





SMART

# IN'O



**IN'O** is a LoRaWAN® Class A or Class C sensor designed to transform any type of binary I/O sensor into a remote wireless sensor that monitors and controls industrial equipment status.

## **APPLICATIONS**

- Industry Process control and automation, power line fault detection.
- Water treatment, agricultural irrigation Monitor and control water valves and pumps, alarm status...
- Food production & distribution Monitor and control cooling equipment, refrigerator door contact status, alarm status...
- HVAC & building management Monitor and control air valves and pumps, heaters/coolers, alarm status, human presence, door contact status, lights...

## **BENEFITS & KEY FEATURES**

- LoRaWAN®, Class A, Class C
- Easy to use and deploy
- Simultaneous monitoring and control of up to 10 inputs and 4 outputs
- Data compression for batch report
- Battery operated or external power supply
- Battery autonomy up to 10 years
- IP55

## **CERTIFICATION**

RED, RoHS

The IN'O sensor from nke Watteco is a long range, low power consumption, high performance and high quality LoRaWAN® Class A or Class C device that transforms any type of I/O sensor into a Wireless Sensor.

**IN'O** is specifically designed for users looking to remotely monitor (ON/OFF status, alarms...) and control (ON/OFF switching) industrial equipment such as pumps, fans, valves, heaters, coolers, motors, generators, lights, doors...

The **IN'O** sensor can operate either from a 3.6V/3600mAh Lithium battery or from an external 9V-24V/300mW power supply.



Sensors delivered without WATTECO marking

Ten sensors and four actuators can be simultaneously supported by a single LoRaWAN® IN'O device, thus allowing a significant reduction in installation and deployment costs.

The measured parameters can be locally stored, concatenated and compressed. This unique batch mechanism significantly reduces the amount of data transmitted for demanding applications and drastically increases the autonomy up to 10 years when operating on battery.

# THE LARGEST IOT PRODUCTS RANGE FOR YOUR PROJECT

WATTECO is a European leader in the design and manufacture of smart IoT devices to suit all remote reading and data collection solutions.

WATTECO is a LoRa Alliance® member.

**TECHNICAL DATA** RF TRANSCEIVER

Frequency (MHz) Transmit Power (dBm)

Transmission cycles

Activation method

Data encryption

Number of inputs

Impedance (M $\Omega$ )

Capacitance (nF)

Number of Outputs

POWER SUPPLY

Open Collector

Voltage

Voltage

Voltage (V)

Current (µA) Frequency (Hz)

**FIRMWARE** Protocol

Data history

Receiver Sensitivity (dBm)

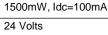
INPUT CHARACTERISTICS

# -oRaWAN® INO - v3.5 Updated 30/05/2022 - This document is the property of WATTECO. The information contained within is not contractual and may be modified without prior notice









4; optically isolated

EU: 863-870

LoRaWAN®, Class A, Class C Configurable through the network

+14

-140

Available

AES128

1; typical 0 - 30

10

>1

3.5

0 - 100

3.6V / 3600mAh – Lithium battery 9V-24V / 300mW – External power supply



## Autonomy in a range of +10°C to +25°C

**OUTPUT CHARACTERISTICS** 

10 years for 1 measurement & 1 transmission per day

Activation by Personalization (ABP) or Over-The-Air Activation (OTAA)

# **INTERFACE**

LED Indicator	3 LEDs for Configuration, Network pairing & Activity on inputs
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Button / Magnetic Switch Reset, ON/OFF

# **ENCLOSURE**

Size (mm)	92 x 92 x 56
IP Rating	IP55

ENVIRONMENT

2	
Operating temperature (°C)	-20 to +50
Storage temperature (°C)	-10 to +30

# **DIRECTIVES & STANDARD**

Radio Equipment Directive 2014/53/EU, RoHS







## PRODUCT NUMBER

REFERENCE	DESCRIPTION
50-70-016	LoRaWAN® In'O sensor Class A
50-70-087	LoRaWAN® In'O sensor Class C