Automaatsed sulgeventiilid gaasipõletite ja gaasiseadmete jaoks KONSOLIDEERITUD TEKST

Automatic shut-off valves for gas burners and gas OAT.

OBORCHEN OCHENOLOGICA

OFFICE O appliances CONSOLIDATED TEXT



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 161:2011+A2:2012	
sisaldab Euroopa standardi EN 161:2011+A2:2012	consists of the English text of the European standard
ingliskeelset teksti.	EN 161:2011+A2:2012.
, , , , , , , , , , , , , , , , , , , ,	This standard has been endorsed with a notification
avaldamisega EVS Teatajas.	published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud	Date of Availability of the European standard is
	29.08.2012.
kättesaadavaks 29.08.2012.	20.00.2012.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for
	Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 23.060.10

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega: Aru 10, 10317 Tallinn, Eesti; www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation: Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2012

EN 161:2011+A2

ICS 23.060.10 Supersedes EN 161:2011

English Version

Automatic shut-off valves for gas burners and gas appliances

Robinets automatiques de sectionnement pour brûleurs à gaz et appareils à gaz

Automatische Absperrventile für Gasbrenner und Gasgeräte

This European Standard was approved by CEN on 20 February 2011 and includes Amendment 2 approved by CEN on 10 June 2012.

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.

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.

CEN members are the national standards bodies of 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 United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Cont		Page
Forewo	ord	3
1	Scope	5
2	Normative references	5
3	Terms and definitions	6
4	Classification	7
5	Units of measurement and test conditions	8
6	Construction requirements	8
7	Performance	13
8	EMC/Electrical requirements	21
9	Marking, installation and operating instructions	23
Annex	A (informative) Gas connections in common use in the various countries	25
Annex	B (informative) Leak-tightness test – volumetric method	26
Annex	C (informative) Leak-tightness test – pressure loss method	27
Annex	D (normative) Conversion of pressure loss into leakage rate	28
Annex	E (normative) Electrical/electronic component fault modes	29
Annex	F (normative) Additional requirements for safety accessories and pressure accessories as defined in EU Directive 97/23/EC	
Annex	G (normative) Materials for pressurized parts	31
Annex	H (informative) Additional materials for pressurized parts	32
Annex	I (normative) Requirements for controls used in DC supplied gas burners and gas burning appliances	
	ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2009/142/EC relating to appliances burning gaseous fuels.	
Bibliog	graphy	36
Tables		
	1 — Test pressure	
	2 — Sealing force requirements	
Table 3	3 — Operating cycles	20
Table 4	4 — Operating cycles for automatic shut-off valves for cookers according to EN 30-1-4:2002, 5.3.	7.1. 20
	ZA.1 — Correspondence between this European Standard and Directive 2009/142/EC relaring gaseous fuels	

Foreword

This document (EN 161:2011+A2:2012) 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 February 2013, and conflicting national standards shall be withdrawn at the latest by February 2013.

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 (A) EN 161:2011. (A)

1 This document includes Amendment 2 approved by CEN on 10 June 2012.

The start and finish of text introduced or altered by amendment is indicated in the text by tags 🗗 🕢.

At the time of publication of this document, Amendment 1 was still at the draft stage. Therefore, there will be no Amendment 1 for this project. The next amendment to be published will be Amendment 3, which will incorporate the changes of the original Amendment 1 and this document.

It should be noted that the following significant editorial changes compared to the previous edition have been incorporated in this European Standard:

- a) alignment to 🗗 EN 13611:2007+A2:2011 🗗;
- b) normative references: ISO 4400 and ISO 6952 are changed to EN 175301-803;
- c) terms and definitions are aligned to A EN 13611:2007+A2:2011 (42);
- d) sub-clause 6.101 has been moved to sub-clause 8.11.102;
- e) installation and operating instructions are integrated in one sub-clause;
- f) changes in Annex ZA regarding 1.2, 1.2.2, 1.2.3, 1.3, 3.1.1, 3.3, 3.6, 3.7, 3.8, 3.11, 3.12, 3.2.1 and in addition Annex II and III were deleted.

SIL classification according to EN 61508 cannot be claimed based upon compliance with this standard. Valves with SIL classification do not meet automatically the requirements of 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,

eland, Irelan.
Slovakia, Slove,

1 Scope

This European Standard specifies the safety, construction and performance requirements for automatic shutoff valves for use with gas burners, gas appliances and similar use, hereafter referred to as 'valves'.

This European Standard is applicable to valves with declared maximum inlet pressures up to and including 500 kPa (5 bar) of nominal connection sizes up to and including DN 250 for use with one or more fuel gases in accordance with EN 437.

This European Standard is applicable to electrically operated valves and to valves actuated by fluids where the control valves for these fluids are actuated electrically, but not to any external electrical devices for switching the control signal or actuating energy.

An assessment method for valve designs is given by this European Standard.

This European Standard is also applicable to valves where the flow rate is controlled by external electrical signals, either in discrete steps or proportional to the applied signal.

This European Standard is also applicable to valves fitted with closed position indicator switches.

NOTE Provisions for final product inspection and testing by the manufacturer are not specified.

2 Normative references

The following referenced documents are indispensable for the application 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 30 (all parts), Domestic cooking appliances burning gas

EN 298, Automatic gas burner control systems for gas burners and gas burning appliances with or without fans

♠ EN 13611:2007+A2:2011 ♠ Safety and control devices for gas burners and gas burning appliances — General requirements

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

EN 13906-2, Cylindrical helical springs made from round wire and bar — Calculation and design — Part 2: Extension springs

EN 60529, Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)

EN 60730-1:2000, Automatic electrical controls for household and similar use — Part 1: General requirements (IEC 60730-1:1999, modified)

EN 61058-1, Switches for appliances — Part 1: General requirements (IEC 61058-1:2000 modified + A1:2001 (Equivalent)

EN 175301-803, Detail Specification: Rectangular connectors — Flat contacts, 0,8 mm thickness, locking screw not detachable