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BS EN 1643:2014



BSI Standards Publication

Safety and control devices for gas burners and gas burning appliances — Valve proving systems for automatic shut-off valves

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This British Standard is the UK implementation of EN 1643:2014. It supersedes BS EN 1643:2000 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GSE/22, Safety and control devices for gas and oil burners and gas burning appliances.

A list of organizations represented on this committee can be obtained on request to its secretary.

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EUROPÄISCHE NORM

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ICS 23.060.40

Supersedes EN 1643:2000

English Version

Safety and control devices for gas burners and gas burning appliances - Valve proving systems for automatic shut-off valves

Systèmes de contrôle d'étanchéité pour robinets automatiques de sectionnement pour brûleurs et appareils à gaz

Sicherheits-, Regel- und Steuereinrichtungen für Gasbrenner und Gasgeräte - Ventilüberwachungssysteme für automatische Absperrventile

This European Standard was approved by CEN on 27 December 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.

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Foreword

This document (EN 1643:2014) has been prepared by Technical Committee CEN/TC 58 "Safety and control devices for burners and appliances burning gaseous or liquid fuels", the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by September 2014, and conflicting national standards shall be withdrawn at the latest by March 2017.

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 1643:2000.

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 2009/142/EC.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

This document refers to clauses of EN 13611:2007+A2:2011 or adapts it by stating "with the following modification", "with the following addition", "is replaced by the following" or "is not applicable" in the corresponding clause. This document adds clauses or sub-clauses to the structure of EN 13611:2007+A2:2011 which are particular to this standard, i.e. sub-clauses or annexes which are additional to those in EN 13611 are numbered starting from 101 or are designated as Annex AA, BB, CC etc. It should be noted that these clauses and sub-clauses are not indicated as an addition. If by reference to EN 13611 the term "control" is given, this term should be read as valve-proving systems.

Note that the following provides details of significant technical changes between this document and the previous edition:

- a) Alignment with EN 13611:2007+A2:2011;
- b) Integration of the requirements from ISO 23551-4.

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.

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1 Scope

This European Standard specifies safety, constructional and performance requirements of valve-proving systems, hereafter referred to as VPS, intended for use with gas burners and gas-burning appliances. It also describes the test procedures for checking compliance with these requirements and provides information necessary for the purchaser and user.

This European Standard applies to all types of VPS which are used for the automatic detection of leakage in a gas burner section having at least two valves designed in accordance with EN 161 and which give a signal if the leakage of one of the valves exceeds the detection limit.

This European Standard applies to VPSs with a maximum working pressure up to and including 500 kPa for use in systems using fuel gases of the 1st, 2nd or 3rd families.

This European Standard does not apply to VPSs for use in explosive atmospheres.

This European Standard is applicable to AC and DC supplied VPS (for VPS supplied by stand-alone battery system, battery systems for mobile applications or systems which are intended to be connected to DC supply networks VPS see Annex I).

Provisions for production control are not part of this European Standard.

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 161, *Automatic shut-off valves for gas burners and gas appliances*

EN 1854, *Pressure sensing devices for gas burners and gas burning appliances*

EN 13611:2007+A2:2011, *Safety and control devices for gas burners and gas burning appliances - General requirements*

EN 14459:2007, *Control functions in electronic systems for gas burners and gas burning appliances - Methods for classification and assessment*

EN 60529:1991, *Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)*

EN 60730-1:2011, *Automatic electrical controls for household and similar use — Part 1: General requirements (IEC 60730-1:2010, modified)*

EN 60730-2-5:2002, *Automatic electrical controls for household and similar use — Part 2-5: Particular requirements for automatic electrical burner control systems (IEC 60730-2-5:2000, modified)*

EN 60947-5-1:2004, *Low-voltage switchgear and controlgear — Part 5-1: Control circuit devices and switching elements — Electromechanical control circuit devices (IEC 60947-5-1:2003)*

EN 61810-1, *Electromechanical elementary relays — Part 1: General requirements (IEC 61810-1)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13611:2007+A2:2011 and the following apply.