

AS/NZS 2276.2:1998

Reconfirmed 2017

Australian/New Zealand Standard™

Cables for traffic signal installations

**Part 2: Feeder cable for vehicle
detectors**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL/3, Electric Wires and Cables. It was approved on behalf of the Council of Standards Australia on 11 February 1998 and on behalf of the Council of Standards New Zealand on 12 February 1998. It was published on 5 May 1998.

The following interests are represented on Committee EL/3:

Australian Electrical and Electronic Manufacturers Association
Department of Defence, Australia
Electrical regulatory authorities
Electricity Supply Association of Australia
Institution of Engineers, Australia
Ministry of Commerce, New Zealand
New Zealand Electrical Contractors Association
New Zealand Electrical and Electronic Manufacturers Federation
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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

RECONFIRMATION

OF

AS/NZS 2276.2:1998

Cables for traffic signal installations

Part 2: Feeder cable for vehicle detectors

RECONFIRMATION NOTICE

Technical Committee EL-003 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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The following are represented on Technical Committee EL-003:

Australian Cable Makers' Association
Australian Industry Group
Electrical Compliance Testing Association
Electrical Regulatory Authorities Council
National Electrical and Communications Association
Queensland University of Technology

NOTES

Australian/New Zealand Standard™

Cables for traffic signal installations

Part 2: Feeder cable for vehicle detectors

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PREFACE

This Standard was prepared by the Standards Australia/Standards New Zealand Committee EL/3, Electric Wires and Cables, to supersede AS 2276.2—1986.

The objective of the Standard is to provide manufacturers and suppliers with requirements for feeder cables intended for the interconnection of traffic signal vehicle detector equipment and inductive type vehicle detector loops.

Constructional dimensions of the cable are determined by the insulation requirements for cables installed in a common duct or conduit with other low voltage cables; and also by special requirements, e.g. mutual capacitance, capacitance unbalance, characteristic impedance, mechanical strength properties and dimensions.

This edition of the Standard differs from the previous edition, as follows:

- (a) Type 03 insulation has been changed to Type 1 Category 5 (see AS 1049, *Telecommunication cables—Insulation, sheath and jacket*).
- (b) Metallic screen requirements have been amended.
- (c) Table 1 has been amended. The previous Test No. 4 and Test No. 11 have been deleted and Test No. 14 (previously No. 15) has been changed to 'Sample' category.
- (d) A new Purchasing Guidelines Appendix has been added.
- (e) This edition is issued as a Joint Australian/New Zealand Standard.
- (f) The option of using binding tapes has been included.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Cables for traffic signal installations**Part 2: Feeder cable for vehicle detectors**

1 SCOPE This Standard specifies requirements for screened, twisted balanced-twin feeder cable, intended for use in traffic signal installations for the interconnection of vehicle detector equipment and inductive type vehicle detector loops.

The cable is intended to operate in extra-low voltage (ELV) circuits in traffic signal installations, to have a nominal characteristic impedance (Z_c) of 90 Ω at 50 kHz and to exhibit minimum change in its characteristics under adverse service environmental conditions.

NOTE: Purchasing guidelines are given in Appendix A.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

1049 Telecommunication cables—Insulation, sheath and jacket

1125 Conductors in insulated electric cables and flexible cords

AS/NZS

1660 Test methods for electric cables, cords and conductors (all Parts)

3808 Insulating and sheathing materials for electric cables

3 DEFINITIONS For the purpose of this Standard, the definitions given in the referenced Standards and those below apply.

3.1 Core—conductor with its insulation but not including any screen or protective covering.

3.2 Core conductor—conductor that has the specific function of conveying signal-loop current.

3.3 Drain conductor—conductor that has the specific function of ensuring electrical continuity of a metallic tape screen throughout the length of the cable.

3.4 Lay-up—the assembling of cores.

3.5 Length of lay—axial distance between each successive turns of the helix formed by a core of a two-core cable.

3.6 Routine tests—tests made by the manufacturer on all completed cable to demonstrate the integrity of the cable.

3.7 Sample tests—tests made by the manufacturer on samples of completed cable, or components taken from the completed cable, adequate to verify that the finished product meets the design specifications.