

Rõhuregulaatorid ja automaatsed rõhumuundurid maksimaalse reguleeritava rõhuga 4 bar ning maksimaalse tootlikkusega 150 kg/h, nendega seonduvad ohutusseadmed ja reductoriid butaanile, propaanile ja nende segudele

Pressure regulators, automatic change-over devices, having a maximum regulated pressure of 4 bar, with a maximum capacity of 150 kg/h, associated safety devices and adaptors for butane, propane, and their mixture

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 16129:2013 sisaldab Euroopa standardi EN 16129:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 16129:2013 consists of the English text of the European standard EN 16129:2013.
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English Version

Pressure regulators, automatic change-over devices, having a maximum regulated pressure of 4 bar, with a maximum capacity of 150 kg/h, associated safety devices and adaptors for butane, propane, and their mixtures

Détendeurs, inverseurs automatiques, ayant une pression maximum de détente de 4 bar, avec une capacité maximale de 150 kg/h, dispositifs de sécurité associés et adaptateurs pour butane, propane et leurs mélanges

Druckregelgeräte, automatische Umschaltanlagen mit einem höchstem Ausgangsdruck bis einschließlich 4 bar und einem maximalen Durchfluss von 150 kg/h sowie die dazugehörigen Sicherheitseinrichtungen und Übergangsstücke für Butan, Propan und deren Gemische

This European Standard was approved by CEN on 9 March 2013.

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Foreword

This document (EN 16129:2013) has been prepared by Technical Committee CEN/TC 181 “Dedicated liquefied petroleum gas appliances”, 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of an identical text or by endorsement, at the latest by December 2013, and conflicting national standards shall be withdrawn at the latest by December 2015.

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 12864:2001, EN 13786:2004+A1:2008 and EN 13785:2005+A1:2008.

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.

The main technical changes that have been made since the latest edition are as follows:

- the merging of EN 12864, EN 13785 and EN 13786 and their amendments;
- the extension of the scope to adaptors;
- the addition of requirements for taking into account pressure losses of gas installations;
- the removal from this standard of drawing of connections described in other standards;
- the improvement of testing methods;
- additional corrections.

Change-over devices and adaptors within the scope of this standard, are not covered by the EU Directive for gas appliances (2009/142/EC).

Items relating to quality assurance systems, production testing and particularly certificates of conformity are not covered in this standard.

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, 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 defines the constructional and operational characteristics, the safety requirements, test methods and the marking of regulators and automatic change-over devices having a maximum regulated pressure of 4 bar, with a maximum capacity of 150 kg/h, for use with butane, propane and their mixtures in the vapour phase.

This European Standard also applies to the safety devices which are included within regulating devices covered by this standard. The characteristics of these safety devices are given in Annexes A and B.

This European Standard also includes the requirements for:

- adaptors for connecting to self closing valves;
- auxiliary safety devices.

For the purpose of this European Standard:

- regulators and automatic change-over devices are referred to as "regulating devices";
- regulators, automatic change-over devices and adaptors are referred to as "devices".

The requirements apply to devices used in locations where the temperature likely to be reached during use is between -20 °C and +50 °C. Additional requirements for devices to be used at temperatures below -20 °C are given in Annex C.

Additional requirements for regulating devices intended to be used in caravans, motor caravans and freshwater boats are given in Annex D.

Additional requirements for regulating devices intended to be used in seawater boats are given in Annex M.

For specific use in caravans motor caravans and boats (freshwater and seawater), the automatic change over device function may also be carried out by an assembly of regulators, forming an "automatic change over device system" as defined in 3.1.9.

For installation rules of devices and their possible associated safety devices, reference should be made to national regulations in force in the member countries.

All connections and the countries in which they are used are given in Annexes G and H.

This European Standard defines only specific connections which are not defined in other standards (e.g. EN 15202 for cylinder valve connections).

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.

EN 437, *Test gases — Test pressures — Appliances categories*

EN 521, *Specifications for dedicated liquefied petroleum gas appliances — Portable vapour pressure liquefied petroleum gas appliances*

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

EN 560, *Gas welding equipment — Hose connections for equipment for welding, cutting and allied processes*

- EN 561, *Gas welding equipment — Quick-action coupling with shut-off valves for welding, cutting and allied processes*
- EN 1563, *Founding — Spheroidal graphite cast irons*
- EN 1774, *Zinc and zinc alloys — Alloys for foundry purposes — Ingot and liquid*
- EN 10226-1, *Pipe threads where pressure tight joints are made on the threads — Part 1: Taper external threads and parallel internal threads — Dimensions, tolerances and designation*
- EN 10226-2, *Pipe threads where pressure tight joints are made on the threads — Part 2: Taper external threads and taper internal threads — Dimensions, tolerances and designation*
- EN 12164, *Copper and copper alloys — Rod for free machining purposes*
- EN 12165, *Copper and copper alloys — Wrought and unwrought forging stock*
- EN 12420, *Copper and copper alloys — Forgings*
- EN 12844, *Zinc and zinc alloys — Castings — Specifications*
- EN 15202, *LPG equipment and accessories — Essential operational dimensions for LPG cylinder valve outlet and associated equipment connections*
- EN 60695-11-10, *Fire hazard testing — Part 11-10: Test flames — 50 W horizontal and vertical flame test methods (IEC 60695-11-10)*
- EN ISO 75 (all parts), *Plastics — Determination of temperature of deflection under load (ISO 75)*
- EN ISO 178, *Plastics — Determination of flexural properties (ISO 178)*
- EN ISO 180, *Plastics — Determination of Izod impact strength (ISO 180)*
- EN ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation (ISO 228-1)*
- EN ISO 527 (all parts), *Plastics — Determination of tensile properties (ISO 527)*
- EN ISO 4628-3:2003, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 3: Assessment of degree of rusting (ISO 4628-3:2003)*
- EN ISO 4892-3, *Plastics — Methods of exposure to laboratory light sources — Part 3: Fluorescent UV lamps (ISO 4892-3)*
- EN ISO 8434-1, *Metallic tube connections for fluid power and general use — Part 1: 24 degree cone connectors (ISO 8434-1)*
- EN ISO 9227, *Corrosion tests in artificial atmospheres — Salt spray tests (ISO 9227)*
- ISO 565, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings*
- ISO 7005-1, *Pipe flanges — Part 1: Steel flanges for industrial and general service piping systems*
- ISO 7005-2, *Metallic flanges — Part 2: Cast iron flanges*