

## საქართველოს სტანდარტი

---

LPG მოწყობილობები და აქსესუარები-წნევის მცველი სარქველები LPG  
მაღალი წნევის ჭურჭელისათვის

საქართველოს სტანდარტებისა და მეტროლოგიის  
ეროვნული სააგენტო  
თბილისი

სსტ ენ 14129:2014/2015

საინფორმაციო მონაცემები

1 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს 2015 წლის 4 მარტის № 14 განკარგულებით

2 მიღებულია თავფურცლის თარგმნის მეთოდით სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ 14129:2014 „LPG მოწყობილობები და აქსესუარები-წნევის მცველი სარქველები LPG მაღალი წნევის ჭურჭელისათვის“

3 პირველად

4 რეგისტრირებულია საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2015 წლის 4 მარტი №268-1.3-6704

აკრძალულია ამ სტანდარტის გადაცემა მესამე პირებისათვის ან/და მისი სხვა ფორმით გავრცელება

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

English Version

## LPG Equipment and accessories - Pressure relief valves for LPG pressure vessels

Équipements pour GPL et leurs accessoires - Soupapes de sécurité pour réservoirs de GPL sous pression

Flüssiggas-Geräte und Ausrüstungsteile - Sicherheitsventile für Druckbehälter für Flüssiggas (LPG)

This European Standard was approved by CEN on 30 November 2013.

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.

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

<b>Contents</b>	<b>Page</b>
Foreword.....	4
Introduction .....	5
<b>1 Scope .....</b>	<b>6</b>
<b>2 Normative references .....</b>	<b>6</b>
<b>3 Terms and definitions .....</b>	<b>7</b>
<b>4 Operating conditions.....</b>	<b>10</b>
<b>5 Materials .....</b>	<b>10</b>
5.1 General.....	10
5.2 Metallic materials .....	10
5.3 Non-metallic components .....	11
5.4 Lubricants, sealants, and adhesives .....	11
5.5 Certification .....	11
<b>6 Design .....</b>	<b>12</b>
6.1 General.....	12
6.2 Design parameters.....	13
6.3 Threads .....	14
6.4 Springs.....	14
6.5 Additional requirements .....	14
6.6 Pressure relief valve with parallel thread.....	15
6.7 Pressure relief valve for use with a changeover manifold .....	15
6.8 Pilot operated pressure relief valve .....	15
<b>7 Testing of the design.....</b>	<b>16</b>
7.1 General.....	16
7.2 Test requirements .....	17
7.3 Dimensional checks .....	19
7.4 Hydraulic proof test .....	19
7.5 Overtorquing test.....	19
7.6 Start to discharge pressure test.....	19
7.7 Discharge capacity test.....	20
7.8 Leak tightness tests .....	20
7.9 Ageing test .....	20
7.10 Endurance test .....	21
7.11 Stress cracking test.....	21
7.11.1 General.....	21
7.11.2 Mercurous nitrate immersion test.....	21
7.11.3 Moist ammonia air stress cracking test .....	21
7.12 Vacuum test.....	21
7.13 Visual inspection .....	21
7.14 Test records .....	22
<b>8 Marking .....</b>	<b>22</b>
8.1 Pressure relief valves .....	22
8.2 Thermal expansion valves .....	22
8.3 Pilot operated pressure relief valve .....	23
<b>9 Operating instructions .....</b>	<b>23</b>

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

<b>10</b>	<b>Packaging</b> .....	<b>24</b>
	<b>Annex A (informative) Terms used with LPG pressure relief valves</b> .....	<b>25</b>
	<b>Annex B (normative) Special low temperature requirements for valves</b> .....	<b>26</b>
	<b>Annex C (normative) Ageing test</b> .....	<b>27</b>
<b>C.1</b>	<b>General</b> .....	<b>27</b>
<b>C.2</b>	<b>Ultraviolet light</b> .....	<b>27</b>
<b>C.3</b>	<b>Rain</b> .....	<b>27</b>
	<b>Annex D (informative) Environment checklist</b> .....	<b>30</b>
	<b>Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 97/23/EC</b> .....	<b>31</b>
	<b>Bibliography</b> .....	<b>32</b>

## Foreword

This document (EN 14129:2014) 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 August 2014, and conflicting national standards shall be withdrawn at the latest by August 2014.

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 14129:2004.

This European Standard has been submitted for reference into:

- the RID [9]; and
- the technical annexes of the ADR [10].

NOTE These regulations take precedence over any clause of this European Standard. It is emphasised that RID/ADR/ADN are being revised regularly at intervals of two years which may lead to temporary non-compliances with the clauses of this European Standard.

The major changes to this revision include the addition of:

- pilot operated pressure relief valve;
- an ageing test, see 7.9 and Annex C;
- an endurance test, see 7.10; and
- a stress cracking test, see 7.11.

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(s), see informative Annex ZA, which is an integral part of this document.

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.

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

## Introduction

This European Standard calls for the use of substances and procedures that may be injurious to health and/or the environment if adequate precautions are not taken. It refers only to technical suitability: it does not absolve the user from their legal obligations at any stage.

Protection of the environment is a key political issue in Europe and elsewhere around the world. Protection of the environment in this document is understood in a very broad sense. The phrase is used, for example, in relation to the total life-cycle aspects of a product on the environment, including expenditure of energy, and during all phases of its existence, from mining of raw materials, to fabrication, packaging, distribution, use, scrapping, recycling of materials, etc.

NOTE 1 Annex D comprises an environmental checklist which highlights the clauses of this European Standard that address environmental aspects.

Provisions have to be restricted to a general guidance. Limit values are specified in national laws.

It is recommended that manufacturers develop an environmental management policy. For guidance see the EN ISO 14000 series [6], [7] and [8].

It has been assumed in the drafting of this European Standard that the execution of its provisions is entrusted to appropriately qualified and experienced people.

All pressures are gauge pressures unless otherwise stated.

Valves designed in accordance with this standard are specifically for use in LPG applications. Valves manufactured in accordance EN ISO 4126-1 may also be used in certain LPG applications.

NOTE 2 This European Standard requires measurement of material properties, dimensions and pressures. All such measurements are subject to a degree of uncertainty due to tolerances in measuring equipment, etc. It may be beneficial to refer to the leaflet "measurement uncertainty leaflet" SP INFO 2000 27 [13].