound (outdoor IP67)

Smart Agriculture



- 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)

Smart Agriculture PRO



- 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)

Smart Water



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

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Smart Water Ions

Smart Cities PRO

Smart Parking

Smart Security

4 - 20 mA (Current Loop)



- Ammonium ( $\text{NH}_4^+$ )
- Bromide ( $\text{Br}^-$ )
- Calcium ( $\text{Ca}^{2+}$ )
- Chloride ( $\text{Cl}^-$ )
- Cupric ( $\text{Cu}^{2+}$ )
- Fluoride ( $\text{F}^-$ )
- Iodide ( $\text{I}^-$ )
- Fluoroborate ( $\text{BF}_4^-$ )
- Lithium ( $\text{Li}^+$ )
- Nitrate ( $\text{NO}_3^-$ )
- Nitrite ( $\text{NO}_2^-$ )
- Magnesium ( $\text{Mg}^{2+}$ )
- Perchlorate ( $\text{ClO}_4^-$ )
- Potassium ( $\text{K}^+$ )
- Silver ( $\text{Ag}^+$ )
- Sodium ( $\text{Na}^+$ )
- pH
- Soil / Water Temperature

- Noise / Sound Level
- Particle Matter (PM1 / PM2.5 / PM10) – Dust Sensor
- CO
- $\text{CO}_2$
- $\text{O}_2$
- $\text{O}_3$
- NO
- $\text{NO}_2$
- $\text{SO}_2$
- $\text{Cl}_2$
- $\text{CH}_4$  (and other combustible gases)
- Temperature, Humidity and Pressure
- Luminosity (Luxes accuracy)
- Ultrasound (outdoor IP67)
- $\text{NH}_3$
- $\text{H}_2$
- $\text{H}_2\text{S}$
- HCl
- HCN
- $\text{PH}_3$
- ETO

- Magnetic field (3 axis):
- X axis
- Y axis
- Z axis

- 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)

- Sensors and instruments
- Remote transducers
- Monitoring processes
- Data transmission in industrial ambients
- The user can choose among a wide variety of standard sensors

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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Radiation Control Ambient Control Traffic Congestion



<ul style="list-style-type: none"> <li>- Geiger tube [ <math>\beta</math>, <math>\gamma</math> ] (Beta and Gamma)</li> </ul>	<ul style="list-style-type: none"> <li>- Temperature, Humidity and Pressure</li> <li>- Luminosity (LDR)</li> <li>- Luminosity (Luxes accuracy)</li> </ul>	<ul style="list-style-type: none"> <li>- As well as working as IoT gateway for the Wasmote and Plug &amp; 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.</li> </ul>
------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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## Smart Environment PRO

This 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	SEP-802-EU	552 €
Plug & Sense! SE-PRO 802.15.4	SEP-802	552 €
Plug & Sense! SE-PRO WiFi	SEP-W	552 €
Plug & Sense! SE-PRO 868	SEP-868	575 €
Plug & Sense! SE-PRO 900 US	SEP-900-US	594 €
Plug & Sense! SE-PRO 900 BR	SEP-900-BR	594 €
Plug & Sense! SE-PRO 900 AU	SEP-900-AU	594 €
Plug & Sense! SE-PRO 4G EU/BR*	SEP-4G-EU/BR	738 €
Plug & Sense! SE-PRO 4G US*	SEP-4G-US	738 €
Plug & Sense! SE-PRO 4G AU	SEP-4G-AU	672 €
Plug & Sense! SE-PRO LoRaWAN EU	SEP-LW-EU	492 €
Plug & Sense! SE-PRO LoRaWAN US	SEP-LW-US	492 €
Plug & Sense! SE-PRO Sigfox EU **	SEP-SF-EU	492 €
Plug & Sense! SE-PRO Sigfox US **	SEP-SF-US	504 €

\* 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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Sensor	Sockets						Ref.	Price
	A	B	C	D	E	F		
Temperature, Humidity and Pressure					✓		9370-P	48 €
Carbon Monoxide (CO) for high concentrations (Calibrated) <sup>1</sup>	✓	✓	✓			✓	9371-P	198 €
Carbon Monoxide (CO) for low concentrations (Calibrated) <sup>1</sup>	✓	✓	✓				9371-LC-P	276 €
Carbon Dioxide (CO <sub>2</sub> ) (Calibrated)* <sup>(1)</sup>	✓	✓	✓			✓	9372-P	648 €
Oxygen (O <sub>2</sub> ) (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9373-P	240 €
Ozone (O <sub>3</sub> ) (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9374-P	348 €
Nitric Oxide (NO) for low concentrations (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9375-LC-P	288 €
Nitric Dioxide high accuracy (NO <sub>2</sub> ) (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9376-HA-P	276 €
Sulfur Dioxide high accuracy (SO <sub>2</sub> ) (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9377-HA-P	276 €
Ammonia (NH <sub>3</sub> ) for low concentrations (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9378-LC-P	444 €
Ammonia (NH <sub>3</sub> ) for high concentrations (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9378-HC-P	Coming soon
Methane (CH <sub>4</sub> ) and Combustible Gas (Calibrated)* <sup>(1)</sup>	✓	✓	✓			✓	9379-P	246 €
Hydrogen (H <sub>2</sub> ) (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9380-P	222 €
Hydrogen Sulfide (H <sub>2</sub> S) (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9381-P	228 €
Hydrogen Chloride (HCl) (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9382-P	408 €
Hydrogen Cyanide (HCN) (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9383-P	268 €
PH <sub>3</sub> (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9384-P	390 €
ETO (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9385-P	288 €
Cl <sub>2</sub> (Calibrated) <sup>(1)</sup>	✓	✓	✓			✓	9386-P	300 €
Particle Matter (PM1 / PM2.5 / PM10) - Dust <sup>(1)</sup>				✓			9387-P	1,380 €
Luminosity (Luxes accuracy)					✓		9325-P	59 €
Ultrasound					✓		9246-P	288 €

<sup>1</sup>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. \* Due to high power requirements, these sensors cannot work at the same time in the same Plug & Sense!



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## 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-PR

Communication options	Ref.	Price
Plug & Sense! SA 802.15.4 EU	SA-802-EU	534 €
Plug & Sense! SA 802.15.4	SA-802	534 €
Plug & Sense! SA WiFi	SA-W	534 €
Plug & Sense! SA 868	SA-868	535 €
Plug & Sense! SA 900 US	SA-900-US	564 €
Plug & Sense! SA 900 BR	SA-900-BR	564 €
Plug & Sense! SA 900 AU	SA-900-AU	564 €
Plug & Sense! SA 4G EU/BR*	SA-4G-EU/BR	780 €
Plug & Sense! SA 4G US*	SA-4G-US	780 €
Plug & Sense! SA 4G AU	SA-4G-AU	708 €
Plug & Sense! SA LoRaWAN EU	SA-LW-EU	516 €
Plug & Sense! SA LoRaWAN US	SA-LW-US	516 €
Plug & Sense! SA Sigfox EU **	SA-SF-EU	516 €
Plug & Sense! SA Sigfox US **	SA-SF-US	522 €

\* 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	48 €
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	30 €
WS-3000 (anemometer + wind vane + pluviometer)	✓						9256-P	150 €
Leaf wetness					✓		9249-P	24 €
Luminosity (Luxes accuracy)				✓		✓	9325-P	59 €
Ultrasound				✓		✓	9246-P	288 €

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

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## 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	SAP-802-EU	564 €
Plug & Sense! SA-PRO 802.15.4	SAP-802	564 €
Plug & Sense! SA-PRO WiFi	SAP-W	564 €
Plug & Sense! SA-PRO 868	SAP-868	565 €
Plug & Sense! SA-PRO 900 US	SAP-900-US	600 €
Plug & Sense! SA-PRO 900 BR	SAP-900-BR	600 €
Plug & Sense! SA-PRO 900 AU	SAP-900-AU	600 €
Plug & Sense! SA-PRO 4G EU/BR*	SAP-4G-EU/BR	828 €
Plug & Sense! SA-PRO 4G US*	SAP-4G-US	828 €
Plug & Sense! SA-PRO 4G AU	SAP-4G-AU	756 €
Plug & Sense! SA-PRO LoRaWAN EU	SAP-LW-EU	534 €
Plug & Sense! SA-PRO LoRaWAN US	SAP-LW-US	534 €
Plug & Sense! SA-PRO Sigfox EU **	SAP-SF-EU	534 €
Plug & Sense! SA-PRO Sigfox US **	SAP-SF-US	546 €

\* 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	48 €
Soil/Water temperature (Pt-1000)				✓			9255-P	30 €
Solar radiation (PAR)		✓					9251-P	250 €
Ultraviolet		✓					9257-P	340 €
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	150 €
Leaf wetness					✓		9249-P	24 €
Trunk diameter			✓				9252-P	500 €
Stem diameter			✓				9253-P	475 €
Fruit diameter			✓				9254-P	475 €
Luminosity (Luxes accuracy)				✓		✓	9325-P	59 €
Ultrasound				✓		✓	9246-P	288 €

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## Smart Water

The Smart Water model has been conceived to facilitate the remote monitoring of the most relevant parameters related to water quality. 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 well.

Communication options	Ref.	Price
Plug & Sense! SW 802.15.4 EU	SW-802-EU	600 €
Plug & Sense! SW 802.15.4	SW-802	600 €
Plug & Sense! SW WiFi	SW-W	600 €
Plug & Sense! SW 868	SW-868	600 €
Plug & Sense! SW 900 US	SW-900-US	636 €
Plug & Sense! SW 900 BR	SW-900-BR	636 €
Plug & Sense! SW 900 AU	SW-900-AU	636 €
Plug & Sense! SW 4G EU/BR *	SW-4G-EU/BR	960 €
Plug & Sense! SW 4G US *	SW-4G-US	960 €
Plug & Sense! SW 4G AU	SW-4G-AU	864 €
Plug & Sense! SW LoRaWAN EU	SW-LW-EU	600 €
Plug & Sense! SW LoRaWAN US	SW-LW-US	600 €
Plug & Sense! SW Sigfox EU **	SW-SF-EU	600 €
Plug & Sense! SW Sigfox US **	SW-SF-US	612 €

\* 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		
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 €

Not compatible with LoRa.

\* 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.

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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 €
pH Calibration Kit	9343	63 €
ORP Calibration Solution	9344	42 €
Turbidity Calibration Kit (low)	TCL	144 €
Turbidity Calibration Kit (high)	TCH	186 €



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## 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: Smart Water Ions Single, Smart Water Ions Double and Smart Water Ions PRO. See below the suitable version depending on the sensors needed.

Communication options	Ref.	Price
Plug & Sense! SWI Single 802.15.4 EU	SWI-S-802-EU	684 €
Plug & Sense! SWI Single 802.15.4	SWI-S-802	684 €
Plug & Sense! SWI Single WiFi	SWI-S-W	696 €
Plug & Sense! SWI Single 868	SWI-S-868	696 €
Plug & Sense! SWI Single 900 US	SWI-S-900-US	720 €
Plug & Sense! SWI Single 900 BR	SWI-S-900-BR	720 €
Plug & Sense! SWI Single 900 AU	SWI-S-900-AU	720 €
Plug & Sense! SWI Single 4G EU/BR*	SWI-S-4G-EU/BR	948 €
Plug & Sense! SWI Single 4G US*	SWI-S-4G-US	948 €
Plug & Sense! SWI Single 4G AU	SWI-S-4G-AU	876 €
Plug & Sense! SWI Single LoRaWAN EU	SWI-S-LW-EU	672 €
Plug & Sense! SWI Single LoRaWAN US	SWI-S-LW-US	672 €
Plug & Sense! SWI Single Sigfox EU **	SWI-S-SF-EU	672 €
Plug & Sense! SWI Single Sigfox US **	SWI-S-SF-US	684 €

\* 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		
Soil/Water temperature (Pt-1000)*						✓	9255-P	30 €
Single Junction Reference*					✓		9350	78 €
Calcium Ion (Ca <sup>2+</sup> )	✓	✓	✓	✓			9352	204 €
Fluoride Ion (F <sup>-</sup> )	✓	✓	✓	✓			9353	204 €
Fluoroborate Ion (BF <sub>4</sub> <sup>-</sup> )	✓	✓	✓	✓			9354	204 €
Nitrate Ion (NO <sub>3</sub> <sup>-</sup> )	✓	✓	✓	✓			9355	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.

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

Communication options	Ref.	Price
Plug & Sense! SWI Double 802.15.4 EU	SWI-D-802-EU	732 €
Plug & Sense! SWI Double 802.15.4	SWI-D-802	732 €
Plug & Sense! SWI Double WiFi	SWI-D-W	744 €
Plug & Sense! SWI Double 868	SWI-D-868	744 €
Plug & Sense! SWI Double 900 US	SWI-D-900-US	768 €
Plug & Sense! SWI Double 900 BR	SWI-D-900-BR	768 €
Plug & Sense! SWI Double 900 AU	SWI-D-900-AU	768 €
Plug & Sense! SWI Double 4G EU/BR*	SWI-D-4G-EU/BR	996 €
Plug & Sense! SWI Double 4G US*	SWI-D-4G-US	996 €
Plug & Sense! SWI Double 4G AU	SWI-D-4G-AU	918 €
Plug & Sense! SWI Double LoRaWAN EU	SWI-D-LW-EU	714 €
Plug & Sense! SWI Double LoRaWAN US	SWI-D-LW-US	714 €
Plug & Sense! SWI Double Sigfox EU **	SWI-D-SF-EU	714 €
Plug & Sense! SWI Double Sigfox US **	SWI-D-SF-US	726 €

\* 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 (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 ( $\text{Br}^-$ )	✓	✓	✓	✓			9356	204 €
Chloride Ion ( $\text{Cl}^-$ )	✓	✓	✓	✓			9357	204 €
Cupric Ion ( $\text{Cu}^{2+}$ )	✓	✓	✓	✓			9358	204 €
Iodide Ion ( $\text{I}^-$ )	✓	✓	✓	✓			9360	204 €
Silver Ion ( $\text{Ag}^+$ )	✓	✓	✓	✓			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.

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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	SWI-P-802-EU	1,056 €
Plug & Sense! SWI PRO 802.15.4	SWI-P-802	1,056 €
Plug & Sense! SWI PRO WiFi	SWI-P-W	1,068 €
Plug & Sense! SWI PRO 868	SWI-P-868	1,098 €
Plug & Sense! SWI PRO 900 US	SWI-P-900-US	1,098 €
Plug & Sense! SWI PRO 900 BR	SWI-P-900-BR	1,098 €
Plug & Sense! SWI PRO 900 AU	SWI-P-900-AU	1,098 €
Plug & Sense! SWI PRO 4G EU/BR *	SWI-P-4G-EU/BR	1,032 €
Plug & Sense! SWI PRO 4G US*	SWI-P-4G-US	1,032 €
Plug & Sense! SWI PRO 4G AU	SWI-P-4G-AU	960 €
Plug & Sense! SWI PRO LoRaWAN EU	SWI-P-LW-EU	936 €
Plug & Sense! SWI PRO LoRaWAN US	SWI-P-LW-US	936 €
Plug & Sense! SWI PRO Sigfox EU **	SWI-P-SF-EU	936 €
Plug & Sense! SWI PRO Sigfox US **	SWI-P-SF-US	948 €

\* 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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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 ( $\text{NH}_4^+$ ) [PRO]	✓	✓	✓	✓			9412	504 €
Bromide Ion ( $\text{Br}^-$ ) [PRO]	✓	✓	✓	✓			9413	918 €
Calcium Ion ( $\text{Ca}^{2+}$ ) [PRO]	✓	✓	✓	✓			9414	504 €
Chloride Ion ( $\text{Cl}^-$ ) [PRO]	✓	✓	✓	✓			9415	504 €
Cupric Ion ( $\text{Cu}^{2+}$ ) [PRO]	✓	✓	✓	✓			9416	918 €
Fluoride Ion ( $\text{F}^-$ ) [PRO]	✓	✓	✓	✓			9417	918 €
Iodide Ion ( $\text{I}^-$ ) [PRO]	✓	✓	✓	✓			9418	918 €
Lithium Ion ( $\text{Li}^+$ ) [PRO]	✓	✓	✓	✓			9419	918 €
Magnesium Ion ( $\text{Mg}^{2+}$ ) [PRO]	✓	✓	✓	✓			9420	504 €
Nitrate Ion ( $\text{NO}_3^-$ ) [PRO]	✓	✓	✓	✓			9421	504 €
Nitrite Ion ( $\text{NO}_2^-$ ) [PRO]	✓	✓	✓	✓			9422	918 €
Perchlorate Ion ( $\text{ClO}_4^-$ ) [PRO]	✓	✓	✓	✓			9423	918 €
Potassium Ion ( $\text{K}^+$ ) [PRO]	✓	✓	✓	✓			9424	504 €
Silver Ion ( $\text{Ag}^+$ ) [PRO]	✓	✓	✓	✓			9425	918 €
Sodium Ion ( $\text{Na}^+$ ) [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
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 €



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## 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	SCP-802-EU	552 €
Plug & Sense! SCP 802.15.4	SCP-802	552 €
Plug & Sense! SCP WiFi	SCP-W	552 €
Plug & Sense! SCP 868	SCP-868	575 €
Plug & Sense! SCP 900 US	SCP-900-US	588 €
Plug & Sense! SCP 900 BR	SCP-900-BR	588 €
Plug & Sense! SCP 900 AU	SCP-900-AU	588 €
Plug & Sense! SCP 4G EU/BR*	SCP-4G-EU/BR	756 €
Plug & Sense! SCP 4G US*	SCP-4G-US	756 €
Plug & Sense! SCP 4G AU	SCP-4G-AU	684 €
Plug & Sense! SCP LoRaWAN EU	SCP-LW-EU	510 €
Plug & Sense! SCP LoRaWAN US	SCP-LW-US	510 €
Plug & Sense! SCP Sigfox EU **	SCP-SF-EU	510 €
Plug & Sense! SCP Sigfox US **	SCP-SF-US	522 €

\* 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	48 €
Noise Level (dBA)*	✓						NLS	1,194 €
Carbon Monoxide (CO) for high concentrations (Calibrated) <sup>1</sup>		✓	✓			✓	9371-P	198 €
Carbon Monoxide (CO) for low concentrations (Calibrated) <sup>1</sup>		✓	✓			✓	9371-LC-P	276 €
Carbon Dioxide (CO <sub>2</sub> ) (Calibrated) <sup>1**</sup>		✓	✓			✓	9372-P	648 €
Oxygen (O <sub>2</sub> ) (Calibrated) <sup>1</sup>		✓	✓			✓	9373-P	240 €
Ozone (O <sub>3</sub> ) (Calibrated) <sup>1</sup>		✓	✓			✓	9374-P	348 €
Nitric Oxide (NO) for low concentrations (Calibrated) <sup>1</sup>		✓	✓			✓	9375-LC-P	288 €
Nitric Dioxide high accuracy (NO <sub>2</sub> ) (Calibrated) <sup>1</sup>		✓	✓			✓	9376-HA-P	276 €
Sulfur Dioxide high accuracy (SO <sub>2</sub> ) (Calibrated) <sup>1</sup>		✓	✓			✓	9377-HA-P	276 €
Ammonia (NH <sub>3</sub> ) for low concentrations (Calibrated) <sup>1</sup>		✓	✓			✓	9378-LC-P	444 €
Ammonia (NH <sub>3</sub> ) for high concentrations (Calibrated) <sup>1</sup>		✓	✓			✓	9378-HC-P	Coming soon
Methane (CH <sub>4</sub> ) and Combustible Gas (Calibrated) <sup>1**</sup>		✓	✓			✓	9379-P	246 €
Hydrogen (H <sub>2</sub> ) (Calibrated) <sup>1</sup>		✓	✓			✓	9380-P	222 €
Hydrogen Sulfide (H <sub>2</sub> S) (Calibrated) <sup>1</sup>		✓	✓			✓	9381-P	228 €
Hydrogen Chloride (HCl) (Calibrated) <sup>1</sup>		✓	✓			✓	9382-P	408 €
Hydrogen Cyanide (HCN) (Calibrated) <sup>1</sup>		✓	✓			✓	9383-P	268 €



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Sensor	Sockets						Ref.	Price
	A	B	C	D	E	F		
Phosphine (PH <sub>3</sub> ) (Calibrated) <sup>1</sup>		✓	✓			✓	9384-P	390 €
Ethylene (ETO) (Calibrated) <sup>1</sup>		✓	✓			✓	9385-P	288 €
Chlorine (Cl <sub>2</sub> ) (Calibrated) <sup>1</sup>		✓	✓			✓	9386-P	300 €
Particle Matter (PM1 / PM2.5 / PM10) - Dust 1				✓			9387-P	1,380 €
Luminosity (Luxes accuracy)	✓	✓	✓		✓	✓	9325-P	59 €
Ultrasound	✓	✓	✓		✓	✓	9246-P	288 €

<sup>1</sup>: 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 <sup>1</sup>	SP-6-E	1,260 €
Smart Parking Node 10 Units Bundle, Europe version <sup>1</sup>	SP-10-E	2,100 €
Smart Parking Node 6 Units Bundle, America version <sup>1</sup>	SP-6-A	1,260 €
Smart Parking Node 10 Units Bundle, America version <sup>1</sup>	SP-10-A	2,100 €
Smart Parking Installation Kit <sup>2</sup>	SP-INST	120 €



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 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.

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## 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	SS-802-EU	510 €
Plug & Sense! SS 802.15.4	SS-802	510 €
Plug & Sense! SS WiFi	SS-W	510 €
Plug & Sense! SS 868	SS-868	525 €
Plug & Sense! SS 900 US	SS-900-US	546 €
Plug & Sense! SS 900 BR	SS-900-BR	546 €
Plug & Sense! SS 900 AU	SS-900-AU	546 €
Plug & Sense! SS 4G EU/BR*	SS-4G-EU/BR	780 €
Plug & Sense! SS 4G US*	SS-4G-US	780 €
Plug & Sense! SS 4G AU	SS-4G-AU	708 €
Plug & Sense! SS LoRaWAN EU	SS-LW-EU	480 €
Plug & Sense! SS LoRaWAN US	SS-LW-US	480 €
Plug & Sense! SS Sigfox EU **	SS-SF-EU	480 €
Plug & Sense! SS Sigfox US **	SS-SF-US	492 €



\* 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	48 €
Water flow small		✓					9296-P	30 €
Water flow medium		✓					9297-P	42 €
Water flow large		✓					9298-P	45 €
Terminal box probe (accessory for Plug & Sense!)						✓	9270-P	24 €
Presence (PIR)	✓		✓	✓	✓		9212-P	71 €
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	42 €
Hall Effect	✓		✓	✓	✓		9207-P	42 €
Luminosity (Luxes accuracy)	✓		✓	✓	✓		9325-P	59 €
Ultrasound	✓		✓	✓	✓		9246-P	288 €

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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	420-802-EU	490 €
Plug & Sense! 4-20 mA 802.15.4	420-802	490 €
Plug & Sense! 4-20 mA WiFi	420-W	490 €
Plug & Sense! 4-20 mA 868	420-868	490 €
Plug & Sense! 4-20 mA 900 US	420-900-US	520 €
Plug & Sense! 4-20 mA 900 BR	420-900-BR	520 €
Plug & Sense! 4-20 mA 900 AU	420-900-AU	520 €
Plug & Sense! 4-20 mA 4G EU/BR *	420-4G-EU/BR	790 €
Plug & Sense! 4-20 mA 4G US *	420-4G-US	790 €
Plug & Sense! 4-20 mA 4G AU	420-4G-AU	710 €
Plug & Sense! 4-20 mA LoRaWAN EU	420-LW-EU	470 €
Plug & Sense! 4-20 mA LoRaWAN US	420-LW-US	460 €
Plug & Sense! 4-20 mA Sigfox EU **	420-SF-EU	460 €
Plug & Sense! 4-20 mA Sigfox US **	420-SF-US	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.



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Sensors available:

Sensor	Sockets						Ref.	Price
	A	B	C	D	E	F		
Terminal box probe	✓	✓	✓	✓			9270-P	24 €
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	RA-802-EU	600 €
Plug & Sense! RA 802.15.4	RA-802	600 €
Plug & Sense! RA WiFi	RA-W	600 €
Plug & Sense! RA 868	RA-868	615 €
Plug & Sense! RA 900 US	RA-900-US	636 €
Plug & Sense! RA 900 BR	RA-900-BR	636 €
Plug & Sense! RA 900 AU	RA-900-AU	636 €
Plug & Sense! RA 4G EU/BR*	RA-4G-EU/BR	840 €
Plug & Sense! RA 4G US*	RA-4G-US	840 €
Plug & Sense! RA 4G AU	RA-4G-AU	768 €
Plug & Sense! RA LoRaWAN EU	RA-LW-EU	564 €
Plug & Sense! RA LoRaWAN US	RA-LW-US	564 €
Plug & Sense! RA Sigfox EU **	RA-SF-EU	564 €
Plug & Sense! RA Sigfox US **	RA-SF-US	588 €



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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	AC-802-EU	444 €
Plug & Sense! AC 802.15.4	AC-802	444 €
Plug & Sense! AC WiFi	AC-W	444 €
Plug & Sense! AC 868	AC-868	450 €
Plug & Sense! AC 900 US	AC-900-US	480 €
Plug & Sense! AC 900 BR	AC-900-BR	480 €
Plug & Sense! AC 900 AU	AC-900-AU	480 €
Plug & Sense! AC 4G EU/BR*	AC-4G-EU/BR	708 €
Plug & Sense! AC 4G US*	AC-4G-US	708 €
Plug & Sense! AC 4G AU	AC-4G-AU	636 €
Plug & Sense! AC LoRaWAN EU	AC-LW-EU	432 €
Plug & Sense! AC LoRaWAN US	AC-LW-US	432 €
Plug & Sense! AC Sigfox EU **	AC-SF-EU	432 €
Plug & Sense! AC Sigfox US **	AC-SF-US	444 €

\* 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	48 €
Luminosity (LDR)		✓					9205-P	23 €
Luminosity (luxes accuracy)			✓				9325-P	59 €

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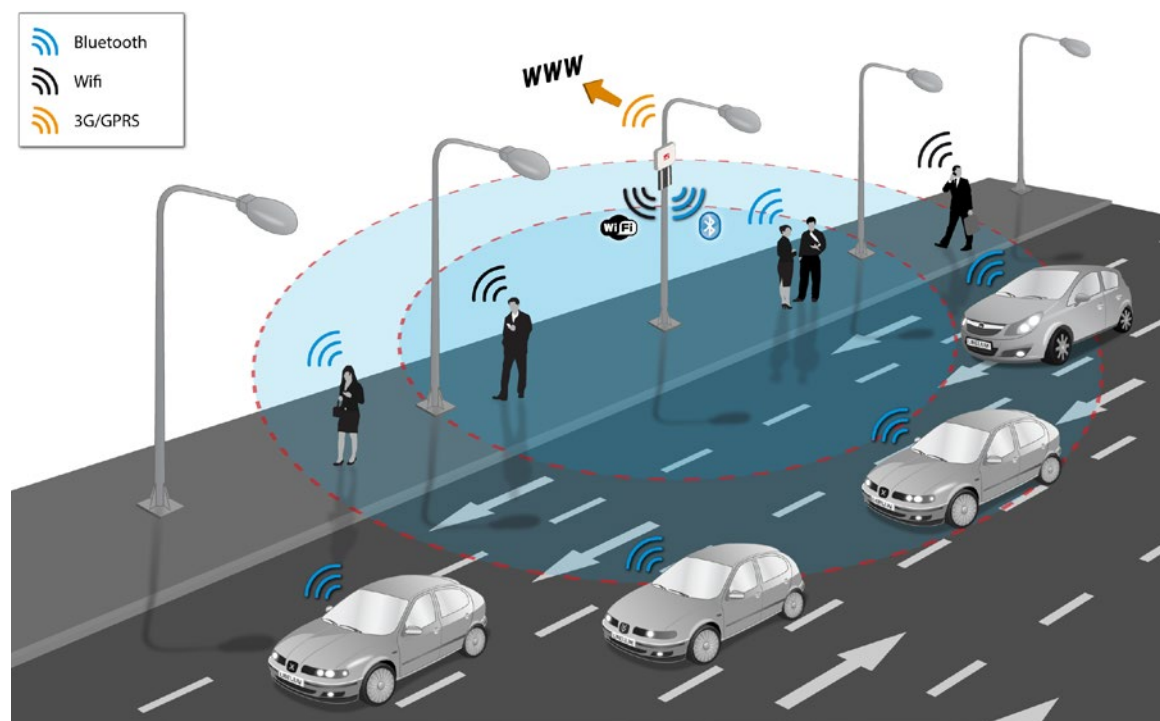
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## Smartphone detection for traffic congestion and pedestrian counting

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 Wasp mote Plug & Sense! For more information about Meshlium models and prices [see Meshlium section](#).



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## 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 <sup>(3)</sup>	Smart Security	4-20 mA	Radiation Control	Ambient Control	Ref.	Price
6600mAh rechargeable battery + external solar panel 7V - 500mA	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	6600-EXT	78 €
6600mAh rechargeable battery + internal solar panel 6.5V - 205mA	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	6600-INT	44 €
6600mAh rechargeable battery + 220V adapter	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	6600-220V	40 €
6600mAh rechargeable battery + 220V adapter + outdoors USB cable <sup>(1)</sup>	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	6600-220V-OUT	52 €
6600mAh rechargeable battery + 220V adapter + plug adapter <sup>(2)</sup>	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	6600-220V-J	47 €

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

2.- Includes 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 a bigger solar panel as an accessory:

Power options	6600-EXT	6600-INT	6600-220V	6600-220V-OUT	6600-220V-J	Smart Parking	Ref.	Price
20 W solar panel (for Plug & Sense!)	✓	X	✓	✓	✓	X	20WSP-PS	90 €

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## 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-232 / Modbus Module	✓	✓	✗	✗	✓	✗	✓	✓	✓	✓	RS-232-PS	75 €
RS-232 / Modbus Module (4G models)	✓	✓	✗	✗	✓	✗	✓	✓	✓	✓	RS-232-PS-4G	50 €
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	24 €
DB9 probe	DB9-P	25 €



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## 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 <sup>(1)</sup>	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	GPS-PS	80 €
Extension cord 1.5 m <sup>(2)</sup>	✓	✗	✗	✗	✓	✓	✓ <sup>(3)</sup>	✓ <sup>(3)</sup>	✓	✗	10250	10 €
Extension cord 3 m <sup>(2)</sup>	✓	✗	✗	✗	✓	✓	✓ <sup>(3)</sup>	✓ <sup>(3)</sup>	✓	✗	10251	12 €
Magnet for contactless reset <sup>(4)</sup>	✓	✓	✓ <sup>(5)</sup>	✓	✓	✓	✓	✓	✓	✓	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.

[View Section](#)

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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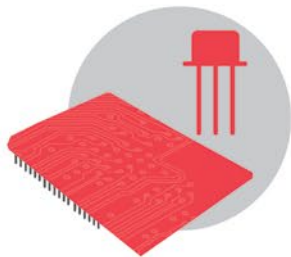
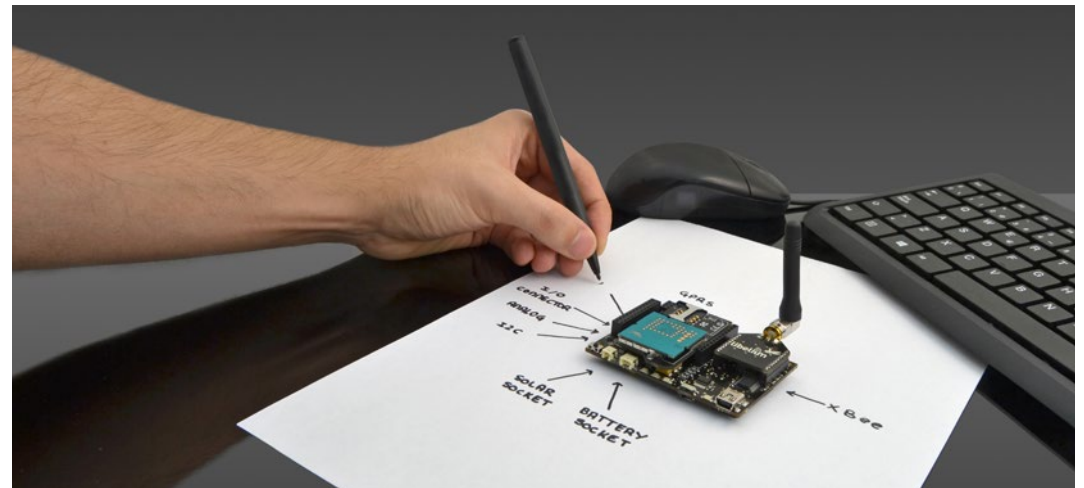
Orders

## 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

+



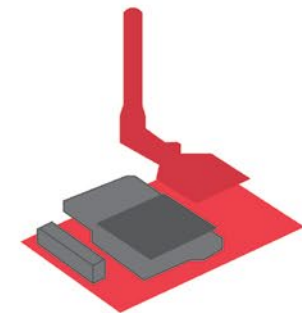
Communication Protocol

+



Power Supply

=



Your Custom Device

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## Sensors

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

Gases



- CO
- CO<sub>2</sub>
- O<sub>2</sub>
- CH<sub>4</sub>
- NH<sub>3</sub>
- NO<sub>2</sub>
- Temperature, Humidity and Pressure
- Volatile Organic Compounds <sup>(1)</sup>
- Liquified petroleum gases (H<sub>2</sub>, CH<sub>4</sub>, ethanol & isobutane)
- Air pollutants I (H<sub>2</sub>, CH<sub>4</sub>, CO, ethanol and isobutane)
- Air pollutants II (NH<sub>3</sub>, SH<sub>2</sub>, ethanol and toluene)
- Solvent vapors (H<sub>2</sub>, CH<sub>4</sub>, CO, ethanol & isobutane)
- Luminosity (Luxes accuracy)
- Ultrasound (outdoor IP67)

WGAS - 144 €

Gases PRO



- Particle Matter (PM1 / PM2.5 / PM10) – Dust Sensor <sup>(2)</sup>
- CO - H<sub>2</sub>
- CO<sub>2</sub> - H<sub>2</sub>S
- O<sub>2</sub> - HCl
- O<sub>3</sub> - HCN
- NO - PH<sub>3</sub>
- NO<sub>2</sub> - ETO
- SO<sub>2</sub> - Cl<sub>2</sub>
- NH<sub>3</sub>
- CH<sub>4</sub> (and other combustible gases)
- Temperature, Humidity and Pressure
- Luminosity (Luxes accuracy)
- Ultrasound (outdoor IP67)

WGASPRO - 72 €

Events



- Temperature, Humidity and Pressure
- Presence PIR
- Horizontal liquid level (combustibles) / (water)
- Vertical liquid level (water)
- Water presence (point/line)
- Hall effect <sup>(3)</sup>
- Water flow small
- Water flow medium
- Water flow large
- Relay Input-Output \*
- Luminosity (Luxes accuracy)
- Ultrasound (outdoor IP67)

WEVENTS - 90 €

Cities PRO



- Noise / Sound Level \*
- Particle Matter (PM1 / PM2.5 / PM10) – Dust Sensor \*
- CO - CH<sub>4</sub>
- CO<sub>2</sub> - H<sub>2</sub>
- O<sub>2</sub> - H<sub>2</sub>S
- O<sub>3</sub> - HCl
- NO - HCN
- NO<sub>2</sub> - PH<sub>3</sub>
- SO<sub>2</sub> - ETO
- Cl<sub>2</sub>
- NH<sub>3</sub> (and other combustible gases)
- Temperature + Humidity + Pressure
- Temperature, Humidity and Pressure
- Luminosity (Luxes accuracy)
- Ultrasound (outdoor IP67)

WCITIES - 144 €

1. VOC sensors go in the same socket, thus, they cannot work in the same board at the same time, but they are interchangeable. The same happens for CO and NH<sub>3</sub> sensors, and for CH<sub>4</sub>, Air pollutants I, Air pollutants II, etc.

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

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

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

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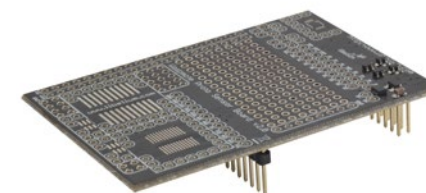
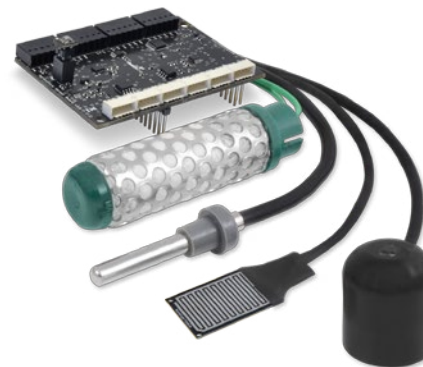
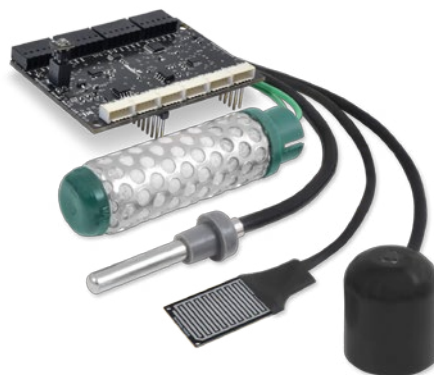
Orders

Parking \*

Agriculture

Agriculture PRO

Prototyping



- Magnetic Field (3 axis):

- Temperature, Humidity and PressureHumidity
- Anemometer + wind vane + pluviometer
- Soil moisture <sup>(3)</sup> (1.5, 4.5, 8 m)
- Leaf wetness
- Luminosity (Luxes accuracy)
- Ultrasound (outdoor IP67)

- Temperature, Humidity and PressureHumidity
- Anemometer + wind vane + pluviometer
- Soil moisture <sup>(4)</sup> (1.5, 4.5, 8 m)
- Leaf wetness
- Luminosity (Luxes accuracy)
- Ultrasound (outdoor IP67)
- Soil/Water temperature
- Solar radiation (PAR)
- Trunk diameter
- Stem diameter
- Fruit diameter

- Pad Area
- Integrated Circuit Area
- Analog-to-Digital Converter (16b)

\* Always supplied with a Wasp mote.

Note: Smart Parking is only available with the Plug & Sense! line.

WAGR - 180 €

WAGRPRO - 270 €

WPROT - 48 €

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

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

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Video Camera Standard / Advanced \*

Radiation

4-20 mA (Current Loop)



- Camera
- Luminosity
- Infra-Red (IR)
- Presence (PIR)

*\* Must always be purchased with a 3G module. Includes IR, luminosity (LDR) and PIR sensors.*

- Geiger tube [ $\beta$ ,  $\gamma$ ]  
(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

WCAM-ST / WCAM-ADV - 171 € / 195 €

WRADIATION - 138 €

W420 - 54 €

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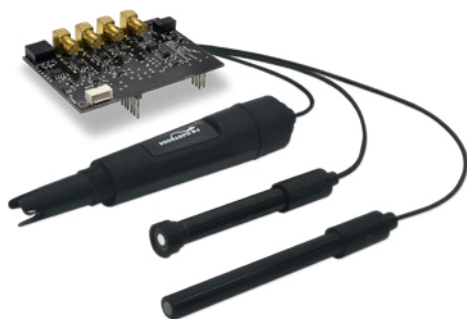
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## Smart Water \*



- 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 ( $\text{NH}_4^+$ )
  - Bromide ( $\text{Br}^-$ )
  - Calcium ( $\text{Ca}^{2+}$ )
  - Chloride ( $\text{Cl}^-$ )
  - Cupric ( $\text{Cu}^{2+}$ )
  - Fluoride ( $\text{F}^-$ )
  - Iodide ( $\text{I}^-$ )
  - Fluoroborate ( $\text{BF}_4^-$ )
  - Lithium ( $\text{Li}^+$ )
  - Nitrate ( $\text{NO}_3^-$ )
  - Nitrite ( $\text{NO}_2^-$ )
  - Magnesium ( $\text{Mg}^{2+}$ )
  - Perchlorate ( $\text{ClO}_4^-$ )
  - Potassium ( $\text{K}^+$ )
  - Silver ( $\text{Ag}^+$ )
  - Sodium ( $\text{Na}^+$ )
  - 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 €



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Sensor	Ref.	Price
Temperature, Humidity and Pressure	9370	24 €
Luminosity (luxes accuracy)	9325	18 €
Presence (PIR)	9212	22 €
Horizontal liquid level (combustibles)	9239	24 €
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	90 €
Hall effect <sup>(1)</sup>	9207	15 €
CO	9229	29 €
CO <sub>2</sub>	9230	66 €
O <sub>2</sub>	9231	138 €
CH <sub>4</sub>	9232	32 €
NH <sub>3</sub>	9233	144 €
NO <sub>2</sub>	9238-B	21 €
Volatile Organic Compounds <sup>(2)</sup>	9201-B	20 €

Sensor	Ref.	Price
Liquified petroleum gases (H <sub>2</sub> , CH <sub>4</sub> , ethanol & isobutane)	9234	34 €
Air pollutants-I (H <sub>2</sub> , CH <sub>4</sub> , CO, ethanol and isobutane)	9235	24 €
Air pollutants-II (NH <sub>3</sub> , SH <sub>2</sub> , ethanol and toluene)	9236	32 €
Solvent vapors (H <sub>2</sub> , CH <sub>4</sub> , CO, ethanol and isobutane)	9237	32 €
CO for high concentrations (Calibrated) <sup>(3)</sup>	9371	180 €
CO for low concentrations (Calibrated) <sup>(3)</sup>	9371-LC	264 €
CO <sub>2</sub> (Calibrated) <sup>(3)</sup>	9372	630 €
O <sub>2</sub> (Calibrated) <sup>(3)</sup>	9373	222 €
O <sub>3</sub> (Calibrated) <sup>(3)</sup>	9374	324 €
NO for low concentrations (Calibrated) <sup>(3)</sup>	9375-LC	264 €
NO <sub>2</sub> high accuracy (Calibrated) <sup>(3)</sup>	9376-HA	264 €
SO <sub>2</sub> high accuracy (Calibrated) <sup>(3)</sup>	9377-HA	264 €
NH <sub>3</sub> (Calibrated) for low concentrations <sup>(3)</sup>	9378-LC	420 €
NH <sub>3</sub> (Calibrated) for high concentrations <sup>(3)</sup>	9378-HC	CS
CH <sub>4</sub> and Combustible Gas (Calibrated) <sup>(3)</sup>	9379	234 €

Sensor	Ref.	Price
H <sub>2</sub> (Calibrated) <sup>(3)</sup>	9380	198 €
H <sub>2</sub> S (Calibrated) <sup>(3)</sup>	9381	204 €
HCl (Calibrated) <sup>(3)</sup>	9382	384 €
HCN (Calibrated) <sup>(3)</sup>	9383	250 €
PH <sub>3</sub> (Calibrated) <sup>(3)</sup>	9384	372 €
ETO (Calibrated) <sup>(3)</sup>	9385	276 €
Cl <sub>2</sub> (Calibrated) <sup>(3)</sup>	9386	276 €
Ultrasound (indoor)	9213	78 €
Ultrasound (outdoor IP67)	9246	252 €
Distance (by metallic pressure)	9267	36 €
Water flow small	9296	18 €
Water flow medium	9297	24 €
Water flow large	9298	30 €
Soil/Water temperature <sup>(4)</sup>	9255	18 €
Solar radiation (PAR)	9251	225 €
Trunk diameter	9252	500 €
Stem diameter	9253	475 €

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)

Confidential Document / Version: v12.4 / Date: August 2017

This catalogue supersedes any previously released and is valid until publication of another to replace it. Catalogue for the new generation of products (Waspnote v15, Plug & Sense! v15 and Meshlium 4.0).

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Sensor	Ref.	Price
Fruit diameter	9254	475 €
Anemometer + wind vane + pluviometer	9256	132 €
Ultraviolet radiation	9257	325 €
Soil moisture <sup>(5)</sup> (1.5m)	9248	55 €
Soil moisture <sup>(5)</sup> (4.5m)	9324	65 €
Soil moisture <sup>(5)</sup> (8m)	9323	75 €
Leaf wetness	9249	8 €
Conductivity	9326	40 €
Dissolved Oxygen	9327	600 €
pH	9328	21 €
Oxidation Reduction Potential	9329	54 €
Turbidity Sensor kit <sup>(6)</sup>	TSK	3,924 €
Calcium Ion (Ca <sup>2+</sup> )	9352	204 €
Fluoride Ion (F <sup>-</sup> )	9353	204 €
Fluoroborate Ion (BF <sub>4</sub> <sup>-</sup> )	9354	204 €
Nitrate Ion (NO <sub>3</sub> <sup>-</sup> )	9355	204 €
Bromide Ion (Br <sup>-</sup> )	9356	204 €
Chloride Ion (Cl <sup>-</sup> )	9357	204 €

Sensor	Ref.	Price
Cupric Ion (Cu <sup>2+</sup> )	9358	204 €
Iodide Ion (I <sup>-</sup> )	9360	204 €
Silver Ion (Ag <sup>+</sup> )	9362	204 €
pH (for Smart Water Ions)	9363	54 €
Ammonium Ion (NH <sub>4</sub> <sup>+</sup> ) [PRO]	9412	504 €
Bromide Ion (Br <sup>-</sup> ) [PRO]	9413	918 €
Calcium Ion (Ca <sup>2+</sup> ) [PRO]	9414	504 €
Chloride Ion (Cl <sup>-</sup> ) [PRO]	9415	504 €
Cupric Ion (Cu <sub>2</sub> <sup>+</sup> ) [PRO]	9416	918 €
Fluoride Ion (F <sup>-</sup> ) [PRO]	9417	918 €
Iodide Ion (I <sup>-</sup> ) [PRO]	9418	918 €
Lithium Ion (Li <sup>+</sup> ) [PRO]	9419	918 €
Nitrate Ion (NO <sub>3</sub> <sup>-</sup> ) [PRO]	9421	504 €
Nitrite Ion (NO <sub>2</sub> <sup>-</sup> ) [PRO]	9422	918 €
Magnesium Ion (Mg <sup>2+</sup> ) [PRO]	9420	504 €
Perchlorate Ion (ClO <sub>4</sub> <sup>-</sup> ) [PRO]	9423	918 €
Potassium Ion (K <sup>+</sup> ) [PRO]	9424	504 €
Silver Ion (Ag <sup>+</sup> ) [PRO]	9425	918 €

Sensor	Ref.	Price
Sodium Ion (Na <sup>+</sup> ) [PRO]	9426	504 €
pH [PRO]	9411	504 €
Single Junction Reference Probe <sup>7</sup>	9350	78 €
Double Junction Reference Probe <sup>8</sup>	9351	120 €
Reference Probe [PRO] <sup>9</sup>	9410	504 €

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. The same happens for CO and NH<sub>3</sub> sensors, and for CH<sub>4</sub>, Air pollutants I, Air pollutants II, etc.

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 Calcium (Ca<sup>2+</sup>), Fluoride (F<sup>-</sup>), Fluoroborate (BF<sub>4</sub><sup>-</sup>), Nitrate (NO<sub>3</sub><sup>-</sup>) 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<sup>-</sup>), Chloride (Cl<sup>-</sup>), Cupric (Cu<sup>2+</sup>), Iodide (I<sup>-</sup>), Silver (Ag<sup>+</sup>) and pH (for Smart Water Ions). 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.

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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 €
pH Calibration Kit	9343	63 €
ORP Calibration Solution	9344	42 €
Turbidity Calibration Kit (low)	TCL	144 €
Turbidity Calibration Kit (high)	TCH	186 €
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 €

Calibration Kit	Ref.	Price
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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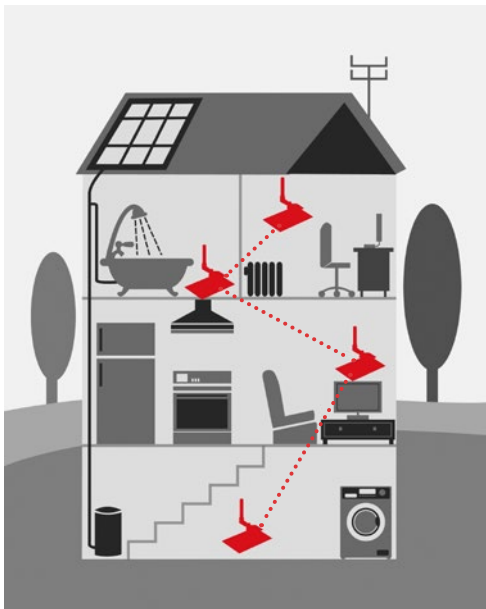
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## Configuring your Wasmotes: Connectivity

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.



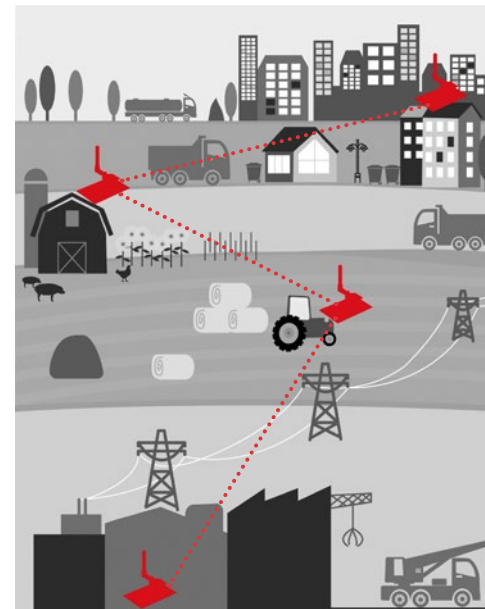
WiFi  
Bluetooth  
Bluetooth Low Energy

~ 0-300 m



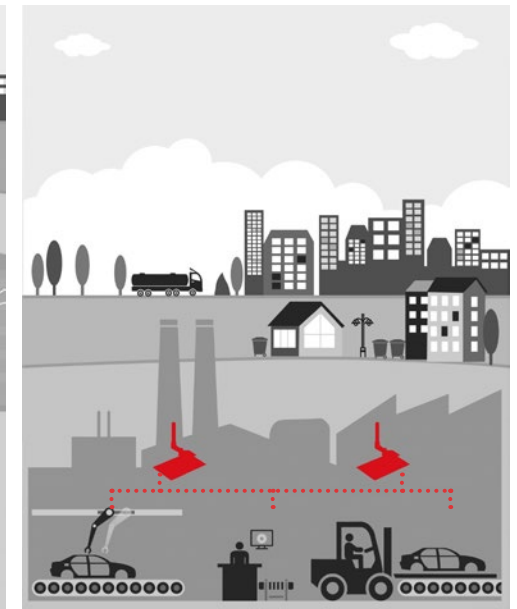
4G - 3G - GPRS - Sigfox - LoRaWAN

Typical carrier range



802.15.4  
Digimesh  
ZigBee-PRO  
868 MHz  
900 MHz  
LoRa

~ 7-22+ Km



RS-485  
RS-232  
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 <sup>(1)</sup>	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		WZBP-SMA2	240 €
Wasmote ZigBee 5 dBi	2.4 GHz	Worldwide	ZigBee-Pro	3.2 km	WZBP-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 €

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Waspote price chart depending on model:

Model	Frequency band	Use zone	Protocol	Distance outdoors <sup>(1)</sup>	Ref.	Price
Waspote LoRaWAN 4.5 dBi - EU	868 MHz	Europe	LoRaWAN	-km- Typical base station range	WLW-SMA4-EU	228 €
Waspote LoRaWAN 4.5 dBi - US	900 MHz	USA & Canada	LoRaWAN	-km- Typical base station range	WLW-SMA4-US	228 €
Waspote LoRaWAN 4.5 dBi - 433	433 MHz	Worldwide	LoRaWAN	-km- Typical base station range	WLW-SMA4-433	228 €
Waspote Sigfox 4.5 dBi EU <sup>2</sup>	868 MHz	Europe	Sigfox	-km- Typical base station range	WSF-SMA4-EU	228 €
Waspote Sigfox 4.5 dBi US <sup>2</sup>	900 MHz	USA & Canada	Sigfox	-km- Typical base station range	WSF-SMA4-US	240 €
Waspote LoRa 4.5 dBi - 868	868 MHz	Europe	RF	22+ Km	WLoRa-SMA4-868	178 €
Waspote LoRa 4.5 dBi - 900	900 MHz	USA & Canada	RF	22+ Km	WLoRa-SMA4-900	178 €
Waspote WiFi on-chip	2.4 GHz	Worldwide	802.11b/g/n	100-500 m	WWIFI-OC	264 €
Waspote + GPRS	850/900/1800/1900 MHz	Worldwide	GSM – GPRS	- km - Typical carrier range	WA-GPRS	234 €
Waspote + GPRS + GPS	850/900/1800/1900 MHz	Worldwide	GSM – GPRS	- km - Typical carrier range	WA-GPRS-GPS	276 €
Waspote + 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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Waspote price chart depending on model:

Model	Frequency band	Use zone	Protocol	Distance outdoors <sup>(1)</sup>	Ref.	Price
Waspote + 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 €
Waspote 4G EU/BR <sup>3</sup>	2G: 900/1800 MHz WCDMA: 850/900/2100 MHz LTE: 800/1800/2600 MHz	Europe & Brazil	GSM – GPRS – 3G – 4G	- km - Typical carrier range	WA-4G-EU/BR	468 €
Waspote 4G US <sup>3</sup>	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 €
Waspote 4G AU	4G: 700/1800/2600 MHz	Australia	4G	- km - Typical carrier range	WA-4G-AU	378 €
Waspote Bluetooth 2dBi	WCDMA: 850/1900 MHz	Worldwide	Bluetooth 2.1 + EDR Class 2		WWBTS-SMA2	234 €
Waspote Bluetooth 5dBi	LTE: 700/850/1700/1900 MHz	Worldwide	Bluetooth 2.1 + EDR Class 2	30-100 m	WWBTS-SMA5	234 €
Waspote Bluetooth Low Energy 2dBi	2.4 GHz	Worldwide	Bluetooth 4.0 / Bluetooth Smart		WBLE-SMA2	204 €
Waspote 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.

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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## Industrial Protocols

Waspnote can integrate communication modules for the most common wired communication protocols: RS-485, RS-232, 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 Waspnote ecosystem with these protocols.

Waspnote 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.

### Waspnote price chart depending on model:

Model	Ref.	Price
Waspnote RS-232 Serial / Modbus + DB9 cable	WA-232	171 €
Waspnote RS-485 / Modbus + DB9 cable	WA-485	210 €
Waspnote CAN Bus + DB9 cable	WA-CAN	222 €



Waspnote RS-232 Serial / Modbus



Waspnote RS-485 / Modbus



Waspnote CAN Bus

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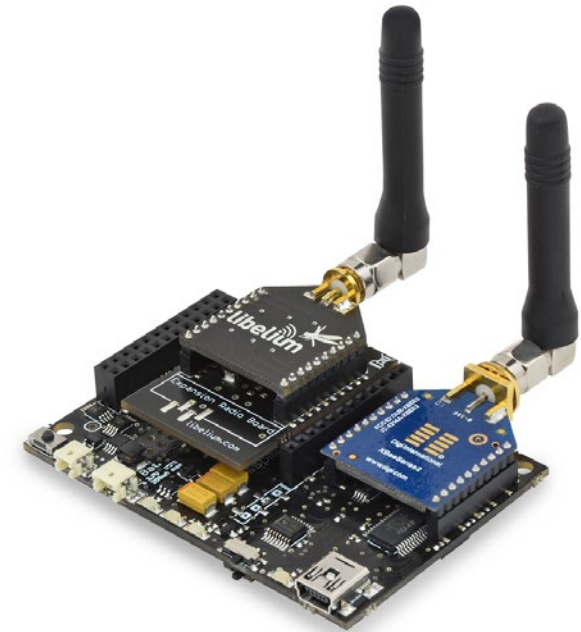
Orders

## 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 Waspote: 802.15.4, ZigBee, DigiMesh, 868 MHz, 900 MHz, LoRa, WiFi, GPRS, GPRS+GPS, 3G, 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
Expansion Radio Board	-	-	WEXP	30 €
XBee 802.15.4 5 dBi EU	✓		X802P-SMA5-EU	48 €
XBee 802.15.4 5dBi	✓		X802P-SMA5	48 €
XBee Digimesh 5dBi	✓		XDMP-SMA5	48 €
XBee ZigBee 5dBi	✓		XZBP-SMA5	48 €
XBee 868 4.5dBi	✓		X868-SMA4	90 €
XBee 900 4.5 dBi US	✓		X900-SMA4-US	132 €
XBee 900 4.5 dBi BR	✓		X900-SMA4-BR	132 €
XBee 900 4.5 dBi AU	✓		X900-SMA4-AU	132 €
LoRa module SMA 4.5 dBi - 868	Only for socket 0		LoRa-SMA4-868	54 €
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 €
Sigfox Module EU <sup>1</sup>	✓		SF-SMA4-EU	66 €
Sigfox Module US <sup>1</sup>	✓		SF-SMA4-US	78 €
WiFi Module on chip	✓		WIFI-OC	108 €
GSM / GPRS Module		✓	WGPRS	84 €

Model	Require Expansion Radio Board?	Direct connection to Waspote	Ref.	Price
GPRS + GPS Module		✓	WGPRS - GPS	119 €
3G Module (Europe version)		✓	W3G-E	174 €
3G Module (America/Australia version)		✓	W3G-A	174 €
4G Module EU/BR <sup>2</sup>		✓	W4G-EU/BR	264 €
4G Module US <sup>2</sup>		✓	W4G-US	264 €
4G Module AU		✓	W4G-AU	198 €



Sigfox module



Waspote 4G module

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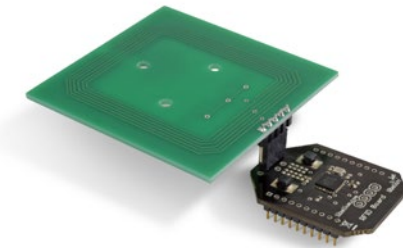
Power Options

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Model	Require Expansion Radio Board?	Direct connection to Waspote	Ref.	Price
Bluetooth Module for device discovery <sup>3</sup> , 2 dBi antenna	✓		WBTS-SMA2	90 €
Bluetooth Module for device discovery <sup>3</sup> , 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-232 Serial / Modbus Module, DB9 cable	✓		W232	21 €
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



Waspote GPS module

<sup>1</sup> 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.

<sup>2</sup> This radio includes a GPS receiver.

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

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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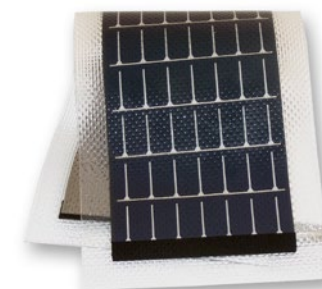
## Power options

Model	Features	Ref.	Price
6600mA·h battery <sup>(1)</sup>	Li-ion rechargeable	6041	36 €
52 A·h <sup>(1) (2)</sup>	Non-rechargeable	6023	162 €
Rigid solar panel	7 V – 500 mA	6020	42 €
Flexible solar panel	7.2 V – 100 mA	6021	41 €
20 W solar panel	12 V – 2000 mA	20WSP	80 €
220V - USB	USB connector option	6006	4 €
International adapter	USB connector option	10280	8 €
Car lighter - USB	USB connector option	6007	4 €

1.- Each Waspnote always requires a battery, even if it is powered from an external power supply.  
2.- This power option is not available for GPRS, GPRS+GPS, 3G 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*	2 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.

[View Section](#)

Demo Kits

Wasp mote P&S!

Wasp mote OEM

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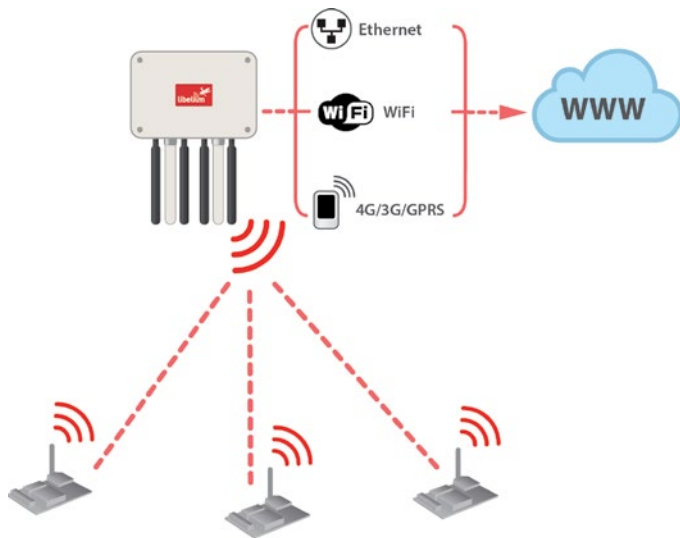
Orders

## 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

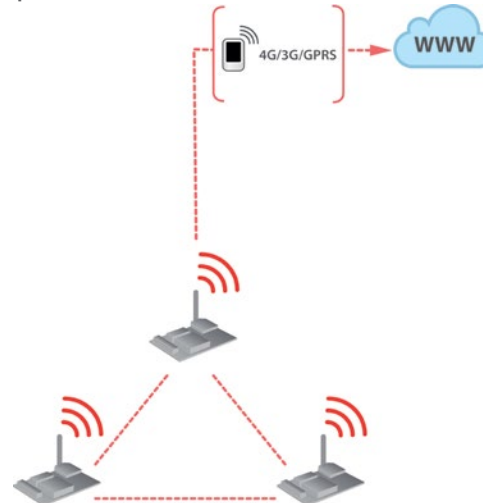
This is the most recommended option for outdoor networks since it is encased in a rugged, waterproof enclosure which protects it from the harshest conditions. It can receive, parse and store frames in its local database. Meshlium can also forward sensor data directly to the Internet via Ethernet or GPRS/3G/4G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



### Wasp mote GPRS / 3G / 4G / Sigfox / LoRaWAN

GPRS, 3G 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.



### Wasp mote 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 Wasp mote Gateway is also used to send commands to the sensor network, thus at least one unit should be purchased with the first kit of Wasp motes.



Demo Kits

Waspote P&S!

Waspote OEM

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## Meshlium

Meshlium is the best Internet Gateway for Waspote. 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 Waspote to many 3rd party Cloud platforms.

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



Demo Kits

Waspnote P&S!

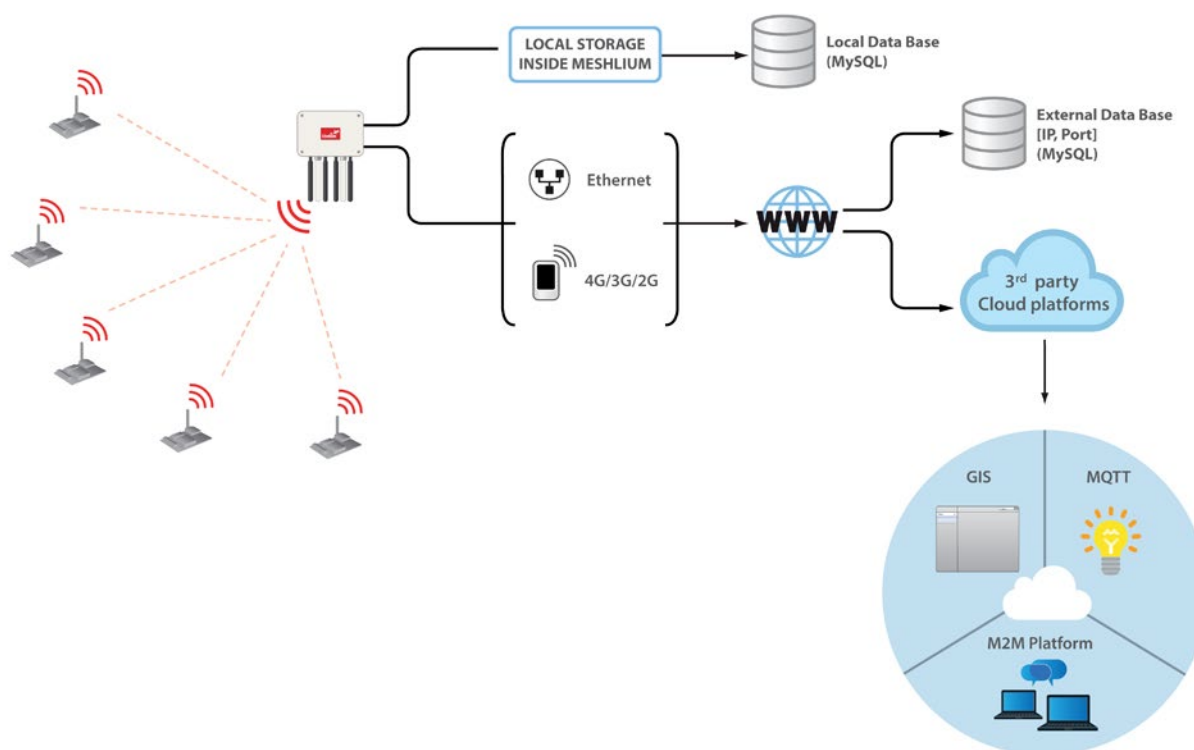
Waspnote OEM

**Data**

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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:



Demo Kits

Waspnote P&S!

Waspnote OEM

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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/>).



Demo Kits

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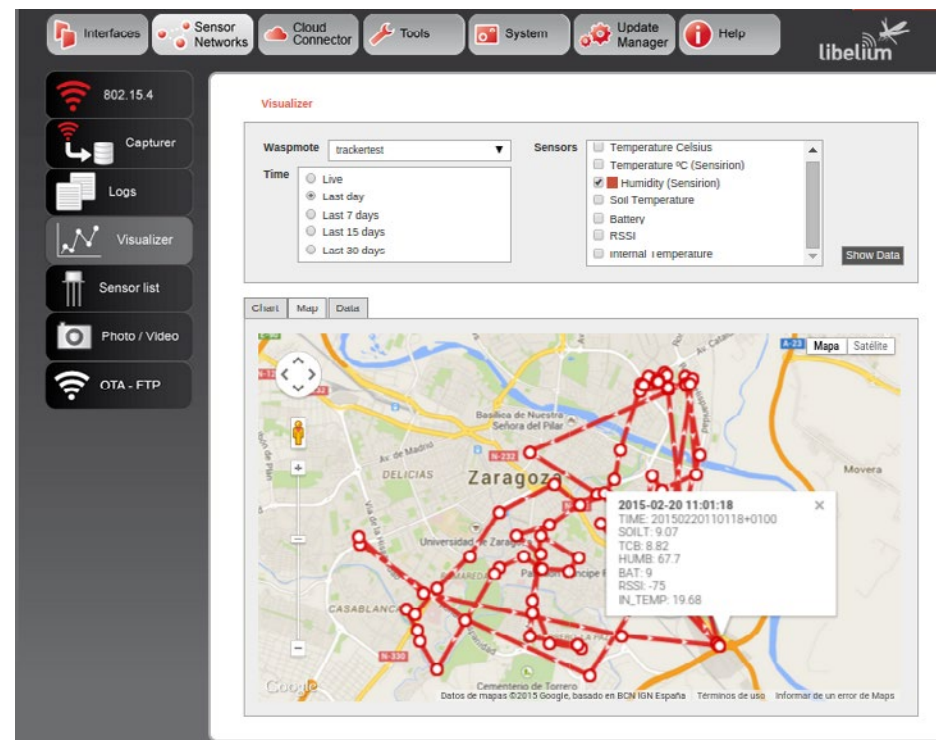
Orders

## Meshlium Visualizer

This software feature allows to plot beautiful graphs with Meshlium. Meshlium Visualizer is only included in IoT Vertical Kits.



Meshlium Visualizer showing data series



Meshlium Visualizer geo-locating a moving Plug & Sense!



Demo Kits

Waspnote P&S!

Waspnote OEM

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Meshlium price chart depending on model:

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

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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The following accessories are optional.

Module	Ref.	Price
Directional Antennas for Meshlium Scanner*	MDA	294 €

\* This is a kit of 2 outdoors directional antennas (18 dB) for WiFi and Bluetooth, mounting kits, 2 m cables and adapters. The kit is specially indicated for Vehicle Detection applications because it enlarges the range area.



Directional antenna for Meshlium Scanner

Demo Kits

Waspote P&S!

Waspote OEM

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## Waspote Gateway and cellular or LPWAN modules

Data extraction option	Ref.	Price
Waspote Gateway 802.15.4 2dBi EU	WG802P-SMA2-EU	186 €
Waspote Gateway 802.15.4 2dBi	WG802P-SMA2	186 €
Waspote Gateway 802.15.4 5dBi EU	WG802P-SMA5-EU	186 €
Waspote Gateway 802.15.4 5dBi	WG802P-SMA5	186 €
Waspote Gateway Digimesh 2dBi	WGDMP-SMA2	186 €
Waspote Gateway Digimesh 5dBi	WGDMP-SMA5	186 €
Waspote Gateway ZigBee 2dBi	WGZBP-SMA2	186 €
Waspote Gateway ZigBee 5dBi	WGZBP-SMA5	186 €
Waspote Gateway 868 4.5 dBi	WG868-SMA4	180 €
Waspote Gateway 900 4.5dBi US	WG900-SMA4-US	228 €
Waspote Gateway 900 4.5dBi BR	WG900-SMA4-BR	228 €
Waspote Gateway 900 4.5dBi AU	WG900-SMA4-AU	228 €
Waspote Gateway LoRa 868	WGLoRa-SMA4-868	168 €
Waspote Gateway LoRa 900	WGLoRa-SMA4-900	168 €
Waspote Gateway Bluetooth 2 dBi	WGBTS-SMA2	186 €
Waspote Gateway Bluetooth 5 dBi	WGBTS-SMA5	186 €
Waspote Gateway Bluetooth Low Energy 2 dBi	WGBLE-SMA2	186 €
Waspote Gateway Bluetooth Low Energy 5 dBi	WGBLE-SMA5	186 €

Data extraction option	Ref.	Price
Waspote GSM/ GPRS module	WGPRS	84 €
Waspote GPRS + GPS module	WGPRS-GPS	119 €
Waspote 3G module (Europe version)	W3G-E	174 €
Waspote 3G module (America/Australia version)	W3G-A	174 €
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 €
Waspote Sigfox module EU**	SF-SMA4-EU	66 €
Waspote Sigfox module US**	SF-SMA4-US	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.

Demo Kits

Waspote P&S!

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## LoRaWAN base stations

Libelium distributes base stations for LoRaWAN networks. They are manufactured by the company MultiTech. All of them have LoRaWAN and cellular radios and Ethernet connection. 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.

You can select 2 different types of operating system: mLinux (open-source, Yocto-based Linux distro) and AEP (enhanced closed-source Linux distro). There are EU and US/AU versions, and some of them come pre-configured for some LoRaWAN cloud servers:

Model	User Zone	Operating system	Pre-configured for LoRaWAN servers	Ref.	Price
Multitech Conduit LoRaWAN Base Station, 3G, mLinux, EU version	EU	mLinux	No	MLRWBS-3G-mL-EU	1,700 €
Multitech Conduit LoRaWAN Base Station, 3G, mLinux, US version	US	mLinux	No	MLRWBS-3G-mL-US	1,700 €
Multitech Conduit LoRaWAN Base Station, 3G, AEP, EU version (embedded Network Server)	EU	AEP	No, but has an embedded LoRaWAN Network Server	MLRWBS-3G-AEP-ENS-EU	1,700 €
Multitech Conduit LoRaWAN Base Station, 3G, AEP, US version (embedded Network Server)	US	AEP	No, but has an embedded LoRaWAN Network Server	MLRWBS-3G-AEP-ENS-US	1,700 €
Multitech Conduit LoRaWAN Base Station, 3G, mLinux, EU version (configured for Lorient)	EU	mLinux	Yes, Lorient	MLRWBS-3G-mL-L-EU	1,800 €
Multitech Conduit LoRaWAN Base Station, 3G, mLinux, US version (configured for Lorient)	US	mLinux	Yes, Lorient	MLRWBS-3G-mL-L-US	1,800 €
Multitech Conduit LoRaWAN Base Station, 4G, mLinux, EU version (configured for Actility)	EU	mLinux	Yes, Actility	MLRWBS-4G-mL-A-EU	1,800 €
Multitech Conduit LoRaWAN Base Station, 4G, mLinux, US version (configured for Actility)	US	mLinux	Yes, Actility	MLRWBS-4G-mL-A-US	1,800 €

Demo Kits

Waspote P&S!

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*MultiTech's LoRaWAN base station*



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

[View Section](#)

Demo Kits

Wasmote P&S!

Wasmote OEM

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## Getting support

### Wasmote 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 & Sense!.

Plug & Sense! Programming Service (includes the creation of up to 3 different codes and the upload them into 5 Plug & Sense! nodes)

PROG

600 €

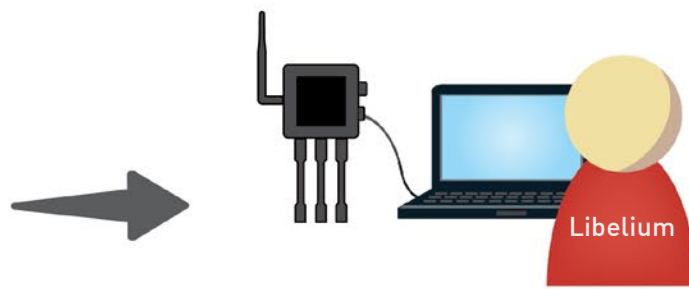
Additional Nodes Upload Service

PROG-UPL

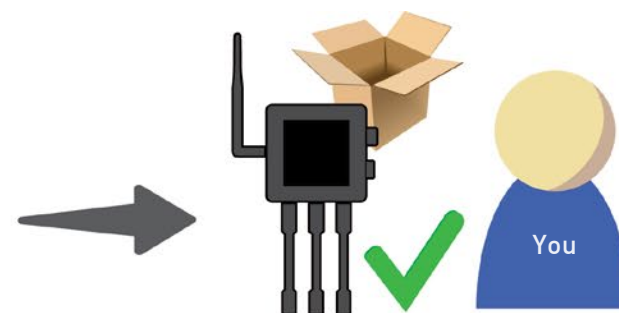
24 € per node



Fill the features of code in the form



We program your devices



You receive ready-to-install nodes



Demo Kits

Waspote P&S!

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## Support options

Programming Waspote 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.

<div></div> <div>Forum</div>	<div></div> <div>Technical Consultancy</div>		<div></div> <div>Training Workshops</div>		<div></div> <div>Free Live IoT Overview Webinars</div>	<div></div> <div>Special Projects Consultancy</div>
<ul style="list-style-type: none"><li>• Answered once a day in best-effort way by our engineers</li><li>• Online: text</li><li>• Useful for:<ul style="list-style-type: none"><li>- Solving doubts about API usage, compilation problems, IDE options or basic questions</li><li>- Reporting bugs</li><li>- Tier-1 troubleshooting</li><li>- Staying up to date about new API releases, tutorials, code examples, etc</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Arranged in 1 hour time-slots</li><li>• Online and interactive video conference sessions: text, screen share, mic and webcam</li><li>• Useful for:<ul style="list-style-type: none"><li>- Solving urgent questions that cannot wait the Forum's response time</li><li>- Guiding you step by step</li><li>- Helping you to design a system architecture</li><li>- Improving your program to reduce power consumption, make it more efficient, etc</li></ul></li></ul>		<ul style="list-style-type: none"><li>• Celebrated every quarter during 3 days / 21 hours</li><li>• Face-to-face</li><li>• Useful for:<ul style="list-style-type: none"><li>- Learning how to program Waspote step by step</li><li>- Achieving an advanced programming level in just 3 days</li></ul></li></ul>		<ul style="list-style-type: none"><li>• Online master class: text, screen share, mic and webcam</li><li>• Useful for:<ul style="list-style-type: none"><li>- Getting an overview on the IoT market</li><li>- Discovering in just 1 hour the latest trends on smart cities, smart environment, precision agriculture, smart water, logistics, IoT...</li><li>- Finding the inspiration to develop new projects learning about our success stories</li><li>- Taking advantage of our professional experience on IoT projects</li><li>- Approaching to Libelium ecosystem</li></ul></li></ul>	<ul style="list-style-type: none"><li>• On request.</li></ul> <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&amp;D team the viability of the solution and returns you an implementation proposal.</p>
Free and exclusive for customers <sup>1</sup>	2 hours	TC-2 → 216 €	Basic Training course (2 first days)	Free <sup>2</sup> / 1,600 € <sup>3</sup>	See the <a href="#">calendar</a> and <a href="#">register</a>	PAS → 300 €
	3 hours	Free <sup>2</sup>	Advanced Training course (3 <sup>rd</sup> day)	800 € <sup>3</sup>		
	5 hours	TC-5 → 486 €	Basic + Advanced Training course (3 days)	2,000 € <sup>3</sup>		
	10 hours	TC-10 → 864 €	In-Company Training Course <sup>4</sup>	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.

Demo Kits

Waspnote P&S!

Waspnote OEM






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## Calendar - Libelium Training Courses 2017

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
1 2 3 4 5 6 7	29 30 31 1 2 3 4	26 27 28 1 2 3 4	26 27 28 29 30 31 1
8 9 10 11 12 13 14	5 6 7 8 9 10 11	5 6 7 8 9 10 11	2 3 4 5 6 7 8
15 16 17 18 19 20 21	12 13 14 15 16 17 18	12 13 14 15 16 17 18	9 10 11 12 13 14 15
22 23 24 25 26 27 28	19 20 21 22 23 24 25	19 20 21 22 23 24 25	16 17 18 19 20 21 22
29 30 31 1 2 3 4	26 27 28 1 2 3 4	26 27 28 29 30 31 1	23/30 24 25 26 27 28 29
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 1 2 3 4 5 6	28 29 30 31 1 2 3	25 26 27 28 29 30 1	30 31 1 2 3 4 5
7 8 9 10 11 12 13	4 5 6 7 8 9 10	2 3 4 5 6 7 8	6 7 8 9 10 11 12
14 15 16 17 18 19 20	11 12 13 14 15 16 17	9 10 11 12 13 14 15	13 14 15 16 17 18 19
21 22 23 24 25 26 27	18 19 20 21 22 23 24	16 17 18 19 20 21 22	20 21 22 23 24 25 26
28 29 30 31 1 2 3	25 26 27 28 29 30 1	23/30 24/31 25 26 27 28 29	27 28 29 30 31 1 2
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
27 28 29 30 31 1 2	1 2 3 4 5 6 7	29 30 31 1 2 3 4	26 27 28 29 30 1 2
3 4 5 6 7 8 9	8 9 10 11 12 13 14	5 6 7 8 9 10 1	3 4 5 6 7 8 9
10 11 12 13 14 15 16	15 16 17 18 19 20 21	12 13 14 15 16 17 18	10 11 12 13 14 15 16
17 18 19 20 21 22 23	22 23 24 25 26 27 28	19 20 21 22 23 24 25	17 18 19 20 21 22 23
24 25 26 27 28 29 30	29 30 31 1 2 3 4	26 27 28 29 30 1 2	24/31 25 26 27 28 29 30

-  Waspnote Face-to-Face Workshops
-  Advanced Waspnote Face-to-Face Workshops
-  IoT Spartans Challenge
-  Internet of Things Webinars
-  UNED Waspnote Course



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

[View Section](#)

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## Order placement

To place an order, you must complete the form available in: [http://www.libelium.com/order\\_form](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](mailto: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](mailto:sales@libelium.com)
- Tlf: +34 976 54 74 92

### Order Form





[www.libelium.com](http://www.libelium.com)

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