

SLOVENSKI STANDARD

SIST EN 61386-1:2008

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SIST EN 61386-1:2004

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Conduit systems for cable management - Part 1: General requirements (IEC 61386-1:2008)

Elektroinstallationsrohrsysteme für elektrische Energie und für Informationen - Teil 1: Allgemeine Anforderungen (IEC 61386-1:2008)

Systèmes de conduits pour la gestion du câblage - Partie 1: Exigences générales (CEI 61386-1:2008) <https://standards.iteh.ai/catalog/standards/sist/80a10934-89e6-4b32-a88b-c9889e2a5ddb/sist-en-61386-1-2008>

Ta slovenski standard je istoveten z: EN 61386-1:2008

ICS:

29.120.10	Qzæææ\^Á^čĀæ ^ \dã}^Āæ ^}^	Conduits for electrical purposes
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SIST EN 61386-1:2008

en,fr

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 61386-1

August 2008

ICS 29.120.10

Supersedes EN 61386-1:2004

English version

**Conduit systems for cable management -
Part 1: General requirements
(IEC 61386-1:2008)**

Systèmes de conduits
pour la gestion du câblage -
Partie 1: Exigences générales
(CEI 61386-1:2008)

Elektroinstallationsrohrsysteme
für elektrische Energie
und für Informationen -
Teil 1: Allgemeine Anforderungen
(IEC 61386-1:2008)

iTeh STANDARD PREVIEW

This European Standard was approved by CENELEC on 2008-06-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 European Standard 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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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 23A/553/FDIS, future edition 2 of IEC 61386-1, prepared by SC 23A, Cable management systems, of IEC TC 23, Electrical accessories, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61386-1 on 2008-06-01.

This European Standard supersedes EN 61386-1:2004 + corrigendum April 2004.

The changes to EN 61386-1:2004 are as follows:

- change to the length of the test specimen between fittings for the tensile test,
- editorial and normative reference updates.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2009-03-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2011-06-01

This Part 1 is to be used in conjunction with the appropriate Part 2, which contains clauses to supplement or modify the corresponding clauses in Part 1, to provide the relevant particular requirements for each type of product. A conduit system which conforms to this standard is deemed safe for use.

In this publication, the following print types are used:

- Requirements proper: in roman type.
- *Test specifications: in italic type.*
- Explanatory matter: in smaller roman type.

For this European Standard the references to Austria and Australia in Subclauses 6.5.2 and 13.1.4 of IEC 61386-1:2008 shall be disregarded and have been replaced by the normative Annex ZB, *Special national conditions*.

Annexes ZA and ZB have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61386-1:2008 was approved by CENELEC as a European Standard without any modification.

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

IEC 60670	NOTE Harmonized in EN 60670 series (modified).
IEC 60754-1 & IEC 60754-2	NOTE See EN 50267 series, <i>Common test methods for cables under fire conditions - Tests on gases evolved during combustion of materials from cables</i> .

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60417	Data-base	Graphical symbols for use on equipment	-	-
IEC 60423	2007	Conduit systems for cable management - Outside diameters of conduits for electrical installations and threads for conduits and fittings	EN 60423	2007
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993
A1	1999		A1	2000
IEC 60695-2-11	2000	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products	EN 60695-2-11	2001
IEC 60695-11-2	2003	Fire hazard testing - Part 11-2: Test flames - 1 kW nominal pre-mixed flame - Apparatus, confirmatory test arrangement and guidance	EN 60695-11-2	2003

Annex ZB (normative)

Special national conditions

Special national condition: National characteristic or practice that cannot be changed even over a long period, e.g. climatic conditions, electrical earthing conditions.

NOTE If it affects harmonization, it forms part of the European Standard / Harmonization Document.

For the countries in which the relevant special national conditions apply these provisions are normative, for other countries they are informative.

<u>Clause</u>	<u>Special national condition</u>
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6.5.2	Austria
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Conduits and conduit fittings may be classified with low acid gas emission.

13.1.4	Austria
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Conduits and conduit fittings classified as low acid gas emission shall be tested in accordance with EN 50267-1 and EN 50267-2-2.

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IEC 61386-1

Edition 2.0 2008-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Conduit systems for cable management –
Part 1: General requirements

Systèmes de conduits pour la gestion du câblage –
Partie 1: Exigences générales

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

CONDUIT SYSTEMS FOR CABLE MANAGEMENT –**Part 1: General requirements****FOREWORD**

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
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- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61386-1 has been prepared by subcommittee 23A: Cable management systems, of IEC technical committee 23: Electrical accessories.

This second edition cancels and replaces the first edition published in 1996, and its Amendment 1 (2000), and it constitutes a technical revision. The changes to the first edition are as follows:

- change to the length of the test specimen between fittings for the tensile test,
- editorial and normative reference updates.

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

FDIS	Report on voting
23A/553/FDIS	23A/558/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts in the IEC 61386 series, under the general title *Conduit systems for cable management*, can be found on the IEC website.

This Part 1 is to be used in conjunction with the appropriate Part 2, which contains clauses to supplement or modify the corresponding clauses in Part 1, to provide the relevant particular requirements for each type of product. A conduit system which conforms to this standard is deemed safe for use.

In this publication, the following print types are used:

- Requirements proper: in roman type.
- *Test specifications: in italic type.*
- Explanatory matter: in smaller roman type.

The following differences exist in some countries:

6.5.2: In Australia and Austria, conduits and conduit fittings may be classified with low acid gas emission. <https://standards.iteh.ai/catalog/standards/sist/80a10934-89e6-4b32-a88b-c9889e2a5ddb/sist-en-61386-1-2008>

13.1.4: In Australia conduits and conduit fittings classified as low acid gas emission shall be tested in accordance with IEC 60754-1, evolve not more than the equivalent of 5 mg of hydrochloride-acid per gram of sample.

In Austria conduits and conduit fittings classified as low acid gas emission shall be tested in accordance with IEC 60754-2.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

CONDUIT SYSTEMS FOR CABLE MANAGEMENT –

Part 1: General requirements

1 Scope

This part of IEC 61386 specifies requirements and tests for conduit systems, including conduits and conduit fittings, for the protection and management of insulated conductors and/or cables in electrical installations or in communication systems up to 1 000 V a.c. and/or 1 500 V d.c. This standard applies to metallic, non-metallic and composite conduit systems, including threaded and non-threaded entries which terminate the system. This standard does not apply to enclosures and connecting boxes which come within the scope of IEC 60670.

NOTE 1 Certain conduit systems may also be suitable for use in hazardous atmospheres. Regard should then be taken of the extra requirements necessary for equipment to be installed in such conditions.

NOTE 2 Earthing conductors may or may not be insulated.

2 Normative references

The following referenced documents are indispensable for the application 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 60417, *Graphical symbols for use on equipment*

IEC 60423:2007, *Conduit systems for cable management – Outside diameters of conduits for electrical installations and threads for conduits and fittings*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*
Amendment 1 (1999)

IEC 60695-2-11:2000, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products*

IEC 60695-11-2:2003, *Fire hazard testing – Part 11-2: Test flames - 1 kW nominal pre-mixed flame - Apparatus, confirmatory test arrangement and guidance*

3 Terms and definitions

For the purposes of this document, the following definitions apply:

3.1

conduit system

cable management system consisting of conduits and conduit fittings for the protection and management of insulated conductors and/or cables in electrical or communication installations, allowing them to be drawn in and/or replaced, but not to be inserted laterally

3.2**conduit**

part of conduit system of circular cross-section for insulated conductors and/or cables in electrical or communication installations, allowing them to be drawn in and/or replaced

3.3**conduit fitting**

device designed to join components of a conduit system, or for them to change direction

3.4**terminating conduit fitting**

conduit fitting that terminates a conduit system

3.5**metallic conduit and/or conduit fitting**

conduit or conduit fitting which consists of metal only

3.6**non-metallic conduit and/or conduit fitting**

conduit or conduit fitting which consists uniquely of non-metallic material and which has no metallic components whatsoever

3.7**composite conduit and/or conduit fitting**

conduit or conduit fitting comprising both metallic and non-metallic materials

3.8**non-flame propagating conduit and/or conduit fitting**

conduit or conduit fitting which is liable to catch fire as a result of an applied flame, but in which the flame does not propagate, and which extinguishes itself within a limited time after the flame is removed

3.9**plain conduit**

conduit in which the profile is even in the longitudinal section (see note to 3.10)

3.10**corrugated conduit**

conduit in which the profile is corrugated in the longitudinal section

NOTE Both annular and helical corrugated conduits are permissible, and a combination of both corrugated and plain conduit is possible.

3.11**rigid conduit**

conduit which cannot be bent, or which can only be bent with the help of a mechanical aid, with or without special treatment

3.12**pliable conduit**

conduit which can be bent by hand with reasonable force, and which is not intended for frequent flexing

3.13**flexible conduit**

conduit which can be bent by hand with reasonable small force, and which is intended to flex frequently throughout its life