## STN

## Zariadenie a príslušenstvo na LPG Tlakové poistné ventily pre tlakové nádoby na LPG Príslušenstvo

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LPG equipment and accessories - Pressure relief valves for LPG pressure vessels - Ancillary equipment

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/25

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## **English Version**

# LPG equipment and accessories - Pressure relief valves for LPG pressure vessels - Ancillary equipment

Équipements pour GPL et leurs accessoires - Soupapes de sécurité des réservoirs de gaz de pétrole liquéfié (GPL) - Équipements auxiliaires Flüssiggas-Geräte und Ausrüstungsteile -Druckentlastungsventile für Druckbehälter für Flüssiggas (LPG) - Zusatzausrüstung

This European Standard was approved by CEN on 27 October 2024.

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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 foreword**

This document (EN 14071:2024) has been prepared by Technical Committee CEN/TC 286 "LPG 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of an identical text or by endorsement, at the latest by May 2025, and conflicting national standards shall be withdrawn at the latest by May 2025.

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 standardization request 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.

This document supersedes EN 14071:2015+A1:2019.

The major changes in comparison to the previous edition include:

- Revision of 5.2 Metallic materials;
- Revision of 5.3 Non-metallic materials;
- Clarification to Table 1
- Revision of 6.3 Vent pipe
- Revision to the resistance of the isolating mechanism test, 7.6;
- Revision to the operation test, 7.8;
- Revision of the Kd value for M 36;
- Revision of Annex ZA.

Any feedback and questions on this document should be directed to the users'national standards body. A complete listing of these bodies can be found on the CENwebsite.

According to the CEN-CENELEC Internal Regulations, the national standardsorganisations of the following countries are bound to implement this EuropeanStandard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic ofNorth Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

## Introduction

This document 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.

It is recommended that manufacturers develop an environmental management policy. For guidance, see the EN ISO 14000 series [1], [2] and [3].

Protection of the environment is a key political issue in Europe and elsewhere. For TC 286 this is covered in CEN/TS 16765 [4] *LPG equipment and accessories - Environmental considerations for CEN/TC 286 standards*, and this Technical Specification should be read in conjunction with this document. The Technical Specification provides guidance on the environmental aspects to be considered regarding equipment and accessories produced for the LPG industry and the following is addressed:

- a) design;
- b) manufacture;
- c) packaging;
- d) use and operation; and
- e) disposal.

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

All pressures are gauge pressures unless otherwise stated.

NOTE This document 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 [5].

## 1 Scope

This document specifies the design, testing and inspection requirements for pressure relief valve (PRV), isolating devices, valve manifolds, vent pipes and system assemblies which are, where necessary, used with PRVs for use in static pressure vessels for Liquefied Petroleum Gas (LPG) service.

This document addresses both prototype testing and production testing of isolating devices and PRV manifolds.

PRVs for LPG pressure vessels are specified in EN 14129:2024.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 549:2019+A2:2024, Rubber materials for seals and diaphragms for gas appliances and gas equipment

EN 751-1:1996, Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 1: Anaerobic jointing compounds

EN 751-2:1996, Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 2: Non-hardening jointing compounds

EN 751-3:2022+A1:2023, Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 3: Unsintered PTFE tapes and PTFE strings

EN 1092-1:2018, Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 1: Steel flanges

EN 1563:2018, Founding - Spheroidal graphite cast irons

EN 10204:2004, Metallic products - Types of inspection documents

EN 12164:2016, Copper and copper alloys - Rod for free machining purposes

EN 12165:2016, Copper and copper alloys - Wrought and unwrought forging stock

EN 12420:2014, Copper and copper alloys - Forgings

EN 12516-1:2014+A1:2018, Industrial valves - Shell design strength - Part 1: Tabulation method for steel valve shells

EN 12516-4:2014+A1:2018, Industrial valves - Shell design strength - Part 4: Calculation method for valve shells manufactured in metallic materials other than steel

EN 13480-3:2017, Metallic industrial piping - Part 3: Design and calculation

EN 13445-2:2021+A1:2023, Unfired pressure vessels - Part 2: Materials

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<sup>1)</sup> As impacted by EN 13480-3:2017/A2:2020 and EN 13480-3:2017/A3:2020.

EN 13906-1:2013, Cylindrical helical springs made from round wire and bar - Calculation and design - Part 1: Compression springs

EN 14129:2024, LPG Equipment and accessories - Pressure relief valves for LPG pressure vessels

EN ISO 9227:2022, Corrosion tests in artificial atmospheres - Salt spray tests (ISO 9227:2022)

EN ISO 11114-1:2020, Gas cylinders - Compatibility of cylinder and valve materials with gas contents - Part 1: Metallic materials (ISO 11114-1:2020)

EN ISO 11114-2:2021, Gas cylinders - Compatibility of cylinder and valve materials with gas contents - Part 2: Non-metallic materials (ISO 11114-2:2021)

ISO 6957:1988, Copper alloys — Ammonia test for stress corrosion resistance

ASME B1.20.1:2013, Pipe threads, general purpose (inch)

koniec náhľadu – text ďalej pokračuje v platenej verzii STN