

## **Kerg- ja raskeveokite automaatsed LPG tankimissüsteemid. Otsik, katsenõuded ja mõõtmed**

Automotive LPG filling system for light and heavy duty vehicles - Nozzle, test requirements and dimensions

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13760:2003 sisaldab Euroopa standardi EN 13760:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 17.09.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13760:2003 consists of the English text of the European standard EN 13760:2003.</p> <p>This document is endorsed on 17.09.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> This European Standard specifies the minimum design, construction, test requirements and the critical dimensions for filling nozzles for the dispensing of automotive Liquefied Petroleum Gas (LPG) to vehicles of categories M and N, as defined in EC Directive 70/156, that are fitted with the Euro filling unit (light duty or heavy duty)</p>	<p><b>Scope:</b> This European Standard specifies the minimum design, construction, test requirements and the critical dimensions for filling nozzles for the dispensing of automotive Liquefied Petroleum Gas (LPG) to vehicles of categories M and N, as defined in EC Directive 70/156, that are fitted with the Euro filling unit (light duty or heavy duty)</p>
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**Võtmesõnad:** classifications, filling devices, liquefied petroleum gas I, liquefied petroleum gases, marking, mathematics, minimum requirements, motor vehicles, petroleum products, properties, regulations, roadside petrol pumps, specification (approval), specifications, testing

ICS 43.060.40; 75.200

English version

## Automotive LPG filling system for light and heavy duty vehicles - Nozzle, test requirements and dimensions

Dispositif de remplissage GPL pour véhicules légers et  
poids lourds - Pistolet: conditions d'essais et dimensions

Füllsysteme an Autogasanlagen für leichte und schwere  
Fahrzeuge - Anschlussstutzen, Prüfanforderungen und  
Abmessungen

This European Standard was approved by CEN on 25 April 2003.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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## Foreword

This document EN 13760:2003 has been prepared by Technical Committee CEN/TC 286 "Liquefied Petroleum Gas equipment and accessories", the secretariat of which is held by NSAI.

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 2004, and conflicting national standards shall be withdrawn at the latest by February 2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of **EU Directive(s)**.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

Annexes A and B are normative.

This document does not deal with the essential safety requirements of the Directive 97/23/EEC (PED).

In the PED the nozzle is classified as a "pressure accessory". It is intended to be connected to a hose, which is classified as "piping".

- Article 1, 3.6 of Directive 97/23/EEC excludes equipment classified as no higher than category 1 under article 9 if it is covered by Directive 94/9/EC (ATEX).
- This document addresses the essential health and safety requirements of Directive 94/9/EC.
- The category 1 limit is defined in Annex 2 Table 6 of the PED and is a function of the product of DN and PS with a limit of 1 000.
- Because the design pressure (PS) in this document is 2 500 kPa and the DN of the intended hose is less than 40, the figure of 1 000 in Table 6 is not reached.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This European Standard specifies the minimum design, construction, test requirements and the critical dimensions for filling nozzles for the dispensing of automotive Liquefied Petroleum Gas (LPG) to vehicles of categories M and N, as defined in EC Directive 70/156, that are fitted with the Euro filling unit (light duty or heavy duty).

## 2 Normative references

This European Standard incorporates by dated or undated references, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any the publications apply to this European standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 549, *Rubber materials for seals and diaphragms for gas appliances and gas equipment.*

EN 589, *Automotive fuels - LPG - Requirements and test methods.*

EN 12806, *Automotive liquefied petroleum gas components - Other than containers.*

EN 13463-1, *Non-electrical equipment for potentially explosive atmospheres – Part 1: Basic method and requirements.*

EN ISO 11114-2, *Transportable gas cylinders – Compatibility of cylinder and valve materials with gas contents – Part 2: Non-metallic materials (ISO 11114-2:2000).*

ISO 188, *Rubber, vulcanized or thermoplastic - Accelerated ageing and heat resistance tests.*

ISO 1431-1, *Rubber, vulcanized or thermoplastic - Resistance to ozone cracking – Part 1: Static strain test.*

ISO 6957, *Copper alloys – Ammonia test for stress corrosion resistance.*

ISO 9227, *Corrosion tests in artificial atmospheres - Salt spray tests.*

IEC 68-2-52, *Environmental testing – Part 2: Tests – Test Kb: Salt mist, cyclic (sodium, chloride solution).*

## 3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply:

### 3.1

#### **pressure**

gauge pressure, unless otherwise stated

### 3.2

#### **design pressure**

maximum pressure at which the filling nozzle may be used

### 3.3

#### **test pressure**

pressure to which the component, or an assembly of components, is subjected during the tests

### 3.4

#### **filling nozzle**

mechanical system, fitted to the hose of the dispensing system, consisting of a filling nozzle body, operating mechanism, including sealing elements and a service gasket if required