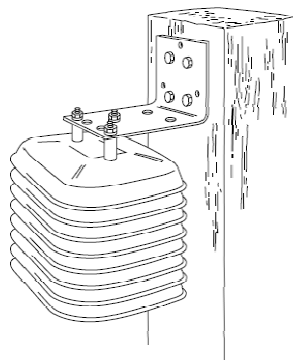## 1. DESCRIPTION

The MCF-LW12TERPM is a solar powered sensor that reads temperature, humidity, pressure and PM (PM1, PM2.5, PM10) and sends collected data over the LoRaWAN™ network. Ideally suited for a wide range of applications such as weather stations, urban monitoring, air quality, industrial, environmental or farming projects.
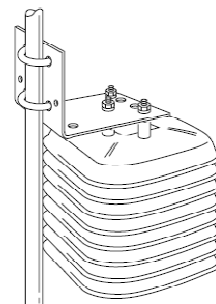
2. INSTALLATION

The installation must take place in a place where the LoRaWAN ™ signal coverage is good (SF=7 optimal, SF=12 weak). Place the sensor in a way that the solar panel is not in the shade and exposed to the greatest possible amount of sunlight during the day.
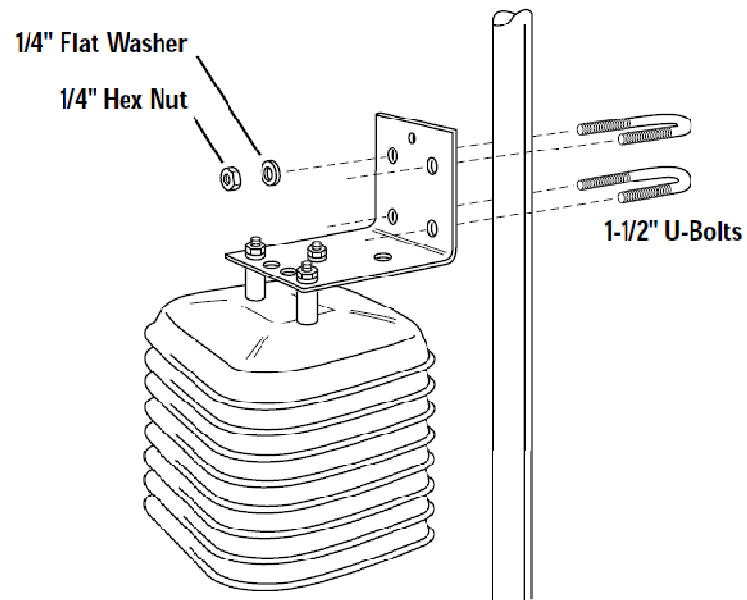
Mount the sensor on pipe or wall as in picture:
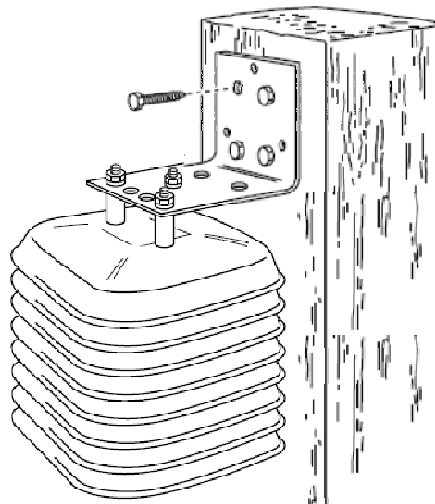
Mounting on the Side of a Post or Wall   **Mounting on a Pipe**

2.1. Pipe mount

2.2. Wall mount

3. FIRST POWER-ON OF THE SENSOR

The sensor is shipped completely off to prevent battery consumption during storage. It is therefore necessary to carry out a first power-on prior to commissioning.

Move the NFC antenna of the telephone (the exact position varies depending on the model of the smartphone) to the sensor antenna, in the area shown in the figure.
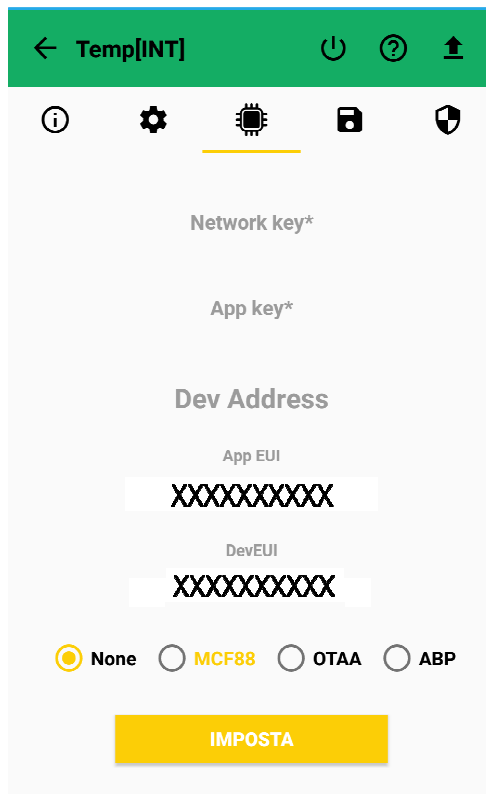

4. LORAWAN ACTIVATION

The device supports the following activations on a LORAWAN network:

1. **NONE**: sensor not activated
2. **OTAA**: the appkey and AppEUI must be written to the device.
3. **OTAA MCF88**: Over the air activation according to mcf88 specifications
4. **ABP**: requires writing to the device of NwkSkey, AppSkey, DevAddr

The device exits factory activated with **NONE** mode. The devEUI of the device is shown on the product label. MCF-LW12TERPM is a Class A LoRaWAN ™ device, with measuring and transmission interval of 30 min (minimum).

5. MAINTENANCE

Keep the surfaces clean and remove dust from the solar panel with a damp cloth when necessary.

Remove gently any debris lodged inside the unit.

6. ORDERING CODE

Ordering Code	Description
MCF-LW12TERPM	mcf88 LoRaWAN™ outdoor PM and environmental sensor EU863-870
MCF-LW12TERPM-AS	mcf88 LoRaWAN™ outdoor PM and environmental sensor AS923