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AS 2703—2008

Australian Standard®

# Vehicle loop detector sensors

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This Australian Standard® was prepared by Committee LG-006, Road Traffic Signals. It was approved on behalf of the Council of Standards Australia on 13 November 2008.
This Standard was published on 17 December 2008.

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- ARRB Transport Research Limited
- Australian Industry Group
- AUSTROADS
- Brisbane City Council
- Department for Transport, Energy and Infrastructure (SA)
- Hire and Rental Industry Association of Australia
- IES: The Lighting Society
- Lighting Council of Australia
- Main Roads Department, Qld
- Roads and Traffic Authority of NSW
- VicRoads

This Standard was issued in draft form for comment as DR 07371.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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# Australian Standard®

# Vehicle loop detector sensors

Originated as AS 2703—1984.
Previous edition 1987.
Third edition 2008.

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Published by Standards Australia GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 8984 6

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# PREFACE

This Standard was prepared by Standards Australia Committee LG-006, Road Traffic Signals, to supersede AS 2703—1987. It is one of the following group of Standards, which set out requirements for equipment associated with traffic signal installations:

AS

| | |
|---|---|
| 2339 | Traffic signal posts and attachments |
| 2353 | Pedestrian push-button assemblies |
| 2578 | Traffic signal controllers |
| 2578.1 | Part 1: Physical and electrical compatibility |
| 2703 | Vehicle loop detector sensors (this Standard) |
| 2979 | Traffic signal mast arms |
| 4113 | Traffic signal lamps |
| 4113.1 | Part 1: Lamps for 240 V a.c. operation |
| 4113.2 | Part 2: Lamps for a.c. operation at extra-low voltage |
| 4191 | Portable traffic signal systems |
| 4192 | Illuminated flashing arrow signs |

AS/NZS

| | |
|---|---|
| 2144 | Traffic signal lanterns |

This Standard applies particularly to the electronic equipment used in traffic control and counting systems for the detection of vehicles. Such equipment is used in conjunction with inductive wire loops buried beneath the surface of the road pavement to provide the detection system. To a major extent the detection characteristics are determined by the actual loop configuration used. Standards for the cables used in the construction of these loops are as follows:

AS/NZS

| | |
|---|---|
| 2276 | Cables for traffic signal installations |
| 2276.2 | Part 2: Feeder cable for vehicle detectors |
| 2276.3 | Part 3: Loop cable for vehicle detectors |

The requirements of Section 4 of this Standard have been framed in such a way that the performance of vehicle loop detector sensors can be assessed independently of other elements of the detection system. A suggested series of type tests for checking the operational performance of the sensors is provided in Appendix B. Recommended routine tests are described in Appendix C.

The major changes to this edition of the Standard relate to the addition of integral detector units, which are sensor units incorporated integrally within a traffic signal controller. Also, the size restriction for independent multi-channel detector units has been reduced significantly. Other changes involve corrections of existing requirements or editorial clarifications.

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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