

PD CLC/TS 50131-11:2012



BSI Standards Publication

Alarm systems — Intrusion and hold-up systems

Part 11: Hold-up devices

bsi.

...making excellence a habit.™

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.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2014.
Published by BSI Standards Limited 2014

ISBN 978 0 580 83565 0
ICS 13.310

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 30 September 2014.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

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 while 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 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.

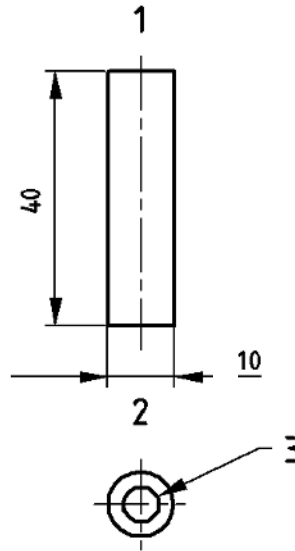
The field strength of the test magnet needs to be adjusted at the polarization of the working point in mT as defined.

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 for 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. Steingroever GmbH
Emil-Hoffmann-Strasse 3
50966 Cologne, Germany
www.magnet-physik.de



Key

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

Material	NdFeB N40 (REFeB 310/130 - Code number R5-1-11)
Remanence B_r min	1 275 mT \pm 2 %
Product of energy $(BH)_{max}$	310 kJ/m ³ \pm 3 %
Polarization of working point	0,835 T \pm 2 %

Figure A.1 – Magnet Type 1

This page deliberately set blank

TECHNICAL SPECIFICATION
SPÉCIFICATION TECHNIQUE
TECHNISCHE SPEZIFIKATION

CLC/TS 50131-11

August 2012

ICS 13.310

English version

**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

This Technical Specification was approved by CENELEC on 2012-07-09.

CENELEC members are required to announce the existence of this TS in the same way as for an EN and to make the TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force.

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

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Contents

	Page
Foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms, definitions and abbreviations	7
3.1 Terms and definitions	7
3.2 Abbreviations	8
4 Functional requirements	8
4.1 General	8
4.2 Event processing	8
4.3 Hold-up triggering	10
4.4 Hand operated devices	12
4.5 Kick / tilt & long bar operated devices	13
4.6 Money clip operated devices	14
4.7 Operational requirements	15
4.8 Tamper security	16
4.9 Electrical requirements	17
4.10 Environmental classification and conditions	18
5 Marking, identification and documentation	18
5.1 Marking and/or identification	18
5.2 Documentation	18
6 Testing	19
6.1 General	19
6.2 General test conditions	19
6.3 Hand operated devices	21
6.4 Kick / tilt & Long bar operated devices	23
6.5 Money clip operated hold-up devices	24
6.6 Time interval between hold-up trigger signals or messages	24
6.7 Switch on delay	24
6.8 Self tests	24
6.9 Tamper security	25
6.10 Electrical tests	27
6.11 Environmental classification and conditions	29
6.12 Marking, identification and documentation	30
Annex A (normative) Dimensions & requirements of the standardised test magnets	31
Annex B (normative) General testing matrix	34
Annex C (informative) Example list of small tools	36
Bibliography	37

Figures

Figure A.1 — Magnet type 1.....32

Figure A.2 — Magnet type 2.....33

Tables

Table 1 — Events to be processed and functions to be provided by grade.....9

Table 2 — Generation of signals or messages10

Table 3 — Sound level when triggering by grade11

Table 4 — Operating force for hand operated hold-up devices12

Table 5 — Minimum performance requirements for hand operated lever hold-up devices13

Table 6 — Operating force for kick / tilt & long bar operated hold-up devices14

Table 7 — Operating force for money clip operated devices15

Table 8 — Tamper security requirements16

Table 9 — Electrical requirements17

Table 10 — Operational tests.....29

Table 11 — Endurance tests30

Table B.1 — General testing matrix34

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.

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*