



sayme
Dumpster



SAYME Dumpster Lock is an advanced IoT smart lock solution that uses NFC technology for user identification, is powered by standard batteries that provides long lifespan, and uses the latest wireless communication technologies available in the market to implement access control and pay-as-you-throw waste reduction policies.

Datasheet

Mechanical information

- Dimensions: 51,0 x Ø 144,0 mm
- Weight: 414g
- Material: polycarbonate and silicone
- NFC/QR ID tags for inventory management
- Protection: IP68
- Temperature operation range: -25°C to 80°C
- Screws, ironworks and contact points in stainless steel

Power supply

- Lithium batteries (+5 years of service life or up to 150K openings)

Sensors

- NFC user identification
 - Protocols: ISO15693, ISO14443, FeliCa, Mifare, ISO18000-3, NFC types 1,2,3,4A,4B,5
- Internal temperature sensor
 - Resolution: +-0,8°C
- Fire detection
- Accelerometer
 - Overturn detection
 - Collection detection (pick-up)
- WiFi and BLE location, optional GPS
- Sound and lighting feedback

Communications

- NB-IoT, LTE-M, WiFi and BLE
- Multiband antenna

Configurable alarms

- Waste collection (pick-up)
- Blocked lid
- Fire detection
- Overturn
- Displacement
- Low battery level

Auto Diagnosis system

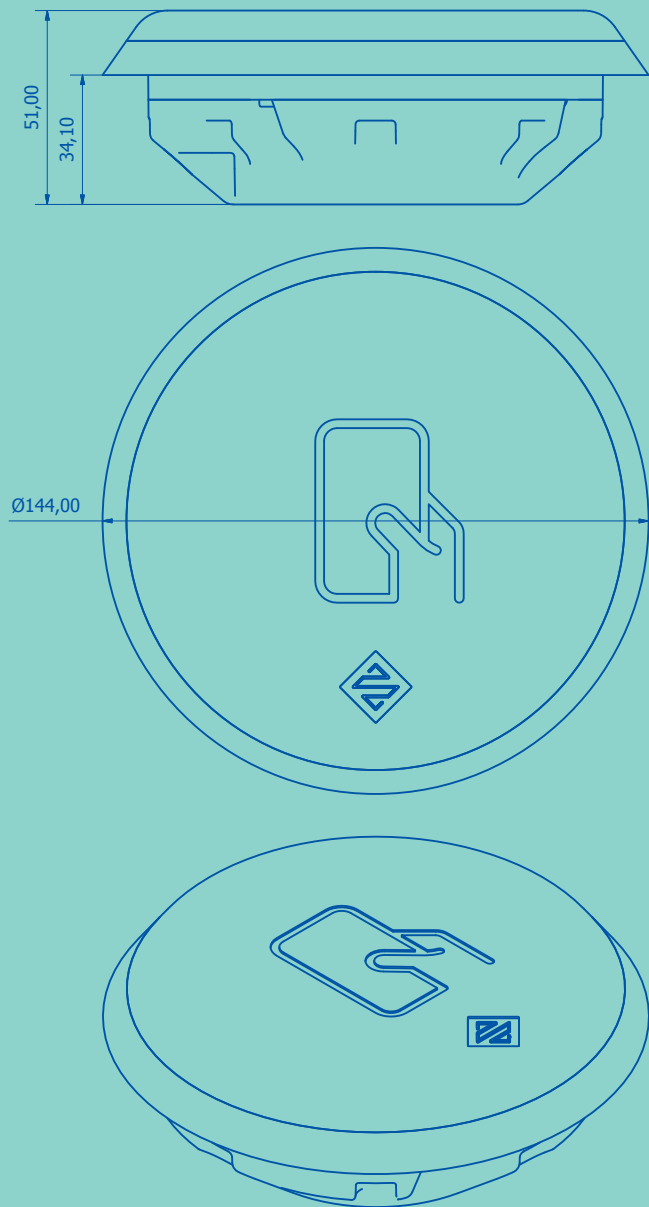
- Blocked (opened/closed) lid detection
- Obstruction and dirt detection
- Preventive maintenance
- Low battery detection

Other functionalities

- Remote configuration system
 - Opening / Closing schedules
- Log and activity buffering to reduce transmissions
- Transmissions time synchronization
 - Connection to NTP server
 - FOTA via WiFi

Software integration

- Easy integration to third party platforms with API REST, or MQTT and http subscription services
- IoT Gateway, web interface and cloud access



Additional information



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Manufacturing information

- Product Name: SAYME Dumpster Lock
- Model Name: 2XER34615M
- Brand: SAYME
- Hardware version: DLNB10
- Firmware version: V11
- FCC ID: 2BMD7-13EA2BMD7
- Manufacturer information:
 - SAYME Monitorización Estructural SL
 - Polígono Industrial Tanos-Viñoles B4
 - 39300 Torrelavega, Cantabria (Spain)
 - EM: info@sayme.io



Radio Operation	NB-IoT	WiFi	Bluetooth	NFC
Operating Band	B2, B4, B12, B26, B66, B71	2.412-2.484 MHz	2400-2483,5 MHz	15,56 MHz
Max. Trans. Power	+23 dBm	+20 dBm	0 dBm	2 W
Data Rate	128 kbps	1 Mbps	1 Mbps	848 kbps
Modulation	UL: OFDM DL: SC-FDMA	-	-	ASK
Channels	B2 UL: 1850-1910MHz DL: 1930-1990MHz B4 UL: 1700-1755MHz DL: 2110-2155MHz B12 UL: 699-716MHz DL: 729-746MHz B26 UL: 814-849MHz DL: 859-894MHz B66 UL: 1710-1780MHz DL: 2110-2200MHz B71 UL: 633-698MHz DL: 617-783MHz	Each channel spectrum is 20 MHz wide Channel Separation: 5 MHz	Each channel spectrum is 1 MHz wide Channel Separation: 2 MHz	
Antenna Type	Internal	Internal	Internal	Internal
Antenna Gain	-2,0 dBi@(698-798MHz) -1,1 dBi@(824-960MHz) -1,6 dBi@(1710-2170MHz) -1,6 dBi@(2300-2400MHz)	+3,2 dBi	+3,2 dBi	-4,7 dBi

FCC Compliance

- Intended use: user access control for waste containers.
- Intended location: outdoors. Waste containers placed on the street.
- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- The equipment complies with FCC Radiation exposure limit set forth for an uncontrolled environment. The equipment should be installed and operated with a minimum distance of 20cm between the product and your body."
- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: - Reorient or relocate the receiving antenna. - Increase the separation between the equipment and receiver. - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. - Consult the dealer or an experienced radio/TV technician for help.



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Features and specifications are subject to change without notice. Updated: 2025-01-13