

Universal Sensor Module

with LoRa WAN connectivity

The Universal Sensor Module (USE) is designed to work with a wide variety of sensors providing two-state output signal. The USE has 2 inputs, each capable of working with the following types of sensor outputs:

dry contact

open collector

resistive

voltage source

In addition, the USE also has a switched auxiliary power output (9V) for use with active sensors, which require supply voltage to operate. Each of the inputs can be independently configured for one of the two modes of operation:

asynchronous - triggered by the change of state of the input signal

polled - at user-defined intervals, the auxiliary power output is activated and the input state is sampled.

The user can define whether the reporting of the input states over LoRa WAN takes place at every state change or, instead, just as summary information for a given time period sent at regular intervals.

The USE module is powered from a single 9V alkaline battery. The battery lasts up to 3 years, depending on the heart beat message period set by the user and current consumption by active sensors powered from the auxiliary power output (if any).

Radio section:

band:	868 MHz
protocol:	LoRa WAN
network enrollment:	OTAA
spreading factor:	7 - 12 (dynamic)

Other characteristics:

operating temp.:	-30°C to 80°C
protection class:	IP65
dimensions:	145 x 85 x 40 mm

