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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ALARM SYSTEMS – INTRUSION AND HOLD-UP SYSTEMS –

Part 7: Application guidelines

FOREWORD

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- the required support cannot be obtained for the publication of an International Standard, despite repeated efforts, or
- the subject is still under technical development or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC 62642-7, which is a technical specification, has been prepared by IEC technical committee 79: Alarm and electronic security systems.

This standard is based on EN/TS 50131-7 (2010).

The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
79/315/DTS	79/332/RVC

Full information on the voting for the approval of this technical specification 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 be

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

This part 7 of the IEC 62642 series of standards gives requirements for 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 Interconnections – Requirements for equipment using radio frequency techniques
Part 6 Power supplies
Part 7 Application guidelines
Part 8 Security fog devices/systems

In order to insure the consistency of the whole IEC 62642 series, the terminology is defined at one place that is the master document IEC 62642-1 that gives general requirements concerning the intrusion system. Exception is made for specific terms to installation and where repetition is deemed essential for the clarity of this document.

A number of requirements are contained in this standard for which a formal test procedure can only be written by defining (and hence restricting) the technology by which the requirement is achieved. Accordingly, it has been recognised that such functions can be tested only by agreement between installers and test house, according to documented information relating to how the required functionality has been achieved.

These application guidelines are intended to provide advice relating to the design, installation, operation and maintenance of Intruder and Hold-up Alarm Systems (I&HAS). The purpose of this document is to ensure, as far as is practical, that I&HAS provide the required performance with a minimum of unwanted alarms.

These application guidelines are set out in the logical order in which an I&HAS would normally be designed and installed. Each procedure is set out separately in the guideline but it is accepted that, in practice, some of the procedures may be carried out simultaneously. Annex K describes in the form of a flowchart the main processes and documentation included in this application guideline.

Those responsible for the design, installation planning, system installation, commissioning, operation and maintenance of I&HAS should be conversant with other International Standards relating to I&HAS, particularly those relating to system performance, control and indicating equipment, detectors, warning devices, power supplies and alarm transmission systems.

These application guidelines are set out in seven main clauses; a brief explanation of each section is shown below.

a) Clause 7 – System design

This clause is intended to assist those responsible for designing I&HAS to design I&HAS suitable for the premises to be supervised in relation to the perceived risk(s). The design of I&HAS will depend on many factors, all of which will influence more or less the design of I&HAS. Consideration of these factors will result in a system design proposal for an I&HAS with the appropriate extent, security grade and environmental class.

b) Clause 8 – Installation planning

This clause is intended to help those responsible for installing I&HAS by highlighting issues which should be considered prior to commencing the installation of the I&HAS.

c) Clause 9 – System installation

In this clause, guidance is given with regard to issues arising during the installation of I&HAS. This clause is intended to ensure I&HAS is correctly installed as specified at the design stage.

d) Clause 10 – Inspection, functional testing and commissioning

In this clause, guidance is given on issues arising after I&HAS has been installed. The clause is intended to ensure I&HAS has been installed as specified and also provides the level of performance intended at the design stage. Guidance is also provided with regard to the proper commissioning and handing over of the system to the user and to the documents, records and operating instructions which should be provided.

e) Clause 11 – Documentation and records

This clause describes the documentation which should be provided to the client on completion of I&HAS. The documents are intended to provide a history of modifications to I&HAS, based on the as-fitted document, prepared when I&HAS installation was completed.

The records are intended to chronicle any corrective action carried out following unwanted alarm conditions and details of any repairs or modifications to I&HAS. The record should also include details of temporary fault conditions.

f) Clause 12 – Operation of I&HAS

This clause describes the responsibility of the client or user of I&HAS to properly maintain I&HAS and to ensure it is operated correctly.

g) Clause 13 – Maintenance and repair of I&HAS

This clause describes how I&HAS should be maintained and repaired to ensure I&HAS continues to provide the level of performance intended at the design stage.

ALARM SYSTEMS – INTRUSION AND HOLD-UP SYSTEMS –

Part 7: Application guidelines

1 Scope

This Technical Specification provides guidance on the design, planning, operation, installation, commissioning and maintenance of intrusion and hold-up alarm system (I&HAS) installed in buildings. Requirements for I&HAS are specified in IEC 62642-1:2010.

The recommendations of this Technical Specification (TS) also apply to intruder alarm system (IAS) and hold-up alarm system (HAS) when these systems are installed independently.

When an I&HAS does not include functions relating to the detection of intruders, the requirements relating to intrusion detection do not apply.

When an I&HAS does not include functions relating to hold-up, the requirements relating to hold-up do not apply.

NOTE 1 Unless otherwise stated, the abbreviation I&HAS is also intended to mean IAS and HAS.

These application guidelines are intended to assist those responsible for establishing an I&HAS to ascertain the appropriate design of I&HAS both in terms of the extent of the supervision required and in determining the grade of system performance necessary to provide the degree of supervision considered appropriate.

These application guidelines are also intended to assist those responsible for selecting equipment appropriate to both the level of performance required and the environmental conditions in which the equipment will be required to operate.

These application guidelines are relevant to all classes and grades of I&HAS of any size and complexity. These application guidelines should be read in conjunction with IEC 62462-1:2010.

NOTE 2 It has been assumed in the drafting of these application guidelines that the execution of its provisions will be entrusted to appropriately qualified and experienced persons. However, the guidance is also appropriate to other persons who may be required to purchase or use an I&HAS.

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 62642-1:2010, *Alarm systems – Intrusion and hold-up systems – Part 1: System requirements*