

## zDoor datasheet

A LoRaWAN sensor is built with reed switch or dry contact input terminal to detect opening and closing of doors, windows and gates. The sensor can report if any trigger occurs. The device reports keep-alive signals. The period of this is adjustable by downlink message if needed. The range of it from 5min-1day.

Operation parameters can be set by downlink messages or zTrack configuration tool for Windows. When any trigger occurs, the device sends it immediately to the LoRaWAN network by unconfirmed message.

The device reports reed opening/closing events. If any trigger reports the device waits for the next attempt. Due to LoRaWAN regulations the device is waiting the specified time for next communication.

The following parameters will be configurable via uUSB or downlink messages:

- LoRaWAN data rate
- Authentication mode (OTAA or ABP)
- Message type (confirmed or unconfirmed)

Optional features (upon customer's request):

- Pulse counter (payload contains the pulses of a specified period)
- Accelerometer
- Temperature/humidity sensor



### SPECIFICATIONS

|                       |  |                    |   |
|-----------------------|--|--------------------|---|
| Frequency Band        | 867,1 – 868,8MHz ISM (SKU-EU)<br>902.000 MHz to 928.000 MHz (US) | Number of Channels | Configurable 8 channels (SKU-EU)                                |
| Battery Specs         | 1xAA 3.6V battery<br>(2600 mAh)                                  | Transmit Power     | +14 dBm (25 mW) (EU)<br>up to +18.5 dBm high efficiency PA (US) |
| Receive Sensitivity   | -141 dBm (EU)<br>-146 dBm (US)                                   | Antenna            | Built-in  |
| Operating Temperature | -10°C - 50°  | Dimensions         | L:65 x W:57 x H:35mm  |

Payload specification:

Uplink:

Port 200

- 1 Byte XXVV
- Sent on power up, restart
- Contains firmware version, battery level

Port 207

- Keepalive message
- Format: XXXXXXXTVV where
  - XX: 1 byte firmware version
  - VV: 1 byte battery level in Voltage
  - TTTTT: keepalive period in seconds
- Sent 1/hour (default)

Port 213

- 2 Byte 01VV Sent on open
- 2 Byte 00VV Sent on close

VV: Battery level in Voltage

## Downlink messages

4244: GPS on  
4241: accelerometer (motion sensor) off  
4255: accelerometer on  
4277: GPS off  
4288xxxx: logging period in motion (minutes: 160)  
4289xxxx: logging period in idle (minutes: 5360)  
4290xxxx: GPS search max time (seconds: 10240)

A sample command to set the logging time in motion to 4 minutes:

wss://

```
eu1.loriot.io/app?id=?????????&token=?????????????????????  
{"cmd": "tx", "EUI": "????????????????", "port": 206, "data": "42880004"}
```

This document is under editing. If there is any question feel free to contact us.