

# WATER DETECTION



REF: LEA-LAB-13NS



**THIS SENLAB IS EQUIPPED WITH A WATER CABLE DETECTION OFFERING A SOLUTION FOR DETECTING WATER PRESENCE ON THE FLOOR.**

This Senlab D™ is a smart wireless module, featuring the LoRaWAN™ connectivity protocol. It can alert with an alarm as soon as water presence is detected.

This Senlab offers the best in class features as:

- Battery Life time
- Rich data content
- Radio performances
- Advanced set of functionalities

### TYPICAL APPLICATIONS

- Remote control
- Servers rooms and critical equipments protection

**LoRaWAN™**



20 years \*



15 km \*



IP68  
(Outdoor use)



Local or Public  
Network compliant

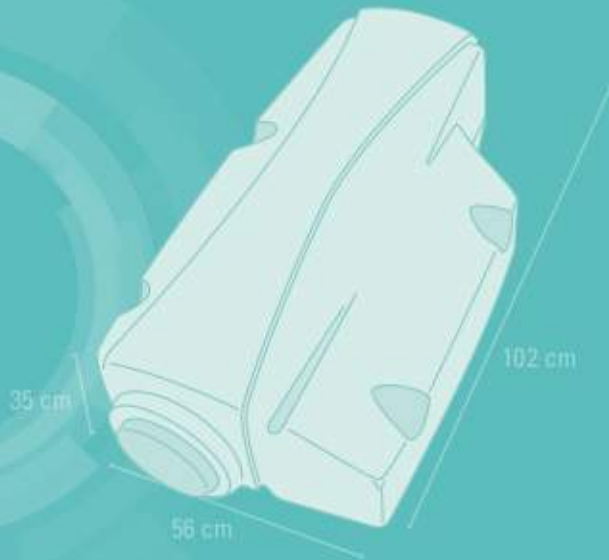
### TECHNICAL SPECIFICATIONS

Physical specifications	Physical dimensions	56 x 102 x 35 mm
	Weight	140 gr
	Operating temperature	-20°C to +70°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	IEC 60950-1, EN 60950-22

\* Depending on the operating conditions



**DIMENSIONAL DRAWING**



**TECHNICAL FEATURES FOCUS**

**Plug & Play installation**

- Water detection cable length: 5 meters (up to 25m on demand)
- Cable fixation on soil with non metallic ties (not provided)
- Activation with magnet (LED feedback)

**High configurability of event detection and transmission**

- Event notification of water detection and/or end of detection
- Immediate transmission or after stable state 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)	10mn	15mn	30mn	1h	2h	4h	6h	8h	12h	24h
SF7	16,8	18,5	>20	>20	>20	>20	>20	>20	>20	>20
SF8	14,1	16,2	19,1	>20	>20	>20	>20	>20	>20	>20
SF9	10,5	12,8	16,5	19,3	>20	>20	>20	>20	>20	>20
SF10	7,1	9,2	13,2	16,8	19,5	>20	>20	>20	>20	>20
SF11	4,4	6,1	9,6	13,6	17,2	19,7	>20	>20	>20	>20
SF12	2,6	3,7	6,4	10,0	14,0	17,4	19,0	19,9	>20	>20