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DRAFT TANZANIA STANDARD

(Draft for comments only)

Fire detection and alarm systems — Part 2: Fire detection control and indicating equipment

TANZANIA BUREAU OF STANDARDS

First Edition 2020

0 National Foreword

This draft Tanzania Standard is being prepared by the Alarms and Electronic Security Systems Technical Committee, under the supervision of the Electrotechnical Divisional Standards Committee (EDC)

This draft Tanzania Standard is an adoption of the International Standard ISO 7240-2:2017 *Fire detection and alarm systems — Part 2: Fire detection control and indicating equipment,* which has been prepared by the International Organization for Standardization (ISO).

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)”.

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 21, *Equipment for fire protection and fire fighting*, Subcommittee SC 3, *Fire detection and alarm systems*.

This second edition cancels and replaces the first edition (ISO 7240-2:2003), which has been technically revised.

A list of all the parts in the ISO 7240 series can be found on the ISO website.

Introduction

The fire detection control and indication function (ISO 7240-1:2014, Figure 1, item B), within a fire detection and alarm system (FDAS) installed in and around buildings, is provided by the fire detection control and indicating equipment (FDCIE).

FDCIE receives signals from the fire detection function (ISO 7240-1:2014, Figure 1, item A) and the manual initiating function (ISO 7240-1:2014, Figure 1, item D). FDCIE processes received signals and may indicate information at the FDCIE and/or send signals to other functions within the fire detection and alarm system. The signals are used to provide notification to building occupants and other parties responsible for building safety in accordance with the design objectives for the fire detection and alarm system (see also ISO 7240-14 or equivalent national design standard).

This document is drafted on the basis of mandatory functions, which are provided on all fire detection control and indicating equipment, and optional functions (with requirements) which may be provided. It is intended that the options be used for specific applications, and to meet the fire detection and alarm system design objectives. Each optional function is included as a separate entity, with its own set of associated requirements, in order to permit fire detection control and indicating equipment with many different combinations of functions to comply with this document.

Other functions associated with fire detection and fire alarm may also be provided, even if not specified in this document.

1 Scope

This document specifies requirements, test methods and performance criteria for fire detection control and indicating equipment (FDCIE) for use in fire detection and fire alarm systems installed in buildings.

For the testing of other types of FDCIE, this document is intended to be used only for guidance. FDCIE with special characteristics, developed for specific risks, are not covered in this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

- ISO 7240-1:2014, *Fire detection and alarm systems — Part 1: General and definitions*
- ISO 7240-4, *Fire detection and alarm systems — Part 4: Power supply equipment*
- ISO 7240-14, *Fire detection and alarm systems — Part 14: Design, installation, commissioning and service of fire detection and fire alarm systems in and around buildings*
- ISO 8201, *Acoustics — Audible emergency evacuation signal*
- IEC 60068-1, *Environmental testing — Part 1: General and guidance*
- IEC 60068-2-1, *Environmental testing — Part 2: Tests. Tests A: cold*
- IEC 60068-2-6, *Environmental testing — Part 2: Tests. Test Fc: vibration (sinusoidal)*
- IEC 60068-2-47, *Environmental testing — Part 2: Test methods — Mounting of components, equipment and other articles for vibration, impact and similar dynamic tests*
- IEC 60068-2-75, *Environmental testing — Part 2: Tests — Test Eh: Hammer tests*
- IEC 60068-2-78, *Environmental testing — Part 2-78: Tests — Test Cab: Damp heat, steady state*
- IEC 60529, *Degrees of protection provided by enclosures (IP Code)*
- IEC 60721-3-3, *Classification of environmental conditions — Part 3: Classification of groups of environmental parameters and their severities — Section 3: Stationary use and weather protected locations*
- IEC 62599-2, *Alarm systems — Part 2: Electromagnetic compatibility — Immunity requirements for components of fire and security alarm systems*

3 Terms, definitions and abbreviated terms

For the purposes of this document, the terms and definitions given in ISO 7240-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- — IEC Electropedia: available at http://www.electropedia.org/
- — ISO Online browsing platform: available at http://www.iso.org/obp

3.1 Terms and definitions

3.1.1

functional condition

condition characterized by its indication

Note 1 to entry: The functional conditions recognized in this document are the following:

- — fire alarm condition, when a fire alarm is indicated;
- — supervisory signal condition, when a supervisory signal is indicated;
- — fault warning condition, when a fault is indicated;
- — disabled condition, when the disablement of functions is indicated;
- — test condition, when the testing of functions is indicated;
- — quiescent condition, when FDCIE is powered by a power supply in accordance with ISO 7240-4 and no other functional condition is indicated.

3.2 Abbreviated terms

electro-magnetic compatibility

ingress protection

power supply equipment