

STN	Elektrické relé Skúšky a merania Časť 13: Korózne atmosféry spôsobené vplyvom síry	STN EN IEC 63522-13 35 3410
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Electrical relays - Tests and measurements - Part 13: Corrosive atmospheres due to sulfur impact

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. 04/25

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 63522-13

January 2025

ICS 29.120.70

English Version

**Electrical relays - Tests and measurements - Part 13: Corrosive
atmospheres due to sulfur impact
(IEC 63522-13:2024)**

Relais électriques - Essais et mesurages - Partie 13:
Atmosphères corrosives - Atmosphères polluées
(IEC 63522-13:2024)

Elektrische Relais - Mess- und Prüfverfahren - Teil 13:
Korrosive Atmosphären aufgrund von Schwefeleinwirkung
(IEC 63522-13:2024)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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

EN IEC 63522-13:2025 (E)**European foreword**

The text of document 94/1051/FDIS, future edition 1 of IEC 63522-13, prepared by TC 94 "Electrical relays" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63522-13:2025.

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In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60068-2-11	NOTE	Approved as EN IEC 60068-2-11
IEC 60068-2-46	NOTE	Approved as HD 323.2.46 S1
IEC 60068-2-60	NOTE	Approved as EN 60068-2-60
IEC 61810-1:2015	NOTE	Approved as EN 61810-1:2015 (not modified)
IEC 61810-1:2015/A1:2019	NOTE	Approved as EN 61810-1:2015/A1:2020 (not modified)

Annex ZA
(normative)

Normative references to international publications
with their corresponding European publications

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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.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60068-2-42	2003	Environmental testing - Part 2-42: Tests - Test Kc: Sulphur dioxide test for contacts and connections	EN 60068-2-42	2003
IEC 60068-2-43	2003	Environmental testing - Part 2-43: Tests - Test Kd: Hydrogen sulphide test for contacts and connections	EN 60068-2-43	2003
IEC 63522-0 ¹	—	Electrical relays - Tests and Measurements - Part 0: General and Guidance	EN IEC 63522-0 ²	—
IEC 63522-1 ³	-	Electrical relays - Tests and measurements - Part 1: Visual inspection and check of dimensions	EN IEC 63522-1 ⁴	-
IEC 63522-6 ⁵	-	Electrical relays - Tests and measurements - Part 6: Contact-circuit resistance (or voltage drop)	EN IEC 63522-6 ⁶	-
IEC 63522-7 ⁷	-	Electrical relays - Tests and measurements - Part 7: Functional tests	EN IEC 63522-7 ⁸	-

¹ Under preparation. Stage at the time of publication: IEC CDV 63522-0:2024.
² Under preparation. Stage at the time of publication: prEN IEC 63522-0:2024.
³ Under preparation. Stage at the time of publication: IEC CDV 63522-1:2023.
⁴ Under preparation. Stage at the time of publication: prEN IEC 63522-1:2023.
⁵ Under preparation. Stage at the time of publication: IEC FDIS 63522-6:2024.
⁶ Under preparation. Stage at the time of publication: FprEN IEC 63522-6:2024.
⁷ Under preparation. Stage at the time of publication: IEC FDIS 63522-7:2024.
⁸ Under preparation. Stage at the time of publication: FprEN IEC 63522-7:2024.



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electrical relays – Tests and measurements –
Part 13: Corrosive atmospheres due to sulfur impact**

**Relais électriques – Essais et mesurages –
Partie 13: Atmosphères corrosives – Atmosphères polluées**

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

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

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electrical relays – Tests and measurements –
Part 13: Corrosive atmospheres due to sulfur impact**

**Relais électriques – Essais et mesurages –
Partie 13: Atmosphères corrosives – Atmosphères polluées**

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**ELECTRICAL RELAYS –
TESTS AND MEASUREMENTS –****Part 13: Corrosive atmospheres due to sulfur impact****FOREWORD**

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IEC 63522-13 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:

FDIS	Report on voting
94/1051/FDIS	94/1080/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 of the IEC 63522 series, published under the general title *Electrical relays – Tests and measurements*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

ELECTRICAL RELAYS – TESTS AND MEASUREMENTS –

Part 13: Corrosive atmospheres due to sulfur impact

1 Scope

This document is used for testing electromechanical elementary relays (electromechanical relays, reed relays, reed contacts, reed switches and technology combinations of these) and for evaluating their ability to perform under expected conditions of transportation, storage and all aspects of operational use.

This document defines a standard test method to simulate impacts of sulfuric atmospheres to relays. The test conditions simulate an artificial situation and allow a performance comparison for usability of the devices under test (DUT) with regard to known and existing switching solutions.

The test is a static test without actual operation of the DUT to simulate a worst-case scenario for corrosion, since corrosion increases over time. The corrosion layer can potentially create contact sticking, increase resistance or other undesired effects in the relay. Those aspects can be affected by DUT actuations during the test, which can destroy the corrosion layers or hide relevant long-term effects.

In addition to polluted atmospheres, the suitability of the DUT for use and/or storage in corrosive atmospheres can be assessed in a salt-laden atmosphere as described in IEC 63522-44.

2 Normative references

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IEC 60068-2-42:2003, *Environmental testing – Part 2-42: Tests – Test Kc: Sulfur dioxide test for contacts and connections*

IEC 60068-2-43:2003, *Environmental testing – Part 2-43: Tests – Test Kd: Hydrogen sulphide test for contacts and connections*

IEC 63522-0:—, *Electrical relays – Tests and measurements – Part 0: Testing – General and guidance*¹

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

IEC 63522-6, *Electrical relays – Tests and measurements – Part 6: Contact-circuit resistance (or voltage drop)*

¹ First edition under preparation. Stage at the time of publication: IEC CDV 63522-0:2024.

² First edition under preparation. Stage at the time of publication: IEC CDV 63522-1:2023.

IEC 63522-7, *Electrical relays – Tests and measurements – Part 7: Functional tests*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN