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IEC 62642-2-2: 2010

## **DRAFT TANZANIA STANDARD**

**(Draft for comments only)**

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**Alarm systems – Intrusion and hold-up systems –  
Part 2-2: Intrusion detectors – Passive infrared detectors**

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**TANZANIA BUREAU OF STANDARDS**

## **0 National Foreword**

This draft Tanzania Standard is being prepared by the Manned Security Systems Technical Committee, under the supervision of the Electrical Engineering Divisional Standards Committee (EEDC)

This draft Tanzania Standard is an adoption of the International Standard IEC 62642-2-2:2010 *Alarm systems – Intrusion and hold-up systems – Intrusion detectors - Part 2-2: Passive infrared detectors*, which has been prepared by the International Electrotechnical Commission (IEC).

### **Terminology and conventions**

Some terminologies and certain conventions are not identical with those used in Tanzania Standards; Attention is drawn especially to the following:

- 1) The comma has been used as a decimal marker for metric dimensions. In Tanzania Standards, it is current practice to use “full point” on the baseline as the decimal marker.
- 2) Where the words “International Standard(s)” appear, referring to this standard they should read “Tanzania Standard(s)”.

### **Abstract**

This draft Tanzania Standard is for passive infrared detectors installed in buildings and provides for security grades 1 to 4 (see IEC 62642-1), specific or non-specific wired or wire-free detectors, and uses environmental classes I to IV (see IEC 62599-1). A detector shall fulfil all the requirements of the specified grade.

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Alarm systems – Intrusion and hold-up systems –  
Part 2-2: Intrusion detectors – Passive infrared detectors**

**Systèmes d'alarme – Systèmes d'alarme contre l'intrusion et les  
hold-up – Partie 2-2: Détecteurs d'intrusion – Détecteurs à  
infrarouges passifs**





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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

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**Alarm systems – Intrusion and hold-up systems –  
Part 2-2: Intrusion detectors – Passive infrared detectors**

**Systèmes d'alarme – Systèmes d'alarme contre l'intrusion et les hold-up  
– Partie 2-2: Détecteurs d'intrusion – Détecteurs à infrarouges passifs**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**ALARM SYSTEMS –  
INTRUSION AND HOLD-UP SYSTEMS –**
**Part 2-2: Intrusion detectors –  
Passive infrared detectors**

## FOREWORD

- The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62642-2-2 has been prepared by IEC technical committee 79: Alarm and electronic security systems.

This standard is based on EN 50131-2-2 (2004).

The text of this standard is based on the following documents:

FDIS	Report on voting
79/307/FDIS	79/318/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 62642 series can be found, under the general title *Alarm systems – Intrusion and hold-up systems*, on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- 3.1 reconfirmed,
- 3.2 withdrawn,
- 3.3 replaced by a revised edition, or
- 3.4 amended.

## INTRODUCTION

This part 2-2 of the IEC 62642 series of standards gives requirements for passive infrared detectors used in intrusion and hold-up alarm systems. The other parts of this series of standards are as follows:

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 2-71 Intrusion detectors – Glass break detectors – Acoustic Part 2-72

Intrusion detectors – Glass break detectors – Passive Part 2-73 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

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

The purpose of a detector is to detect the broad spectrum infrared radiation emitted by 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 International Standard is only concerned with the requirements and tests for the detector. Other types of detector are covered by other documents identified as in IEC 62642-2 series.

# ALARM SYSTEMS – INTRUSION AND HOLD-UP SYSTEMS –

## Part 2-2: Intrusion detectors – Passive infrared detectors

### 1 Scope

This part of the IEC 62642 is for passive infrared detectors installed in buildings and provides for security grades 1 to 4 (see IEC 62642 -1), specific or non-specific wired or wire-free detectors, and uses environmental classes I to IV (see IEC 62599-1). This International Standard does not include requirements for passive infrared 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 International 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.

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-52, *Environmental testing – Part 2-52: Tests – Test Kb: Salt mist, cyclic (sodium chloride solution)*

IEC 62599-1, *Alarm systems – Part 1: Environmental test methods*

IEC 62599-2, *Alarm systems – Part 2: Electromagnetic compatibility – Immunity requirements for components of fire and security alarm systems*

IEC 62642-1, *Alarm systems – Intrusion and hold-up systems – Part 1: System requirements*

### 3 Terms, definitions and abbreviations

For the purposes of this document, the terms, definitions and abbreviations given in the IEC 62642-1, as well as the following apply.

#### 3.1 Terms and definitions

##### 3.1.1

##### **basic detection target**

heat source designed to verify the operation of a detector