

LDS02

LORAWAN DOOR & WINDOW SENSOR

Battery-powered magnetic contact sensor with event reporting and open-duration statistics.

LORAWAN 1.0.3

CLASS A

SX1262

2 x AAA LR03

OPEN ALARM



OEM TWO-PIECE ENCLOSURE

EQUAL BODY SIZE · COMPACT RECTANGULAR FORM · CORNER ENGRAVING

01 OVERVIEW

The Jistron LDS02 is a LoRaWAN door and window sensor designed to detect open/close status and send data to a LoRaWAN network server. The device reports door state, opening count and the duration of the latest open event. It can transmit on every open/close action as well as periodically, while event uplinks may be disabled when a lower-transmission profile is preferred. A configurable open-duration alarm can generate an alert when the door remains open longer than the selected threshold.

02 KEY FEATURES

■ LoRaWAN Class A

LoRaWAN v1.0.3 Class A platform for low-power wide-area communication.

■ Magnetic open/close detection

Detects door or window state using the magnetic contact arrangement.

■ Opening statistics

Counts door openings and reports the duration of the latest open event.

■ Open-duration alarm

Configurable alert when the door remains open beyond a defined time.

■ Event + periodic uplinks

Reports on open/close actions and also sends periodic status data.

■ Remote configuration

Parameters can be changed using LoRaWAN downlink commands.

■ Local configuration

AT commands are supported for commissioning and parameter changes.

■ Replaceable power

Uses two standard AAA / LR03 batteries; batteries are replaceable.

03 OPERATIONAL FUNCTIONS

OPEN / CLOSE	OPEN COUNT	LAST OPEN TIME	OPEN ALARM	PERIODIC UPLINK	REMOTE CONFIG
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04 PRODUCT VARIANTS & OEM ENCLOSURE



OEM ENCLOSURE DESIGN

- Both visible pieces use the same external body size and matching geometry.
- When installed side-by-side in the closed state, the pair reads as one compact rectangular form.
- Jistron wordmark is engraved/debossed at a corner at approximately 30% of the previous face-mark size.
- Finish variants are visual/OEM enclosure options; electronics and LoRaWAN functions remain the same.

INSTALLATION NOTE

Install the two bodies aligned closely when the door/window is closed. The LDS02 platform documentation indicates an open/close separation threshold of approximately 10 mm; final threshold must be verified with the approved OEM enclosure, magnet selection and mounting surface.

05 TECHNICAL SPECIFICATIONS

SYSTEM & WIRELESS	
Product type	LoRaWAN door / window magnetic contact sensor
LoRaWAN version	v1.0.3
Device class	Class A
LoRa radio core	SX1262
Activation	OTAA using DevEUI, AppEUI and AppKey credentials
Frequency bands	CN470 · EU433 · KR920 · US915 · EU868 · AS923 · AU915 · IN865
Network registration	Unique LoRaWAN registration credentials are preloaded for commissioning
Local configuration	AT commands
Remote configuration	LoRaWAN downlink commands
SENSING & REPORTING	
Detection	Magnetic door / window open-close detection
Door status	Open / closed state
Opening statistics	Total opening count
Open-duration data	Duration of the latest open event
Event uplink	Supported on each open / close action
Periodic uplink	Periodic status/data reporting supported
Event suppression	Open/close event uplinks may be disabled; events can be counted and sent periodically
Open-duration alarm	Configurable alarm when the door remains open beyond a defined time
Approx. magnetic threshold	~10 mm separation threshold; installation and enclosure dependent
POWER & ENVIRONMENTAL	
Battery	2 × AAA / LR03 replaceable batteries
Battery utilization	Approx. 16,000 - 70,000 uplink packets, depending on reporting behavior and battery conditions
Operating range - standard AAA	Approx. -10 °C to +50 °C
Operating range - suitable special AAA	Up to approx. -40 °C to +60 °C, depending on battery selection
Battery replacement	User-replaceable by opening the enclosure

05 TECHNICAL SPECIFICATIONS - CONTINUED

FIRMWARE, COMMISSIONING & PHYSICAL OEM	
Firmware serviceability	Firmware can be upgraded through the program port
Default operation	LoRaWAN Class A operation with OTAA network join
Uplink behavior	Periodic data plus open/close event uplinks; behavior is configurable
OEM enclosure geometry	Two equal-size visible bodies; aligned closed-state form is a compact rectangle
OEM finish options	Wooden Oak · Brushed Silver · Gunmetal · Champagne Gold · Matte Black · Matte White
Branding	Small corner Jistron engraving / deboss mark
Final mechanical dimensions	To be confirmed by the approved OEM mechanical drawing before production release
Installation	Indoor door / window mounting; verify magnet orientation and threshold at site

06 ORDERING INFORMATION

CODE	FORMAT	FREQUENCY	FINISH	SUFFIX	DESCRIPTION
LDS02-XX-FF		XX = selected band	WO		Wooden Oak
			MS		Brushed Silver
			GM		Gunmetal
			CG		Champagne Gold
			MB		Matte Black
			MW		Matte White

XX frequency examples: EU868, AS923, US915, AU915, CN470, EU433, KR920 or IN865. Final code assignment is subject to OEM release control.

07 APPLICATIONS & ABOUT JISTRON

APPLICATIONS

- Wireless alarm & security systems
- Home & building automation
- Industrial monitoring & control
- Logistics & access-point monitoring
- Smart building / facility status monitoring
- IoT door and window telemetry

ABOUT JISTRON

Jistron is a European audio-visual brand headquartered in Tallinn, Estonia. It supplies conference systems, audio processors and installed audio-visual solutions for boardrooms, chambers and command environments; products are manufactured at audited partner facilities.

PACKAGE & OEM RELEASE NOTE

Base platform package: 1 × LDS02 sensor assembly, batteries excluded. The enclosure finishes and equal-body geometry shown in this OEM datasheet are Jistron industrial-design variants. Final mechanical dimensions, materials, marking depth and production color references must be frozen in the approved mechanical drawing/sample before mass production.