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Interested committees:

Title: Draft BS ISO 19237 Intelligent transport systems — Pedestrian detection and collision mitigation systems (PDCMS) — Performance requirements and test procedures.

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



DRAFT International Standard

ISO/DIS 19237

Intelligent transport systems — Pedestrian detection and collision mitigation systems (PDCMS) — Performance requirements and test procedures

Systèmes de transport intelligents — Systèmes de détection des piétons et de prévention des collisions (PDCMS) — Exigences de performance et procédures d'essai

ICS: 35.240.60; 43.040.80; 03.220.01

ISO/TC 204

Secretariat: **ANSI**

Voting begins on:
2025-09-19

Voting terminates on:
2025-12-12

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

Introduction

The fatality and severe injury rates of traffic accidents involving pedestrians are significantly high, resulting in the loss of many lives.

Pedestrian Detection and Collision Mitigation Systems (PDCMS) reduce the severity of pedestrian collisions that cannot be avoided, and may reduce the likelihood of fatality. By a collision warning (CW) and automatically activating EB, PDCMS assist in slowing a vehicle when a collision is likely.

Functional elements of PDCMS are shown in [Figure 1](#).

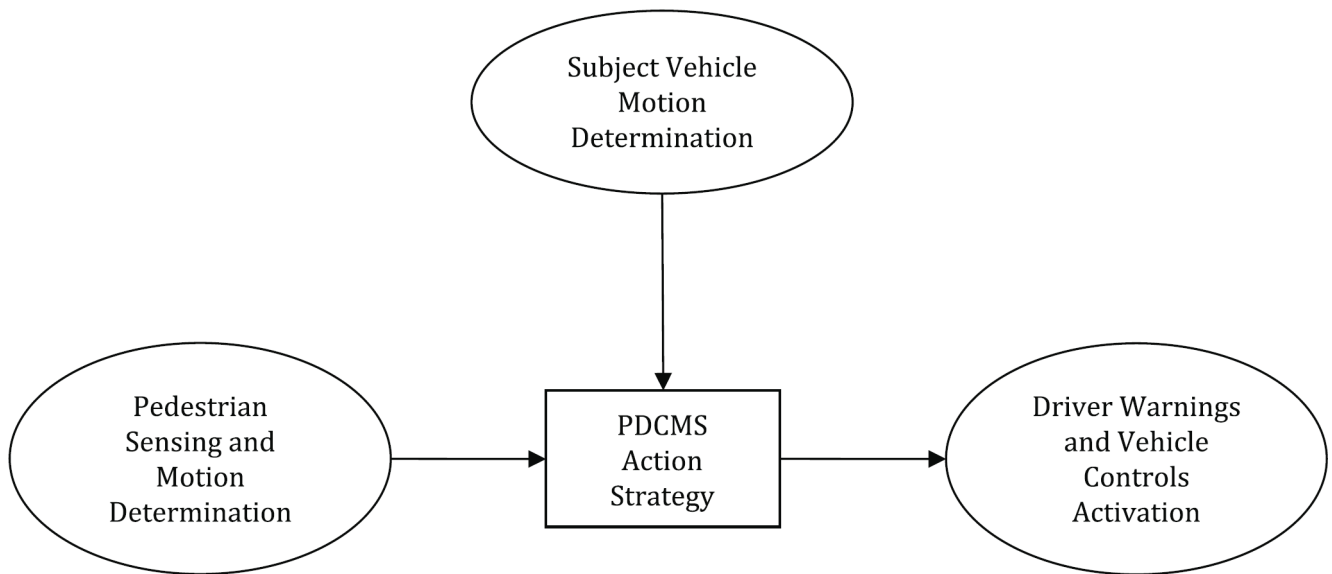


Figure 1 — Pedestrian Detection and Collision Mitigation Systems (PDCMS) functional elements

System designers and other users of this document may apply it to stand-alone PDCMS or to the integration of the PDCMS functions into other driving assistance and support systems.

Intelligent transport systems — Pedestrian detection and collision mitigation systems (PDCMS) — Performance requirements and test procedures

1 Scope

This document specifies the concept of operation, minimum functionality, system requirements, system interfaces, and test procedures for Pedestrian Detection and Collision Mitigation Systems (PDCMS). It specifies the behaviours that are required for PDCMS, and the system test criteria necessary to verify that a given implementation meets the requirements of this document. Implementation choices are left to system designers wherever possible.

PDCMS reduce the severity of pedestrian collisions that cannot be avoided, and may reduce the likelihood of fatality and severity of injury. PDCMS require information about range to pedestrians, motion of pedestrians, motion of the subject vehicle (SV), driver commands and driver actions. PDCMS detect pedestrians ahead of time, determine if detected pedestrians represent a hazardous condition, and warn the driver if a hazard exists. PDCMS estimate if the driver has an adequate opportunity to respond to the hazard. If there is inadequate time available for the driver to respond, and if appropriate criteria are met, PDCMS determine that a collision is imminent. Based upon this assessment, PDCMS will activate CWs and vehicle brakes to mitigate collision severity. This document, while not a collision avoidance standard, does not preclude a manufacturer from implementing collision avoidance with PDCMS.

Systems that include other countermeasures such as evasive steering are not within the scope of this document.

Responsibility for the safe operation of the vehicle remains with the driver.

This document applies to light duty passenger vehicles (see 3.6). It does not apply to other vehicle categories such as heavy vehicles or motorcycles. PDCMS are not intended for off-road use.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1176, *Road vehicles — Masses — Vocabulary and codes*

ISO 19206-2, *Road vehicles — Test devices for target vehicles, vulnerable road users and other objects, for assessment of active safety functions — Part 2: Requirements for pedestrian targets*

ISO 19476:2014, *Characterization of the performance of illuminance meter and luminance meter*

UNITED NATIONS ECONOMIC AND SOCIAL COUNCIL WORLD FORUM FOR HARMONIZATION OF VEHICLE REGULATIONS. (WP.29) TRANS/WP.29/78/Rev.2

UNITED NATIONS ECONOMIC AND SOCIAL COUNCIL WORLD FORUM FOR HARMONIZATION OF VEHICLE REGULATIONS. (WP.29) TRANS/WP.29/1045

FMVSS No. 105; Hydraulic and electric brake systems