



# MCF-LW12TERPM

## LoRaWAN® outdoor PM and environmental sensor

This solar powered sensor 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.

### Characteristics:

- CPU Cortex M0+
- EEPROM 32Kb
- Flash 64k
- Encryption AES 128 bit
- Class A LoRaWAN® stack EU868, AS923, AU915, US915  
EU868, AS923, AU915, US915
- Pressure 300 ÷ 1100hPa ( $\pm 1.0$ hPa)
- Temperature -10 ÷ 60°C (0 ÷ 60°C  $\pm 1.0$ °C)
- PM1\PM2.5  $\pm 10 \mu\text{g}/\text{m}^3$  (0 to 100  $\mu\text{g}/\text{m}^3$ ) or  $\pm 10\%$  (100 to 1000  $\mu\text{g}/\text{m}^3$ ); PM10  $\pm 25 \mu\text{g}/\text{m}^3$  (0 to 100  $\mu\text{g}/\text{m}^3$ ) or  $\pm 25\%$  (100 to 1000  $\mu\text{g}/\text{m}^3$ )
- Humidity 0% ÷ 95% ( 20% ÷ 80%  $\pm 3\%$  @25°C, 0% ÷ 20%-80% ÷ 95% @ 25°C  $\pm 5\%$ )
- NFC for IoT node setup, FW upgrade and data reading
- Wall or pole mounting
- Storage temperature range -30 + 80°C
- Working temperature range -10 + 60°C
- Protection class IP33
- Dimensions (approx) L x H X P: 210 x 310 x 200mm

### Applications:

- Weather Station
- Smart city
- Smart agriculture