



SOLEM

CONNECTED AGRICULTURE

ARBORICULTURE | MARKET GARDENING | CROPS

SOLEM.FR

# DISCOVER THE APP TO CONTROL AGRICULTURAL IRRIGATION OF YOUR PLOTS



FREE MYSOLEM.COM PLATFORM & MYSOLEM APP!

The MySOLEM app can be downloaded from the App Store or Google Play. The app is optimized for use with the Bluetooth® Smart V4 version available on most tablets and smartphones.

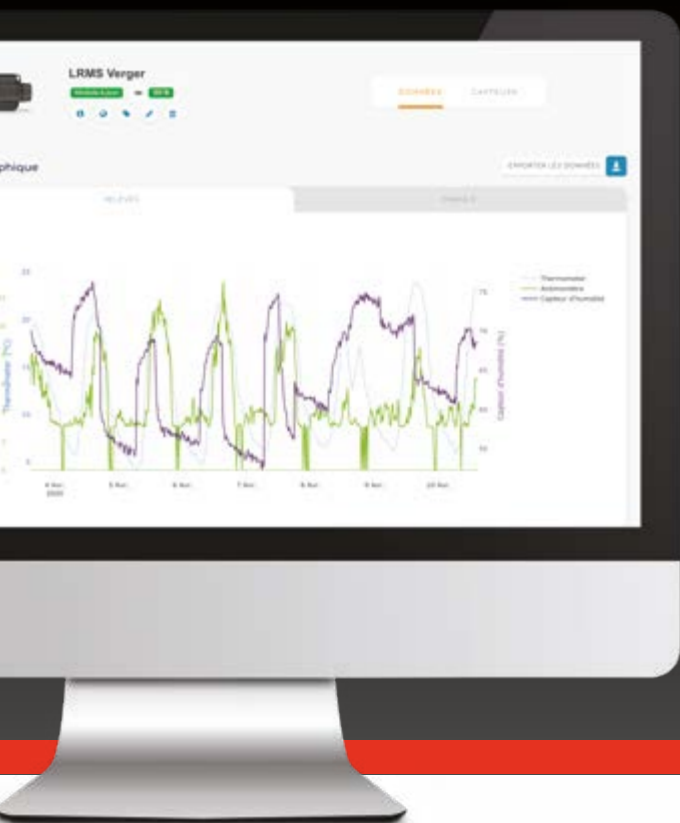


**MYSOLEM**

 PROFESSIONAL ACCOUNT

## Our expert platform, designed for professionals

CANOPY / PRO ACCOUNT are professional features of the MySOLEM.com platform. Find functionalities such as group orders, site management, mapping by site, user management, etc.



PROTECT YOUR MODULES FROM THEFT

## ANTI-THEFT

### SOLEM'S NEW EXCLUSIVE\* ANTI-THEFT FEATURE

Limit the risks of theft!

- Deactivation of stolen products
- Available for all Bluetooth®, LoRa™ and Wi-Fi SOLEM products
- In one click on the MySOLEM app and platform



\* on the irrigation market

# FOR MY CROPS

## 1 . GATEWAYS

- p.11 **Irrigation station** Connected irrigation station
- p.13 **LR-BST-REACT** 3G / 4G & LoRa™ gateway for agricultural controllers

## 2 . CONTROLLERS

- p.15 **BL-AG** Battery powered Bluetooth® irrigation controller
- p.17 **LR-AG** Battery powered Bluetooth® & LoRa™ irrigation controller

## 3 . DATA ACQUISITION

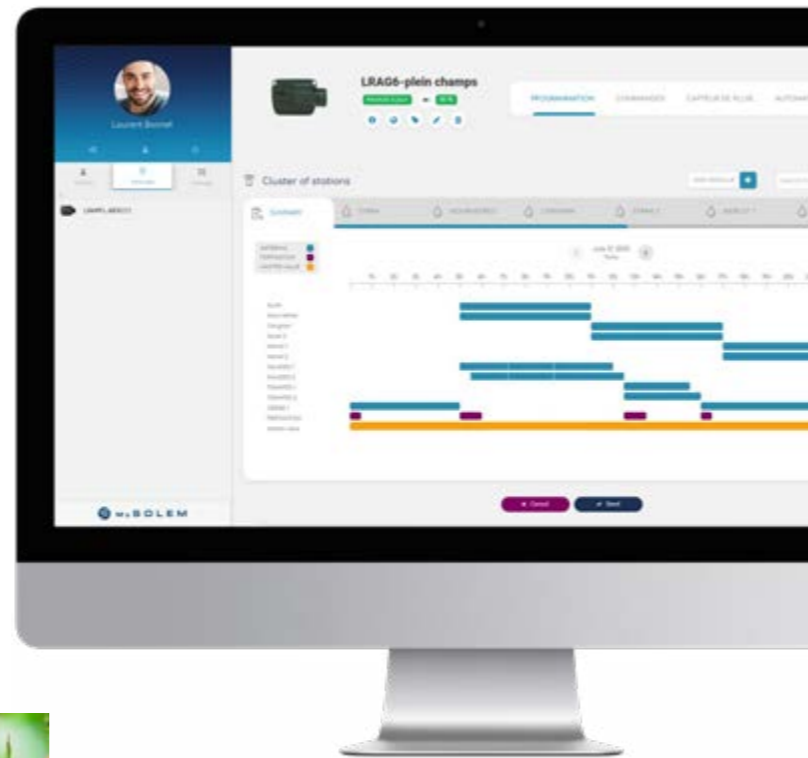
- p.19 **Sensors** Connected agricultural sensors
- p.20 **LR-MS** Battery powered Bluetooth® & LoRa™ connected sensors module
- p.21 **LR-FL** Battery powered Bluetooth® & LoRa™ water meter module

## 4 . SUIVI DES MACHINES AGRICOLES

- p.23 **TAGGY** GPS tracker for agricultural equipment

## Graphic programming on MySOLEM

Easily and instantly modify your programming using graphics on a single screen. Visualize your fertigation programming on your stations.



**AGRICULTURE**  
**MARKET GARDENING**  
**HORTICULTURE**

SIMPLICITY, PERFORMANCE,  
 DURABILITY

### 1 CONNECTED GATEWAY



### 2 CONNECTED CONTROLLERS



### 3 CONNECTED SENSORS



SWITCH TO CONNECTED IRRIGATION  
 IN 2 HOURS!

DISCOVER

## EXPERT AGRICULTURAL IRRIGATION PROGRAMMING :

### INTUITIVE AND EASY

- Cyclic programming
- Volumetric programming
- Automatic programming depending on rainfall
- Leakage detection
- Water consumption monitoring
- Real-time alerts
- From one to hundreds of stations
- Geolocation management



## DASHBOARD

### DATA COLLECTION AT A GLANCE

- Consult your dashboard from home or in the field
- Check the working condition of your farm in real time using visual information
- Save water using real-time monitoring







Non-contractual picture

# Irrigation station

**Full autonomy with solar panels, manage your controllers and connect all your sensors !**

The irrigation station is 100% autonomous, ready to use, and pre-programmed. To retrieve climate, soil moisture, tensiometry, and water consumption data to optimize the irrigation of your plots. In addition, you can control the agricultural range modules (LR-AG, LR-FL, LR-MS) connecting up to 144 EV 9V or 288 EV 24V.


Range	<b>5x MORE*</b>	Connection	<b>3G 4G LoRa Bluetooth</b>
Compatibility	sensors  ...	Mounting	
Power		Control	

- ..... 1 Temperature
- ..... 2 Rainfall
- ..... 3 Anemometer
- ..... 4 Hygrometry



**Adjust your irrigation according to climate data and more**

Retrieve data for climate, soil moisture, tensiometry, water consumption and optimize the irrigation of your plots. Receive alerts in real-time. Use bolts or pour concrete to install stand mounts.

 You can also extend the management of data (climate and more) by adding single sensors via your station.




\* Variable range depending on the configuration of the installation

# GATEWAY FOR AGRICULTURAL CONTROLLERS

## LR-BST-REACT

### LoRa™/4G gateway for long-range agricultural modules control

The LR-BST-REACT is a highly responsive 4G gateway for data feedback, which is connected to the Internet via a SIM card. It communicates using long-range radio signals with 25 modules : LR-AG, LR-FL (water meter) and LR-MS (sensors). It transfers programming, settings and manual commands entered within the MySOLEM platform to the various modules installed within 800 meters (or 875 yds)\* surface area. The LR-BST-REACT is ideal when Wi-Fi is not available (e.g. remote plots, fields) or there is no power supply. It is fully autonomous when connected to a solar panel and its internal battery ensures it operates without additional power for 5\*\* days.

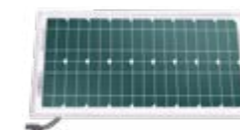
Range	<b>5x MORE*</b>	Connection	<b>3G 4G LoRa Bluetooth®</b>
Modules	up to <b>25</b>	Mounting	
Power		Control	

### 5 times more reach !

The Radio LoRa™ technology in the LR-BST-REACT allows you to reach unparalleled distances with its associated modules on a scale of up to 5 times\* further than any equivalent system on the market. It is therefore able to connect many more modules in a broader surface area

### Solar Panel !

If you do not have access to a 220 VAC power supply near the LR-BST-REACT, connect the solar panel and mount it with the kit provided.



#### DIMENSIONS

Diameter : 4.52 in  
Height : 12.08 in

#### INSTALLATION

Wall or pole mount  
Itinerary on stand

#### OPERATION

Power: 24 VDC using a solar panel  
or a 230 VAC/24 VDC transformer.  
Operating temperatures : -20°C to 60°C  
Backup battery Waterproof case



The LoRa™ gateway also  
exists using Wi-Fi : LR-MB-30

\* Variable range depending on the configuration of the installation  
\*\* Duration dependent on operating conditions





# CONTROL YOUR AGRICULTURAL IRRIGATION NEARBY VIA BLUETOOTH®



## BL-AG

### Agricultural controller





The BL-AG is a waterproof, battery powered Bluetooth® irrigation controller that is operated using a smartphone. Its functionalities perfectly meet the specific agricultural needs of professionals wanting to irrigate their plots in a simple and connected way.

Compatibility	9V solenoid valve 	Connection	 <b>Bluetooth®</b>
Stations	<b>1/2/4</b>	Distance to solenoid	<b>30 m (32,80 yds)</b>
Power	9V 	Control	



### Ideal for professional of agricultural irrigation

The BL-AG is equipped with unique functionalities that meet the specific needs of agricultural irrigation and that are all featured in the MySOLEM app.

- Management of an individual rain sensor per station 
- Programming dedicated to micro or cyclic irrigation (configurable duration of soak time) 
- Theoretical rainfall calculation based on programming and the configuration of the plot 
- Alert for energy-intensive programming that leads to excessive battery use 



**DIMENSIONS**  
 Width : 5.5 in  
 Height : 3.5 in  
 Depth : 2.16 in

**INSTALLATION**  
 Rain sensor connection 9V  
 impulsion solenoid connection  
 Max. distance BL-AG and solenoid : 32.80 yds  
 Operating temperatures : 0°C to 50°C

**OPERATION**  
 100% waterproof (rated IP68) 9V 6AM6  
 or 6LR61 alkaline battery  
 Bluetooth® Smart 4.0 Low Energy  
 Permanent programming backup  
 Backup of the internal clock  
 in case of power outage < 30 s



# CONTROL YOUR REMOTE IRRIGATION WITH LORA™

- Irrigation
- Fertigation
- Master valves

1h 2h 3h 4h 5h 6h 7h 8h 9h 10h 11h 12h 13h 14h 15h 16h



800 m\*



## LR-AG

### Connected agricultural controller

The LR-AG is a battery-powered LoRa™ irrigation controller with up to six independent channels to use its pump at maximum capacity. Crop irrigation is managed comprehensively via hourly, volumetric or millimetric programming during irrigation cycles of 1 to 31 days.

Compatibility	9V solenoid valve	Connection	Bluetooth®
Stations	<b>1/2/4/6</b>	Range	<b>800*</b> m (845 yds)
Power	9V	Control	

### Monitor your water consumption

The LR-AG is equipped with unique functionalities that meet the specific needs of agricultural irrigation and that are all featured in the MySOLEM app.



### Manage your fertigation

- Ideal for agricultural irrigation : manual command or operation, irrigation duration, irrigation cycle, soak time duration...
- Manage your fertigation : dedicate one of your LR-AG stations to manage the addition of fertilizer. Apply the right quantity to control volumes.
- Control your water consumption : manage consumption via the water meter on the sensor input and volumetric programming.
- Use time slots, volumetric or millimetric windows in your programming.
- Manage the master-valve/pump automatically.
- Graphic programming on platform.

**DIMENSIONS**  
 Width : 5.5 in  
 Height : 3.54 in  
 Depth : 2.16 in

**INSTALLATION**  
 Connect the rain sensor  
 Connect the 9V impulsion solenoid  
 Max. distance LR-AG and solenoid : 32.80 yds  
 Operating temperatures : 0°C to 50°C

**OPERATION**  
 100% waterproof (rated IP68) 9V 6AM6 or 6LR61 alkaline battery  
 Bluetooth® Smart 4.0 Low Energy  
 Permanent programming backup  
 Backup of the internal clock in case of power outage < 30 s

\*Range up to 800 meters (or 875 yards). Variable range depending on the configuration of the installation

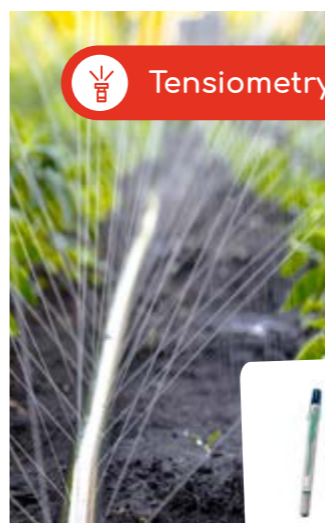
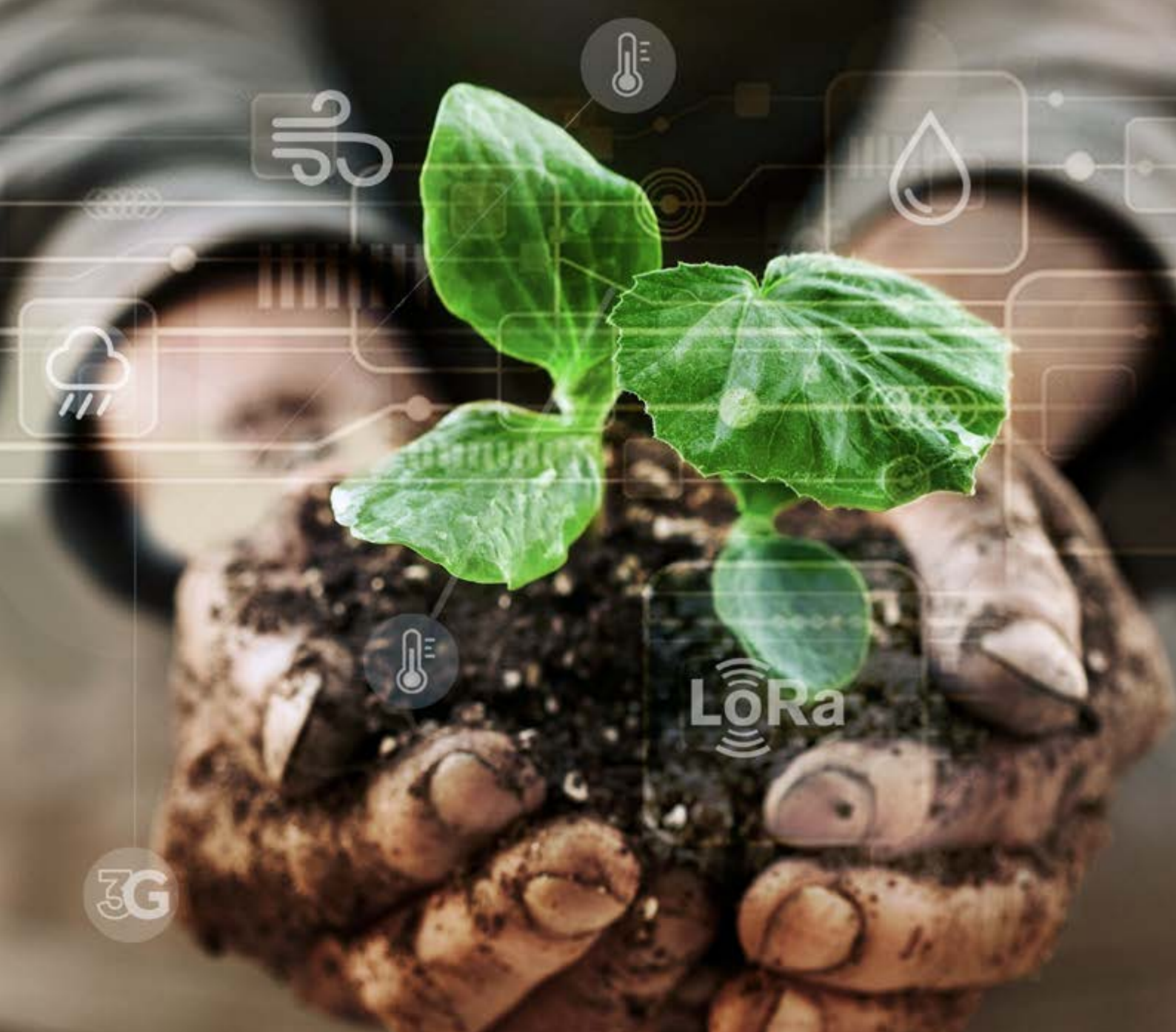
CONNECT ALL YOUR SENSORS

# Connected sensors

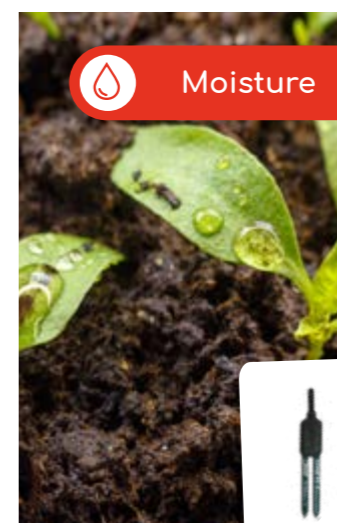


## Discover our connected agricultural sensors to customize the monitoring of your farm

- Track temperature and its daily evolution on the MySOLEM platform and act according to thresholds
- Control soil moisture : a resistor device with a large selection of sensors receives an alert as soon as the WVC (volumetric water content) is exceeded or insufficient
- Accurate rainfall : save water with the tilt switch sensor which gives an accurate rainfall reading
- Manage your crops according to winds : adjust irrigation as soon as the anemometer detects strong winds
- Track your water consumption and flow rate : stay informed about consumption, leakage, under-consumption, etc...



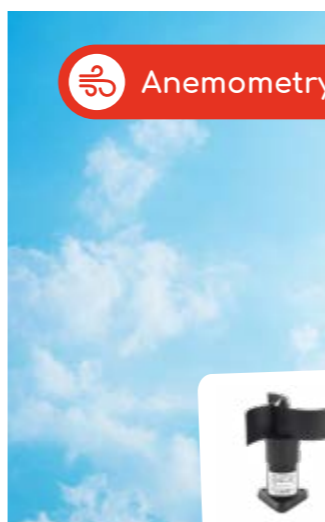
WATERMARK humidity tensiometer



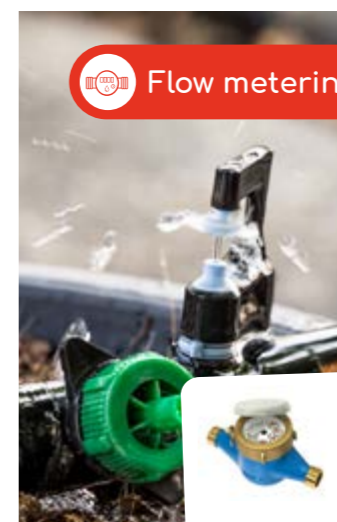
VEGETRONIX VH400 / SMT50 / DECAGON EC-5 & EC-10 humidity sensor



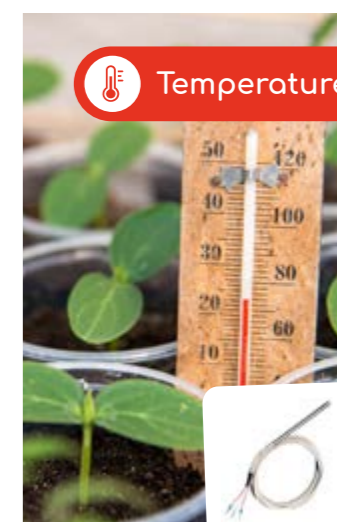
LEXTRONIC LEXCA009 rain gauge



IED ELECTRONICS ANEMO4403 anemometer



Pulse water meter



PT100 temperature

OPTIMIZE YOUR CROPS WITH THE RIGHT IRRIGATION



# LR-MS

**Battery powered LoRa™ connected sensors module !**

The LR-MS is a data acquisition module for various sensors. It allows for example to know in real time the external temperature, thanks to a dedicated PT100 type, the soil moisture and the risk of severe weather. It is fully configurable with 3 non-dedicated inputs (e.g. using a water meter, a rain sensor and a humidity sensor). The collected data helps optimize irrigation network management and lower its cost.

Compatibility	sensors	Connection	
Input	<b>4</b>	Distance to sensor	<b>30</b> m (32,80 yds)
Power	9V	Control	

## Ideal for professional irrigation

- Anticipate the risk of frost or strong winds
- Limit your water consumption according to rainfall
- Optimize your crops with precise soil moisture



**DIMENSIONS**

Width : 5.5 in  
Height : 3.54 in  
Depth : 2.16 in

**INSTALLATION**

Max. distance LR-MS and sensor : 32.80 yds  
Compatible with pulse water meters (max. 499Hz)  
Operating temperatures : 0°C to 50°C

**OPERATION**

100% waterproof (rated IP68) 9V 6AM6 or 6LR61 alkaline battery  
Bluetooth® Smart 4.0 Low Energy  
Communication using LoRa™ radio signal  
Backup of the internal clock in case of power outage < 30 s



# LR-FL

**Battery powered LoRa™ water meter module !**

The LR-FL plugs in to a water meter or a flow meter. It collects water volume data for plots, fields or areas that receive water. Once combined with a Wi-Fi gateway or a 4G gateway, the MySOLEM.com platform analyzes this data to deduce the volume of water over a specific period and to warn the user of an excess volume of water consumed or in the event of non-irrigation.

Compatibility	water meter	Connection	
Input	<b>1</b>	Control	
Power	9V		

## Save water

With the LR-FL, be informed in the event of a water leak. Irrigate smartly, save your water and be kind to our planet !



**DIMENSIONS**

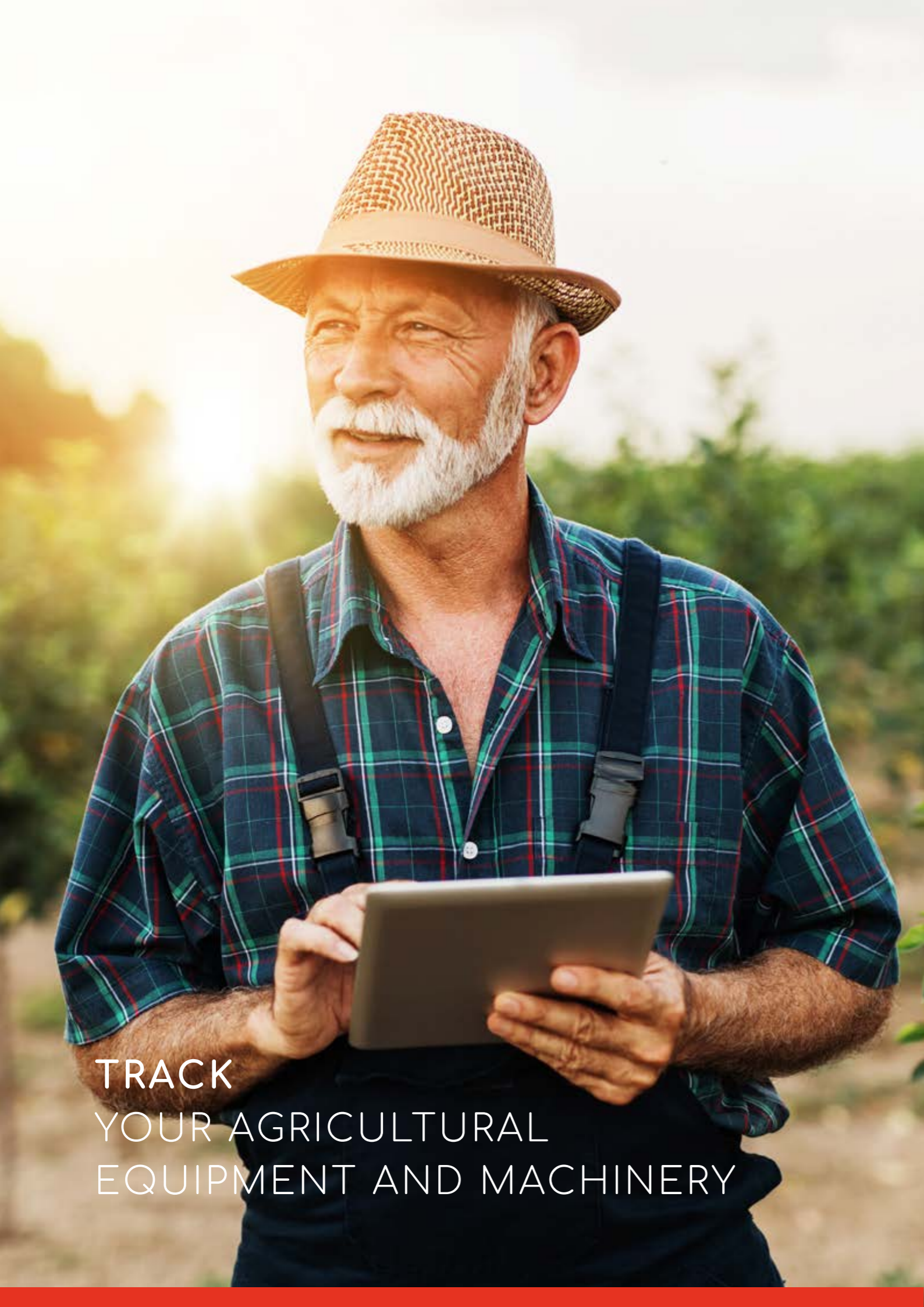
Width : 5.5 in  
Height : 3.54 in  
Depth : 2.16 in

**INSTALLATION**

Max. distance LR-FL and sensor : 32.80 yds  
Compatible with pulse water meters (max. 499Hz)  
Operating temperatures : 0°C to 50°C

**OPERATION**

100% waterproof (rated IP68) 9V 6AM6 or 6LR61 alkaline battery  
Bluetooth® Smart 4.0 Low Energy  
Communication using LoRa™ radio signal  
Backup of the internal clock in case of power outage < 30 s



TRACK  
YOUR AGRICULTURAL  
EQUIPMENT AND MACHINERY



# TAGGY

## GPS tracker for your machinery

TAGGY is a GPS tracker that allows you to geolocate your agricultural tools, machinery and equipment at any time. It is useful in the event of theft and allows you to track your assets online via MySOLEM.

Waterproof and resistant	<b>100%</b>	Sigfox network	
Autonomy	<b>10 YEARS</b>	Management	
Quick setup	<b>1 MIN</b>		

### Track, secure and optimize your agricultural equipment

Geolocate and track your equipment directly online and be aware of the movements and operations of your assets.












**INSTALLATION 1 MIN**  
**FOLLOW-UP PERIOD 10 YEARS**

All our **TAGGY** products are compatible with **MySOLEM**, the platform for manage connected irrigation.

**SPECIFICATIONS**  
Customized configurable tags  
Activation by motion detection  
iOS, Android application  
Secure data management and access

# OUR PRODUCT RANGE



	Application				Communication					Power			Inputs/Outputs/ Number of stations	
	Internet gateway	Irrigation	Water meter	Sensors	Bluetooth®	Wi-Fi	LoRa™	Sigfox	4G	ANTI-THEFT	9V battery	230V AC power		Solar power
Local, battery-powered control														
	<b>BL-AG</b>	•			•					•	•			1-2-4 stations
Remote access, long range, battery-powered or AC powered														
	<b>IRRIGATION STATION</b>	•			•	•	•		•	•			•	25 modules
	<b>LR-BST-REACT</b>	•			•		•		•	•		•	•	25 modules
	<b>LR-MB-30</b>	•			•	•	•			•		•		30 modules
	<b>LR-AG</b>	•	•		•		•			•	•			1-2-4-6 stations
	<b>LR-MS</b>		•	•	•		•			•	•			1 temperature-dedicated input + 3 sensor or meter inputs
	<b>LR-FL</b>		•		•		•			•	•			1 water meter input
	<b>TAGGY</b>							•						/

Lexicon : BL : Bluetooth®  
LR : LoRa™  
IP : Battery  
IS : AC power  
OL : Lighting  
FL : Flow meter  
MB : Mini tag  
MS : Sensors module  
NR : Tap connector

<sup>(1)</sup> Variable range based on the configuration of the installation



## ARE YOU INTERESTED ?

To know more about our different product ranges, don't hesitate to contact us.

Our teams are standing by and they will be happy to assist you.

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ISO 9001 certification, version 2015, for the design, industrialization, manufacturing, sale and customer care of connected electronic products.





**SOLEM**

SOLEM is also an expert  
in connected solutions for :



MUNICIPALITY



RESIDENTIAL

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