

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
Ministry of Business, Innovation & Employment, New Zealand
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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 It is the intention of Committee EL-004 that AS/NZS 2053.1 will be withdrawn at some appropriate future time.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 61386-1, 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.

CONTENTS

	<i>Page</i>
1 SCOPE.....	4
2 NORMATIVE REFERENCES	4
3 DEFINITIONS	5
4 GENERAL REQUIREMENTS	6
5 GENERAL CONDITIONS FOR TESTS	6
6 CLASSIFICATION.....	8
7 MARKING AND DOCUMENTATION	10
8 DIMENSIONS	11
9 CONSTRUCTION	11
10 MECHANICAL PROPERTIES	12
11 ELECTRICAL PROPERTIES	15
12 THERMAL PROPERTIES	18
13 FIRE HAZARD	18
14 EXTERNAL INFLUENCES	20
15 ELECTROMAGNETIC COMPATIBILITY	23
APPENDICES	
A DETERMINATION OF MATERIAL THICKNESS	30
B CLASSIFICATION CODING FOR CONDUIT SYSTEMS.....	32

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