ineo·sense
BRINGING SENSE TO WIRELESS

ACS-Switch®

ACS-Switch® is typically a magnetic contact sensor available to detect doors openings or closures. And moreover, internal MEMS sensor allow detecting motion from 16mG to 16G and position changes from 3° to serve many other applications.

Based on LoRa technology, it can upload data to any public or private LoRaWAN network. Three different operational modes are available in order to transmit to the server the information of openings and closings based on the desired behavior.

Used as a standalone device or associated to a ACS-Cylinder®, it offers a complete access control solution to secure premises, control access authorizations, monitor usage rate and even optimize facility management and organization.

Highly optimized algorithms push the limits of battery life duration to over 5 years.

Easy to install

Glued or screwed, it can be placed on any opening/moving mechanism. In order to ease device and magnet position, an installation mode allows to monitor reed switch state thanks to bicolor LED and confirms that the location is correct.

Moreover, device commissioning is simplified by an auto join procedure without requiring any specific tool.

Flexible reporting

ACS-Switch® device basically reports information in LoRaWAN to the joined network, either periodically or triggered by event, but it can also use bidirectional Clover-Net protocol to notify the system through a local gateway. Moreover, both communications can be managed simultaneously to insure data transmission and multiply services.

It can be linked to an already deployed system thanks to the communication with a state reporter device which manages some output according to the ACS-Switch® detections.

Covers multiple use case

Available in different versions, it can fit perfectly your needs. With internal reed switch, dry-contact input, remote magnet sensor or even MEMS based, it can meet almost all installations constrains, indoor and outdoor, for doors, gates, roofs windows, safes and more.

Now, detection of presence by a PIR sensor is also available to provide services for premises management or even for monitoring flows of people.

Standalone LoRaWAN Access control

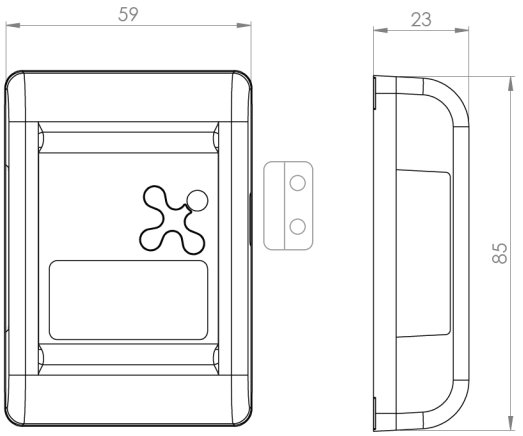
ACS-Switch® can be used in combination with our ACS-Cylinder® connected lock. In this case, the door becomes a real autonomous access control that manages access right, controls the doors' state and identifies intrusions. In addition, this combination of devices can be connected directly to an operated LoRaWAN network, thus offering the possibility of using this access control without any infrastructure to install.

Main features

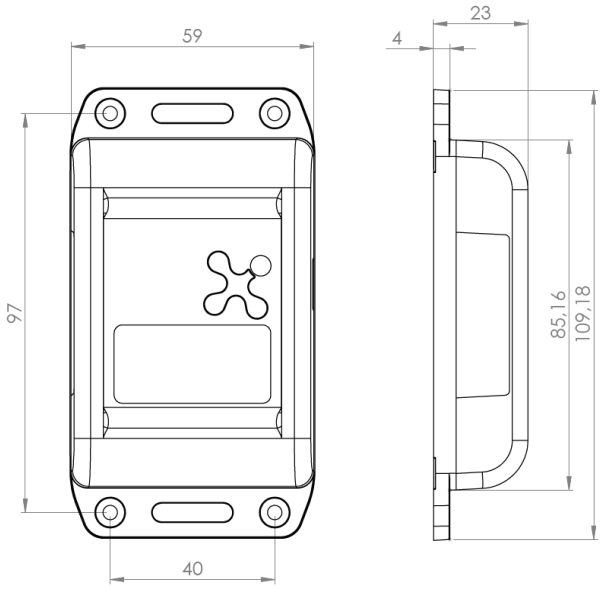
- Easy installation mode
- Door opening counter
- 'Door still open' alarm
- Door opening detector based on motion algorithms
- Door opening detector based on reed switch (embedded or remote)
- Supports both Clover-Net and LoRaWAN
- Periodic sending or triggered by events
- Scheduled configurable opening detection
- Door opening timestamped datalogging
- Optimized algorithm for more than 5 years battery life (replaceable)

Working modes

- Door state indicator
- Door opening counting
- Door opening alarms



Embedded reed sensor
+External magnet
Without flenges



Embedded accelerometer

Order references

Order #	Description
ACS-INE-MMIR-X8X-510	ACS-Switch - 868 without flanges - IP55
ACS-INO-MMIR-X8X-510	ACS-Switch - 868 with flanges - IP55
ACS-INO-MMIR-X8X-610	ACS-Switch - 868 with flanges - IP66
ACS-ACC-MAGNET-XXX-000	Magnet accessory for ACS-SWITCH

Also exists in versions ACS-Switch-REED, ACS-Switch-PIR, ACS-Switch-TEMP, ACS-Switch-HYGRO, ACS-Switch-TOF. Contact INEO-SENSE for more information.

Clover-Net generic features

- Transmission range up to 5,000m line of sight, up 500m indoor.
- Real-time 2-way communications: Scheduled transmission, automatic alarms and on-demand reading.
- Robust against physical and electronic interferences.
- Fast event reactivity, huge coexistence ability.
- Low cost for mass deployment
- Auto RTC propagation
- Native triband compatibility (433, 868 and 915Mhz)
- CE & EN 300-220 & FCC 15-247 compliant
- LoRaWAN compatible
- Uses Multi-channel frequencies to avoid collision.
- Dedicated alarm frequency channel.
- Data Encryption by AES 128 with dynamic key mixt
- Includes Full networks services (Broadcast, Repeater, Mesh, ...)

Ineo-sense
125 Rue de L'hostellerie,
Immeuble ELLIPSIS, Niv 4 Porte 12
30 900 Nîmes — France

Phone : +33 466 276 495
Web : www.ineo-sense.com
contact@ineo-sense.com