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Monitoring and alarm receiving centre - Part 2: Requirements for technical facilities

Centre de contrôle et de réception d'alarme - Partie 2: Exigences pour les installations techniques

Notruf- und Serviceleitstellen (NSL) - Teil 2: Anforderungen an die technische Ausrüstung

CENELEC

European Committee for Electrotechnical Standardization
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Foreword

This draft European Standard was prepared by the Technical Committee CENELEC TC 79, Alarm systems. It is submitted to the CENELEC enquiry.

EN 50518 will consist of the following parts, under the generic title "*Monitoring and alarm receiving centre"*:

- Part 1 [1)]: Location and construction requirements;
- Part 2 [1)]: Requirements for technical facilities;
- Part 3 [2)]: Procedures and requirements for operation.

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[1)] At draft stage.

[2)] In preparation.

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Introduction

This European Standard applies to all Monitoring and Alarm Receiving Centres (MARC's) that monitor and/or receive and/or process signals 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 accomplished 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 for ARC.

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 items that are regulated by (inter)national regulations concerning external services (e.g. water, waste water, fuel supplies, gas, oil and mains power supplies).

1 Scope

This part of EN 50518 specifies the technical requirements of an ARC. This also includes functional performance criteria and verification of performance.

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.

Publication	Year	Title
EN 50131-1	2006	Alarm systems – Intrusion and hold-up systems – Part 1: System requirements
EN 50136	series	Alarm systems – Alarm transmission systems
EN 50136-1	200X [3)]	Alarm systems – Alarm transmission systems – Part 1: General requirements for alarm transmission systems
EN 50518-1	200X [3)]	Monitoring and alarm receiving centres – Part 1: Location and construction requirements

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this document, the terms and definitions given in EN 50518-1 and the following apply.

3.1.1
external communication
all inbound and outbound communication with the ARC

NOTE Communication includes all information relevant for the functioning of the ARC such as fax, written information, audio, video and other electronic data.

3.1.2
data storage
any device that records (stores) or retrieves (reads) information (data) from any medium, including the medium itself

3.1.3
signal
variable parameters by which information is conveyed

[EN 50131-1:2006, 3.1.60]

3.2 Abbreviations

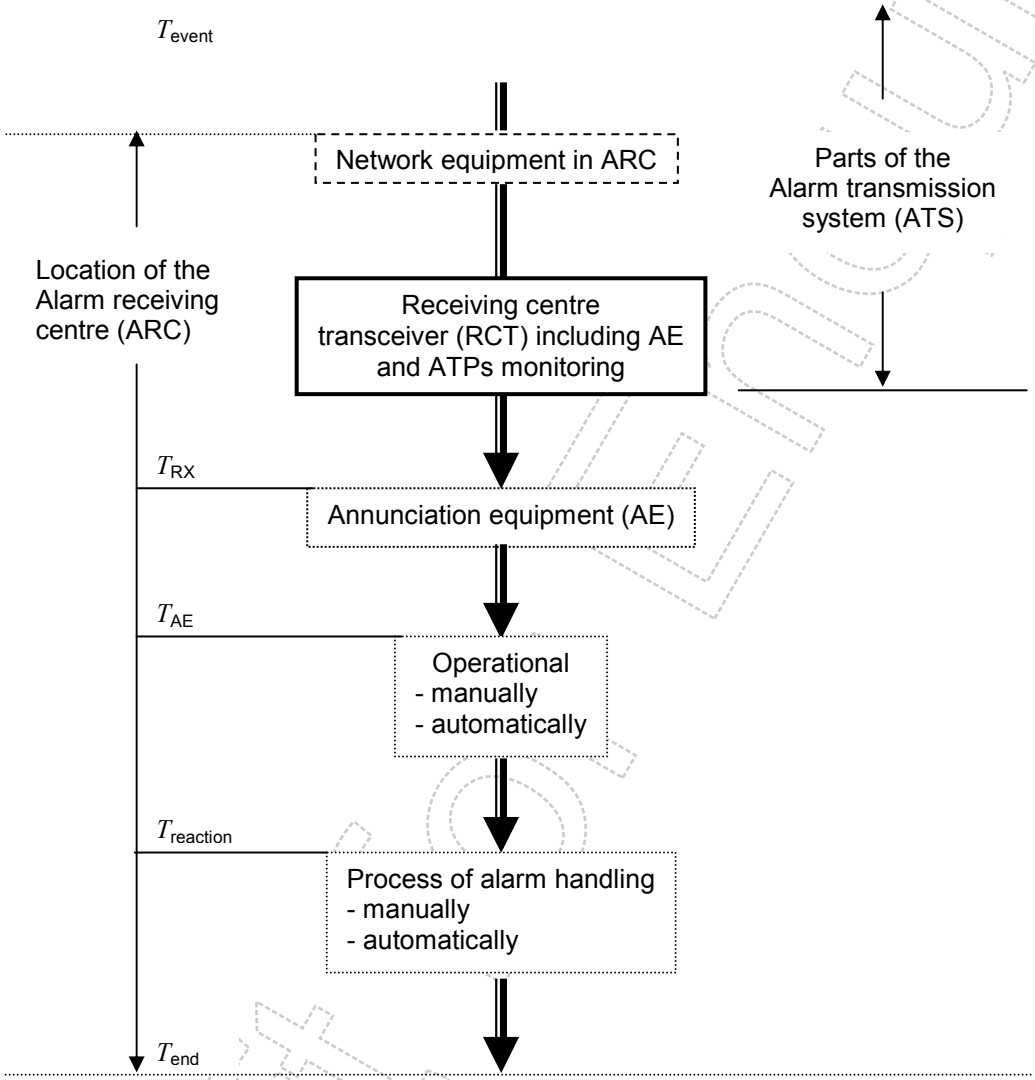
For the purposes of this document, the abbreviations given in EN 50518-1 apply.

[3)] At draft stage.

4 Performance requirements

Figure 1 shows the sequence of operations under ARC responsibility applicable for any signal generated by the I&HAS after completion of processing by the RCT. This shall be interpreted together with Figure 1 of EN 50136-1. All signals shall conform to EN 50136-1.

- EN 50131-1 and EN 50136-1 apply from T_{event} through T_{AE}.
- This standard applies from T_{AE} through T_{end}.



Key

T_{event} time of event start

T_{RX} time of acceptance of the output signal from RCT into the AE

T_{AE} time of signals received at the AE

$T_{reaction}$ time operator action starts

T_{end} time operator action completed

Figure 1 – Sequence of operations

Sufficient external communication equipment and resources shall provide the following performance.

The time between T_{AE} and $T_{reaction}$ shall meet the following performance criteria:

- for hold-up alarm conditions: 30 s for 80 % of signals received and 60 s for 98,5 % of signals received;
- all other alarm conditions: 90 s for 80 % of signals received and 180 s for 98,5 % of signals received.

Conformance to above criteria shall be achieved over a rolling twelve month period.

5 Communication requirements

The following shall be provided:

- voice communication to and across the normal entrance lobby;
- equipment within the ARC such that the audio components of all voice telephone traffic concerned with alarm handling and dispatch are automatically recorded. Such recordings shall be maintained for a minimum period of 3 months of the event to which they refer.

The above shall be recorded with the time, date and shall be capable of being retrieved, displayed/replayed.

6 Reception of signals

6.1 General requirements

All receiving equipment shall be compliant with EN 50136 series.

Each signal received shall be separately identifiable at the ARC and shall be recorded automatically, giving the following information:

- client/user identification;
- nature of signal;
- date and time of receipt of signal.

6.2 Operator actions

Where operator action is required the details of actions taken shall be recorded, including the date and time of completion and the identity of the operator(s) that performed and completed those actions. Where automatic action is taken it shall be recorded as above.

7 Testing

NOTE Time to be recorded in hh:mm:ss.

7.1 Daily checks

The following equipment shall be checked for correct operation at least once every 24 h and the results recorded:

a) communication receivers;
b) timing, recording and logging equipment;
c) visual and audible displays of alarm signals;
d) all incoming and outgoing communications equipment.

Internal clock(s) relevant for a) and b) shall be synchronised with the World Time Clock.

7.2 Weekly checks

The following equipment shall be checked for correct operation at least once every seven days and the results recorded:

a) standby power supplies and automatic change-over equipment;

NOTE Testing is to continue on normal load for a minimum period of 15 min, or the minimum running time recommended by the manufacturer if this is longer.

b) emergency lighting equipment including torches;

c) access/exit;

d) personnel safety monitoring;

e) signals from the electronic protection systems;

f) CCTV.

7.3 Fault procedures and reporting

Once any failure of equipment relevant to the receipt, display and onward transmission of alarms is detected, corrective action shall commence within 15 min.

NOTE 1 Equipment and power supplies e.g. receivers, phone service, computer systems, cellular communications, UPS and generator.

Any item of equipment involved in the receipt, display or onward transmission of an alarm signal, including power supplies, should have a standby facility and procedure that can be brought into use either automatically or by an ARC operator within 1 h from the moment the existence of the fault becomes known to the operator.

A reporting system shall be in place to report all failures. This shall be time/date stamped when the failure is detected and corrective action is completed.

NOTE 2 This also includes ARC satellite.

8 Data

NOTE Attention is drawn to the European Data Protection Act.

The following categories of data are noted:

- client data;
- data of incoming signals (for example alarms, video images, audio data, etc.);
- data of ARC external communications;
- log of operator actions.

8.1 Client data

The data for each alarm system connected to the ARC shall be available to operators and shall include

- name, address and telephone contact number(s) of client,
- premises reference number and any special arrangements,
- name, address and telephone(s) numbers of users,
- actions to be taken when an alarm occurs,
- agreed setting and un-setting times where appropriate.

8.2 Data of incoming signals

All data of incoming signals shall be recorded in a retrievable format.

8.3 Data of ARC external communications

All data of external communications shall be recorded in a retrievable format.

8.4 Log of operator actions

A log shall be maintained recording the actions of the operator(s).

The ARC should keep a log of all the routine testing, maintenance and emergency servicing to ARC equipment.

9 Data storage

All client data shall be maintained for a minimum period of two years.

All data of incoming signals shall be maintained for a minimum period of two years.

All data of ARC external communications shall be maintained for a minimum period of three months.

A log of operator actions shall be maintained for a minimum period of two years.

10 Availability and verification of performance of the ARC

In determining that the overall performance of the alarm system conforms with EN 50131-1 and EN 50136-1, the availability of the ARC shall be expressed in the percentage of time that the ARC, including all its functional parts, is functioning in accordance with this standard.

The ARC shall adhere to the availability percentages as outlined in Table 4 of EN 50136-1 for alarm transmission systems in respect of signals processed.

The availability of the ARC in the percentage as formulated above shall be subjected to the verification of performance procedures and provide the records as mentioned in Clause 4 and 7.3.

11 Contingency plan

11.1 General

In the event of an ARC and/or its satellite(s) being put out of action there shall be a documented contingency plan for dealing with the aftermath. The contingency plan shall cater for any reasonably foreseeable abnormal occurrence with the potential to cause degradation of service, at an ARC. The actions to be taken shall be clearly defined covering both technical and/or other emergencies. The contingency plan shall include

- contact details of contractors and service providers able to undertake reinstatement whilst the service is maintained,
- the means by which services will be continued or restored,
- a review period of not less than six months, performed by the management, which shall be documented and outlining any necessary corrective actions.

11.2 Abnormal occurrence examples

Examples of abnormal occurrences that shall be considered when writing the contingency plan include

- complete failure of processing capability,
- faults in, or damage to, site utilities, communications equipment or communications circuits,
- fire, including exposure to fire in adjoining and adjacent properties,
- flood or other water incursion,
- storm and lightning damage, including lightning induced over-voltages carried on public electricity supplies and telephone lines,
- vehicle impact, including rail vehicles and aircraft,
- malicious damage,
- criminal attack, bomb threats or other duress situations.