

TSIVIILKÄIBES OLEVAD LÕHKEAINED. DETONAATORID
JA DETONEERNÖÖRIDE RELEED. OSA 12:
DETONAATORITE, DETONEERNÖÖRIDE RELEEDE JA
PEALMISTE ÜHENDUSKOMPLEKTIDE
HÜDROSTAATILISELE RÕHULE VASTUPIDAVUSE
MÄÄRAMINE

**Explosives for civil uses - Detonators and detonating
cord relays - Part 12: Verification of resistance to
hydrostatic pressure of detonators, detonating cord
relays and surface connectors**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 13763-12:2025 sisaldab Euroopa standardi EN 13763-12:2025 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 13763-12:2025 consists of the English text of the European standard EN 13763-12:2025.</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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English Version

Explosives for civil uses - Detonators and detonating cord relays - Part 12: Verification of resistance to hydrostatic pressure of detonators, detonating cord relays and surface connectors

Explosifs à usage civil - Détonateurs et relais pour cordeau détonant - Partie 12 : Vérification de la résistance à la pression hydrostatique des détonateurs, des relais pour cordeau détonant et des connecteurs de surface

Explosivstoffe für zivile Zwecke - Zünder und Sprengschnurverzögerer - Teil 12: Überprüfung der Widerstandsfähigkeit von Zündern, Sprengschnurverzögerern und Oberflächenverbindern gegen hydrostatischen Druck

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
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European foreword

This document (EN 13763-12:2025) 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 13763-12:2003.

EN 13763-12:2025 includes the following significant technical changes with respect to EN 13763-12:2003:

- a) the document title has been changed from “Detonators and relays — Part 12: Determination of resistance to hydrostatic pressure” to “Detonators and detonating cord relays — Part 12: Verification of resistance to hydrostatic pressure of detonators, detonating cord relays and surface connectors”;
- b) the Scope has been revised to clarify the covered and not covered explosives;
- c) the normative references have been updated;
- d) Clause 4 “Principle” has been added;
- e) the clause “Apparatus” has been revised and completed;
- f) the clause “Test pieces” is now called “Preparation of test sample” and has been revised to clearer address the explosive articles covered in this document and to include electronic detonators;
- g) the clause “Procedure” has been restructured to clearer address the explosive articles covered in this document as well as revised and enlarged for clarification;
- h) Clause 8 “Expression of results” has been added;
- i) the clause “Test report” does no longer require conformity with EN ISO/IEC 17025 and the information to be provided has been revised;
- j) former Annex A “Range of applicability of the test method” has been removed;
- k) Annex ZA has been updated;
- l) 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 organisations 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 a method for the verification of the resistance to hydrostatic pressure of electric detonators, non-electric detonators, electronic detonators, surface connectors and detonating cord relays.

This document does not apply to plain detonators, semi-finished detonators.

This document does not apply to shock tubes and leading wires, coupling accessories and 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 13763-1:2025, *Explosives for civil uses — Detonators and detonating cord relays — Part 1: Requirements*

EN 13763-16:2025, *Explosives for civil uses — Detonators and detonating cord relays — Part 16: Verification of delay accuracy of electric detonators, non-electric detonators, surface connectors and detonating cord relays*

EN 13763-27:2025, *Explosives for civil uses — Detonators and detonating cord relays — Part 27: Test methods for electronic initiation systems*

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

EN ISO 3696:1995, *Water for analytical laboratory use - Specification and test methods (ISO 3696:1987)*

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:

— ISO Online browsing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <https://www.electropedia.org>

4 Principle

When electric, non-electric and electronic detonators are used in boreholes they are exposed to hydrostatic pressure either by water or other explosives. When surface connectors and detonating cord relays are used, they can be exposed to hydrostatic pressure if placed in water puddles.

For the verification of the resistance of detonators, detonating cord relays and surface connectors against hydrostatic pressure, a test piece is immersed either in a water tank or in water in a pressure vessel. After the immersion in water, the test piece is initiated and, if applicable, the specified delay accuracy is verified.

5 Reagents

5.1 Water, conforming to grade 3 of EN ISO 3696:1995.