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Alarm systems - Intrusion systems - Part 5-1: Interconnections - Requirements for wired Interconnection for I&HAS equipments located in supervised premises

Alarmanlagen - Einbruch- und Überfallmeldeanlagen - Teil 5-1: Verbindungen - Anforderungen an leitungsgebundene Verbindungen für EMA/ÜMA Einrichtungen in überwachten Objekten

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This Technical Specification was approved by CENELEC on 2021-01-11.

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European Committee for Electrotechnical Standardization
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European foreword

This document (CLC/TS 50131-5-1:2021) has been prepared by CLC/TC 79 “Alarm systems”.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Introduction

The wired interconnection forms the link between I&HAS components to transfer information and, where appropriate, power, as required for reliable system operation.

The transfer of information may be by means of signals or messages as appropriate to the I&HAS and its security grade.

Selection of the type of interconnection media and its installation can affect the reliability and grade of the I&HAS.

Interconnections may be dedicated to a single I&HAS (specific interconnections) or shared with one or more alarm or other systems (non-specific interconnections). The relative priorities of the different systems are determined according to EN 50398-1.

1 Scope

This document applies to interconnections between intrusion and hold-up alarm system components using specific or non-specific wired interconnections (e.g. between SPT and CIE). The interconnected components are located within the supervised premises, or mounted on the outside of the supervised premises (e.g. external warning devices).

This document does not apply to interconnections between components located within the same enclosure, or to interconnections between parts of an I&HAS component if covered by the relevant product standard. This document does not define the physical requirements of the interconnection media.

This document is expected to be used in conjunction with the other parts of the EN 50131 series that define the functional requirements of the equipment regardless of the interconnection technique used.

Where monitoring of the functionality of the interconnections is undertaken by an interconnected component, this is defined in the relevant product standard in the EN 50131 series. If a component standard indicates that an interconnection will be monitored, then this document determines the monitored conditions applicable to the interconnection.

NOTE 1 For example, if there is no requirement in a detector standard to monitor a remote indication of detection input, this document does not apply to that particular interconnection.

Requirements for the monitoring of the functionality of power connections between I&HAS components are defined in the relevant product standard and are not included within this document.

This document defines the terms used in the field of intrusion and hold-up alarm equipment using such interconnections and includes the requirements relevant to the equipment interfaces.

Wired interconnection media can include metallic single stranded insulated cable, metallic multi-stranded insulated cable, and fibre optic cable. These cables can comprise single or multiple cores.

NOTE 2 Interconnections using RF techniques (i.e. wire free interconnections) are dealt with by EN 50131-5-3.

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.

EN 50131-1, *Alarm systems - Intrusion and hold-up systems - Part 1: System requirements*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 50131-1 and the following apply.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1.1
core
physical element within the wired interconnection media that carries the signal, message or power

Note 1 to entry: There is no requirement that a core should consist of a metallic element.