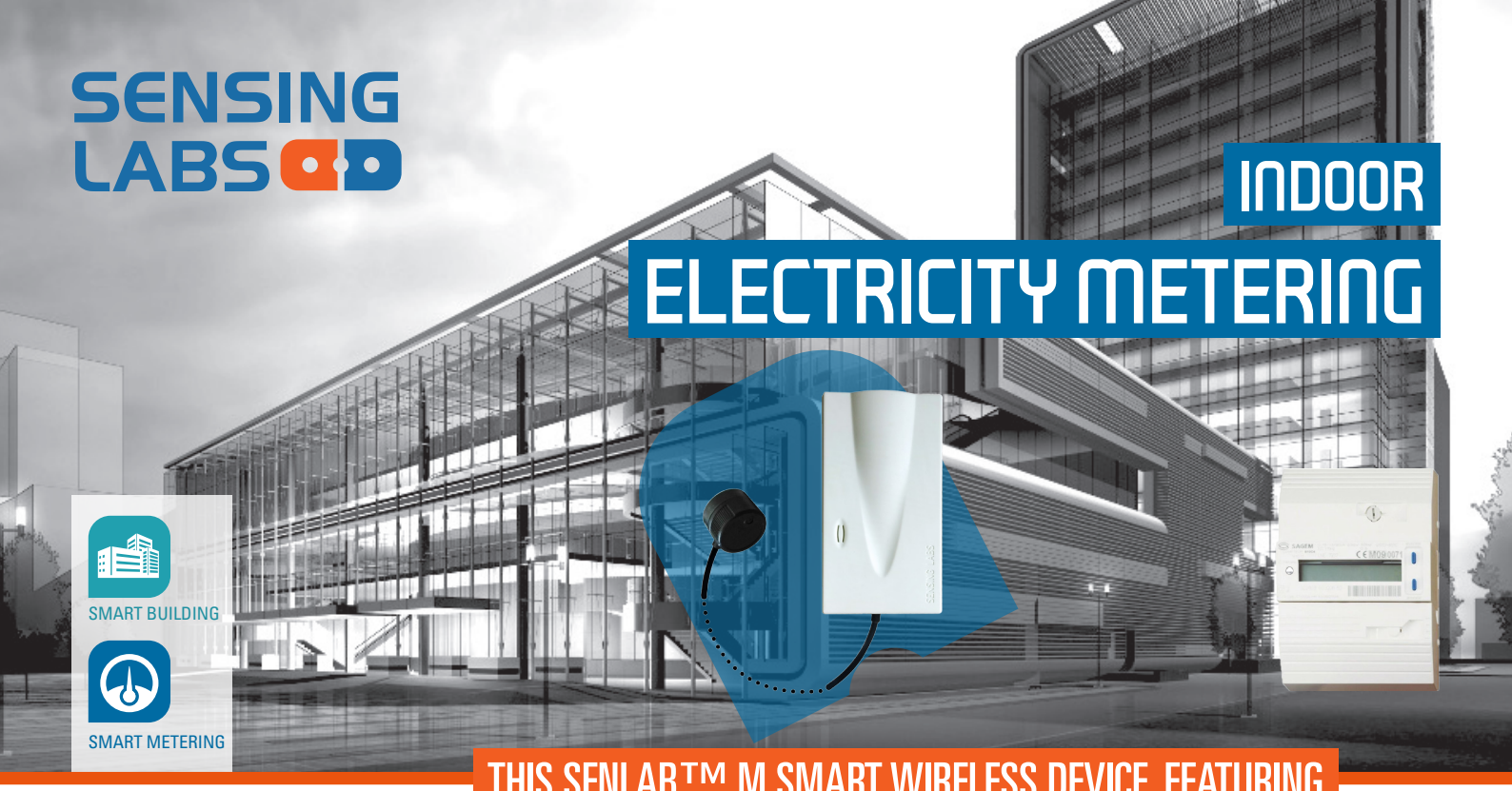
SENSING LABS

INDOOR ELECTRICITY METERING



SMART BUILDING

SMART METERING

Ref : LED-LAB-41NS

MADE IN FRANCE

LoRaWAN CERTIFIED™

4 years *
(replaceable battery)

15 km *

IP30
(Indoor use)

Local or Public
Network compliant

* Depending on the operating conditions

THIS SENLAB™ M SMART WIRELESS DEVICE, FEATURING THE LoRaWAN™ CONNECTIVITY PROTOCOL, IS EQUIPPED WITH A REMOTE OPTICAL LIGHT-PULSE SENSOR (1M CABLE).

Senlab M connects onto the optical pulse output of electricity meters to be monitored. Sensor deployment is fast and non-intrusive with the provided double-sided adhesive on the probe.

This Senlab offers best in class features such as :

- **Battery life time up to 4 years**
- **Rich Data Content thanks to datalogging : Up to 24 measures / radio transmission**
- **Radio Performances**
- **Advanced set of functionalities**

TYPICAL APPLICATIONS

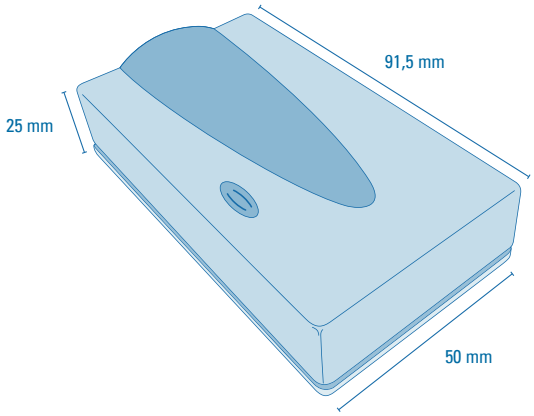
- Building Energy Management System
- Energy efficiency : Regulate energy costs
- Electricity metering
- Control and monitor energy consumption

TECHNICAL SPECIFICATIONS

Physical specifications	Dimensions	50 x 91,5 x 25 mm
	Weight	65 gr
	Operating temperature	0°C to +55°C
RF specifications	RF sensitivity	-137 dBm
	RF power	+14 dBm (25 mW)
	Radio band	868 MHz
EC Conformity : Compliant with Directive 2014/53/UE (RED)	EMC	Final draft EN 301 489-3 v2.1.1 Draft EN 301 489-1 v2.2.0
	Radio	EN 300 220-2 v3.1.1
	Magnetic field exposure	EN 62479
	Safety	EN 60950-1

SENSING LABS

DIMENSIONAL DRAWING



TECHNICAL FEATURES FOCUS

Plug & Play installation

- Product fixing with double sided tape or screw mounting
- Double sided tape probe mounting (provided with positionning tool)
- Activation with magnet (LED feedback)
- LED indication of pulse during few minutes after activation

High configurability

- 2 inputs configurable for dry contact or open collector interfaces)
- Set/Reset of start index
- Log and transmit mode for battery lifetime enhancement (up to 24 compressed measures per transmission)
- Reconfiguration possible over the air

Network Configuration

- LoRaWAN parameters (OTAA or ABP activation mode, initial datarate,...)
- Encryption keys customizable by client
- Standard LoRaWAN retries support
- Radio collisions avoidance by pseudo-randomization of transmissions
- Advanced transmission reliability mechanisms (redundancy of data, recovery of lost messages, ...)

BATTERY LIFE DURATION ESTIMATION

This following matrix provides the estimated battery lifetime depending on the average spreading factor used by the Senlab and the transmission period.

Battery life (years)	10 min	15 min	30 min	1 h	2 h	4 h	6 h	8 h	12 h	24 h
SF7	4,0	4,1	4,2	4,3	4,3	4,3	4,3	4,4	4,4	4,4
SF8	3,8	3,9	4,1	4,2	4,3	4,3	4,3	4,3	4,4	4,4
SF9	3,4	3,6	4,0	4,2	4,3	4,3	4,3	4,3	4,4	4,4
SF10	2,8	3,2	3,7	4,0	4,2	4,3	4,3	4,3	4,3	4,3
SF11	2,2	2,6	3,3	3,7	4,0	4,2	4,2	4,3	4,3	4,3
SF12	1,5	1,9	2,7	3,3	3,8	4,0	4,1	4,2	4,3	4,3

6 measures per frame.

For guidance and information purposes only.

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