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**Alarm and electronic security systems - Part 11-
1: Standard for electronic access control systems –
System and components requirements (IEC 60839-11-
1:2013)**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 60839-11-1:2013 sisaldab Euroopa standardi EN 60839-11-1:2013 ja selle paranduse AC:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 60839-11-1:2013 consists of the English text of the European standard EN 60839-11-1:2013 and its corrigendum AC:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 28.06.2013.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. Date of Availability of the European standard is 28.06.2013.
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**Alarm and electronic security systems -
Part 11-1: Electronic access control systems -
System and components requirements
(IEC 60839-11-1:2013)**

Systèmes d'alarme et de sécurité
électroniques -
Partie 11-1: Systèmes de contrôle d'accès
électronique - Exigences système et
exigences concernant les composants
(CEI 60839-11-1:2013)

Alarmanlagen -
Teil 11-1: Elektronische
Zutrittskontrollanlagen - Anforderungen an
Anlagen und Geräte
(IEC 60839-11-1:2013)

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Foreword

The text of document 79/410/FDIS, future edition 1 of IEC 60839-11-1, prepared by IEC TC 79 "Alarm and electronic security systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60839-11-1:2013.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-03-11
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IEC 60950-1	NOTE	Harmonised as EN 60950-1.
IEC 61000-6-1	NOTE	Harmonised as EN 61000-6-1.
IEC 61000-6-3	NOTE	Harmonised as EN 61000-6-3.

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Alarm and electronic security systems –
Part 11-1: Electronic access control systems – System and components
requirements**

**Systèmes d'alarme et de sécurité électroniques –
Partie 11-1: Systèmes de contrôle d'accès électronique – Exigences système et
exigences concernant les composants**



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INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Alarm and electronic security systems –
Part 11-1: Electronic access control systems – System and components
requirements**

**Systèmes d'alarme et de sécurité électroniques –
Partie 11-1: Systèmes de contrôle d'accès électronique – Exigences système et
exigences concernant les composants**

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CONTENTS

FOREWORD.....	5
INTRODUCTION.....	7
1 Scope.....	8
2 Normative references	8
3 Terms and definitions	9
4 Abbreviations	20
5 Conceptual models and system architecture	20
6 System performance functionality requirements	23
6.1 Classification methodology and functionalities – Determining the levels of protection	23
6.2 Access point interface requirements	25
6.2.1 Portal release timing	25
6.2.2 Access control	25
6.2.3 Portal status	25
6.3 Indication and annunciation (display, alert, logging) requirements	26
6.3.1 Annunciation	26
6.3.2 Display	26
6.3.3 Alert	26
6.3.4 Logging	27
6.4 Recognition requirements	29
6.5 Duress signalling requirements	31
6.6 Overriding requirements	32
6.7 Communication requirements	32
6.8 System self-protection requirements	33
6.9 Power supply requirements	35
7 Environmental and EMC (immunity) requirements	36
8 Test methods.....	38
8.1 General conditions	38
8.1.1 Atmospheric conditions for tests	38
8.1.2 Operating conditions for tests	38
8.1.3 Specimen configuration	38
8.1.4 Mounting arrangements	39
8.1.5 Tolerances	39
8.1.6 Provisions for tests	39
8.1.7 Optional functions	39
8.2 Reduced functional test	41
8.3 Functional tests for access point interface	41
8.3.1 Object of the test	41
8.3.2 Principle	41
8.3.3 Procedure.....	41
8.3.4 Criteria for compliance.....	43
8.4 Functional tests for indication/annunciation (displaying, alert and logging)	43
8.4.1 Object of the test	43
8.4.2 Principles	43
8.4.3 Test procedure	43
8.4.4 Criteria for compliance.....	46

8.5	Test methods for recognition functionalities	46
8.5.1	Object of the test	46
8.5.2	Principles	47
8.5.3	Test procedure	47
8.5.4	Criteria for compliance.....	48
8.6	Functional tests for duress signalling	48
8.6.1	Object of the test	48
8.6.2	Principles	48
8.6.3	Test procedure (ref. Table 5, lines 1 to 3)	48
8.6.4	Criteria for compliance.....	49
8.7	Functional tests for overriding	49
8.7.1	Object of the test	49
8.7.2	Principles	49
8.7.3	Test procedure (ref. Table 6, lines 1 to 7)	49
8.7.4	Criteria for compliance.....	49
8.8	Functional tests for communication and self-protection.....	49
8.8.1	Object of the test	49
8.8.2	Principles	50
8.8.3	Test procedure (ref. Table 7, lines 1 to 28)	50
8.8.4	Criteria for compliance.....	51
8.9	Power supply requirements	51
8.9.1	Test of standby power duration.....	51
8.9.2	Test of charger and standby power source capacity.....	52
8.9.3	Test for low or missing battery condition.....	52
8.10	Environmental and EMC (immunity) tests	53
8.10.1	Test procedure	53
8.10.2	Initial measurements	53
8.10.3	State of the specimen during conditioning	54
8.10.4	Conditioning	54
8.10.5	Measurement during conditioning	54
8.10.6	Final measurements	54
8.10.7	Criteria for compliance.....	54
8.11	Test report	54
9	Documentation and marking	55
9.1	Documentation	55
9.2	Marking.....	55
Annex A (normative)	Timing diagram	56
Annex ZA (normative)	Normative references to international publications with their corresponding European publications	57
Bibliography		58
Figure 1 – Conceptual model		22
Figure 2 – Typical architecture of an electronic access control system		23
Figure 3 – Example of system test configuration		40
Figure A.1 – Timing diagram		56
Table 1 – Grade classification		24

Table 2 – Access point interface requirements	25
Table 3 – Indication and annunciation requirements	27
Table 4 – Recognition requirements	30
Table 5 – Duress signalling requirements	32
Table 6 – Overriding requirements	32
Table 7 – System self-protection requirements	34
Table 8 – Power supply requirements	36
Table 9 – Environmental and EMC (immunity) requirements	37

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ALARM AND ELECTRONIC SECURITY SYSTEMS –

Part 11-1: Electronic access control systems – System and components requirements

FOREWORD

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International Standard IEC 60839-11-1 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
79/410/FDIS	79/416/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 in the IEC 60839 series, published under the general title *Alarm and electronic security systems*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

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INTRODUCTION

This standard is part of the IEC 60839 series, written to include the following parts:

Part 11-1 Electronic access control systems – System and components requirements

Part 11-2 Electronic access control systems – Application guidelines

This part of IEC 60839 describes the general requirements for functionalities of electronic access control systems (EACS) for use in security applications. The design, planning, installation, operation, and maintenance are part of the application guidelines in IEC 60839-11-2¹. The risk analysis is not part of this standard and the risk levels are for informational purposes only.

An electronic access control system consists of one or more components that when interconnected meet the functionality criteria stated in this standard.

This standard defines different security grades and the functionalities of the access control system associated with each of these grades. It includes also the minimum environmental and EMC compliance criteria as applicable for components of the electronic access control system in every grade.

When a part of an electronic access control system (e.g. access point interface) forms a part of an alarm system (intrusion, hold-up, VSS [Video Surveillance Systems], etc.) that part shall also fulfil the relevant requirements of the applicable IEC standards. Functions additional to the mandatory functions specified in this standard may be included in the electronic access control system providing they do not prevent the requirements of this standard from being met.

This International standard also applies to access control systems sharing means of recognition, detection, triggering, interconnection, control, communication, alert signalling and power supplies with other applications. The operation of an access control system should not be adversely influenced by other applications.

An electronic access control system may consist of any number of access points. This standard addresses the security grade classification for each access point.

Compliance of the individual component parts of the electronic access control system can be assessed to this standard provided all relevant requirements are applied.

The specific requirements for access point actuators, such as electric door openers, electronic locks, turnstiles and barriers are included in other standards.

¹ Under consideration.

ALARM AND ELECTRONIC SECURITY SYSTEMS –

Part 11-1: Electronic access control systems – System and components requirements

1 Scope

This part of IEC 60839 specifies the minimum functionality, performance requirements and test methods for electronic access control systems and components used for physical access (entry and exit) in and around buildings and protected areas. It does not include requirements for access point actuators and sensors.

This standard is not intended to cover requirements for off premise transmission associated with intrusion or hold up alarm signals.

This standard applies to electronic access control systems and components intended to be used in security applications for the granting of access and includes requirements for logging, identification and control of information.

The standard comprises the following:

- A conceptual model and system architecture.
- Criteria covering:
 - classification based on performance functionalities and capabilities;
 - access point interface requirements;
 - indication and annunciation requirements (display, alert, logging);
 - duress signalling and overriding;
 - recognition requirements;
 - system self-protection requirements;
 - communication between the component parts of the electronic access control system and with other systems.
- Requirements for environmental conditions (indoor/outdoor use) and electromagnetic compatibility.
- Test methods.

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

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

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

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*

IEC 62642-6, *Alarm systems – Intrusion and hold-up systems – Part 6: Power supplies*

3 Terms and definitions

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

3.1

abnormal status

deviation from the expected mode of operation

3.2

access

physical access

action of entering into (or exiting from) a security controlled area

3.3

access control unit

controller

part of an access control system that interfaces with readers, locking devices and sensing devices, making a decision to grant or deny access through a portal

3.4

access decision

action of comparing information with pre-set rules to determine whether to grant or deny access

3.5

access level

set of rules used to determine where and when a credential has authorized access to one or more portals and which may include special passage conditions such as specific portal allowed open times

3.6

access point

portal

physical entrance/exit at which access can be controlled by a door, turnstile or other secure barrier

3.7

access point actuation

portal actuation

function of an electronic access control system related to the releasing or securing of a portal according to pre-set rules and conditional on the access rights of users

3.8

access point overriding

portal actuation overriding

action of issuing a manual command to bypass the pre-configured mode of operation (i.e. release/secure/block) of an access point