

TSIVIILKÄIBES OLEVAD LÕHKEAINED. DETONAATORID
JA DETONEERNÖÖRIDE RELEED. OSA 3:
DETONAATORITE, PEALMAA ÜHENDUSPLOKKIDE,
DETONEERNÖÖRIDE RELEEDE JA IMPULSI
SIIRDETORUDE LÖÖGITUNDLIKKUSE MÄÄRAMINE

Explosives for civil uses - Detonators and detonating
cord relays - Part 3: Verification of insensitiveness to
impact of detonators, surface connectors, detonating
cord relays and shock tubes

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 13763-3:2025 sisaldab Euroopa standardi EN 13763-3:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 01.10.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 13763-3:2025 consists of the English text of the European standard EN 13763-3:2025.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 01.10.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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EUROPEAN STANDARD

EN 13763-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2025

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Supersedes EN 13763-3:2002

English Version

Explosives for civil uses - Detonators and detonating cord relays - Part 3: Verification of insensitiveness to impact of detonators, surface connectors, detonating cord relays and shock tubes

Explosifs à usage civil - Détonateurs et relais pour cordeau détonant - Partie 3 : Vérification de l'insensibilité au choc des détonateurs, connecteurs de surface, relais pour cordeau détonant et tubes à transmission d'ondes de choc

Explosivstoffe für zivile Zwecke - Zünder und Sprengschnurverbinder - Teil 3: Überprüfung der Schlagempfindlichkeit

This European Standard was approved by CEN on 29 September 2025.

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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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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European foreword

This document (EN 13763-3:2025) has been prepared by Technical Committee CEN/TC 321 “Explosives for civil uses”, the secretariat of which is held by UNE.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2026 and conflicting national standards shall be withdrawn at the latest by April 2026.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13763-3:2002.

EN 13763-3:2025 includes the following significant technical changes with respect to EN 13763-3:2002:

- a) the document title has been changed from “Detonators and relays — Part 3: Determination of sensitiveness to impact” to “Detonators and detonating cord relays — Part 3: Verification of insensitiveness to impact of detonators, surface connectors, detonating cord relays and shock tubes”;
- b) the Scope has been revised so that the document now also applies to semi-finished detonators and electronic detonators;
- c) the normative references have been updated;
- d) the terminology entries 3.1 and 3.2 have been removed;
- e) the Clause 4 “Principle” has been added;
- f) the Clause “Apparatus” has been restructured and revised;
- g) the Clause “Test pieces” is now called “Preparation of test sample”, has been revised and enlarged to include semi-finished detonators and electronic detonators;
- h) the Clause “Procedure” has been revised so that no longer a determination of the sensitiveness to impact is carried out but only the verification of the insensitiveness to impact at a specific level;
- i) the Clause “Procedure” has been enlarged to include semi-finished and electronic detonators;
- j) the Clause 8 “Expression of results” has been added;
- k) the Clause “Test report” does no longer require conformity with EN ISO/IEC 17025 and the information to be provided has been revised and enlarged;
- l) the former Annex A “Range of applicability of the test method” has been removed;
- m) the Annex ZA has been updated;
- n) the Bibliography has been added and lists EN ISO/IEC 17025:2017.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

A list of all parts in the EN 13763 series, published under the general title *Explosives for civil uses — Detonators and detonating cord relays*, can be found on the CEN website.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

1 Scope

This document specifies two test methods for the verification of the insensitiveness to impact.

This document is applicable to electric detonators, non-electric detonators, electronic detonators, plain detonators, semi-finished detonators, surface connectors and detonating cord relays as well as shock tubes.

This document does not apply to electronic initiation systems.

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 10025-2:2019, *Hot rolled products of structural steels - Part 2: Technical delivery conditions for non-alloy structural steels*

EN 13763-1:2025, *Explosives for civil uses — Detonators and detonating cord relays — Part 1: Requirements*

EN 13857-1:2025, *Explosives for civil uses — Part 1: Vocabulary*

EN ISO 683-4:2018, *Heat-treatable steels, alloy steels and free-cutting steels — Part 4: Free-cutting steels (ISO 683-4:2016)*

EN ISO 683-17:2023, *Heat-treated steels, alloy steels and free-cutting steels — Part 17: Ball and roller bearing steels (ISO 683-17:2023)*

EN ISO 4957:2018, *Tool steels (ISO 4957:2018)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13857-1:2025 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp/>

4 Principle

During transport and use, detonators, surface connectors, detonating cord relays and shock tubes can be subjected to impacts. Insensitiveness to impact is the ability of detonators, surface connectors, detonating cord relays and shock tubes to not initiate when subjected to impact.

For the verification of the insensitiveness to impact, test pieces are subjected to an impact by dropping a weight on them using either a drop hammer or an impact testing apparatus, observing whether they detonate or deflagrate upon impact.