



EEDC 4 (4975) P3

IEC 60839-11-1: 2013

DRAFT TANZANIA STANDARD

(Draft for stakeholders comments only)

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

TANZANIA BUREAU OF STANDARDS

0 National Foreword

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

This draft Tanzania Standard is an adoption of the International Standard **IEC 60839-11-1:2013** *Alarm and electronic security systems – Part 11-1: Electronic access control systems – System and components requirements*, which has been prepared by the International Electrotechnical Commission.

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)”.

Preamble

EEDC 4 (4975) P3/ IEC 60839-11-1:2013 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. 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.



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 ELECTROTECHNICAL COMMISSION

ALARM AND ELECTRONIC SECURITY SYSTEMS –

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

FOREWORD

- 1) 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 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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

