



SLOVENSKI STANDARD
SIST EN 61243-2:2000/A1:2000
01-junij-2000

Delo pod napetostjo - Napetostni detektorji - 2. del: Uporovni tip za uporabo na napetostih od 1 kV do 36 kV izmenično (IEC 61243-2:1995/A1:1999)

Live working - Voltage detectors -- Part 2: Resistive type to be used for voltages of 1 kV to 36 kV a.c.

Arbeiten unter Spannung - Spannungsprüfer -- Teil 2: Resistive (ohmsche) Ausführungen für Wechselspannungen von 1 kV bis 36 kV

Travaux sous tension - Détecteurs de tension -- Partie 2: Type résistif pour usage sur des tensions alternatives de 1 kV à 36 kV

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Ta slovenski standard je istoveten z: EN 61243-2:1997/A1:2000

ICS:

13.260	Varstvo pred električnim udarom. Delo pod napetostjo	Protection against electric shock. Live working
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SIST EN 61243-2:2000/A1:2000 **en**

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English version

Live working - Voltage detectors
Part 2: Resistive type to be used for voltages of 1 kV to 36 kV a.c
(IEC 61243-2:1995/A1:1999)

Travaux sous tension - Détecteurs
de tension
Partie 2: Type résistif pour usage
sur des tensions alternatives
de 1 kV à 36 kV
(CEI 61243-2:1995/A1:1999)

Arbeiten unter Spannung
Spannungsprüfer
Teil 2: Resistive (ohmsche)
Ausführungen für Wechselspannungen
von 1 kV bis 36 kV
(IEC 61243-2:1995/A1:1999)

This amendment A1 modifies the European Standard EN 61243-2:1997; it was approved by CENELEC on 1999-12-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 78/288/FDIS, future amendment 1 to IEC 61243-2, prepared by IEC TC 78, Live working, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 61243-2:1997 on 1999-12-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2000-09-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2002-12-01

Endorsement notice

The text of amendment 1:1999 to the International Standard IEC 61243-2:1995 was approved by CENELEC as an amendment to the European Standard without any modification.

<https://standards.iteh.ai/catalog/standards/sist/759433-16e0-4db4-9d81-919b13e1fc7e/sist-en-61243-2-2000-a1-2000>
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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC

61243-2

1995

AMENDEMENT 1
AMENDMENT 1
1999-10

Amendement 1

Travaux sous tension – Détecteurs de tension –

Partie 2:

**Type résistif pour usage sur des tensions
alternatives de 1 kV à 36 kV**

(standards.iteh.ai)

Amendment 1 61243-2:2000/A1:2000

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Live working – Voltage detectors –

Part 2:

**Resistive type to be used for voltages
of 1 kV to 36 kV a.c.**

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Commission Electrotechnique Internationale
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FOREWORD

This amendment has been prepared by IEC technical committee 78: Live working.

The text of this amendment is based on the following documents:

FDIS	Report on voting
78/288/FDIS	78/294/RVD

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

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5.2.2.3 Influence of interference voltage

Add, after 5.2.2.3, the following new subclause 5.2.2.4:

5.2.2.4 Influence of magnetic interference field

A straight conductor, 25 mm ± 5 mm in diameter, shall be arranged such that there is no magnetic interference from external sources. This can be achieved by having a 2 m length of conductor with no magnetic material within 1 m of the conductor.

The conductor shall be connected to an a.c. current source capable of producing 1 000 A, at the nominal frequency, in the conductor (see figure 12a).

The detector shall be positioned parallel with the conductor. The centre of the indicator shall be aligned with the centre of the conductor such that the surface of the indicator housing shall be positioned 50 mm from the surface of the conductor (see figure 12a).

A voltage source separate from that of the current shall be connected between the contact electrode of the detector and earth. The earth lead of the detector shall be connected to earth.

The test voltage shall be raised until the indication "voltage present" appears. A note of this voltage shall be made. The test voltage shall then be reduced down to zero.

A current of 1 000 A shall then be passed through the conductor. The test voltage shall be raised again until the indication "voltage present" appears. A note of this voltage shall be made.

This part of the test shall be considered as passed if the second voltage measured does not deviate by more than 5 % from the initial measurement.

The detector shall be turned through 90° such that the centre of the indicator still remains aligned with the centre of the conductor (see figure 12b).

The test procedure indicated above is repeated.

The tests shall be performed with the test voltage source and current source in phase and again 120° out of phase, using the test procedure indicated above.

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5.4.2 Robustness of earth lead and connections

Replace the text of subclause 5.4.2 by the following:

5.4.2.1 Test set-up

The detector shall be fastened perpendicular to its long axis such that it can oscillate in the vertical plane. It shall be so fastened that the centre of rotation is situated 20 mm above the point of emergence of the earth lead. The detector shall be positioned so that the direction of the emergence of the earth lead is at an angle of 50° to the vertical. This corresponds to the static position of the detector.

The earth lead shall be loaded with an acting force of 10 N at a point approximately 200 mm below the point at which the lead emerges from the detector (see figure 13a).

5.4.2.2 Test in the vertical plane

From the position described in 5.4.2.1, the fastened detector shall be oscillated through an angle of $\pm 45^\circ$ (see figure 13b and corresponding arrows). Ten thousand oscillations, with a period of 0,5 s to 1,0 s, shall be carried out.

This part of the test shall be considered as passed if there is no visible damage to the detector or the earth lead.

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5.4.2.3 Test in the horizontal plane

The test shall be repeated in the same position, but with an axis of rotation that coincides with the long axis of the vertical support (see figure 13b and corresponding arrows).

This part of the test shall be considered as passed if there is no visible damage to the detector or the earth lead.

5.4.2.4 Static tests on earth lead and connections

In addition to the previous tests, the acting force shall be increased to 200 N for 1 min with the earth lead in the vertical position and the fastened detector in the static position.

Then, the clip or clamp of the lead shall be attached firmly to a horizontal bar so that the earth lead hangs down freely in the vertical position.

An acting force of 200 N shall be applied to the earth lead, below the clip or clamp, for 1 min.

The complete test shall be considered as passed if there is no visible damage to the detector or the earth lead, and if the clip or clamp does not come off the bar.

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5.4.3 Other mechanical tests on earth lead

Delete subclause 5.4.3.

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Insert, after figure 11, the following new figures 12 and 13:

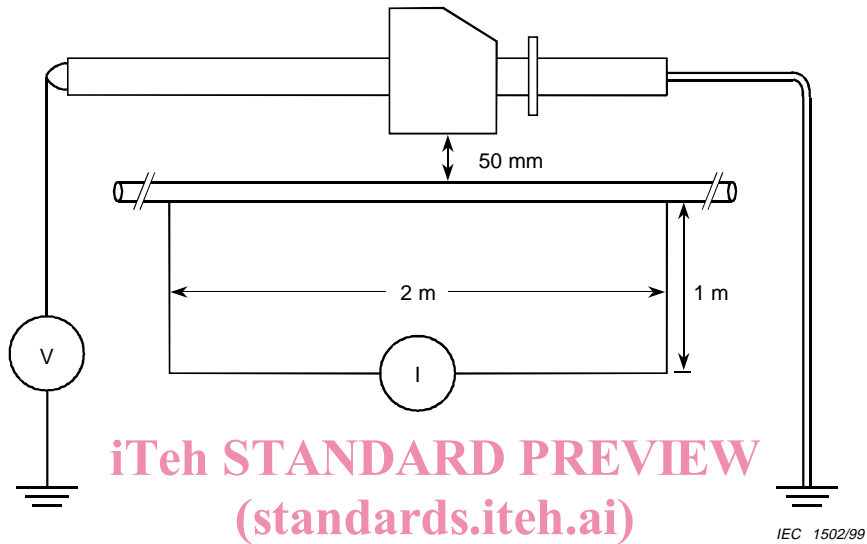


Figure 12a – General arrangement
SIST EN 61243-2:2000/A1:2000

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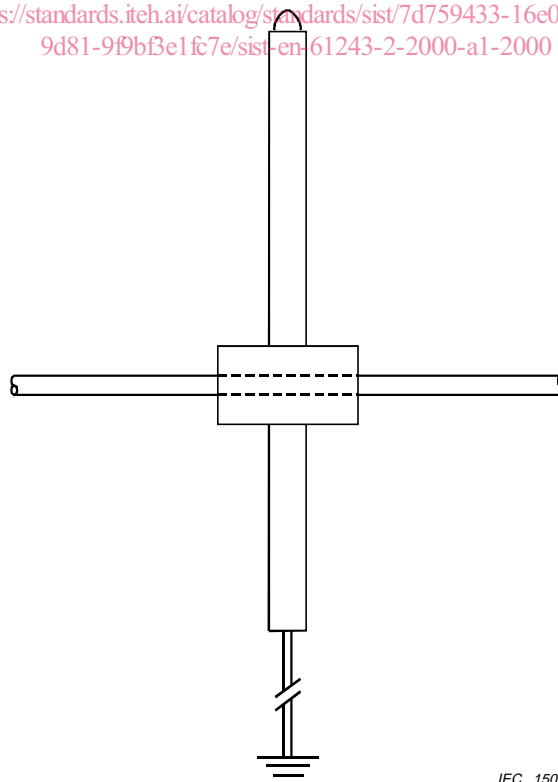


Figure 12b – Detector at 90° to the conductor with the centre of the indicator aligned with the centre of the conductor

Figure 12 – Test set-up for the influence of magnetic interference field