Irish Standard
I.S. EN 16661:2015

Road vehicles and Tyre Pressure Gauges (TPG) - Interoperability between Tyre Information Systems (TIS) and TPG - Interfaces and Requirements

I.S. EN 16661:2015

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English Version

Road vehicles and Tyre Pressure Gauges (TPG) - Interoperability between Tyre Information Systems (TIS) and TPG - Interfaces and Requirements

Véhicules routiers et manomètres de pneumatiques (TPG) - Interopérabilité entre systèmes d'information de pneumatiques (TIS) et TPG - Interfaces et exigences

Reifendruck Management Systeme (TPMS) und Reifendruck Anzeigen - Interoperabilität zwischen TPMS im Fahrzeug und Füllsystemen (TPG) - Schnittstellen und Anforderungen

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Foreword

This document (EN 16661:2015) has been prepared by Technical Committee CEN/TC 301 “Road vehicles”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2015, and conflicting national standards shall be withdrawn at the latest by December 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under mandate M/457 given to CEN by the European Commission and the European Free Trade Association.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The general objective of this document is the capability of standardized interactivity between tyre pressure gauges (TPG) with tyre information systems (TIS), which provide all relevant data for tyre (re-)filling process for example placard information and/or the tyre pressure monitored via Tyre Pressure Monitoring System (TPMS).

EU regulation No 661/2009 is requiring TPMS on all newly homologated car types by November 2012 and on new cars by November 2014.

Increasing potential of TIS/TPMS and TPG, this document is part of the future European standards covering the interoperability of TPG with TIS, through standardized interfaces and data exchange formats, allowing advanced information management and exchange. The architecture is open and scalable to support from the most complex (full interoperability) to the simplest (fully manual) applications. Furthermore, the architecture considers relevant ways of communication. The communication standard allows the secure interfacing for data exchanges between the TPG and TIS.

1 Scope

This European Standard applies to the tyre pressure gauges (TPG) which operate using pressure equipment (devices used in fixed or mobile installations) to inflate the tyres of road using vehicles (M1 and M2 categories) and which may be capable of interacting with vehicles equipped with tyre pressure monitoring systems (TPMS) whereby the TPG may be steered by the TPMS/vehicle.

To set the correct tyre inflation, this European Standard defines requirements and processes for the interoperability of TPG with TPMS/vehicle, through standardized interfaces and data exchange formats allowing advanced information, management and control systems between TPG and TPMS/vehicle. The architecture is open and scalable to support the different levels of interoperability (from full interoperability to fully manual).

This European Standard does not define communication protocols (works specifically made under M/453 European mandate).

This European Standard may be applied to all TPG categories referenced in EN 12645.

The driver/operator is considered as being responsible for the validation of the parameters and tyre pressure.

This European Standard will be applicable upon development of Infrastructure solution (V2I-I2V communication solutions)

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ETSI DTS 101 556-2, *Intelligent Transport System (ITS) — Infrastructure to Vehicle (I2V) communication — Communication system specification to support application requirements for Tyre Pressure Monitoring System (TPMS)*

ISO 639-1, *Codes for the representation of names of languages — Part 1: Alpha-2 code*

3 Conformance

In order to claim conformance with this European Standard, communication shall be established using accepted wireless communication standards (defined in ETSI DTS 101 556-2) and comply with the standards developed for the European mandate M/453 (Standardization mandate addressed to CEN, CENELEC and ETSI in the field of Information and Communication Technologies to support the interoperability of Co-operative systems for Intelligent Transport in the European Community).

It shall be able to demonstrate an open scalable architecture (from full interoperability to fully manual), depending on data availability defined herein.