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CONSOLIDATED VERSION

VERSION CONSOLIDÉE

colour inside

Conduit systems for cable management – Part 1: General requirements

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



IEC 61386-1:2008-02+AMD1:2017-04 CSV(en-fr)



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Conduit systems for cable management – Part 1: General requirements

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

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COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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Conduit systems for cable management –
Part 1: General requirements

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



IEC 61386-1:2008-02+AMD1:2017-04 CSV(en-fr)

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CONDUIT SYSTEMS FOR CABLE MANAGEMENT –

Part 1: General requirements

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This Consolidated version of IEC 61386-1 bears the edition number 2.1. It consists of the second edition (2008-02) [documents 23A/553/FDIS and 23A/558/RVD] and its amendment 1 (2017-04) [documents 23A/831/FDIS and 23A/838/RVD]. The technical content is identical to the base edition and its amendment.

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

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

This second edition 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.

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.

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 the base publication and its amendment will remain unchanged until the stability 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.

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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+AMD1:1999+AMD2:2013, *Degrees of protection provided by enclosures (IP Code)*

IEC 60695-2-11:~~2000~~ 2014, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products (GWEPT)*

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*

IEC 61386-21:2002, *Conduit systems for cable management – Part 21: Particular requirements – Rigid conduit systems*

IEC 61386-22:2002, *Conduit Systems for cable management – Part 22: Particular requirements – Pliable conduit systems*

IEC 61386-23:2002, *Conduit systems for cable management – Part 23: Particular requirements – Flexible conduit systems*

IEC 61386-24:2004, *Conduit systems for cable management – Part 24: Particular requirements – Conduit systems buried underground*

IEC 61386-25:2011, *Conduit systems for cable management – Part 25: Particular requirements – Conduit fixing devices*

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