



REF: 4MA-LAB-13NS

WIRELESS TRANSMITTER

FOR 4-20 MA SENSORS (CURRENT LOOP)



THIS SENLAB A™ IS A SMART WIRELESS MODULE, FEATURING THE LORAWAN™ CONNECTIVITY PROTOCOL, EQUIPPED WITH A 4-20 MA INPUT SENSOR COMPATIBLE WITH PRESSURE TRANSMITTERS, ACCELEROMETERS, WEATHER SENSORS ...

Designed for outdoor use, Senlab A offers a ruggedized IP68 casing and robust wireless connectivity for continuous monitoring in harsh and challenging environments

This Senlab offers best in class features as:

- Battery Life time
- Rich Data Content
- Radio Performances

TYPICAL APPLICATIONS

- Tank and silo level monitoring
- 4-20mA sensors optimization

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



20 years *
(replaceable battery)



15 km *

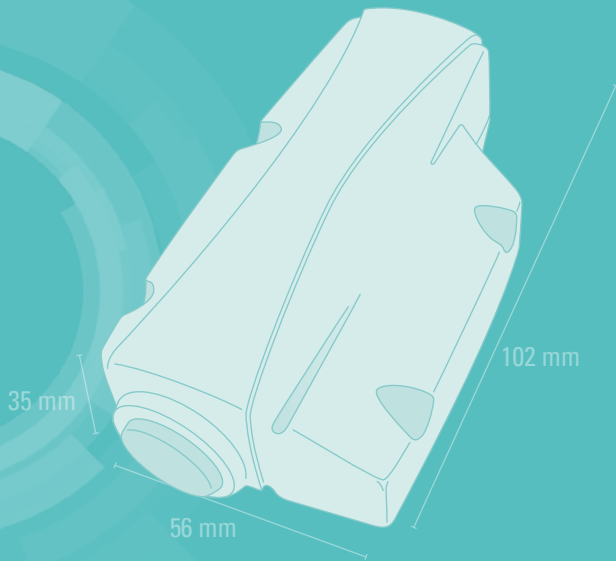


IP68
(Outdoor use)



Local or Public
Network compliant

DIMENSIONAL DRAWING



TECHNICAL FEATURES FOCUS

Plug & Play installation

- Product fixing with 2 cable ties on wall or pipe
- Provided with 0,5 meter cable ready to be plugged on 4/20mA sensor
- Activation with magnet (LED feedback)

High configurability

- High and Low threshold overrun configuration
- Log and transmit mode for battery lifetime enhancement (up to 24 logs 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)	10mn	15mn	30mn	1h	2h	4h	6h	8h	12h	24h
SF7	17,7	>20	>20	>20	>20	>20	>20	>20	>20	>20
SF8	13,7	16,8	>20	>20	>20	>20	>20	>20	>20	>20
SF9	9,5	12,3	17,6	>20	>20	>20	>20	>20	>20	>20
SF10	6,0	8,2	12,9	18,2	>20	>20	>20	>20	>20	>20
SF11	3,6	5,1	8,7	13,6	18,8	>20	>20	>20	>20	>20
SF12	2,1	3,0	5,5	9,3	14,2	19,4	>20	>20	>20	>20