SLOVENSKI STANDARD
SIST EN 50518:2019

01-november-2019

Nadomešča:
SIST EN 50518-1:2013
SIST EN 50518-2:2013
SIST EN 50518-3:2013

Nadzorni in sprejemni centri za alarme

Monitoring and alarm receiving centre

Alarmempfangsstelle

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Centre de contrôle et de réception d'alarme

SIST EN 50518:2019
https://standards.iteh.ai/catalog/standards/sist/9453e3d3-9529-48d3-b0cd-152756521170/sist-en-50518-2019

Ta slovenski standard je istoveten z: **EN 50518:2019**

ICS:

13.320 Alarmni in opozorilni sistemi Alarm and warning systems

SIST EN 50518:2019 **en,fr**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

SIST EN 50518:2019

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 50518:2019
https://standards.iteh.ai/catalog/standards/sist/9453e3d3-9529-48d3-b0cd-152756521170/sist-en-50518-2019

SIST EN 50518:2019

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50518

August 2019

ICS 13.320

Supersedes EN 50518-1:2013, EN 50518-2:2013, EN 50518-3:2013 and all of its amendments and corrigenda (if any)

English Version

Monitoring and Alarm Receiving Centre

Centre de contrôle et de réception d'alarme

Alarmempfangsstelle

This European Standard was approved by CENELEC on 2019-02-06. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

SIST EN 50518:2019
https://standards.iteh.ai/catalog/standards/sist/9453e3d3-9529-48d3-b0cd-152756521170/sist-en-50518-2019

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

© 2019 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC Members.

SIST EN 50518:2019

Contents

Page

European foreword **6**

Introduction **7**

1 Scope **8**

2 Normative references **9**

3 Terms, definitions and abbreviations **10**
3.1 Terms and definitions 10
3.2 Abbreviations 14

4 Planning **15**
4.1 Categorization 15
4.2 Site selection 15

5 Construction – ARC structure **15**
5.1 General 15
5.2 Walls, floor and ceiling – resistance against physical attack 15
5.2.1 Category I 15
5.2.2 Category II 16
5.3 Perimeter doorsets – resistance against physical attack and bullet attack 16
5.4 Glazed areas 16
5.4.1 Category I 16
5.4.2 Category II 16
5.5 Resistance against fire and smoke 16
5.6 Protection against the effect of lightning 16
5.7 Openings 16
5.7.1 General 16
5.7.2 Entrance to the ARC 17
5.7.3 Emergency entry 17
5.7.4 Emergency exit(s) 17
5.7.5 Ventilation 17
5.7.6 Service inlets and outlets 18
5.7.7 Transfer hatch / chute 18
5.8 Location of data processing equipment 18
5.8.1 Category I 18
5.8.2 Category II 19
5.9 Communication cables 20
5.9.1 Category I 20
5.9.2 Category II 20
5.10 Facilities 20
5.10.1 Category I 20
5.10.2 Category II 20

6 Alarm systems of the ARC **20**
6.1 Category I 20
6.1.1 General 20
6.1.2 External attack 21
6.1.3 Glazed areas 21
6.1.4 Fire 21
6.1.5 Entry / exit 21
6.1.6 Gas 21
6.1.7 Hold-up 21
6.1.8 Safety monitoring 21

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50518:2019
https://standards.iteh.ai/catalog/standards/sist/0453e3d3-9529-48d3-b0cd-1527565211 70/sist-en-50518-2019

SIST EN 50518:2019

6.1.9 Messages from the ARC alarm systems 22
6.1.10 Video surveillance system 22
6.2 Category II 22

7 Electrical power supplies 22
7.1 Mains supply 22
7.2 Standby power supplies 22
7.2.1 General 22
7.2.2 UPS 22
7.2.3 Standby generators 23

8 Alarm Management System 23
8.1 General 23
8.2 Time synchronization of equipment 25
8.3 Recording and logging of events 25
8.4 Storage of master data 25

9 Operation of the ARC 26
9.1 Procedures – General 26
9.1.1 General 26
9.1.2 Creation, modification and cancellation of services or customer accounts 26
9.1.3 Message handling 26
9.1.4 Communication with response services 26
9.1.5 Individual services provided by the ARC 26
9.1.6 Alarm verification 26
9.1.7 Unexpected increase in alarm signals 26
9.1.8 Alarm transmission path failures 26
9.1.9 Controls to maintain quality of service 27
9.1.10 Installation, maintenance, protection, removal and reuse of assets under the control of the ARC 27
9.1.11 Monitoring and testing of equipment 27
9.1.12 Fault procedures and reporting 27
9.1.13 Information management 28
9.1.14 Data back-up 28
9.1.15 Confidentiality and classification of information 28
9.1.16 Relationships with essential suppliers 28
9.1.17 Administrative procedures 28
9.1.18 Physical access 28
9.1.19 Remote access 29
9.1.20 Operational continuity and emergencies 29
9.1.21 Emergency evacuation and re-entry 29
9.1.22 Emergency entry 29
9.1.23 Key performance indicators 29
9.2 Performance criteria – message handling 29

10 General Principles, Leadership, Governance, Management, and Staffing 30
10.1 General 30
10.2 Governance and Strategy 30
10.3 Legal and operational set-up 30
10.4 Management System 30
10.5 Staffing 32
10.5.1 General 32
10.5.2 Security screening and vetting 32
10.5.3 Training 32

Annex A (informative) **Typical ARC layout category I 33**

Annex B (informative) **Security and technical implications of remote access to ARC data 34**

B.1 General 34

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50518:2019
https://standards.iteh.ai/catalog/standards/sist/9453e3d3-9529-48d3-b0cd-15875e521170/sist-en-50518-2019

SIST EN 50518:2019

B.2 Levels of access 34
B.3 Access to the system 34
B.4 Authorization for facilities 34
B.4.1 General 34
B.4.2 View only 34
B.4.3 Edit 35
B.4.4 Creation of a new record 35
B.4.5 Confirmation of changes made 35
B.5 Placing a system on test 35
B.6 Password management 35
Annex C (informative) Alarm management system requirements 36
C.1 Structure of an AMS 36
C.1.1 General 36
C.1.2 Interface for interconnection with RCT (I_{RCT}) 37
C.1.3 Interconnection with other AMS's (joining module) 37
C.1.4 Communication module 37
C.1.5 Information module 37
C.1.6 User Interface 37
C.2 Faults 37
C.2.1 General 37
C.2.2 Fault detection 37
C.2.3 Avoiding faults in manual data entries 37
C.2.4 Presentation of fault information 37
C.3 Message 38
C.3.1 Message acknowledgement 38
C.3.2 Alarm messages 38
C.3.3 Fault messages 38
C.3.4 Expected messages 38
C.3.5 Other received messages 38
C.3.6 Message queue 38
C.3.7 Input priorities 39
C.3.8 Alert indication 39
C.3.9 Message acceptance 39
C.4 Information to be presented 39
C.4.1 Information to be presented relating to messages 39
C.4.2 Information to be presented relating to fault information received from alarm systems 40
C.4.3 Failure of the means of presentation of information 40
C.5 Logging 40
C.5.1 General 40

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50518:2019
https://standards.iteh.ai/catalog/standards/sist/9453e3d3-9529-48d3-b0cd-13275b521170/sist-en-50518-2019

SIST EN 50518:2019

C.5.2 Time stamps for logging 40
C.5.3 Master data log (Log M1) 41
C.5.4 Event log's 41
C.5.5 Access levels 42
C.5.6 Access to database 42
C.5.7 Access to alarm management system 42
C.5.8 Access to alarm management system configuration data 42
C.5.9 Access to log data 42
C.6 Monitoring of interconnection with the receiving centre transceiver 43
Bibliography 44

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50518:2019
https://standards.iteh.ai/catalog/standards/sist/9453e3d3-9529-48d3-b0cd-152756521170/sist-en-50518-2019

SIST EN 50518:2019

European foreword

This document (EN 50518:2019) has been prepared by CLC/TC 79, “Alarm systems”.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-02-06
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2022-02-06

This documents supersedes EN 50518-1:2013, EN 50518-2:2013 and EN 50518-3:2013.

EN 50518:2017 includes the following significant technical changes with respect to EN 50518-1:2013, EN 50518-2:2013 and EN 50518-3:2013:

— referenced based standards were updated to the latest versions;

— definitions were updated;

— the scope was extended to include fire, access, CCTV, social alarms and other alarms;

— two categories ARC’s are described, category I and category II. A category I ARC will be designed, constructed and operated to a higher standard with respect to construction, security and integrity than a category II ARC;

— a chapter was added which describes the management tools that shall be in place in the ARC;

— an informative annex was added which describes security and technical implications of remote access to ARC data;

— an informative annex was added which describes requirements for an alarm management system.

This revision was prepared to bring the procedures up-to-date with current technical developments, taking account of changes in the basic standards and the experience gained in the use of the standard.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50518:2019
https://standards.iteh.ai/catalog/standards/sist/9453e3d3-9529-48d3-b0cd-152756521170/sist-en-50518-2019

SIST EN 50518:2019

Introduction

This European Standard applies to all Monitoring and Alarm Receiving Centres (MARC's) that monitor and/or receive and/or process (alarm) messages that require an emergency response.

The abbreviation MARC describes the full functional scope of a Monitoring and Alarm Receiving centre. In all existing EN 50131 series under CLC/TC 79, "Alarm systems", the abbreviation ARC is used. To avoid confusion and to achieve consistency in terminology the abbreviation ARC will be used throughout this standard, where MARC is equivalent to ARC.

The function of receiving, processing and initiating response actions by (human or non-human) intervention is not limited to only those messages as generated by Intruder and Hold-up Alarm Systems (I&HAS). The whole series of standards under CLC/TC 79, "Alarm systems", encompasses video surveillance systems (EN 62676), social alarm systems (EN 50134), access control systems (EN 60839-11) and audio and video door entry systems. All of these systems can send information, including alarms, to one or more ARC's for further processing, evaluation and intervention.

Alarm information generated by other systems such as fire detection and fire alarm systems, (vehicle) tracking and tracing systems, man guarding or telecommunication network supervision is regularly transmitted to one or more ARC's for further processing, evaluation and intervention.

In all of these circumstances, criminal action and/or emergency situations can jeopardize the safety and security of people and/or properties. The central locations where the receiving, processing and initiation of intervention take place should comply with the requirements of this standard.

Figure 1 shows the chain of events of the total alarm process.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50518:2019
https://standards.iteh.ai/catalog/standards/sist/e6f2453e-02e-9529-a0d3-b0cd-152756521170/sist-en-50518-2019

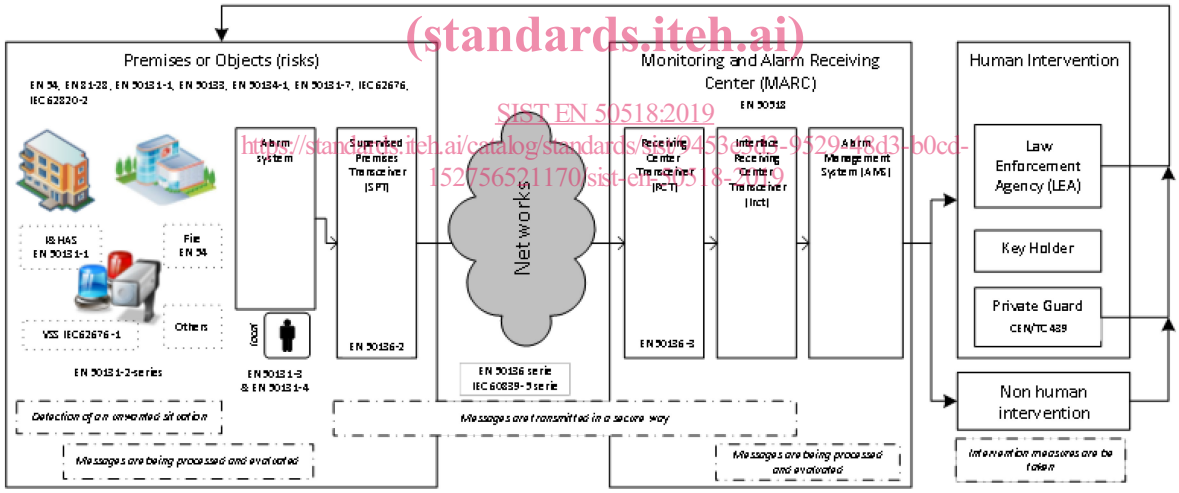

Figure 1 — Chain diagram of the total alarm process

It is noted that this European Standard cannot supersede any legislative requirements deemed necessary by a National Government to control the security sector on a national basis. This standard cannot interfere with all those items that are regulated by (inter)national regulations concerning external services (for example water, waste water, fuel supplies for gas and/or oil and mains power supplies).

SIST EN 50518:2019

1 Scope

This document specifies the minimum requirements for monitoring, receiving and processing of alarm messages generated by alarm systems taking place as a part of the total fire, safety and security solution.

For the purpose of this document, the term “alarm” is used in the broad sense to include fault, status and other messages received from one or more of a range of safety and security alarm systems such as but not limited to fire detection and fire alarm systems, fixed firefighting systems, intrusion and hold-up alarm systems, access control systems, video surveillance systems, social alarms systems and combinations of such systems.

This document gives requirements for two categories of ARC, category I and category II. A category I ARC will be designed, constructed and operated to a higher standard with respect to construction, security and integrity than a category II ARC.

The categorization is determined according to the type(s) of alarm messages handled.

Category I: ARCs handling messages from security applications:

— I&HAS’s;

— access control systems;

— VSS in security applications that require an emergency response (for example loss prevention);

— people monitoring, lone workers and object tracking systems for security applications;

— alarm messages handled by category II ARCs;

— combinations of the above systems.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50518:2019
https://standards.iteh.ai/catalog/standards/sist/9453e3d3-9529-48d3-b0cd-

Category II: ARC’s handling messages from non-security applications:

— fire alarm systems;

— fixed firefighting systems;

— social alarm systems;

— audio/video door entry systems;

— VSS in non-security applications (for example traffic flow);

— people monitoring, lone workers and object tracking systems for non-security applications;

— lifts emergency systems;

— combinations of the above systems.

The requirements apply to ARC’s (whether established in single or multiple sites) monitoring and processing alarms generated by systems installed at other locations and also to ARC’s monitoring solely alarms from systems within their own site.

The document includes functional and specific requirements supporting the services of an ARC.

The document does NOT apply to:

— alarm systems used for non-civil purposes;

— alarm systems for medical or health applications.

SIST EN 50518:2019

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 54 (series), *Fire detection and fire alarm systems*

EN 179, *Building hardware — Emergency exit devices operated by a lever handle or push pad, for use on escape routes — Requirements and test methods*

EN 356, *Glass in building — Security glazing — Testing and classification of resistance against manual attack*

EN 1063, *Glass in building — Security glazing — Testing and classification of resistance against bullet attack*

EN 1125, *Building hardware — Panic exit devices operated by a horizontal bar, for use on escape routes — Requirements and test methods*

EN 1522, *Windows, doors, shutters and blinds — Bullet resistance — Requirements and classification*

EN 1627, *Pedestrian doorsets, windows, curtain walling, grilles and shutters — Burglar resistance — Requirements and classification*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

EN 13501-2, *Fire classification of construction products and building elements — Part 2: Classification using data from fire resistance tests, excluding ventilation services*

SIST EN 50518:2019
https://standards.iteh.ai/catalog/standards/sist/9453e3d3-9529-48d3-b0cd-152756521170/sist-en-50518-2019

EN 13637, *Building hardware — Electrically controlled exit systems for use on escape routes — Requirements and test methods*

EN 14846, *Building hardware — Locks and latches — Electromechanically operated locks and striking plates - Requirements and test methods*

EN 15713, *Secure destruction of confidential material — Code of practice*

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

EN 50134-7, *Alarm systems — Social alarm systems — Part 7: Application guidelines*

EN 50136-1, *Alarm systems — Alarm transmission systems and equipment — Part 1: General requirements for alarm transmission systems*

EN 50136-3, *Alarm systems — Alarm transmission systems and equipment — Part 3: Requirements for Receiving Centre Transceiver (RCT)*

EN 50272-2, *Safety requirements for secondary batteries and battery installations — Part 2: Stationary batteries*

EN 50600 (series), *Information technology — Data centre facilities and infrastructures*

EN 62040-1, *Uninterruptible power systems (UPS) — Part 1: General and safety requirements for UPS (IEC 62040-1)*

EN 62305-2, *Protection against lightning — Part 2: Risk management*

EN 62676-4, *Video surveillance systems for use in security applications — Part 4: Application guidelines*

SIST EN 50518:2019

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions 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

3.1.1
alarm company
organization which provides services for AS

[SOURCE: EN 50131-1:2006, 3.1.7, modified]

3.1.2
alarm condition
condition of an AS, or part thereof, which results from the response of the system to the presence of a hazard

[SOURCE: EN 50131-1:2006, 3.1.8, modified]

3.1.3
alarm handling delay
procedure whereby signalled alarm conditions are intentionally delayed at the ARC and their status reviewed for the purpose of preventing unnecessary calls to the relevant response service by cancelling certain alarm conditions, where such cancellation is authorized by the user at the supervised premises

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 50518:2019
https://standards.iteh.ai/catalog/standards/sist/9453e3d3-9529-48d3-b0cd-152756521170/sist-en-50518-2019

3.1.4
alarm management system
AMS
system which stores, organises, controls, manages and allows retrieval of client data and is interfaced to alarm receiving equipment for automatic annunciation of messages for each alarm system

3.1.5
alarm receiving centre
ARC
continuously manned centre to which information concerning the status of one or more AS is reported

[SOURCE: EN 50136-1:2012, 4.1.2]

3.1.6
alarm receiving centre operator
ARC operator
person responsible for the handling of messages presented at the AMS

[SOURCE: CLC/TS 50136-4:2004, 3.3 modified]

3.1.7
alarm receiving centre shell
ARC shell
all structural elements of the ARC perimeter (walls, entrance lobby, windows, glazed areas, floors, ceilings, entry and exit doors, entry and exits points of ventilation ducts, entry and exit points for other service cables and ducts, transfer hatches/chutes)

SIST EN 50518:2019

3.1.8
alarm transmission equipment
ATE
collective term to describe SPT, MCT (monitoring centre transceiver) and RCT

[SOURCE: EN 50136-1:2012, 4.1.4]

3.1.9
alarm transmission system
ATS
ATE and networks used to transfer information concerned with the state of one or more ASs to the AMS of one more ARC's

Note 1 to entry: An ATS may consist of alarm transmission paths of different classes, for example for use in so called "dual path systems".

[SOURCE: EN 50136-1:2012, 4.1.8, modified]

3.1.10
alarm verification
process to provide information additional to the notified alarm which increases the probability that a genuine alarm has occurred

3.1.11
client
individual or corporate body with whom the ARC has entered into a contract to provide alarm monitoring services

iTeh STANDARD PREVIEW
(standards.iteh.ai)

3.1.12
detector
device designed to generate an alarm message in response to the sensing of an abnormal condition indicating the presence of a hazard

SIST EN 50518:2019
https://standards.iteh.ai/catalog/standards/sist/0153d3d9-9529-4f13-b5cd-152756521170/sist-en-50518-2019

[SOURCE: CLC/TS 50131-7:2010, 3.1.12, modified]

3.1.13
disruptive event
any natural or man-made occurrence that may cause the discontinuation of orderly ARC activities according to standard operating procedures and requires the execution of special procedures

Note 1 to entry: Such as (but not limited to):

— failure of power supply;

— failure of inbound communication systems;

— failure of outbound communication systems;

— failure of IT systems, loss of data;

— fire;

— extreme weather conditions, such as storm, flooding, lightning;

— natural disasters such as earthquakes or landslides;

— damage by vehicles from land and air;

— hazardous gases and reduction of oxygen levels in the ambient air;