IN'O

LoRaWAN

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

CONCEPTION ET FABRICATION · MADE IN FRANCE

Sensors delivered without WATTECO marking

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.

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.

IN'O

TECHNICAL DATA

RF TRANSCEIVER	
Frequency (MHz)	EU: 863-870
Transmit Power (dBm)	+14
Receiver Sensitivity (dBm)	-140
FIRMWARE	
Protocol	LoRaWAN®, Class A, Class C
Transmission cycles	Configurable through the network
Data history	Available
Activation method	Activation by Personalization (ABP) or Over-The-Air Activation (OTAA)
Data encryption	AES128
INPUT CHARACTERISTICS	
Number of inputs	10
Impedance (MΩ)	>1
Capacitance (nF)	1; typical
Voltage (V)	0 - 30
Current (μA)	3.5
Frequency (Hz)	0 - 100
OUTPUT CHARACTERISTICS	
Number of Outputs	4; optically isolated
Open Collector	1500mW, Idc=100mA
Voltage	24 Volts
POWER SUPPLY	
Voltage	3.6V / 3600mAh – Lithium battery 9V-24V / 300mW – External power supply
Autonomy in a range of +10°C to +25°C	10 years for 1 measurement & 1 transmission per day
INTERFACE	
LED Indicator	3 LEDs for Configuration, Network pairing & Activity on inputs
Button / Magnetic Switch	Reset, ON/OFF
ENCLOSURE	
Size (mm)	92 x 92 x 56
IP Rating	IP55
ENVIRONMENT	
Operating temperature (°C)	-20 to +50
Storage temperature (°C)	-10 to +30
DIRECTIVES & STANDARD	
Radio Equipment Directive 2014/53/EU, RoHS	CE ☒ RoHS

PRODUCT NUMBER

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