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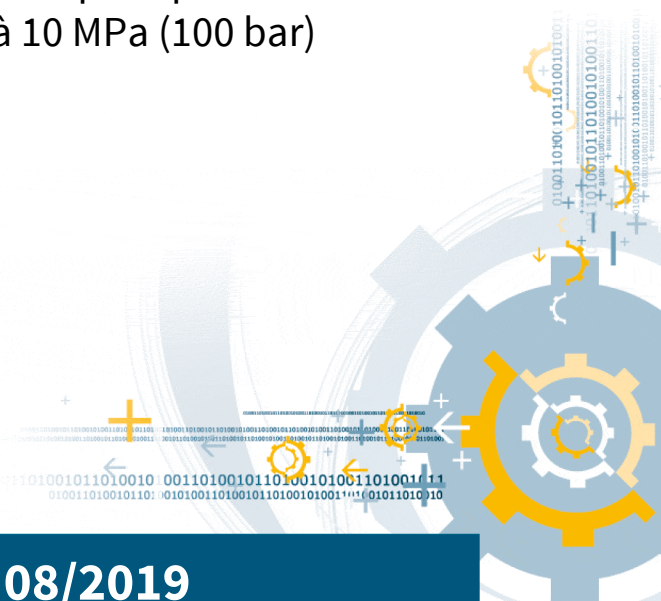
ILNAS-EN 14382:2019

Gas safety shut-off devices for inlet pressure up to 10 MPa (100 bar)

Gas-Sicherheitsabsperreinrichtungen für
Eingangsdrücke bis 10 MPa (100 bar)

Clapets de sécurité pour pressions amont
jusqu'à 10 MPa (100 bar)

08/2019



National Foreword

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**Gas safety shut-off devices for inlet pressure up to 10 MPa
(100 bar)**

Clapets de sécurité pour pressions amont jusqu'à 10
MPa (100 bar)

Gas-Sicherheitsabsperreinrichtungen für
Eingangsdrücke bis 10 MPa (100 bar)

This European Standard was approved by CEN on 23 April 2019.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 14382:2019) has been prepared by Technical Committee CEN/TC 235 “Gas pressure regulators and associated safety devices for use in gas transmission and distribution”, the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by February 2020, and conflicting national standards shall be withdrawn at the latest by February 2020.

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 supersedes EN 14382:2005+A1:2009.

In comparison with the previous edition, the following technical modifications have been made:

- normative references have been updated;
- terms and definitions have been added;
- classification of two in series SSDs as safety accessory to PED;
- full reference to EN 334:2019 for end connections, flange rating, nominal and face to face dimensions, materials (metallic and non-metallic), verification of strength of pressure bearing parts;
- statistical strength test on the basis of PED provisions;
- antistatic characteristics;
- vent limiter as possible fixture to be assembled in the SSDs;
- integration of environmental requirements;
- alignment of normative references (Clause 2), Annex G, Annex ZA and its relevant clauses to CEN rules.

The standard has been editorially revised.

This document can be used as a guideline for gas safety shut off devices outside the ranges specified in this standard.

This edition has introduced the application of statistical strength testing for series produced pressure and safety accessories on the basis of EU Directive 2014/68/EU Annex I article 3.2.2 and Guideline H-14. Safety shut-off devices dealt with in this document are standard safety shut-off devices and, when used in pressure regulating stations complying with EN 12186 or EN 12279, they are considered as standard pressure equipment in accordance with Clause 2 a) of Art. 1 of Pressure Equipment Directive 2014/68/EU (PED).

For standard safety shut-off devices used in pressure regulating stations complying with EN 12186 or EN 12279, Table ZA.1 given in Annex ZA includes all applicable Essential Requirements given in Annex I of PED except external corrosion resistance for applications in corrosive environments.

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 organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Republic of North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This document specifies constructional, functional, testing marking and sizing requirements and documentation of gas safety shut-off devices:

- for inlet pressures up to 100 bar and nominal diameters up to DN 400;
- for an operating temperature range from $-20\text{ }^{\circ}\text{C}$ to $+60\text{ }^{\circ}\text{C}$;

which operate with fuel gases of the 1st and 2nd family as defined in EN 437, used in the pressure regulating stations in accordance with EN 12186 or EN 12279, in transmission and distribution networks and also in commercial and industrial installations.

“Gas safety shut-off devices” will hereafter be called “SSDs” except in titles.

For standard safety shut-off devices when used in pressure regulating stations complying with EN 12186 or EN 12279, Annex ZA lists all applicable Essential Safety Requirements of Directive 2014/68/EU (PED).

This document considers the following temperature classes/types of SSDs:

- temperature class 1: operating temperature range from $-10\text{ }^{\circ}\text{C}$ to $60\text{ }^{\circ}\text{C}$;
- temperature class 2: operating temperature range from $-20\text{ }^{\circ}\text{C}$ to $60\text{ }^{\circ}\text{C}$;
- functional class A: SSDs that close when damage to the pressure detecting element occurs or when external power fails and whose re-opening, is possible only manually;
- functional class B: SSDs that do not close when damage to the pressure detecting element occurs but provide suitable and reliable protection and whose re-opening, is possible only manually;
- type IS: (integral strength type);
- type DS: (differential strength type).

SSDs complying with the requirements of this document may be declared as “in conformity with EN 14382” and bear the mark “EN 14382”.

The material and functional requirements specified in this document may be applied to SSDs which use thermal energy or the effects of electrical energy to trip the operation of the closing member. For these SSDs the operational parameters are not specified in this document.

The SSD may incorporate a vent limiter, complying with the requirements in Annex J.

This standard for some paragraphs and sub clauses makes full reference to EN 334:2019.

This document does not apply to:

- SSDs upstream from/on/in domestic gas-consuming appliances which are installed downstream of domestic gas meters;
- SSDs designed to be incorporated into pressure-regulating devices used in service lines¹ with volumetric flow rate $\leq 200\text{ m}^3/\text{h}$ at normal conditions and inlet pressure $\leq 5\text{ bar}$.

¹ The service lines are those defined in EN 12279