BS EN 12645:2014

BSI Standards Publication

Tyre pressure measuring instruments — Devices for inspection of pressure and/or inflation / deflation of tyres for motor vehicles — Metrology, requirements and testing

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This British Standard is the UK implementation of EN 12645:2014. It supersedes BS EN 12645:1999 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GEL/605, Pressure gauges and switches.

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

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Compliance with a British Standard cannot confer immunity from legal obligations.

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English Version

Tyre pressure measuring instruments - Devices for inspection of pressure and/or inflation / deflation of tyres for motor vehicles - Metrology, requirements and testing

Instruments de mesure de la pression des pneumatiques - Dispositifs de contrôle de la pression et/ou de gonflage / dégonflage des pneumatiques des véhicules motorisés - Métrologie, exigences et essais

Reifendruckmessgeräte - Geräte zum Prüfen des Druckes und/oder zum Füllen / Entleeren von Reifen an Kraftfahrzeugen - Messtechnik, Anforderungen und Prüfungen

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN 12645:2014) 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of an identical text or by endorsement, at the latest by February 2015, and conflicting national standards shall be withdrawn at the latest by February 2015.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 supersedes EN 12645:1998, and additionally to the tyre pressure mechanical measuring instruments, introduces new clauses for the electronic devices (requirements, test methods) and for the metrological control (during type approval, initial and subsequent verification, and in-service control).

This document has been prepared under a 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 organizations 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.

1 Scope

This European Standard defines metrological and technical requirements and tests of tyre pressure measuring instruments.

Tyre pressure measuring instruments (often referred to as Tyre Pressure Gauges, [TPG]) are for the inspection of pressure and/or inspection of inflation/deflation of tyres of motor vehicles.

It establishes in the context of motor vehicles tyres, the minimum characteristics of the chain of measurement of tyre pressure measuring instruments intended to inspect or adjust the pressure of tyres inflated by air or nitrogen.

These devices, classified in different categories, are hereinafter referred to by generic term, “tyre pressure measuring instruments”.

This chain of measurement consists of all the elements between the tyre valve and the display device (connector, hose, control device, measurement components, reservoir, preset device etc.).

They indicate the pressure difference (p_e) between the air or the nitrogen in the tyre and the atmosphere.

The field of application established above can be extended to other applications where no specific standard exists.

Because of the influence of tyre pressure on road safety and energy efficiency, periodical verification of tyre pressure measuring instruments is strongly recommended.

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.

EN 837-1, *Pressure gauges - Part 1: Bourdon tube pressure gauges - Dimensions, metrology, requirements and testing*

EN 837-3, *Pressure gauges - Part 3: Diaphragm and capsule pressure gauges - Dimensions, metrology, requirements and testing*

EN 60068-2-1, *Environmental testing - Part 2-1: Tests - Test A: Cold*

EN 60068-2-2, *Environmental testing - Part 2-2: Tests - Test B: Dry heat*

EN 60068-2-11, *Environmental testing - Part 2: Tests - Test Ka: Salt mist*

EN 60068-2-30, *Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)*

EN 60068-2-32, *Basic environmental testing procedures — Part 2: Tests — Test Ed: Free fall (IEC 60068-2-32)*

EN 60068-2-47, *Environmental testing - Part 2-47: Tests - Mounting of specimens for vibration, impact and similar dynamic tests*

EN 60068-2-64, *Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance*