

STN	Elektrické relé Skúšky a merania Časť 39: Vkladacia a vyťahovacia sila	STN EN IEC 63522-39 35 3410
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Electrical relays - Tests and measurements - Part 39: Insertion and withdrawal force

Táto norma obsahuje anglickú verziu európskej normy.

This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/25

Obsahuje: EN IEC 63522-39:2025, IEC 63522-39:2025

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 63522-39

April 2025

ICS 29.120.70

English Version

**Electrical relays - Tests and measurements - Part 39: Insertion
and withdrawal force
(IEC 63522-39:2025)**

Relais électriques - Essais et mesurages - Partie 39: Force
d'insertion et de retrait
(IEC 63522-39:2025)

Elektrische Relais - Mess- und Prüfverfahren - Teil 39:
Steck- und Ziehkraft
(IEC 63522-39:2025)

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

EN IEC 63522-39:2025 (E)**European foreword**

The text of document 94/1075/FDIS, future edition 1 of IEC 63522-39, prepared by TC 94 "Electrical relays" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63522-39:2025.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2026-04-30 level by publication of an identical national standard or by endorsement
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In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60512-13-2:2006	NOTE Approved as EN 60512-13-2:2006 (not modified)
IEC 60664-3:2016	NOTE Approved as EN 60664-3:2017 (not modified)
IEC 60715:2017	NOTE Approved as EN 60715:2017 (not modified)
IEC 60947-1:2007 ¹	NOTE Approved as EN 60947-1:2007 ² (not modified)
IEC 60947-2:2016	NOTE Approved as EN 60947-2:2017 (not modified)
IEC 60947-2:2016/A1:2019	NOTE Approved as EN 60947-2:2017/A1:2020 (not modified)
IEC 60947-5-1	NOTE Approved as EN 60947-5-1
IEC 60999-1	NOTE Approved as EN 60999-1
IEC 60999-2	NOTE Approved as EN 60999-2
IEC 61810-7:2006	NOTE Approved as EN 61810-7:2006 (not modified)
IEC 61812-1:2023	NOTE Approved as EN IEC 61812-1:2024 (not modified)

¹ Withdrawn and replaced by IEC 60947-1:2020.

² Withdrawn and replaced by EN IEC 60947-1:2021.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61210 (mod)	2010	Connecting devices - Flat quick-connect terminations for electrical copper conductors - Safety requirements	EN 61210	2010
IEC 61810-1	2019	Electromechanical elementary relays - Part 1: General and safety requirements	EN 61810-1	2020
+ A1	2015		+ A1	2019
IEC 61984	2008	Connectors - Safety requirements and tests	EN 61984	2009
IEC 63522-0 ED1 ³	-	Electrical relays - Tests and Measurements - Part 0: General and Guidance	EN IEC 63522-0 ⁴	-
IEC 63522-1 ED1 ⁵	-	Electrical relays - Tests and measurements - Part 1: Visual inspection and check of dimensions	EN IEC 63522-1 ⁶	-

³ Under preparation. Stage at the time of publication: IEC CDV 63522-0:2024.

⁴ Under preparation. Stage at the time of publication: prEN IEC 63522-0:2024.

⁵ Under preparation. Stage at the time of publication: IEC FDIS 63522-1:2025.

⁶ Under preparation. Stage at the time of publication: FprEN IEC 63522-1:2025.



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Edition 1.0 2025-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electrical relays – Tests and measurements –
Part 39: Insertion and withdrawal force**

**Relais électriques – Essais et mesurages –
Partie 39: Force d'insertion et de retrait**

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IEC Secretariat
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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IEC 63522-39

Edition 1.0 2025-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electrical relays – Tests and measurements –
Part 39: Insertion and withdrawal force**

**Relais électriques – Essais et mesurages –
Partie 39: Force d'insertion et de retrait**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL RELAYS – TESTS AND MEASUREMENTS –**Part 39: Insertion and withdrawal force****FOREWORD**

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IEC 63522-39 has been prepared by IEC technical committee 94: Electrical relays. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
94/1075/FDIS	94/1123/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 63522 series, published under the general title *Electrical relays – Tests and measurements*, can be found on the IEC website.

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- reconfirmed,
- withdrawn, or
- revised.

ELECTRICAL RELAYS – TESTS AND MEASUREMENTS –

Part 39: Insertion and withdrawal force

1 Scope

This part of IEC 63522 is used for testing electromechanical elementary relays (electromechanical relays, reed relays, reed contacts, reed switches and technology combination of these) and shall evaluate their ability to perform under expected conditions of transportation, storage and all aspects of operational use.

This document defines standard test methods for:

- 1) measuring the insertion and withdrawal forces of the mating relay and socket;
- 2) measuring the insertion and withdrawal forces on relays with flat quickconnect terminations;
- 3) verifying the correct connection of flat terminals with eye lug connectors.

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.

IEC 61210:2010, *Connecting devices – Flat quick-connect terminations for electric copper conductors – Safety requirements*

IEC 61810-1:2015, *Electromechanical elementary relays – Part 1: General and safety requirements*

IEC 61810-1:2015/AMD1:2019

IEC 61984:2008, *Connectors – Safety requirements and tests*

IEC 63522-0, *Electrical relays – Tests and measurements – Part 0 Testing general*¹

IEC 63522-1, *Electrical relays – Tests and measurements – Part 1: Visual inspection and check of dimensions*²

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

¹ Under preparation. Stage at the time of publication: IEC CCDV 63522-0:2024.

² Under preparation. Stage at the time of publication: IEC RFDIS 63522-1:2025.