

LoRa™ State Report and Output Control Sensor IN'O

1. General Features

IN'O LoRa™ State Report and Output Control sensor is a sensor operating over the LoRa™ radio network and dedicated to transmit the state of its inputs and outputs to a remote managing system. It includes the following functions:

- LoRa™ radio transceiver, bidirectional, low power, long range, with integrated antenna
- A Lithium battery (3.6V; 3.6Ah) and 5 year autonomy for one measurement and one transmission per day
- Low voltage Power Input (9 to 15V and 300mW max)
- 3 LED Indicators
- 10 (ON/OFF) Inputs – 4 are available on HE10 connector
- 4 Opto-Isolated Outputs – 2 are available on HE10 connector
- Plastic Housing, IP55, 85x82x55mm


Applications of the IN'O LoRa™ State Report sensor are numerous: Industrial process control, automation, power line defect detection, etc...



Operation of the State Report sensor is straightforward:

- Just plug in the external power supply to the corresponding input
- Switch the operation switch to ON
- The sensor is ready to connect to the LoRa™ radio network
- It will transmit according to configuration: regularly or upon events
 - Input/output state
 - Power supply level
 - Output level configuration

2. Technical Specifications

Parameters	Min.	Typical	Max.	Unit	Comments
RADIO					
Frequency	868		870	MHz	25°C
Tx power			14	dBm	25°C
Rx sensitivity	-132		-128	dBm	25°C
Modulation		LoRa			
MAC layer		LoRaWAN			
Network layer		IPv6/6LowPan			
Application layer		"ZCL like"			
INPUTS					
Impedance	1			M Ohm	
Capacitance		1		nF	
Voltage	0		30	V	
Frequency			500	Hz	Battery autonomy is reduced at 500Hz
OUTPUTS					
Open collector			250	mW	lcc=50mA
Voltage			15	V	
EXTERNAL POWER					
	9		15	V	Power=300mW max at 25°C
Battery (3,6V; 3,6Ah)		3,6		V	Lithium battery
Autonomy		5		Year	(1 measurement +1 Tx)/day
TEMPERATURE					
Operation	-10		45	°C	
Storage	0		30	°C	
PLASTIC HOUSING					
		84x82x55		mm	IP55, UL-V0 HB
APPLICABLE NORMS					
EN 61000-4-2		CE			
EN 300-220-1 V2-4-1					
EN 301 489 V1-6-1					
CE & RoHS					