ICS 13.320 SLOVENSKÁ TECHNICKÁ NORMA Marec 2022

STN	**Poplachové systémy Elektrické zabezpečovacie a tiesňové systémy Časť 2-3: Požiadavky na mikrovlnné detektory**	**STN EN 50131-2-3 33 4591**

Alarm systems - Intrusion and hold-up systems - Part 2-3: Requirements for microwave detectors

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/22

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EN 50131-2-3

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Supersedes EN 50131-2-3:2008,
EN 50131-2-3:2008/IS1:2014 and all of its amendments and corrigenda (if any)

English Version

Alarm systems - Intrusion and hold-up systems - Part 2-3: Requirements for microwave detectors

Systèmes d'alarme - Systèmes d'alarme contre l'intrusion et les hold-up - Partie 2-3 : Exigences pour détecteurs à hyperfréquences

Alarmanlagen - Einbruch- und Überfallmeldeanlagen - Teil 2-3: Anforderungen an Mikrowellenmelder

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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European foreword

This document (EN 50131-2-3:2021) has been prepared by 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)	2022-11-11
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2024-11-11

This document supersedes EN 50131-2-3:2008 and all of its amendments and corrigenda (if any).

EN 50131-2-3:2021 includes the following significant technical changes with respect to EN 50131-2-3:2008:

— editorial changes and refinement of wording;

— clarification to significant reduction of range requirements;

— clarification to the Electrical requirements section and certain environmental conditions;

— addition of requirements, tests and corresponding Annexes throughout the overall standard, to support ceiling mounted detectors;

— improvement of the requirements of the supplied documentation;

— improvement of the standard conditions for testing;

— addition of chapter which defines the condition for the mounting height while the tests are performed;

— refinement of the standard requirements for the Testing procedures;

— refinement of the Immunity to air flow test to allow for better repeatability of the test results;

— verifying and clarifying of the wording of the test for resistance to or detection of re-orientation of adjustable mountings;

— updating of the test magnet specification for resistance to magnetic field interference;

— verifying and clarifying of the wording for the detection of detector masking in regards to the conditions and the test material;

— review and optimization of the methods for temperature adjustments for the test environment;

— review of Sample Testmatrix;

— review and verifying of references to other standards.

EN 50131 will consist of the following parts, under the general title *Alarm systems - Intrusion and hold-up systems*:

— *Part 1: System requirements*

— *Part 2–2: Intrusion detectors – Passive infrared detectors*

— *Part 2–3: Intrusion detectors – Microwave detectors*

— *Part 2–4: Intrusion detectors – Combined passive infrared / Microwave detectors*

— *Part 2–5: Intrusion detectors – Combined passive infrared / Ultrasonic detectors*

— *Part 2–6: Intrusion detectors – Opening contacts*

— *Part 2–7–1: Intrusion detectors – Glass break detectors – Acoustic*

— *Part 2–7–2: Intrusion detectors – Glass break detectors – Passive*

— *Part 2–7–3: Intrusion detectors – Glass break detectors – Active*

— *Part 3: Control and indicating equipment*

— *Part 4: Warning devices*

— *Part 5–3: Requirements for interconnections equipment using radio frequency techniques*

— *Part 6: Power supplies*

— *Part 7: Application guidelines*

— *Part 8: Security fog devices*

Introduction

This document deals with microwave detectors (to be referred to as the detector) used as part of intrusion alarm systems installed in buildings. It includes four security grades and four environmental classes.

The purpose of the detector is to emit microwave signals and analyse the signals that are returned to detect an intruder and to provide the necessary range of signals or messages to be used by the rest of the intrusion alarm system.

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

This version of the standard contains limited requirements for Grade 4 detectors. Future revisions of the standard are expected to include enhanced requirements for Grade 4 detectors.

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

NOTE Each country has certain regulations in regards to which part of the microwave spectrum is allowed to be used in this application. This information can be found in ERC recommendation 70-03.

1 Scope

This document is for microwave detectors installed in buildings and provides for security grades 1 to 4 (see EN 50131-1), specific or non-specific wired or wire-free detectors, and uses environmental classes I to IV (see EN 50130-5). This document does not include requirements for detectors intended for use outdoors.

The purpose of the detector is to emit microwave signals and analyse the signals that are returned to detect an intruder and to provide the necessary range of signals or messages to be used by the rest of the intrusion alarm system.

The grade-dependent requirements of this document apply and it is essential that a detector fulfils all the requirements of the specified grade.

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

Requirements for system interconnections are not included in this document.

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

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

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)*