SLOVENSKI STANDARD
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Alarm systems - Part 7-5: Message formats and protocols for serial data interfaces in alarm transmission systems - Alarm system interfaces employing a two-wire configuration in accordance with ISO/IEC 8482

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Systèmes d'alarme - Partie 7-5: Formats de message et protocoles pour les interfaces de données série dans les systèmes de transmission d'alarme - Interfaces de systèmes d'alarme utilisant une configuration bifilaire conforme à ISO/CEI 8482

Ta slovenski standard je istoveten z:　　　**IEC 60839-7-5**

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FOREWORD

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International Standard IEC 60839-7-5 has been prepared by IEC technical committee 79: Alarm systems.

This bilingual version (2001-11) replaces the English version.

The text of this standard is based on the following documents:

FDIS	Report on voting
79/202/FDIS	79/212/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 3.

The committee has decided that the contents of this publication will remain unchanged until 2004. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

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IEC 60839-7-5 forms one of a series of publications presented under the general title: Alarm systems – Part 7: Message formats and protocols for serial data interfaces in alarm transmission systems.

IEC 60839-7-1:   General

IEC 60839-7-2:   Common application layer protocol

IEC 60839-7-3:   Common data link layer protocol

IEC 60839-7-4:   Common transport layer protocol

IEC 60839-7-5:   Alarm system interfaces employing a two-wire configuration in accordance with ISO/IEC 8482

IEC 60839-7-6:   Alarm system interfaces employing ITU-T Recommendation V.24/V.28 signalling

IEC 60839-7-7:   Alarm system interfaces for plug-in alarm system transceivers

IEC 60839-7-11:   Serial protocol for use by digital communicator systems using ITU-T Recommendation V.23 signalling at interfaces with the PSTN

IEC 60839-7-12:   PTT interfaces for dedicated communications using ITU-T Recommendation V.23 signalling

IEC 60839-7-20:   Terminal interfaces employing ITU-T Recommendation V.24/V.28 signalling

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ALARM SYSTEMS –

Part 7-5: Message formats and protocols for serial data interfaces in alarm transmission systems – Alarm system interfaces employing a two-wire configuration in accordance with ISO/IEC 8482

1 Scope

This part of IEC 60839 specifies the requirements for standard interfaces using a two-wire connection employing ISO/IEC 8482 signalling for use between the control and indicating equipment (CIE) of an alarm system and one or more alarm system transceivers connected to alarm transmission systems.

This standard provides a flexible interface allowing the connection of a single master CIE to a number of devices in accordance with ISO/IEC 8482 which may be alarm system transceivers or slave CIE.

This is required in order to ensure compatibility of equipment from different suppliers. The standard applies equally to the transmission of alarms and other messages to/from intrusion, fire and social alarm systems, and to the transmission of information to/from other similar systems.

2 Normative references

The following referenced documents are indispensable for the application 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.

IEC 60839-7-1, *Alarm systems – Part 7-1: Message formats and protocols for serial data interfaces in alarm transmission systems – General*

IEC 60839-7-2, *Alarm systems – Part 7-2: Message formats and protocols for serial data interfaces in alarm transmission systems – Common application layer protocol*

IEC 60839-7-3, *Alarm systems – Part 7-3: Message formats and protocols for serial data interfaces in alarm transmission systems – Common data link layer protocol*

IEC 60839-7-4, *Alarm systems – Part 7-4: Message formats and protocols for serial data interfaces in alarm transmission systems – Common transport layer protocol*

ISO/IEC 8482, *Information technology – Telecommunications and information exchange between systems – Twisted pair multipoint interconnections*

3 Definitions

For the purpose of this part of IEC 60839, the definitions in IEC 60839-7-1 apply.

4 Abbreviations

The abbreviations in IEC 60839-7-1 apply.

5 Layer 7 – Application functions

The LAYER 7 – APPLICATION is responsible for the formatting of the basic messages required to transmit data through the alarm transmission system.

The interface shall support the common application layer protocol defined in IEC 60839-7-2.

6 Layer 4 – Transport

The common transport layer protocol and block formats in IEC 60839-7-4 shall be employed, subject to the following:

The control and indicating equipment shall be the ORIGINATOR and the alarm system transceiver shall be configured as the RECEIVER.

7 Layer 2 – Data link

The common data link layer protocol and block formats in IEC 60839-7-3 shall be employed, subject to the following:

– All alarm system transceivers shall be capable of being configured as a SLAVE, but they may also be capable of being configured as a MASTER.

– All control and indication equipment (CIE) shall be capable of being configured as either a MASTER or a SLAVE.

– Where there is a single control and indication equipment (CIE) on the link it shall be the MASTER.

– Where multiple CIEs are connected to a single alarm system transceiver either

    a) the alarm system transceiver may be configured as the MASTER and the CIE configured as SLAVEs, or

    b) one CIE shall be the MASTER and the other CIEs and the alarm system transceiver shall be configured as SLAVEs.

– Where multiple CIEs are connected to one or more alarm system transceivers, one CIE shall be the MASTER and the other CIEs and the alarm system transceivers shall be configured as SLAVEs.

    NOTE   One of the SLAVE CIEs may take over as MASTER in the event of failure of the original MASTER.

– An existing MASTER (CIE) shall only initialize new SLAVEs when the CIE is unset and in an "engineering" or "test" mode.

– A SLAVE CIE which is programmed to take over as a new MASTER in the event of the failure of the original MASTER shall maintain a list of working SLAVE addresses. If reconfiguration occurs when the CIE is not in an "engineering" or "test" mode, it shall only re-initialize these SLAVEs, otherwise it may re-initialize all SLAVEs.

– Where a message cannot be successfully transmitted due to a failure in the transmission system, a message shall be generated to indicate the failure and sent to the sender of the message. A message may also be sent to the network monitoring centre.