SENSING LABS

INDOOR EVENT AND ALARM MONITORING

SMART BUILDING

Ref : TOR-LAB-41NS

MADE IN FRANCE

LoRaWAN CERTIFIED™

17 years*
(replaceable battery)

15km*

IP30
(Indoor use)

Local or Public
Network compliant

*Depending on the
operating conditions

SENLAB™ D IS A SMART WIRELESS DEVICE, FEATURING THE LoRaWAN™ CONNECTIVITY PROTOCOL, EQUIPPED WITH AN INTEGRATED DIGITAL INPUT SENSOR FOR ON/OFF OR OPEN/CLOSE STATE DETECTION.

Designed to monitor the status of relays, transistors, and switches and detect abnormalities, Senlab D IP30 offers a highly-configurable information reporting algorithm, notably for triggering alarms, counting, and more. It is ideal for your security or preventive maintenance needs.

This Senlab offers best in class features such as :

- **Battery Life time up to 17 years**
- **Rich data content**
- **Radio performances**
- **Advanced set of functionalities**

TYPICAL APPLICATIONS

- Monitor engines and machines state
- Manage alert and event system

TYPICAL SPECIFICATIONS

Physical specifications	Dimensions	50 X 91,5 X 25 mm
	Weight	60 gr
	Operating temperature	0°C to +55°C
RF specifications	RF sensitivity	-137dBm
	RF power	+14dBm (25mW)
	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, EN 60950-22

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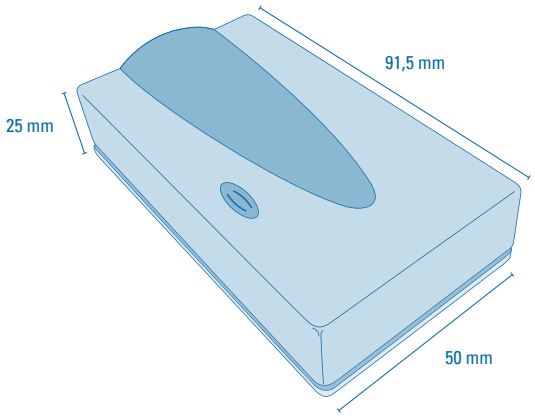
DIMENSIONAL DRAWING



TECHNICAL FEATURES FOCUS

Plug & Play installation

- Product fixing with double sided tape or screw mounting
- Screw terminal for on/off sensor cable connection
- Activation with magnet (LED feedback)

High configurability of event detection and transmission

- Event notification of open/close or on/off digital state
- State detection duration configurable
- Immediate transmission or after N events or after maximum duration
- 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 (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	12,8	14,0	15,3	16,1	16,5	16,8	16,8	16,9	16,9	16,9
SF8	10,9	12,4	14,3	15,5	16,2	16,6	16,7	16,8	16,9	16,9
SF9	8,4	10,1	12,7	14,5	15,6	16,3	16,5	16,6	16,7	16,9
SF10	5,8	7,5	10,4	12,9	14,7	15,7	16,1	16,3	16,5	16,8
SF11	3,7	5,0	7,8	10,7	13,1	14,8	15,5	15,8	16,2	16,6
SF12	2,2	3,1	5,3	8,1	11,0	13,3	14,4	14,9	15,6	16,2

A single event per frame.

For guidance and information purposes only.

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