SLOVENSKI STANDARD
oSIST prEN 16898:2015

01-oktober-2015

Varnostne in nadzorne naprave za plinske gorilnike in plinske aparate - Filtri za plin za največji delovni tlak do vključno 600 kPa

Safety and control devices for gas burners and gas burning appliances - Gas filters having a maximum working pressure up to and including 600 kPa

Sicherheits- und Regeleinrichtungen für Gasbrenner und Gasbrennstoffgeräte - Gasfilter für einen Betriebsdruck bis einschließlich 600 kPa

Équipements auxiliaires pour brûleurs à gaz et appareils à gaz - Filtres à gaz ayant une pression de service maximale inférieure ou égale à 600 kPa

Ta slovenski standard je istoveten z: **prEN 16898**

ICS:

27.060.20	Plinski gorilniki	Gas fuel burners

oSIST prEN 16898:2015 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 16898

July 2015

ICS 27.060.20

English Version

Safety and control devices for gas burners and gas burning appliances - Gas filters having a maximum working pressure up to and including 600 kPa

Sicherheits- und Regeleinrichtungen für Gasbrenner und Gasbrennstoffgeräte - Gasfilter für einen Betriebsdruck bis einschließlich 600 kPa

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 58.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Figures

Tables

Foreword

This document (prEN 16898:2015) 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 document is currently submitted to the CEN Enquiry.

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 Directives 2009/142/EC and 97/23/EC.

For relationship with EU Directive(s), see informative Annex ZA and Annex ZB, which are integral parts of this document.

Introduction

The generic requirements for controls are given in EN 13611:2015 and methods for classification and assessment for new controls and control functions are given in prEN 14459:2014, Clauses 1 up to and including 7.13 (see Figure 1).

The requirements for controls are given in the specific control standard (see Figure 1).

Multifunctional Controls (MFC) according to EN 126:2012 with two or more controls and Application Control Functions, e.g. the Gas Shut-off Control Function, being inherently multifunctional controls. Each control integrated in the MFC meets the applicable requirements of the relevant control standard(s). In addition, EN 126:2012 covers requirements for the safety related interactions between the different devices.

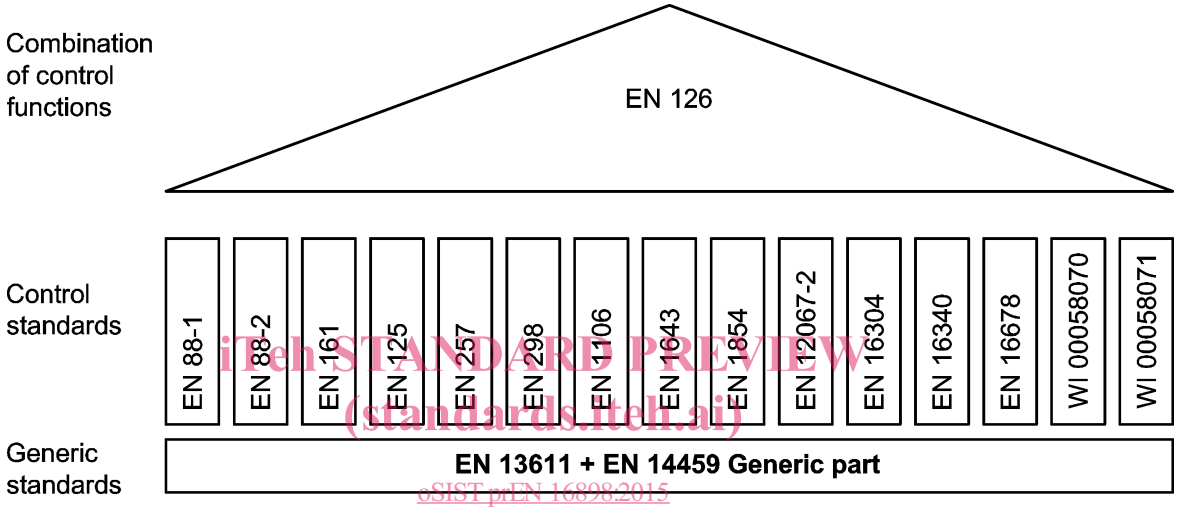

Figure 1 — Standards house

This control standard refers to clauses of EN 13611:2015 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 13611:2015 which are particular to this standard, i.e. sub-clauses or annexes which are additional to those in EN 13611:2015 are numbered starting from 101 or are designated as Annex AA. It should be noted that these clauses and sub-clauses are not indicated as an addition.

1 Scope

This European Standard specifies the safety, design, construction, and performance requirements and testing for gas filters for burners and appliances burning one or more gaseous fuels.

This European Standard is applicable to

— gas filters with declared maximum inlet pressure up to and including 600 kPa, of nominal connection size up to and including DN 250 for use with one or more fuel gases in accordance with EN 437:2003+A1:2009;

— gas filters specified as pressure accessories as defined by EU Directive 97/23/EC (see Annex F).

NOTE For pressure accessories, the requirements of EN 13611:2015, Annex F also applies.

This European Standard is not applicable to gas filters that are connected directly to mains pipe-work or to a container that maintains a standard distribution pressure.

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 779:2012, *Particulate air filters for general ventilation — Determination of the filtration performance*

EN 13611:2015, *Safety and control devices for burners and appliances burning gaseous and/or liquid fuels — General Requirements*

EN 60312-1:2013, *Vacuum cleaners for household use — Part 1: Dry vacuum cleaners — Methods for measuring the performance (IEC 60312-1:2010, modified + A1:2011, modified)*

ISO 12103-1:1997, *Road vehicles — Test dust for filter evaluation — Part 1: Arizona test dust*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13611:2015 and the following apply.

3.1
gas filter
device that segregates particles from the gas flow e. g. dust and rust

3.2
filter material
part of the filter, which segregates particles

3.3
filter element
filter material with support

3.4
filtration efficiency
percentage ratio of filtered amount of dust to charged amount of dust

4 Classification

4.1 Classes of control

EN 13611:2015, 4.1 is not applicable.

4.2 Groups of control

Shall be according to EN 13611:2015, 4.2.

4.3 Classes of control functions

EN 13611:2015, 4.3 is not applicable.

4.4 Types of *DC* supplied controls

EN 13611:2015, 4.4 is not applicable.

5 Test conditions and uncertainty of measurements

Shall be according to EN 13611:2015, Clause 5.

6 Design and construction requirements

6.1 General

Shall be according to EN 13611:2015, 6.1.

6.2 Mechanical parts of the control

6.2.1 Appearance

Shall be according to EN 13611:2015, 6.2.1.

6.2.2 Holes

Shall be according to EN 13611:2015, 6.2.2.

6.2.3 Breather holes

EN 13611:2015, 6.2.3 is replaced by the following:

Breather holes are not allowed.

EN 13611:2015, 6.2.4 is not applicable (see 6.2.3).

6.2.4 Screwed fastenings

Shall be according to EN 13611:2015, 6.2.4.

6.2.5 Jointing

Shall be according to EN 13611:2015, 6.2.5.

6.2.6 Moving parts

EN 13611:2015, 6.2.6 is replaced by the following:

Moving parts are not allowed.

6.2.7 Sealing caps

Shall be according to EN 13611:2015, 6.2.7.

6.2.8 Dismantling and reassembly

Shall be according to EN 13611:2015, 6.2.8.

6.2.9 Auxiliary canals and orifices

EN 13611:2015, 6.2.9 is not applicable.

6.2.10 Presetting device

EN 13611:2015, 6.2.10 is not applicable.

6.2.101 Filter element replacement

— The filter lid shall be removable with commonly available tools.

— The filter insert shall be easily replaceable when following the installation and operation instruction.

— Non-metallic seals e.g. O-rings which provide the external leak tightness shall be enclosed.

6.2.102 Fixing of filter element

6.2.102.1 Requirement

The filter element shall remain fixed and in place after the test of 6.2.102.2.

6.2.102.2 Test

Block the filter element with tape of less than 0,05 mm thickness covering the whole inlet side of the filter.

Then pressurize the inlet of the gas filter to 1,5 times of the maximum pressure difference of the filter element as stated in the installation and operating instruction.

Repeat the test 5 times.

Check conformity to 6.2.102.1 after the test.

6.3 Materials

6.3.1 General material requirements

Shall be according to EN 13611:2015, 6.3.1 with the following addition:

Materials shall conform to EN 13611:2015, Annexes F to H, if applicable.

6.3.2 Housing

Shall be according to EN 13611:2015, 6.3.2.

6.3.3 Zinc alloys

EN 13611:2015, 6.3.3 is replaced by the following:

Zinc alloys shall not be used.

6.3.4 Springs

EN 13611:2015, 6.3.4 is not applicable.

6.3.5 Resistance to corrosion and surface protection

Shall be according to EN 13611:2015, 6.3.5.

6.3.6 Impregnation

Shall be according to EN 13611:2015, 6.3.6.

6.3.7 Seals for glands for moving parts

EN 13611:2015, 6.3.7 is not applicable.

6.4 Gas Connections

6.4.1 Making connections

Shall be according to EN 13611:2015, 6.4.1.

6.4.2 Connection sizes

Shall be according to EN 13611:2015, 6.4.2.

6.4.3 Threads

Shall be according to EN 13611:2015, 6.4.3.

6.4.4 Union joints

Shall be according to EN 13611:2015, 6.4.4.

6.4.5 Flanges

Shall be according to EN 13611:2015, 6.4.5.

6.4.6 Compression fittings

Shall be according to EN 13611:2015, 6.4.6.

6.4.7 Nipples for pressure test

Shall be according to EN 13611:2015, 6.4.7.

6.4.8 Strainers

EN 13611:2015, 6.4.8 is not applicable.

6.5 Electrical parts of the control

EN 13611:2015, 6.5 is not applicable.

6.6 Protection against internal faults for the purpose of functional safety

EN 13611:2015, 6.6 is not applicable.

7 Performance

7.1 General

Shall be according to EN 13611:2015, 7.1 with the following addition:

Store every gas filter for 50 h at each minimum and maximum temperature as stated in the installation and operating instructions before the tests.

7.2 Leak-tightness

Shall be according to EN 13611:2015, 7.2.

7.2.1 Requirements

Shall be according to EN 13611:2015, 7.2.1

7.2.2 Test

7.2.2.1 General

Shall be according to EN 13611:2015, 7.2.2.1

7.2.2.2 External leak-tightness

Shall be according to EN 13611:2015, 7.2.2.2

7.2.2.3 Internal leak-tightness

EN 13611:2015, 7.2.2.3 is not applicable.

7.3 Torsion and bending

7.3.1 General

Shall be according to EN 13611:2015, 7.3.1.

7.3.2 Torsion and bending moments

Shall be according to EN 13611:2015, 7.3.2.

7.4 Rated flow rate

Shall be according to EN 13611:2015, 7.4.