Alarm systems - Intrusion and hold-up systems - Part 2-8: Requirements for shock detectors

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NATIONAL FOREWORD

See Eesti standard EVS-EN 50131-2-8:2025 sisaldab Euroopa standardi EN 50131-2-8:2025 ingliskeelset teksti.	This Estonian standard EVS-EN 50131-2-8:2025 consists of the English text of the European standard EN 50131-2-8:2025.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 01.08.2025.	Date of Availability of the European standard is 01.08.2025.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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Alarmanlagen - Einbruch- und Überfallmeldeanlagen - Teil 2-8: Anforderungen an Erschütterungsmelder

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European Committee for Electrotechnical Standardization
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European foreword

This document (EN 50131-2-8:2025) has been prepared by Technical Committee CLC/TC 79 “Alarm systems”.

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2026-08-31
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2028-08-31

This document supersedes EN 50131-2-8:2016 and all of its amendments and corrigenda (if any).

EN 50131-2-8:2025 includes the following significant technical changes with respect to EN 50131-2-8:2016:

— Reworked the document structure in general;

— Reworked the requirements and test sections in general;

— Redefined the detection performance requirements and test methods;

— Redefined the immunity requirements and test methods;

— Clarified wording wherever necessary to avoid misunderstanding and to optimize for reading.

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.

Any feedback and questions on this document should be directed to the users’ national committee. A complete listing of these bodies can be found on the CENELEC website.

Introduction

This document is a European Standard for shock detectors used as part of an Intrusion and Hold-up Alarm System (I&HAS) installed in buildings. It includes four security grades and four environmental classes.

The purpose of a shock detector is to detect the shock or series of shocks due to a forcible attack through a physical barrier (for example doors or windows).

The shock detector must provide the necessary range of signals or messages to be used by the rest of the I&HAS.

The number and scope of these signals or messages will be more comprehensive for systems that are specified at the higher grades.

This document is only concerned with the requirements and tests for the shock detectors. Other types of detectors are covered by other documents identified as in the EN 50131-2 series.

1 Scope

This document is for shock detectors installed in buildings to detect the shock or series of shocks due to a forcible attack through a physical barrier (for example doors or windows).

It specifies four security grades 1-4 (in accordance with EN 50131-1), specific or non-specific wired or wire-free shock detectors and uses environmental Classes I-IV (in accordance with EN 50130-5).

This document does not include requirements for detectors intended to detect penetration attacks on safes and vaults for example by drilling, cutting or thermal lance.

This document does not include requirements for shock detectors intended for use outdoors.

A shock detector needs to fulfil all the requirements of the specified grade.

Functions additional to the mandatory functions specified in this document can be included in the shock detector, providing they do not adversely influence the correct operation of the mandatory functions.

This document does not deal with requirements for compliance with regulatory directives, such as EMC-directive, low-voltage directive, etc., except that it specifies the equipment operating conditions for EMC-susceptibility testing as required by EN 50130-4.

This document 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 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*

EN 50131-6, *Alarm systems - Intrusion and hold-up systems - Part 6: Power supplies*

EN 60404-5, *Magnetic materials - Part 5: Permanent magnet (magnetically hard) materials - Methods of measurement of magnetic properties (IEC 60404-5)*

EN 60404-14, *Magnetic materials - Part 14: Methods of measurement of the magnetic dipole moment of a ferromagnetic material specimen by the withdrawal or rotation method (IEC 60404-14)*

EN 60404-8-1, *Magnetic materials - Part 8-1: Specifications for individual materials - Magnetically hard materials (IEC 60404-8-1)*

3 Terms, definitions and abbreviations

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

3.1 Terms, definitions

3.1.1
analyser
physical unit or processing capabilities used to process the signal(s) produced by one or more shock sensor(s) and provides a signal or message to the I&HAS