

Australian/New Zealand Standard™

**Conduit systems for cable management**

**Part 1: General requirements**



## **AS/NZS 61386.1:2015**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-004, Electrical Accessories. It was approved on behalf of the Council of Standards Australia on 16 January 2015 and on behalf of the Council of Standards New Zealand on 20 January 2015.  
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The following are represented on Committee EL-004:

Australian Chamber of Commerce and Industry  
Australian Industry Group  
Consumer Electronics Suppliers Association  
Consumers Federation of Australia  
Electrical Compliance Testing Association  
Electrical Regulatory Authorities Council  
Engineers Australia  
International Accreditation New Zealand  
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New Zealand Manufacturers and Exporters Association  
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Australian/New Zealand Standard™

## Conduit systems for cable management

### Part 1: General requirements

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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-004, Electrical Accessories. This Standard will run in parallel to AS/NZS 2053.1:2001, *Conduits and fittings for electrical installations, Part 1: General requirements*. It is the intention of Committee EL-004 that AS/NZS 2053.1 will be withdrawn at some appropriate future time.

The objective of this Standard is to provide Australian and New Zealand electrical industries with general requirements for conduit systems for cable management.

This Standard is Part 1 of the following series:

AS/NZS

61386 Conduit systems for cable management

61386.1 Part 1: General requirements (this Standard)

61386.21 Part 21: Particular requirements—Rigid conduit systems

61386.22 Part 22: Particular requirements—Pliable conduit systems

61386.23 Part 23: Particular requirements—Flexible conduit systems

This Part 1 needs to be used in conjunction with the appropriate particular Standard (Part 21, 22 or 23) for each application.

This Standard is based on but not equivalent to IEC 60386-1, Ed.2.0 (2008), *Conduit systems for cable management, Part 1: General requirements*.

The main areas of variation from IEC include the following:

- (a) Classification.
- (b) Marking requirements.
- (c) Test for pull out strength.
- (d) Dimensions.
- (e) UV resistance.
- (f) Moisture absorption.

The essential safety requirements in AS/NZS 3820, *Essential safety requirements for electrical equipment*, that could be applicable to cable management systems are covered by this Standard.

The term 'normative' has been used in this Standard to define the application of the Appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

**Australian/New Zealand Standard**  
**Conduit systems for cable management**

**Part 1: General requirements**

**1 SCOPE**

This Standard 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 1000 V a.c. and/or 1500 V d.c. This Standard specifies general requirements and is intended to be used in conjunction with the appropriate particular Standard, AS/NZS 61386, Part 21, 22 or 23, for each application.

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 AS/NZS IEC 60670.

**NOTES:**

- 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.
- 2 Earthing conductors may or may not be insulated.

**2 NORMATIVE REFERENCES**

The following are the normative documents referenced in this Standard.

**AS**

- 60417 Graphical symbols for use on equipment (series)  
 60529 Degrees of protection provided by enclosures (IP Code)

**AS/NZS**

- 61386 Conduit systems for cable management  
 61386.21 Part 21: Particular requirements—Rigid conduit systems  
 61386.22 Part 22: Particular requirements—Pliable conduit systems  
 61386.23 Part 23: Particular requirements—Flexible conduit systems

**60695 Fire hazard testing**

- 60695.11.2 Part 11.2: Test flames—1 kW nominal pre-mixed flame—Apparatus, confirmatory test arrangement and guidance

**AS/NZS IEC**

- 60670 Boxes and enclosures for electrical accessories for household and similar fixed electrical installations (series)

**IEC**

- 60754 Test on gases evolved during combustion of materials from cables  
 60754-1 Part 1: Determination of the amount of halogen acid gas