

Australian/New Zealand Standard™

Alarm and electronic security systems

Part 11.1: Electronic access control systems — System and components requirements



AS/NZS IEC 60839.11.1:2019

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- Australian Federal Police
- Australian Industry Group
- Australian Security Industry Association
- Engineers Australia
- Fire Protection Association Australia
- Insurance Council of Australia
- New Zealand Security Association
- NSW Police Force
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Australian/New Zealand Standard™

Alarm and electronic security systems

Part 11.1: Electronic access control systems — System and components requirements

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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-031, Intruder Alarm Equipment and Installations.

The objective of this Standard is to specify 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.

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.

This Standard covers the following:

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

This Standard 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 is identical with, and has been reproduced from, IEC 60839-11-1:2013, *Alarm and electronic security systems — Part 11-1: Electronic access control systems — System and components requirements*.

As this document has been reproduced from an International Standard, the following applies:

- (A) In the source text “this part of IEC 60839” should read “this Australian/New Zealand Standard”.
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Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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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.

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

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)*