



BSI Standards Publication

# Alarm systems — Intrusion and hold-up systems

Part 11: Hold-up devices

**National foreword**

This Published Document is the UK implementation of CLC/TS 50131-11:2012.

CENELEC Interpretation sheet February 2014 is implemented in National Annex NA.

The UK participation in its preparation was entrusted by Technical Committee GW/1, Electronic security systems, to Subcommittee GW/1/1, Alarm components.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

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**Amendments/corrigenda issued since publication**

Date	Text affected
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## Text of IS1 to CLC/TS 50131-11:2012

### Clause:

Annex A and Figure A.1

### Question:

Would it be allowed for test purposes (for test houses and manufacturers) to use the NeoDym magnet listed below instead of the AlNiCo version described in Annex A and Figure A.1 for reproducible tests ?

### Interpretation:

Yes, because this will allow stable and reproducible test results, which is not guaranteed when using the AlNiCo magnet due to the nature of the magnet material. Furthermore, the test magnet described below allows a high-level degree of backward compatibility for already tested products, while it gives the stability required.

Therefore, when the NeoDym magnet is used for test purposes (for test houses and manufacturers), the text below may be used in place of Annex A.

### Validity:

This interpretation remains valid until an amendment or updated standard dealing with this issue is published by CENELEC.

## National Annex NA (informative)

### Dimensions & requirements of the standardised test magnets

#### A.1 Normative references

The interference test magnets shall comprise a magnet identical to the corresponding magnet supplied with the detector and one of the following specified independent test magnets according to whether the detector is surface or flush mounted.

The following standards will form the base for the selection of the independent test magnet:

EN 60404-5, *Magnetic materials – Part 5: Permanent magnet (magnetically hard) materials – Methods of measurement of magnetic properties (IEC 60404-5)*

EN 60404-14, *Magnetic materials – Part 14: Methods of measurement of the magnetic dipole moment of a ferromagnetic material specimen by the withdrawal or rotation method (IEC 60404-14)*

IEC 60404-8-1, *Magnetic materials – Part 8-1: Specifications for individual materials – Magnetically hard materials*

#### A.2 Requirements

The field strength of the magnet determined by the magnetic material, by remanence ( $B_r$ ) in mT and the product of energy  $(BH)_{\max}$  in  $\text{kJ/m}^3$ , which are material dependent as the values describe the full saturation of that material should be measured before any calibration took place.

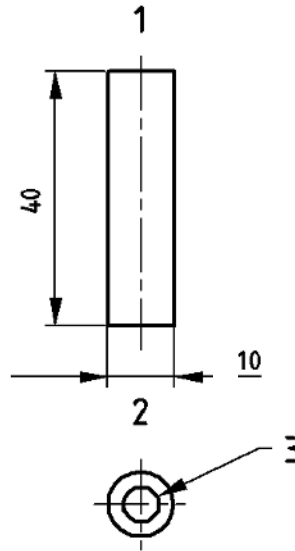
The field strength of the test magnet needs to be adjusted at the polarization of the working point in mT as defined.

The relevant value, dimensions and measurement point for the test magnet can be found in the following drawings and tables. For calculations, measurements and calibration of the test magnets, the norms cited above shall be used.

The independent test magnet or test Magnet Type 1 is described in Figure A.1.

To get the magnets in question adjusted to the proper values and calibrated (e.g. polarization in working point), it is strongly suggested to perform adjustments of the magnetic values for ordered magnets performed by an accredited test house for magnetic fields. One potential source could be the following:

MAGNET-Physik  
Dr. Steingrover, GmbH  
Emil-Hofmann-Strasse 3  
50916 Cologne, Germany  
[www.magnet-physik.de](http://www.magnet-physik.de)



**Key**

- 1 North pole
- 2 South pole
- 3 North pole

Material	NdFeB N42 (REFeB 310, 310 - Code number R5-1-11)
Remanence $B_r$ min	1,275 T $\pm$ 2 %
Product of energy $(BH)_{max}$	310 kJ/m <sup>3</sup> $\pm$ 3 %
Polarization of working point	0,835 T $\pm$ 2 %

**Figure A.1 – Magnet Type 1**

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TECHNICAL SPECIFICATION  
SPÉCIFICATION TECHNIQUE  
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**CLC/TS 50131-11**

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**Alarm systems -  
Intrusion and hold-up systems -  
Part 11: Hold-up devices**

Systemes d'alarme -  
Systemes d'alarme contre l'intrusion et les  
hold-up -  
Partie 11: Exigences pour bouton anti-  
agression

Alarmanlagen -  
Einbruch- und Überfallmeldeanlagen -  
Teil 11: Anforderungen an Überfallmelder

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Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

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## Foreword

This document (CLC/TS 50131-11:2012) 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 [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

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## **Introduction**

This document is a Technical Specification for hold-up devices which can be used as part of intrusion and hold-up alarm systems installed in buildings. It includes four security grades and four environmental classes.

The purpose of a hold-up device is to allow a person to deliberately generate hold-up alarm signals or messages and a further necessary range of signals or messages to be used by the rest of the intrusion and hold-up alarm system.

The number and scope of these signals or messages will be more comprehensive for systems that are specified at the higher grades.

This Technical Specification is only concerned with the requirements and tests for the hold-up device.

## 1 Scope

This Technical Specification is for dedicated hold-up devices in buildings, e.g. deliberately operated hold-up devices which can be triggered to create a hold-up alarm signal or message. It provides four security Grades 1-4 (see EN 50131-1), specific or non specific wired or wire-free hold-up devices and uses Environmental Classes I-IV (see EN 50130-5).

This Technical Specification does not include requirements for hold-up devices intended for use outdoors, or for mobile hold-up devices or for devices with functions additional to hold-up facility.

NOTE If a device provides functions additional to hold-up facility, it is recommended to function similar to the requirement described in this Technical Specification.

Functions additional to the mandatory functions as specified in this Technical Specification may be included in the hold-up device, providing they do not adversely influence the correct operation of the mandatory functions.

This Technical Specification does not apply to system interconnections.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 50130-4, *Alarm systems – Part 4: Electromagnetic compatibility – Product family standard: Immunity requirements for components of fire, intruder, hold up, CCTV, access control and social alarm systems*

EN 50130-5, *Alarm systems – Part 5: Environmental test methods*

EN 50131-1:2006 + A1:2009, *Alarm systems – Intrusion systems and hold-up systems – Part 1: System requirements*

EN 60068-1:1994, *Environmental testing – Part 1: General and guidance (IEC 60068-1:1988 + corrigendum Oct. 1988 + A1:1992)*

EN 60068-2-52, *Environmental testing – Part 2: Tests – Test Kb: Salt mist, cyclic (sodium chloride solution) (IEC 60068-2-52)*

EN 60404-5, *Magnetic materials – Part 5: Permanent magnet (magnetically hard) materials – Methods of measurement of magnetic properties (IEC 60404-5)*

EN 60404-14, *Magnetic materials – Part 14: Methods of measurement of the magnetic dipole moment of a ferromagnetic material specimen by the withdrawal or rotation method (IEC 60404-14)*

EN 61672-1:2003, *Electroacoustics – Sound level meters – Part 1 : Specifications (IEC 61672-1:2002)*

IEC 60404-8-1, *Magnetic materials – Part 8-1: Specifications for individual materials – Magnetically hard materials*