

Australian/New Zealand Standard™

**Conduits and fittings for electrical
installations**

Part 1: General requirements



Standards Australia



STANDARDS
NEW ZEALAND
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AS/NZS 2053.1:2001

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The following interests are represented on Committee EL-004:
Australasian Railway Association
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Canterbury Manufacturers Association, New Zealand
Consumer Electronic Suppliers Association
Electricity Supply Association of Australia
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Australian/New Zealand Standard™

Conduits and fittings for electrical installations

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 to supersede AS/NZS 2053.1:1995, *Conduits and fittings for electrical installations Part 1: General requirements*, upon publication.

The objective of this Standard is to provide manufacturers, regulators, test laboratories and users with general requirements for conduits and fittings.

This Standard is Part 1 of the following series:

AS/NZS

2053	Conduits and fittings for electrical installations
2053.1	Part 1: General requirements (this Standard)
2053.2	Part 2: Rigid plain conduits and fittings of insulating material
2053.3	Part 3: Rigid plain conduits and fittings of fibre-reinforced concrete material
2053.4	Part 4: Flexible plain conduits and fittings of insulating material
2053.5	Part 5: Corrugated conduits and fittings of insulating material
2053.6	Part 6: Profile-wall, smooth-bore conduits and fittings of insulating material
2053.7	Part 7: Rigid metal conduits and fittings
2053.8	Part 8: Flexible conduits and fittings of metal or composite material

This Standard was revised to introduce the following changes:

- (a) Revision of the requirements for the protection of conduits and fittings.
- (b) Clarification of dimensional requirements.
- (c) Electromagnetic compatibility.
- (d) Revision of the test of resistance to impact.
- (e) Revision of the test of ignitability and flame propagation.
- (f) Revision of the test of level of protection of steel conduits and fittings against corrosive or polluting substances.
- (g) Miscellaneous editorial changes.

Appendices designated as normative are essential to the understanding or implementation of this Standard.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Conduits and fittings for electrical installations**Part 1: General requirements****1 SCOPE AND REFERENCED DOCUMENTS****1.1 Scope**

This Standard specifies general requirements for both metallic and non-metallic conduits and fittings used to protect cables in electrical installations. Mechanical properties, electrical characteristics and material requirements are covered.

1.2 Referenced documents

The following documents are referred to in this Standard:

AS

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| 1660 | Test methods for electrical cables, cords and conductors |
| 1660.5.3 | Part 5.3: Determination of the amount of halogen acid gas evolved during the combustion of polymeric materials taken from cables |
| 1939 | Degrees of protection provided by enclosures for electrical equipment (IP Code) |

AS/NZS

- | | |
|-----------|---|
| 4695 | Fire hazard testing of electrotechnical products |
| 4695.2.41 | Part 2.41: Test methods—1 kW nominal premixed test flame and guidance |

2 DEFINITIONS

For the purpose of this Standard, the following definitions apply.

2.1 Composite conduits and fittings

Conduits and fittings which consist of both conductive and insulating materials.

2.2 Conduit fittings

Devices designed to join or terminate one or more lengths of conduit. Conduit fittings include couplers, elbows, bends, junction boxes and tees.

2.3 Conduits

Parts of a closed wiring system enclosing cables in an electrical installation, which allow the cables to be drawn in or replaced. Conduits may have a circular or non-circular cross-section.

2.4 Corrugated conduits

Conduits having profiles which are corrugated in the longitudinal section, either on their outer surfaces or their inner surfaces, or both.