Road vehicles - Security of the mechanical seals used on tachographs - Requirements and test procedures



## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

	This Estonian standard EVS-EN 16882:2016 consists of the English text of the European standard EN 16882:2016.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 30.11.2016.	Date of Availability of the European standard is 30.11.2016.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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## ICS 43.040.30

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# EUROPEAN STANDARD

NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

November 2016

EN 16882

ICS 43.040.30

## **English Version**

# Road vehicles - Security of the mechanical seals used on tachographs - Requirements and test procedures

Véhicules routiers - Sécurité des scellés mécaniques utilisés sur des chronotachygraphes - Exigences et procédures d'essais Straßenfahrzeuge - Sicherheit von mechanischen Siegeln für Tachographen - Anforderungen und Testmethoden

This European Standard was approved by CEN on 18 October 2016.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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## **European foreword**

This document (EN 16882:2016) has been prepared by Technical Committee CEN/TC 301 "Road vehicles" and its working group WG10, 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 May 2017, and conflicting national standards shall be withdrawn at the latest by May 2017.

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

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association: M/502 Mandate to CEN, CENELEC and ETSI concerning standardization within the context of Regulation No. 3821/85 on recording equipment in road transport, for purpose of developing seals for digital tachographs.

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, .d, Roma. 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 is intended to provide technical specifications for mechanical seals to enhance the security of digital tachograph systems. It applies to the category of vehicles as defined in European Regulation  $n^{\circ}165/2014$ .

NOTE 1 This European Standard is primarily intended to digital tachographs but can be applied to analog tachographs.

NOTE 2 Any type of seals which meet the requirements within this European Standard can be used.

### 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.

DIN 52348, Testing of glass and plastics; abrasion test; sand trickling method

EN 60068-2-6, Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal) (IEC 60068-2-6)

EN 60068-2-14, Environmental testing - Part 2-14: Tests - Test N: Change of temperature (IEC 60068-2-14)

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

EN 60068-2-38, Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test (IEC 60068-2-38)

EN ISO 105-X12, Textiles - Tests for colour fastness - Part X12: Colour fastness to rubbing (ISO 105-X12)

IEC 60068-2-64:2008, Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance

ISO 16750-5:2010, Road vehicles — Environmental conditions and testing for electrical and electronic equipment — Part 5: Chemical loads

Regulation EU (No) 165/2014 of the European Parliament and of the Council of 4 February 2014 on tachographs in road transport, repealing Council Regulation (EEC) No 3821/85 on recording equipment in road transport and amending Regulation (EC) No 561/2006 of the European Parliament and of the Council on the harmonization of certain social legislation relating to road transport

## 3 Terms and definitions

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

#### 3.1

#### tachograph system

chain of following components (as defined in Figure 1): vehicle unit, cabling, and motion sensor