

European Legislation Security

Introduction:

When we work with security solutions, we must be aware that there are some European and international requirements and standards that must be observed. The products recommended by TAC are all EU-approved (CE-marked), but on top of that there may also be requirements regarding the way in which the components are installed and the way in which they are used.

Directives:

Everything prescribed in an EU directive must be complied with and all national parliaments are obliged to ensure that the national legislation is in keeping with the directive. When a product is subject to one or more EU product directives, it must be CE-marked.

Some of the important directives in the field of TAC's work:

- The low-voltage directive
- The machinery directive
- The EMC directive
- The general product safety directive

An EU directive must be ratified nationally to be valid. During this process, the directive is given its own national name and number in each EU country.

EU standards:

A lot of work is currently going on within the EU organization to harmonize a number of common standards. These CEN-EN standards are mainly just guidelines, but if an EU directive specifies a standard, this standard must always be complied with. It is important to be careful when working to EU standards, since you must also make sure you comply with all the statutory EU directives.

EU-approved standardization organizations:

- CEN (building, engineering, environment)
- CENELEC (electricity)
- ETSI (telecommunications)

Relevant CENELEC standards for TAC Security:

- Standard on intruder alarms
- Standard on CCTV surveillance systems
- Standard on access control systems
- Standard on social alarms
- Standard on alarm transmission systems
- Standard on fire alarms
- Standard on biometry (in preparation)

International standards:

Just like the successful standardization/harmonization work going on in the EU, equivalent work is also being conducted in the World Trade Organization, WTO. These supranational standardization organizations are called:

- ISO (building, engineering, environment)
- IEC (electricity)
- ITU (telecommunications)

Today, approx. 60% of CENELEC's standards are identical to IEC's standards. This trend is rising and, today, the collaboration between the parallel organizations is so extensive that all future standards will be congruent.

A nationally implemented CEN-EN standard has foremost in its number the national country code, while the subsequent digits are general.

At TAC Security we will mainly be working with CENELEC.

European standards

As it says in the introduction to EU directives and standards, it is especially important to secure compliance when working with European standards. The following is therefore a brief account of the procedures which lead to the end product – i.e. the national standards.

CEN

The European standardization organization, CEN, is headquartered in Brussels from where it coordinates all initiatives and processes aimed at the nationally implemented standards.

The standards are divided into three main groups each with its own organization: CEN (building, engineering and environment), CENELEC (electricity) and ETSI (telecommunications).

Electrical installations

At TAC Security we mainly work with the electricity-related standards. It is important to know that, unlike in the past, there will not be a distinction in future between low-voltage and high-voltage. Several European countries still have special regulations for low-voltage installations.

In future these will no longer be valid, so it is especially important to be aware that this may mean stricter requirements with regard to the degree of insulation, ground compensation and damp resistance of security installations. It is therefore important to be familiar with the current security-related CENELEC standards.

CENELEC

There is a complete overview of the organization at www.cenelec.org/info/about.htm
The following is a brief description of the organization of work in the most important boards and committees.

Next to the permanent, administrative board (AB), is another important group, the technical board (TB). The TB is made up of one government-appointed member from each EU country whose task it is to coordinate the general and more long-term standardization policy. Under the TB are several technical committees (TCs) which

have a chairman and a secretariat. The TCs, which also include technical specialists who are experts recommended by the trade ministries of the participating EU member countries, report to the TB.

The technical committees are permanent and meet a few times a year but are in constant touch with the various corresponding national committees via their secretariat. Should the need arise for the preparation of some new standards or if, for example, a national committee requests that an existing standard be amended, the TCs will often ask the TB to set up a work group (WG) in which one or more of the TC's members also participate. Based on their work, the TC issues a draft of technical stipulations which must be approved by all of the national committees. These are returned (occasionally with a national "deviation" owing to special climatic conditions for example) for final working into a common European standard.

For TAC Security the most important committees are CEN TC 72, which works with fire alarms, and CEN TC 79, which handles intruder alarm installations and access control installations. Added to these is a completely new TC which in future will define standards for the use of biometry.

Through its Danish channel, TAC currently (2003) has an employee sitting on CEN TC 79.

Security standards

Drawn up under CEN TC 72 is:

CEN EN 54: Fire alarm systems

Drawn up under CEN TC 79 is:

CEN EN 50131: Alarm systems / Intrusions systems

CEN EN 50132: CCTV surveillance systems

CEN EN 50133: Access control systems

CEN EN 50134: Social alarm systems

CEN EN 50136: Alarm transmission systems

A standard can have several subpoints. For example: standards on intruder alarm systems:

CEN EN 50131-1: General requirements

CEN EN 50131-2: Intrusion detectors

CEN EN 50131-3: Control and indicating equipment

CEN EN 50131-4: Warning devices

CEN EN 50131-5: Intrusion systems using radio frequency techniques

CEN EN 50131-6: Power supplies

CEN EN 50131-7: Application guidelines

Inspection of the contents of a subpoint-specified standard reveals a number of details which specifically deal with the subject area in question.

For example CEN EN 50131-1 which contains general requirements regarding:

- Definitions and abbreviations
- References to other standards
- Function descriptions for alarm installations
- List of alarm system components
- Operating procedures
- Security scaling
- Environmental classification
- Technical function requirements
- Process time diagrams
- Emergency power supply dimensions
- Function reliability
- Documentation

CLC/TC 79 “Alarm systems” – Contents overview

CEN EN 50131 - Intruder alarm systems

The standard is a specification with respect to intruder alarm systems installed in buildings. It concerns four security levels and four environmental classes. Intruder alarm installations and their components are classified in order to meet the requirements set by the required level of security. The levels of security are based on a risk assessment and on the terms applicable to the installation.

The standard was designed to help insurance companies, alarm retailers, customers and police authorities specify the precise scope an intruder alarm installation must have in specific circumstances.

CEN EN 50132 - CCTV surveillance

This standard was designed as an aid for ensuring that CCTV surveillance systems in security installations work optimally, and that they perform correctly.

The standard is of benefit to anyone responsible for designing, setting up or using an internal CCTV surveillance system.

It gives advice on assessing and selecting products and system designs in terms of cameras, monitors, circuit changers, recorders, control panels and transmission equipment. It also prescribes a number of test procedures for the user to test the equipment and accessories. Part 7 contains practical guidelines for operational use of CCTV surveillance.

In terms of technical problem areas, the standard deals with light conditions (lighting) and geometric distortion, among other things.

CEN EN 50133 - Access control

This standard describes the general conditions for operating an access control installation used as a security installation. It also describes the requirements for the various components in terms of function, mechanics, the environment, electrical safety and EMC immunity.

The standard contains a benchmark evaluation useful for comparing different access control systems.

It also contains standards for grading the various access levels and the security classification of the individual access control points. This classification is an independent combination of recognition classes of which there are four, and access classes of which there are two.

CEN EN 50134 - Security alarm systems

Since a malfunction in a security alarm system can in the worst case cost lives, it is important that the technical quality and reliability of the system are higher than the level normally expected of electronics. This is the leading principle of this standard. Besides all the technical products such as buttons, pull cords, transmitting equipment and alarm receiver station, consideration is also given to a number of procedure-related and handling-related matters. The standard looks at the relationship between the user and the assistants, the instructions of what to do in the event of an alarm and the collaboration with the emergency services where necessary.

The standard emphasizes the importance of training the personnel designated to receive and react to the emergency call signals. Frequent tests and regular service are also a part of the concept.

CEN EN 50136 - Alarm transmission

This standard specifies the general requirements regarding the performance, reliability and safety of alarm transmission systems.

It covers the requirements of the signal equipment and the connection between the alarm system and the alarm receiving centre. The standard forms the basis for the transmission of all types of alarms, including fire, intruder, security, and status alarms.

It includes a few technical diagrams which specify limit values for transmission rates, etc.

It also mentions test procedures and alarm logging together with procedures in the event of various fault situations.

This is an extensive standard since there are many ways of relaying alarms. For example: wireless systems, analogue networks, digital networks, artificial voice communication, etc.

Requisition of standards

All the standards mentioned above can be requisitioned from the national standardization institutes.

When requisitioning a “standard”, it is very important that you know precisely which issue has been ratified in the country where the products are to be used. There may well be jointly adopted deviations.

The national standard can be recognized by its number – for example CEN EN 50131 in Germany is called: VD EN 50131, in Denmark: DS EN 50131 and in England: BSI EN 50131.

For more information:

www.cenelec.org

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