SOLEM

THE CONNECTED IRRIGATION EXPERT

LR-IP-FL

LoRa

Bluetooth®

PRESENTATION

The LR-IP-FL is a waterproof Bluetooth® / LoRa™ flow meter battery 1, 2, 4 or 6 stations. Its probe input allows the connection to a rain sensor or a flow meter / water meter.
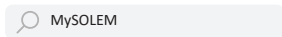
DOWNLOADING

1. On your smartphone and/or tablet, go to the «**App Store**» or «**Google Play**».

2. Search «**MySOLEM**» in the search bar.

MySOLEM

3. Download **MySOLEM** application

GET   INSTALL

4. Once installed, activate the Bluetooth® on your smartphone and/or tablet.

CREATE AN ACCOUNT

To benefit from all LR-IP-FL features, please create a **MySOLEM** account.

1. Launch **MySOLEM** app from your smartphone and/or tablet.

2. Go to «**My account**» by typing on ⚙ icon.

3. Follow the steps described on the app.

ASSOCIATION

1. Unscrew the **LR-IP-FL**'s cap

2. Plug the **9V 6LR61 ou 6AM6** battery and screw the cap.

3. Launch **MySOLEM** app from your smartphone and/or tablet.

4. Click on the «**Add a controller**» button or on the «**+**» button.

5. Choose the **LR-IP-FL** from the availade controllers list.

6. (Optional) Define a name and a security key for your controller and click on the button «**Validate**».

7. To finish your **LR-IP-FL** pairing, follow the next steps described in the app.

Note : To identify your **LR-IP-FL** among the nearby controllers, please refer to the «**Default name**» present on his product label.

Security key
The security key allows to protect your controller. You can define it during the step 6 of the «**ASSOCIATION**» or access to further information by clicking on the icon ✎ at the top right of your screen.

LR-MB PAIRING

To optimize the LoRa™ radio connection between the LR-MB and the LR-IP-FL controllers, we advise to install the LR-IP-FL in a plastic valve box under 800 meters to the LR-MB. We also advise to associate all your LR-IP-FL near the LR-MB before installing them separately in the valve boxes.

1. Select the **LR-IP-FL** programmer previously installed.

2. Click on the top right icon 🖉 to access to the product's informations.

3. Click on «**Remote Access**».

4. Select the **LR-MB** you want to use.

5. Click on the button «**Send**» or ➤ on the bottom of your screen to validate.

Once the pairing finished, you can test the connection between your **LR-MB** and your **LR-IP-FL** :

6. Go back to «**Remote access**» screen.

7. Click on the button 🛜 to start the test.

Note :
- The message **«Connection established»** means that the connection is reliable.
- The message **«No connection established»** means that it is necessary to bring the **LR-IP-FL** closer to the **LR-MB** or vice versa.

LR-BST PAIRING

1. On the application, select your **LR-BST,** and enter pairing mode ✎.

2. Select the **LR-IP-FL** programmer previously installed.

3. Tap the icon ✎ at the top right of your screen to access product's information.

4. Tap on «**Remote Access**».

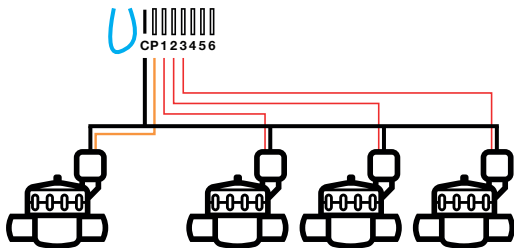**5.** Select in the list the **LR-BST** initially chosen.

Once the association is complete, you can test the connection between your **LR-BST** and your **LR-IP-FL**

6. Return to the **LR-IP-FL** screen «**Remote Access**», previously seen.

7. Click on the button 📶 to start the test.

WIRING

1. Connect the **LR-IP-FL** to the solenoids as described below.
Use **9V pulse valves only.**

SET SENSOR

⚠️ **Warning, by default there are no sensor configured.**

The **LR-IP-FL** has a **+ S -** sensor input on which you can connect a rain sensor or a pulse sensor / water meter after cutting the blue wire. Once the sensor is connected, it is necessary to configure it in the application.

1. Using the MySOLEM mobile app, connect to your LR-IP-FL.

2. Click on **Add Sensor**.

3. Select your sensor type and follow the instructions given by the application

SET FLOWMETER

1. Check the «**Instant Value**».
Instant Value: Ensures that the volume consumed indicated on the water meter is the same as the volume displayed on the application. If a gap is noted, check the wiring (polarity) or adjust the «COEFFICIENT» value.

2. Fill in the remaining fields.
High threshold (daily volume): maximum consumption (in liter) that you do not want to exceed in a period of **24h**. If the goal is exceeded you will be alerted immediately (by e-mail and notification smartphone and / or tablet).
Low threshold (daily volume): minimum consumption (in liters) that you want to achieve over a period of **24h**. If the goal is not reached you will be alerted the next day at 7am (by e-mail and notification smartphone and / or tablet).
Leak alert volume: water volume threshold (in liter) from which you want to be alerted.

Station flow: for each station, read the flowmeter at **time T (Cpt1),** then at **time T + 5mn (Cpt2).**
Make the calculation **(Cpt2 - Cpt1) / 5 => Flow (L / min)**
In the application fill in the results.

High Threshold (Station Flow Alerts): Maximum consumption warning threshold in % of the calibrated flow of the channel. The **«High threshold»** alert is immediate as soon as it is reached.

Low threshold (Station Flow Alerts): Minimum consumption warning threshold in % of the calibrated flow of the channel. The **«High threshold»** alert is immediate as soon as it is reached. For each station flow alert you have the possibility to define the desired type of action:

• **No action:** watering continues.

• **Permanent OFF:** resuming watering requires a manual ON command (in the application on the programmer concerned).

• **Inhibit the output:** stops the station concerned, requires the acknowledgment of the alert (in the application on the programmer concerned) to reactivate the station.

Stabilization time:
Time required before the water flow is stable when starting and stopping the station. It eliminates the peak flow (start) or leak (stop). The time is the same for all stations.
During this period, the consumption is not taken into account for triggering alerts or actions.

+ S −

CP123456

L/mn

Flowmeter,
water meter
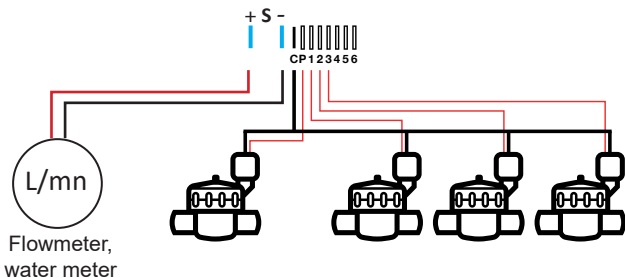
Connect your **+ S −** input to a water meter equipped with a flow sensor as shown above. Use dry contact flow sensors or equivalent.

For polarized flow sensors, when wiring,observe the polarization :

Red wire -> +   Black wire - > −

FAQ

What are the features required for the Bluetooth® product to work?
Android 4.3 (or more) Smartphones or tablets equipped with Bluetooth Smart 4.0 (or more). iOS 9.0 Apple iPhone or iPad running (or more) with Bluetooth Smart 4.0 (or more)

Why does my station not start?
It has to be assigned a time and a **Program A, B** or **C** to each station. If several stations are assigned to the same program, they will start one after the other.

Why does Program B not start? If **Program A** departure time is the same than **Program B'**s one, then the programs will be executed one after the other.

What is output P for?
You can connect a master valve or a pump through a relay, on **P** output. It will start automatically 2 sec before each station and during each station watering.

What are the controller's output S (blue wire) for? You can plug a rain sensor into **S** outputs, to do that you need to cut the blue wire.

How does the rain sensor work? When connected to the yellow wire the rain sensor acts on the 3 programs. If it is raining, **programs A, B** and C won't start; you must wait the probe to dry before the programs star again. The manual control **"All stations"** is not affected by the rain sensor conditions.

What is the Water Budget? The Water Budget allows to add a time percentage, according to the time recorded by each station. It is generally used during seasonal changes (for example: summer to autumn, or spring to summer).
E.g.: If you entered **Station 1** = 1h on Program A and **Station 2** = 0h30 on **Program A**. Then, if you enter a Water Budget for **Program A** at 120%, when starting **Program A**, stations **1** and **2** will be increased by 20%, which means 1h12 for **Station 1** and 0h36 for **Station 2.**

How can I restart the pairing or the pairing procedure?
To start the pairing procedure again, just bypass the 2 pins of the battery pressure (battery prior removed) for 30s minimum.

If my device has no more battery, do I lose my programs?
No, they are not lost, they are automatically saved.

I would like to reset the settings of my device. How do I do it?
Open the app, go to the product, then open the ✐ **Settings** and select **«Erase programs and durations».**

TECHNICAL FEATURES

DIMENSIONS
Width: 14 cm
Height: 5,5 cm
Depth: 9 cm

INSTALLATION
Rain sensor or Water meter connection
Master valve connection
9V latching solenoid compatible
Maximum wiring length with solenoids: 30 m
Ambient temperature of product use : -20°C à 60°C
100% waterproof (rated IP68)

ALIMENTATION :
9V 6AM6 ou 6LR61 Alkaline battery

FEATURES
Bluetooth® Smart 4.0 Low Energy
LoRaTM radio communication
Permanent programming save
Internal clock saved in case of power failure < 30 s

GENERAL INFORMATIONS

This symbol indicates that the product uses a LoRa™ technology radio.

This symbol indicates that the product uses a Bluetooth® technology radio.

The symbol «CE» indicates that this device complies with the European standards on safety, health, environment and user protection. Devices with the symbol «CE» are intended for sale in Europe.

This symbol indicates that these types of electrical and electronic equipment must be disposed of separately in European countries. Do not dispose of this device with your household waste. Please use the collection and recycling points available in your country when you no longer need this device.