

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 -  
Druckentlastungsventile für Behälter für Flüssiggas  
(LPG)

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

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## European foreword

This document (prEN 14129:2021) has been prepared by Technical Committee CEN/TC 286 “LPG equipment and accessories”, the secretariat of which is held by NSAI.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 14129:2014.

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 has been submitted for reference in

- the RID [8] and/or
- the technical annexes of the ADR [9].

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

The main changes with respect to the previous edition include:

- Addition of normative references;
- Revision of 5.1, 5.2, 5.3, 6.4, 7.1, 7.11.3; and
- Revision of Annex ZA.

## 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.

Protection of the environment is a key political issue in Europe and elsewhere. For CEN/TC 286 this is covered in CEN/TS 16765 [1] 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.

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 [7], [8] and [9].

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.

Valves designed in accordance with this standard are specifically for use in LPG applications. Valves manufactured in accordance EN ISO 4126-1 [4] may also be used in certain LPG applications.

**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 [12].

## 1 Scope

This document specifies the requirements for the design and testing of spring loaded pressure relief valves and thermal expansion valves for use in:

- static LPG pressure vessels,

NOTE The pressure vessels can be situated above ground, underground or mounded.

- LPG pressure vessels on road tankers, rail tankers, tank-containers or demountable tanks.

This document does not address production testing.

Normative Annex B prescribes testing with conditioning at - 40 °C for valves for use under extreme low temperature conditions.

The requirements for pressure relief valve accessories such as isolating devices, changeover manifolds and vent pipes are specified in EN 14071:2015+A1:2019.

EN 14570 [2] identifies the requirements for the pressure relief valve capacities for static pressure vessels.

EN 12252 [3] identifies the requirements for the pressure relief valve capacities for road tankers.

Valves designed in accordance with this document are specifically for use in LPG applications. Valves manufactured in accordance with EN ISO 4126-1 [4] may also be used in certain LPG applications.

Terms used with LPG pressure relief valves are described graphically in Annex A.

## 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, *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 751-3:1996<sup>1)</sup>, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 3: Unsintered PTFE tapes*

EN 837-1:1996<sup>2)</sup>, *Pressure gauges - Part 1: Bourdon tube pressure gauges - Dimensions, metrology, requirements and testing*

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

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<sup>1)</sup> Document impacted by AC:1997.

<sup>2)</sup> Document impacted by AC:1998.