Alarm systems - Intrusion and hold-up systems -- Part 2-4: Requirements for combined passive infrared and microwave detectors

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 50131-2-4:2008 sisaldab Euroopa standardi EN 50131-2-4:2008 ingliskeelset teksti.	This Estonian standard EVS-EN 50131-2-4:2008 consists of the English text of the European standard EN 50131-2-4:2008.
Standard on kinnitatud Eesti Standardikeskuse 20.02.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 20.02.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 01.12.2008.	Date of Availability of the European standard text 01.12.2008.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

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English version

Alarm systems - Intrusion and hold-up systems - Part 2-4: Requirements for combined passive infrared and microwave detectors

Systèmes d'alarme -
Systèmes d'alarme contre l'intrusion
et les hold-up -
Partie 2-4: Exigences pour détecteurs
combinés à infrarouges passifs
et à hyperfréquences

Alarmanlagen -
Einbruch- und Überfallmeldeanlagen -
Teil 2-4: Anforderungen
an Passiv-Infrarotdualmelder
und Mikrowellenmelder

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 79, Alarm systems.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50131-2-4 on 2007-12-01.

This European Standard supersedes CLC/TS 50131-2-4:2004.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2008-12-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2010-12-01

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 (magnetic)
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

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Introduction

This standard deals with combined passive infrared and 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 detect the broad spectrum infrared radiation emitted by an intruder, to emit microwave radiation and analyse signals that are returned 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 European Standard is only concerned with the requirements and tests for the detector. Other types of detector are covered by other documents identified as in EN 50131-2 series.

If a combined detector can be operated in each technology individually, it shall also meet the grade-dependant requirements of the standards having relevance to those technologies.

1 Scope

This standard is for combined passive infrared and 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 standard does not include requirements for detectors intended for use outdoors.

A detector shall fulfil all the requirements of the specified grade.

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

This European Standard does not apply to system interconnections.

2 Normative references

The following referenced documents are indispensable for the application 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 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 systems - Part 6: Power supplies
EN 60068-1	Environmental testing – Part 1: General and guidance (IEC 60068-1)
EN 60068-2-52	Environmental testing – Part 2: Tests – Test Kb: Salt mist, cyclic (sodium chloride solution) (IEC 60068-2-52)
EN 60529	Degrees of protection provided by enclosures (IP code) (IEC 60529)

3 Definitions and abbreviations

For the purpose of this European Standard the following definitions and abbreviations apply in addition to those given in EN 50131-1.

3.1 Definitions

3.1.1
basic detection target
heat source and/or microwave reflector designed to verify the operation of a detector

3.1.2
combined passive infrared and microwave detector
detector of the broad-spectrum infrared emitted by a human being, with an active microwave emitter and detector installed in the same casing

3.1.3
incorrect operation
physical condition that causes an inappropriate signal from a detector

3.1.4
masking
interference with the detector input capability by the introduction of a physical barrier such as metal, plastic, paper or sprayed paints or lacquers in close proximity to the detector