

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Video surveillance systems for use in security applications –
Part 1-1: System requirements – General**

**Systèmes de vidéosurveillance destinés à être utilisés dans les applications de
sécurité –
Partie 1-1: Exigences systèmes – Généralités**



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IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00
info@iec.ch
www.iec.ch

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

VIDEO SURVEILLANCE SYSTEMS FOR USE IN SECURITY APPLICATIONS –

Part 1-1: System requirements – General

FOREWORD

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International Standard IEC 62676-1-1 has been prepared by IEC technical committee 79: Alarm and electronic security systems.

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

FDIS	Report on voting
79/432/FDIS	79/445/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.

The reader's attention is drawn to the fact that Annex A lists all of the "in-some-country" clauses on differing practices of a less permanent nature relating to the subject of this standard.

A list of all parts in the IEC 62676, published under the general title *Video surveillance systems for use in security applications*, can be found 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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

The IEC Technical Committee 79 in charge of alarm and electronic security systems together with many governmental organisations, test houses and equipment manufacturers has defined a common framework for video surveillance transmission in order to achieve interoperability between products.

The IEC 62676 series of standards on video surveillance system is divided into 4 independent parts:

- Part 1: System requirements
- Part 2: Video transmission protocols
- Part 3: Analog and digital video interfaces
- Part 4: Application guidelines (to be published)

Each part has its own clauses on scope, references, definitions and requirements.

This IEC 62676-1 series consists of 2 subparts, numbered parts 1-1 and 1-2 respectively:

IEC 62676-1-1, *System requirements – General*

IEC 62676-1-2, *System requirements – Performance requirements for video transmission*

The first subpart of this IEC 62676-1 series applies to systems for surveillance of private and public areas. It includes four security grades and four environmental classes.

This IEC Standard is intended to assist Video Surveillance System (VSS) companies, manufacturers, system integrators, installers, consultants, owners, users, insurers and law enforcement in achieving a complete and accurate specification of the surveillance system. This International Standard does not specify the type of technology for a certain observation task.

Due to the wide range of VSS applications e.g. security, safety, public safety, transportation, etc. only the minimum requirements are covered in this standard.

For specific applications e.g. in homeland security, additional requirements need to be applied, which are defined in the annex of this standard.

This IEC Standard is not intended to be used for testing individual VSS components.

Today VSSs reside in security networks using IT infrastructure, equipment and connections within the protected site itself.

VIDEO SURVEILLANCE SYSTEMS FOR USE IN SECURITY APPLICATIONS –

Part 1-1: System requirements – General

1 Scope

This part of IEC 62676 specifies the minimum requirements and gives recommendations for Video Surveillance Systems (VSS), so far called CCTV, installed for security applications. This Standard specifies the minimum performance requirements and functional requirements to be agreed on between customer, law-enforcement where applicable and supplier in the operational requirement, but does not include requirements for design, planning, installation, testing, operation or maintenance. This standard excludes installation of remotely monitored detector activated VSSs.

This IEC Standard also applies to VSS sharing means of detection, triggering, interconnection, control, communication and power supplies with other applications. The operation of a VSS is not to be adversely influenced by other applications.

Requirements are specified for VSS components where the relevant environment is classified. This classification describes the environment in which the VSS component may be expected to operate as designed. When the requirements of the four environmental classes are inadequate, due to the extreme conditions experienced in certain geographic locations, special national conditions may be applied (see Annex A).

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60065, *Audio, video and similar electronic apparatus – Safety requirements*

IEC 60068-2-75, *Environmental testing – Part 2-75: Tests – Test Eh: Hammer tests*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

IEC 60950-1, *Information technology equipment – Safety – Part 1: General requirements*

IEC 61000-6-1:2005, *Electromagnetic compatibility (EMC) – Part 6-1: Generic standards – Immunity for residential, commercial and light-industrial environments*

IEC 61000-6-2:2005, *Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments*

IEC 61000-6-3, *Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standard for residential, commercial and light-industrial environments*

IEC 61000-6-4, *Electromagnetic compatibility (EMC) – Part 6-4: Generic standards – Emission standard for industrial environments*

IEC 62262, *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)*

IEC 62599-1:2010, *Alarm systems – Part 1: Environmental test methods*

IEC 62599-2:2010, *Alarm systems – Part 2: Electromagnetic compatibility – Immunity requirements for components of fire and security alarm systems*

IEC 62676-4, *Video surveillance systems for use in security applications – Part 4: Application guidelines*¹

ISO 12233:2000, *Photography – Electronic still-picture cameras – Resolution measurements*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1.1

access level

level of access to particular functions of the VSS, defining the user rights of an operator, to control and configure the system as well as the access to data on the VSS

3.1.2

acknowledge

action of a user to accept a message or an indication

3.1.3

action

deliberate operation or act by the user which is part of alarm procedure

3.1.4

Advanced Streaming Format

proprietary digital audio/digital video container format, especially meant for streaming media

3.1.5

alarm

warning of the presence of any hazard to life, property or the environment

3.1.6

alarm condition

condition of an alarm system, or part thereof, which results from the response of the system to the presence of a hazard

3.1.7

alarm message

message from the system to an operator, to describe time, type and location of an alarm

3.1.8

alarm procedure

indications and manual or automatic controls as response to an alarm condition

¹ To be published.