

SLOVENSKI
PREDSTANDARD

**SIST EN 50164-
1:2000/OprA1:2004**

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Lightning Protection Components (LPC) -- Part 1: Requirements for connection components

ICS 91.120.40

Referenčna številka
SIST EN 50164-1:2000/OprA1:2004(en)

EUROPEAN STANDARD

DRAFT
EN 50164-1

NORME EUROPÉENNE

prA1

EUROPÄISCHE NORM

May 2004

ICS 91.120.40

English version

Lightning Protection Components (LPC)
Part 1: Requirements for connection components

Composants de Protection contre la
Foudre (CPF)
Partie 1: Prescriptions pour les
composants de connexion

Blitzschutzbauteile
Teil 1: Anforderungen für
Verbindungsbauteile

This draft amendment prA1, if approved, will modify the European Standard EN 50164-1:1999; it is submitted to CENELEC members for CENELEC enquiry.
Deadline for CENELEC: 2004-09-24

It has been drawn up by Technical Committee CENELEC TC 81X.

If this draft becomes an amendment, 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.

This draft amendment was established by CENELEC 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.

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CENELEC

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

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Project: 14789

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Foreword

This draft amendment to the European Standard EN 50164-1:1999 was prepared by the Technical Committee CENELEC TC 81X, Lightning protection. It is submitted to CENELEC second enquiry.

Draft for Enquiry

Text of prA1 to EN 50164-1:1999

Contents

Add:

7 Electromagnetic compatibility (EMC)

Replace "Annex A (informative) Summary of the requirements and corresponding tests" by "Annex A Void".

2 Normative references

Add after EN ISO 6988 the following new reference:

IEC 61312-1 1995 Protection against lightning electromagnetic impulse – Part 1: General principles

3 Definitions

Add:

3.10

bonding bar

bar on which metal installations, external conductive parts, electric power and telecommunication lines, and other cables can be connected to an LPS

5.1 General

Delete the note.

5.8 Marking

Replace in the 2nd paragraph "b)" by "b) and c)".

Delete in the last paragraph "by inspection and".

Add:

5.9 Terminals of bonding bars

Terminals of bonding bars used for lightning protection installations, shall have connection sizes equal to or greater than 16 mm².

6.1 General

Replace the subclause by:

6.1 General condition on tests

6.1.1 The tests in accordance with this standard are type tests.

6.1.2 Unless otherwise specified, tests are carried out with the specimens assembled and installed as in normal use according to the manufacturer's or supplier's installation instructions with the recommended conductor materials, sizes and the tightening torques. If the connection component is suitable for various conductor materials, then it shall be tested on each material combination.

6.1.3 All tests are carried out on new specimens.

6.1.4 Unless otherwise specified, three specimens are subjected to the tests and the requirements are satisfied if all the tests are met.

If only one of the specimens does not satisfy a test due to an assembly or a manufacturing fault, that test and any preceding one which may have influenced the results of the test shall be repeated and also the tests which follow shall be carried out in the required sequence on another full set of specimens, all of which shall comply with the requirements.

NOTE The applicant, when submitting a set of specimens, may also submit an additional set of specimens which may be necessary should one specimen fail. The testing station will then, without further request, test the additional set of specimens and will reject only if a further failure occurs. If the additional set of specimens is not submitted at the same time, the failure of one specimen will entail rejection.

6.1.5 The test shall be carried out in the order given after conditioning/ ageing the arrangement of the specimen in accordance with 6.2.2.

6.2.1 Arrangement of the specimen

Replace in the 1st paragraph, 1st line "The" by "If not otherwise specified by the manufacturer the".

Delete in the first paragraph the second sentence.

Replace in the last paragraph, the 1st sentence by:

The basic arrangement of the specimen with cross connection component, parallel connection component, bridging component and equipotential bonding bar is shown in Figures 1, 2, 3 and 4 respectively. Terminals of bonding bars are only tested if the connection size is equal to or greater than 16 mm². The test is carried out using the smallest conductor size within the range of the terminal with a minimum of 16 mm² conductor.

Insert after the third paragraph

If a connection component is used in more than one arrangement (see Annex B) as recommended by the manufacturer's installation instructions, then it shall be tested for each one of these arrangements.

If the connection component is declared by the manufacturer suitable for use above ground and for use buried in the ground, then it shall be tested for both applications. If the connection component for use buried in the ground is protected by an anti corrosive tape according to the manufacturer's recommendation, then only the test for use above ground shall be carried out.

6.2.2.1 Connection components above ground

Add after the 1st paragraph:

NOTE Bonding bars only for indoor applications are tested without conditioning/ageing.

6.3 Electrical test

Replace in the 1st paragraph, 3rd line “close to“ by “to approximately”.

Add after the 2nd paragraph:

NOTE The parameters specified in Table 1 can typically be achieved by an exponential decaying current with T_2 in the range of 350 μ s according to IEC 61312-1.

Add to the last paragraph, 1st dashed item after “1 m Ω ”

“but in the special case of stainless steel a value of 2,5 m Ω ;”

Add to the last paragraph, 3rd dashed item the sentence:

In the case of connectors with more than one screw, only the loosening torque of the first screw is relevant to this test.

6.4 Marking test

Replace in the 1st paragraph, 1st line "After 6.3 the" by “The”.

Add:

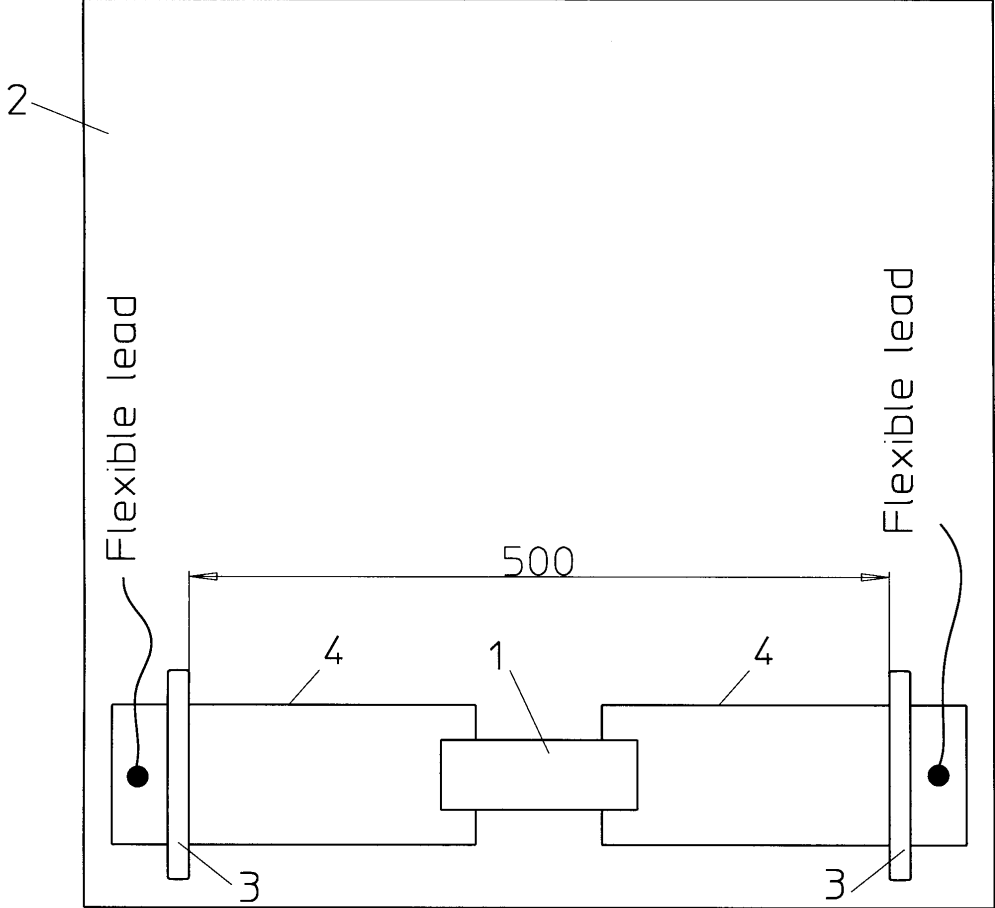
7 Electromagnetic compatibility (EMC)

Products covered by this standard are, in normal use, passive in respect of electromagnetic influences (emission and immunity).

Figure 1 and Figure 2

Replace in the key “Fastener” by “Rigid fastener”

Add new figures:

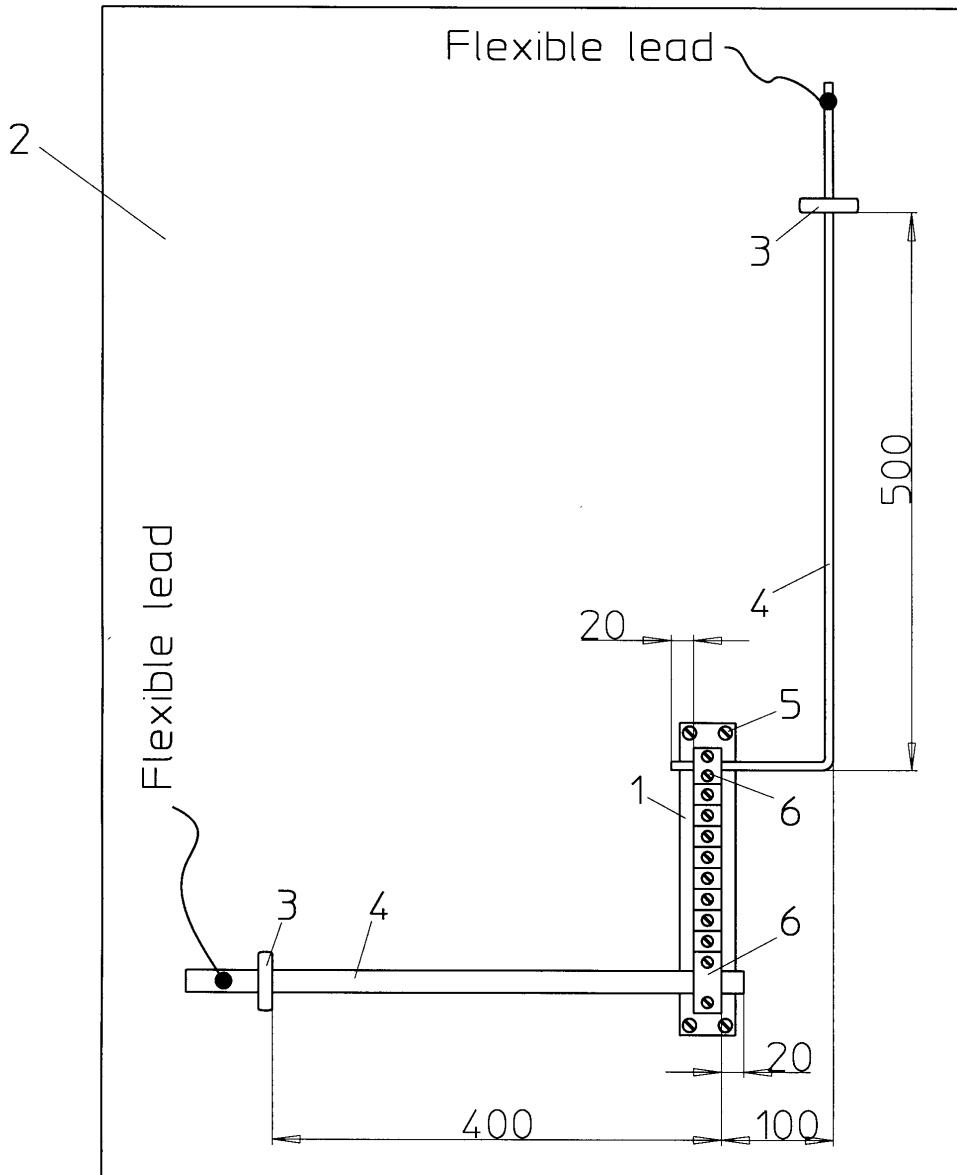


Key

- 1 Bridging component
- 2 Plate made of insulating material
- 3 Rigid fastener
- 4 Metal installation

Figure 3 – Basic arrangement of specimen with bridging component

Draft



Key

- 1 Equipotential bonding bar
- 2 Plate made of insulating material
- 3 Rigid fastener
- 4 Conductor
- 5 Fixing points of equipotential bar
- 6 Connection to be tested

Figure 4 – Basic arrangement of specimen with equipotential bonding bar