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Irish Standard I.S. EN 298:2012

Automatic burner control systems for burners and appliances burning gaseous or liquid fuels

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EUROPEAN STANDARD NORME EUROPÉENNE

EN 298

EUROPÄISCHE NORM

May 2012

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English Version

Automatic burner control systems for burners and appliances burning gaseous or liquid fuels

Systèmes automatiques de commande pour brûleurs et appareils utilisant des combustibles gazeux ou liquides

Feuerungsautomaten für Brenner und Brennstoffgeräte für gasförmige oder flüssige Brennstoffe

This European Standard was approved by CEN on 9 March 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.

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

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Contents

Forewo	ord	4
1	Scope	6
2	Normative references	6
3	Terms and definitions	7
4	Classification	13
5	Units of measurement and test condition	13
6	Constructional requirements	14
7	Performance	18
8	EMC/Electrical requirements	30
9	Marking, installation and operating instructions	34
Annex	A (informative) Gas connections in common use in the various countries	38
Annex	B (informative) Leak-tightness test - Volumetric method	39
Annex	C (informative) Leak-tightness - Pressure loss method	40
Annex	D (normative) Conversion of pressure loss into leakage rate	41
Annex	E (normative) Electrical/electronic component fault modes	42
Annex	F (normative) Additional requirements for safety accessories and pressure accessories as defined in EU 97/23/EC	44
Annex	G (normative) Materials for pressurized parts	45
Annex	H (informative) Additional materials for pressurized parts	46
Annex	I (normative) Requirements for controls used in DC supplied fuel burners and fuel burning appliances	47
Annex	AA (informative) Functional characteristics of burner control systems, to be given by the appliance standard	49
Annex	BB (informative) Fault modes of flame sensors	50
Annex	CC (informative) Functional diagrams of oil burner control systems	52
Annex	ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2009/142/EC relating to appliances burning gaseous fuels	57
Bibliog	graphy	59

Figures

Figure 1 — Basic functional chain of a typical flame supervision	7
Figure 2 — Basic functional chain of an independent flame detector device	8
Figure 3 — Flame sensors for visible light	28
Figure 4 — Acoustic flame sensor	29
Figure CC.1 — Burner without pilot	54
Figure CC.2 — Burners with pilot which operates only during the ignition time	55
Figure CC.3 — Ignition restoration after loss of sensed flame during running position	55
Figure CC.4 — Recycling after loss of sensed flame during running position	56
Figure CC.5 — Lock-out after loss of sensed flame during running position	56
Figure CC.6 — Lock-out for the non-establishment of the flame signal (during safety time t_5)	56

Tables

Table E.1 — Electrical/electronic component faults modes	42
Table AA.1 — Functional characteristics of gas burner control systems, to be given by the appliance	standard 49
Table AA.2 — Functional characteristics of oil burner control systems, to be given by the appliance	standard 49
Table BB.1 — Fault modes of flame sensors	50
Table CC.1 — Symbols	52
Table ZA.1 — Correspondence between this European Standard and Directive 2009/142/EC reappliances burning gaseous fuels	elating to 57

Foreword

This document (EN 298:2012) 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 November 2012, and conflicting national standards shall be withdrawn at the latest by May 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 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 the relationship of this document with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

This document supersedes EN 230:2005 and EN 298:2003.

This document refers to clauses of EN 13611:2007+A2:2011 and adapts them, indicating the changes by stating "with the following modification", "with the following addition", "is replaced by the following" or "is not applicable". It also adds clauses or sub-clauses to the structure of EN 13611:2007+A2:2011 which are particular to this standard (EN 298:2012). Additional sub-clauses or annexes are either numbered starting from 101 or are designated as Annex AA, BB, CC etc. It should be noted however that these clauses and sub-clauses are not indicated as additions in the text.

The following is a list of significant technical changes between this document and the previous editions:

- Alignment with EN 13611:2007+A2:2011;
- Integration of the requirements from EN 230 (EN 230 is merged into prEN 298);

NOTE If, due to the reference of EN 13611 the term "gas" will be part of a requirement or test, then the term "gas" shall be substituted by the term "fuel"

- Requirements from the flame supervision and the reactions in case of loss of flame have been adapted to modifications made in EN 267 and EN 676 and optimised for better understanding;
- Requirements and tests for "independent flame detectors" have been integrated;
- New requirements concerning "common cause" have been added;
- Requirements for the new function "remote reset from lock-out" have been added.

EN 298 compliance for burner control systems or flame detector devices cannot be claimed based upon SIL classification according to EN 61508.

SIL classification cannot be claimed based upon compliance with this standard only. A supplementary method for SIL determination is specified in EN 13611:2007+A2:2011, Annex J.

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the safety, construction and performance requirements for automatic burner control systems, programming units and flame detector devices, intended for use with gas and oil burners and gas and oil burning appliances, with or without fans and similar use.

This European Standard is applicable to automatic burner control systems that include additional functions.

This European Standard does not cover automatic burner control systems utilizing thermo-electric flame supervision devices.

NOTE 1 European Standards for burners, appliances or processes which use automatic burner control systems, programming units or flame detectors can override the requirements of this standard.

NOTE 2 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 267:2009+A1:2011, Automatic forced draught burners for liquid fuels

EN 1643, Valve proving systems for automatic shut-off valves for gas burners and gas 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 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+A1:2004+A11:2005+A2:2010, Automatic electrical controls for household and similar use — Part 2-5: Particular requirements for automatic electrical burner control systems (IEC 60730-2-5:2000+Am1:2004+Am2:2008, (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)

IEV 191, International Electrotechnical Vocabulary — Chapter 191: Dependability and quality of service (Consolidated version included Amendment 1 and Amendment 2); Identical with IEC 60050-191:1990-12 (Consolidated with IEC 60050-191/A1:1993-03 and IEC 60050-191/A2:2002-01)



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