



BSI Standards Publication

**Intelligent transport systems — Lane  
departure warning systems — Performance  
requirements and test procedures**

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## National foreword

This British Standard is the UK implementation of ISO 17361:2017+A1:2023. It supersedes BS ISO 17361:2017, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to ISO text carry the number of the ISO amendment. For example, text altered by ISO amendment 1 is indicated by A1 A1.

The UK participation in its preparation was entrusted to Technical Committee EPL/278, Intelligent transport systems.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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**Intelligent transport systems —  
Lane departure warning systems —  
Performance requirements and test  
procedures**

*Systèmes intelligents de transport — Systèmes d'avertissement de  
départ de ruelle — Exigences de performance et méthodes d'essai*



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# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Specifications and requirements</b> .....	<b>5</b>
4.1 System functions.....	5
4.2 System classification.....	6
4.3 Requirements.....	6
4.3.1 Basic requirements.....	6
4.3.2 Operational requirements.....	7
4.3.3 Human interface requirements.....	7
4.4 Optional functions.....	8
<b>5 Test method</b> .....	<b>8</b>
5.1 Test environment conditions.....	8
5.2 Test course conditions.....	9
5.3 Test vehicle conditions.....	9
5.4 Test system installation and configuration.....	9
5.5 Test procedure.....	9
5.5.1 Parameters recoverable from data record.....	9
5.5.2 Procedure.....	9
5.6 Criteria for passing the tests.....	11
5.6.1 Warning generation test.....	11
5.6.2 Repeatability test.....	11
5.6.3 False alarm test.....	11
<b>Bibliography</b> .....	<b>12</b>

## 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](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

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

This second edition cancels and replaces the first edition (ISO 17361:2007), of which it constitutes a minor revision with the following modifications:

- [Clause 2](#) has been updated;
- Annex A has been deleted;
- reference to Annex A has been changed to ISO 11270 in [3.2](#);
- inequality signs have been updated to Unicode.

## Introduction

Lane departure warning systems (LDWSs) are based on fundamental traffic rules. The main focus of an LDWS is to help the driver keep the vehicle in the lane on highways and highway-like roads. Accordingly, a warning is issued to alert the driver in case of lane departure caused by, for example, inattention. LDWSs are not intended to issue warnings with respect to collisions with other vehicles or to control vehicle motions.

# Intelligent transport systems — Lane departure warning systems — Performance requirements and test procedures

## 1 Scope

This document specifies the definition of the system, classification, functions, human-machine interface (HMI) and test methods for lane departure warning systems. These are in-vehicle systems that can warn the driver of a lane departure on highways and highway-like roads. The subject system, which may utilize optical, electromagnetic, GPS or other sensor technologies, issues a warning consistent with the visible lane markings. The issuance of warnings at roadway sections having temporary or irregular lane markings (such as roadwork zones) is not within the scope of this document. This document applies to passenger cars, commercial vehicles and buses. The system will not take any automatic action to prevent possible lane departures. Responsibility for the safe operation of the vehicle remains with the driver.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

### 3.1 lane

area of roadway that a vehicle would be expected to travel along in the absence of any obstruction without the driver's desire to change the path of travel

### 3.2 visible lane marking

delineators intentionally placed on the borderline of the *lane* (3.1) that are directly visible by the driver while driving (i.e. not covered by snow, etc.)

Note 1 to entry: ISO 11270:2014, Annex B gives country-specific visible lane-marking definitions.

### 3.3 incidental visible road feature

visible patterns on the road surface that were not explicitly intended to delineate the boundaries of the *lane* (3.1) but which are indicative of the position of the lane

Note 1 to entry: These include such features as pavement seams or edges, kerbs, and tracks or ruts left by previous vehicles.

### 3.4 lane boundary

borderline of the *lane* (3.1), situated at the centre of a *visible lane marking* (3.2) or, in the absence of a visible lane marking, determined by *incidental visible road features* (3.3) or other means such as GPS, magnetic nails, etc.