



BSI Standards Publication

## Alarm systems – Intrusion and hold-up systems

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Part 2-10: Intrusion detectors – Lock state contacts (magnetic)

## National foreword

This British Standard is the UK implementation of EN 50131-2-10:2018. It supersedes PD CLC/TS 50131-2-10:2014, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GW/1/1, Alarm components.

A list of organizations represented on this committee can be obtained on request to its secretary.

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European Committee for Electrotechnical Standardization  
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Europäisches Komitee für Elektrotechnische Normung

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## European foreword

This document (EN 50131-2-10:2018) has been prepared by CLC/TC 79 "Alarm systems".

The following dates are fixed:

- latest date by which this document has (dop) 2019-03-28 to be implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national (dow) 2021-09-28 standards conflicting with this document have to be withdrawn

This document supersedes CLC/TS 50131-2-10:2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

EN 50131-2 is currently composed of the following parts:

- EN 50131-2-2, *Alarm systems — Intrusion and hold-up systems — Part 2-2: Intrusion detectors — Passive infrared detectors*;
- EN 50131-2-3, *Alarm systems — Intrusion and hold-up systems — Part 2-3: Requirements for microwave detectors*;
- EN 50131-2-4, *Alarm systems — Intrusion and hold-up systems — Part 2-4: Requirements for combined passive infrared and microwave detectors*;
- EN 50131-2-5, *Alarm systems — Intrusion and hold-up systems — Part 2-5: Requirements for combined passive infrared and ultrasonic detectors*;
- EN 50131-2-6, *Alarm systems — Intrusion and hold-up systems — Part 2-6: Opening contacts (magnetic)*;
- CLC/TS 50131-2-8, *Alarm systems — Intrusion and hold-up systems — Part 2-8: Intrusion detectors — Shock detectors*;
- CLC/TS 50131-2-9, *Alarm systems — Intrusion and hold-up systems — Part 2-9: Intrusion detectors — Active infrared beam detectors*;
- EN 50131-2-10, *Alarm systems — Intrusion and hold-up systems — Part 2-10: Intrusion detectors — Lock state contacts (magnetic)* [the present document];
- EN 50131-2-7-1, *Alarm systems — Intrusion and hold-up systems — Part 2-7-1: Intrusion detectors — Glass break detectors (acoustic)*;
- EN 50131-2-7-2, *Alarm systems — Intrusion and hold-up systems — Part 2-7-2: Intrusion detectors — Glass break detectors (passive)*;
- EN 50131-2-7-3, *Alarm systems — Intrusion and hold-up systems — Part 2-7-3: Intrusion detectors — Glass break detectors (active)*.

## **Introduction**

This European Standard applies to lock state contacts (magnetic) used as part of intrusion and hold-up alarm systems (I&HAS) installed in buildings. It includes four security grades and four environmental classes.

The purpose of a lock state contact (magnetic) is to detect the lock/unlock state only or the lock/unlock state combined with the opening status/displacement from the defined closed position of a window or door simultaneously. The lock state contact comprises two separate contact-less units, the active connection between these units is at least one magnetic or electromagnetic based field. Separating the two units disturbs the connection and produces an intruder signal or message.

The scope for lock state contacts (magnetic) and the number and types of generated signals or messages will be more comprehensive for systems that are specified at the higher grades.

This European Standard is only concerned with the requirements and tests for lock state contacts (magnetic). Other types of detectors are covered by other documents identified as in the EN 50131-2 series.

## 1 Scope

This European Standard provides for security grades 1 to 4, (see EN 50131-1) specific or non-specific wired or wire-free lock state contacts, and includes the requirements for four environmental classes covering applications in internal and outdoor locations as specified in EN 50130-5.

Lock state contacts are installed in windows or doors and windows or doorframes to allow to monitor the lock/unlock status only or the lock/unlock status combined with the open/close status of a window/door simultaneously and are as such located in supervised premises. They provide the necessary range of signals or messages to be used by the rest of the intrusion alarm system.

A detector fulfils all the requirements of the specified grade.

Functions additional to the mandatory functions specified in this European Standard may be included in the detector, providing they do not influence the correct operation of the mandatory functions.

The combination of the two separate units of the lock state contact is referred to in the body of this European Standard as the detector.

This European Standard does not apply to system interconnections.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10130, *Cold rolled low carbon steel flat products for cold forming — Technical delivery conditions*

EN 50130-4, *Alarm systems — Part 4: Electromagnetic compatibility — Product family standard: Immunity requirements for components of fire, intruder, hold up, CCTV, access control and social alarm systems*

EN 50130-5, *Alarm systems — Part 5: Environmental test methods*

EN 50131-1, *Alarm systems — Intrusion and hold-up systems — Part 1: System requirements*

## 3 Terms, definitions and abbreviations

### 3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 50131-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

#### 3.1.1

##### **connecting field**

one or more generated magnetic or electromagnetic field(s) (e.g. magnetic, inductive, RFID, NFC) connecting actively the two units of the detector

Note 1 to entry: Separating the two units disturbs the connection and produces an intrusion signal or message.

#### 3.1.2

##### **prohibited area**

mounting arrangement, as stated by the manufacturer, of the two units of the detector in which the detector no longer meets the requirements of this European Standard