SLOVENSKI STANDARD
oSIST prEN 13611:2026

01-julij-2026

Varnostne in nadzorne naprave za gorilnike in aparate na plin in/ali tekoča goriva - Splošne zahteve

Safety and control devices for burners and appliances burning gaseous and/or liquid fuels - General requirements

Sicherheits- und Regeleinrichtungen für Brenner und Brennstoffgeräte für gasförmige und/oder flüssige Brennstoffe - Allgemeine Anforderungen

Équipements auxiliaires pour brûleurs et appareils utilisant des combustibles gazeux ou liquides - Exigences générales

Ta slovenski standard je istoveten z: **prEN 13611**

ICS:

23.060.40	Tlačni regulatorji	Pressure regulators
27.060.20	Plinski gorilniki	Gas fuel burners

oSIST prEN 13611:2026 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 13611

June 2026

ICS

Will supersede EN 13611:2019

English Version

Safety and control devices for burners and appliances burning gaseous and/or liquid fuels - General requirements

Équipements auxiliaires pour brûleurs et appareils utilisant des combustibles gazeux ou liquides - Exigences générales

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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.

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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.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. prEN 13611:2026 E

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European foreword

This document (prEN 13611:2026) was 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 will supersede EN 13611:2019.

The main changes compared with EN 13611:2019 are as follows:

a) requirements that belong to pressure accessory were removed and and will no longer be covered by EN 13611, an additional standard for these products is in preparation;

b) aspects that need to be considered when the controls are used with hydrogen added;

c) update regarding breather holes;

d) informative Cyber Security Annex added;

e) update of normative references;

f) update of terms and definitions e.g. gaseous fuels added;

g) document updated to be in-line with EN IEC 60730-1:2024;

h) SIL Annex removed from this document;

i) Performance Level Annex updated to be in-line with EN ISO 13849-1:2023.

This document has been prepared under a standardization request given to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

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

Product specific control standards of CEN/TC 58 make use of this standard by adapting this standard and stating “addition”, “modification” or “replacement” in their corresponding clauses.

Introduction

This document recognizes the safety level specified by CEN/TC 58 and is regarded as a horizontal standard dealing with the safety, construction performance and testing of controls for burners and appliances burning gaseous and/or liquid fuels. Beyond functional safety requirements, the CEN/TC 58 standards specify comprehensive requirements for safety-related control devices, such as function, mechanical safety, electrical safety, EMC immunity, etc.

The general requirements for controls are given in this document, and methods for classification and assessment for new controls and control functions are given in EN 14459 (see Figure 1). EN 126 (see Figure 1) specifies multifunctional controls combining two or more controls and Application Control Functions, one of which is a mechanical control function. The requirements for controls and application control functions are given in the specific control standard. CEN/TR 17924 give guidance on hygrogen specific aspects.

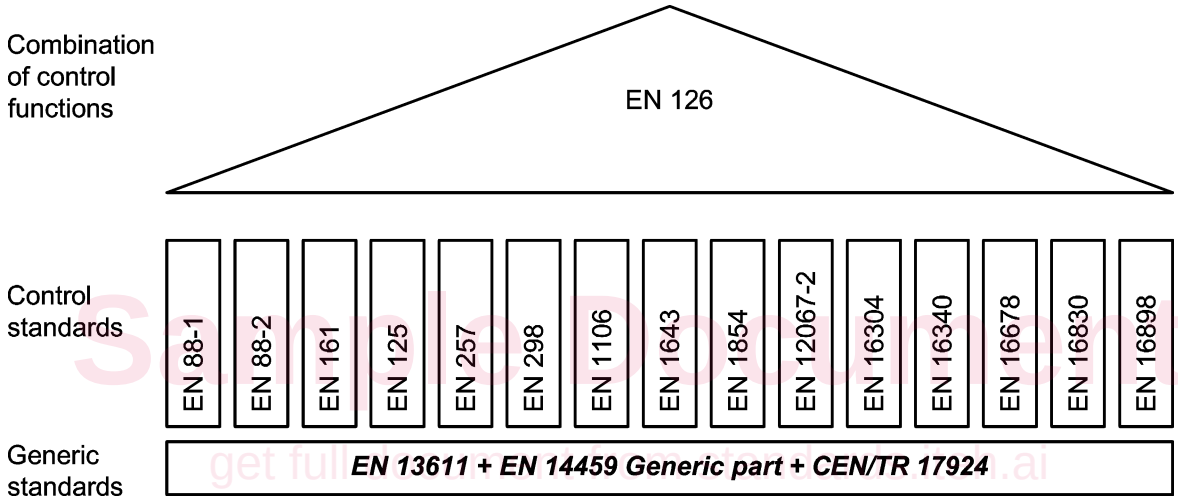

Figure 1 — Interrelation of control standards

This document should be used in conjunction with the specific documents for a specific type of control, like EN 88-1, EN 88-2, EN 88-3, EN 125, EN 126, EN 161, EN 257, EN 298, EN 1106, EN 1643, EN 1854, EN 12067-2, EN 16304, EN 16340, EN 16678 and EN 16898, or for controls for specific applications.

This document can also be applied, so far as reasonable, to controls not mentioned in a specific standard and to controls designed on new principles, in which case additional requirements can be necessary. EN 14459 provides methods for classification and assessment of new control principles.

1 Scope

This document specifies the general safety, design, construction, and performance requirements and testing of safety, control or regulating devices (hereafter referred to as controls) for burners and appliances burning one or more gaseous fuels or liquid fuels. This document is applicable to controls with declared maximum inlet pressure up to and including 500 kPa and of nominal connection sizes up to and including DN 250.

This document specifies general product requirements for the following controls:

— automatic shut-off valves;

— automatic burner control systems;

— flame supervision devices;

— fuel/air ratio controls/ supervision;

— pressure regulators;

— manual taps;

— mechanical thermostats;

— multifunctional controls;

— pressure sensing devices;

— valve proving systems;

— automatic vent valves.

This document applies:

— for control functions that are not covered by a specific control standard for burners and appliances burning one or more gaseous fuels or liquid fuels.

— for *AC* and *DC* supplied controls (for controls supplied by stand-alone battery, controls supplied by a battery which is part of a mobile application or controls supplied by a *DC* supply networksee Annex F).

— to reset functions used for reset from lockout, e.g. due to ignition failure or temperature cut-out in burners and appliances (see Annex H).

This document covers type testing only.

This document does not apply to mechanical controls for use with liquid fuels.

The protection against environmental impact in open air (i.e. capable of withstanding UV radiation, wind, rain, snow, dirt deposits, condensation, ice and hoar frost, earthquake and external fire) is not covered by this document.

This document establishes methodologies for the determination of a Performance Level (PL) (see Annex G).

This document gives guidelines for environmental aspects (see Annex I) and basic cyber security aspects (see Annex L).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 377:1993,[1] *Lubricants for applications in appliances and associated controls using combustible gases except those designed for use in industrial processes*

EN 549:2019+A2:2024, *Rubber materials for seals and diaphragms for gas appliances and gas equipment*

EN 751-1:1996, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 1: Anaerobic jointing compounds*

EN 751-2:1996, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 2: Non-hardening jointing compounds*

EN 751-3:2022+A1:2023, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 3: Unsintered PTFE tapes and PTFE strings*

EN 1092-1:2018, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 1: Steel flanges*

EN 1092-2:2023, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 2: Cast iron flanges*

EN 1092-3:2003, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 3: Copper alloy flanges*

EN 1092-4:2002, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 4: Aluminium alloy flanges*

EN 1127-1:2019, *Explosive atmospheres - Explosion prevention and protection - Part 1: Basic concepts and methodology*

EN 1759-1:2004, *Flanges and their joint - Circular flanges for pipes, valves, fittings and accessories, Class designated - Part 1: Steel flanges, NPS 1/2 to 24*

EN 1759-3:2003,[2] *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, Class designated - Part 3: Copper alloy flanges*

EN 1759-4:2003, *Flanges and their joint - Circular flanges for pipes, valves, fittings and accessories, class designated - Part 4: Aluminium alloy flanges*

EN 10255:2004+A1:2007, *Non-Alloy steel tubes suitable for welding and threading - Technical delivery conditions*

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1 As amended by EN 377:1993/A1:1996

2 As amended by EN 1759-3:2003/AC:2004

EN 10226-1:2004, *Pipe threads where pressure tight joints are made on the threads - Part 1: Taper external threads and parallel internal threads - Dimensions, tolerances and designation*

EN 10226-2:2005, *Pipe threads where pressure tight joints are made on the threads - Part 2: Taper external threads and taper internal threads - Dimensions, tolerances and designation*

EN 13906-1:2013, *Cylindrical helical springs made from round wire and bar - Calculation and design - Part 1 : Compression springs*

EN 13906-2:2013, *Cylindrical helical springs made from round wire and bar - Calculation and design - Part 2: Extension springs*

EN 13906-3:2014, *Cylindrical helical springs made from round wire and bar - Calculation and design - Part 3: Torsion springs*

EN 60068-2-6:2008, *Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal) (IEC 60068-2-6:2007)*

EN IEC 60384-14:2023,[3] *Fixed capacitors for use in electronic equipment - Part 14: Sectional specification - Fixed capacitors for electromagnetic interference suppression and connection to the supply mains (IEC 60384-14:2023)*

EN IEC 60384-16:2019,[4] *Fixed capacitors for use in electronic equipment - Part 16: Sectional specification: Fixed metallized polypropylene film dielectric d.c. capacitors (IEC 60384-16:2019)*

EN 60529:1991,[5] *Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)*

EN IEC 60730-1:2024,[6] *Automatic electrical controls - Part 1: General requirements (IEC 60730-1:2022)*

EN 61000-4-29:2000, *Electromagnetic compatibility (EMC) - Part 4-29: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations on d.c. input power port immunity tests (IEC 61000-4-29:2000)*

EN IEC 61558-2-4:2025, *Safety of transformers, reactors, power supply units and combinations thereof - Part 2-4: Particular requirements and tests for isolating transformers and power supply units incorporating isolating transformers for general applications (IEC 61558-2-4:2021)*

EN IEC 61558-2-6:2025, *Safety of transformers, reactors, power supply units and combinations thereof - Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers for general applications (IEC 61558-2-6:2021)*

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3 As impacted by EN IEC 60384-14:2023/AC:2024-11

4 As impacted by EN IEC 60384-16:2019/AC:2020-12

5 As impacted by EN 60529:1991/AC:1993, EN 60529:1991/A1:2000, EN 60529:1991/A2:2013, EN 60529:1991/AC:2016-12, and EN 60529:1991/A2:2013/AC:2019-02

6 As impacted by EN IEC 60730-1:2024/A11:2024

EN IEC 61558-2-16:2025, *Safety of transformers, reactors, power supply units and combinations thereof - Part 2-16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units for general applications (IEC 61558-2-16:2021+COR 1:2023)*

EN 61643-11:2012,[7] *Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods*

EN ISO 228-1:2003, *Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation (ISO 228-1:2000)*

EN ISO 13849-1:2023, *Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design (ISO 13849-1:2023)*

ISO 7-1:1994,[8] *Pipe threads where pressure-tight joints are made on the threads - Part 1: Dimensions, tolerances and designation*

ISO 37:2024, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties*

ISO 262:2023, *ISO general purpose metric screw threads — Selected sizes for bolts, screws, studs and nuts*

ISO 301:2006, *Zinc alloy ingots intended for castings*

ISO 815-1:2019, *Rubber, vulcanized or thermoplastic — Determination of compression set — Part 1: At ambient or elevated temperatures*

ISO 1817:2024, *Rubber, vulcanized or thermoplastic — Determination of the effect of liquids*

ISO 7005-1:2011, *Pipe flanges — Part 1: Steel flanges for industrial and general service piping systems*

ISO 7005-2:1988, *Metallic flanges — Part 2: Cast iron flanges*

ISO 7637-2:2011, *Road vehicles — Electrical disturbances from conduction and coupling — Part 2: Electrical transient conduction along supply lines only*

ISO 7637-3:2016, *Road vehicles — Electrical disturbances from conduction and coupling — Part 3: Electrical transient transmission by capacitive and inductive coupling via lines other than supply lines*

ISO 8013:2019, *Rubber, vulcanized — Determination of creep in compression or shear*

ISO 23529:2016, *Rubber — General procedures for preparing and conditioning test pieces for physical test methods*

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7 As impacted by EN 61643-11:2012/A11:2018

8 As impacted by ISO 7-1:1994/AC:2007

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp/

— IEC Electropedia: available at https://www.electropedia.org/

3.1
control
device which provides functionality as specified in the specific control standard

Note 1 to entry: Within this document the term “control” is equivalent to the term “fitting” of Regulation (EU) 2016/426.

3.2
control function
function providing safe operation of burners and appliances burning gaseous or liquid fuels

3.3
closure member
movable part of the control which shuts off the gas flow

3.4
breather hole
orifice which allows atmospheric pressure to be maintained within a compartment of variable volume

3.5
external leak-tightness
leak-tightness of a gas-carrying compartment with respect to atmosphere

3.6
internal leak-tightness
leak-tightness of the closure member (in the closed position) sealing a gas-carrying compartment with respect to another compartment or to the outlet of the control

3.7
inlet pressure
pressure at the inlet of the control

3.8
outlet pressure
pressure at the outlet of the control

3.9
pressure difference
difference between the inlet and outlet pressures

3.10
maximum inlet pressure
highest inlet pressure as stated in the instructions at which the control can be operated

3.11
minimum inlet pressure
lowest inlet pressure as stated in the instructions at which the control can be operated

3.12
flow rate
volume flowing through the control in unit time

3.13
rated flow rate
air flow rate at a specified pressure difference, corrected to standard conditions

3.14
maximum ambient temperature
highest temperature of the surrounding air as stated in the instructions at which the control can be operated

3.15
minimum ambient temperature
lowest temperature of the surrounding air as stated in the instructions at which the control can be operated

3.16
mounting position
position as stated in the instructions for mounting the control

3.17
nominal size
DN
numerical designation of size, for reference purposes

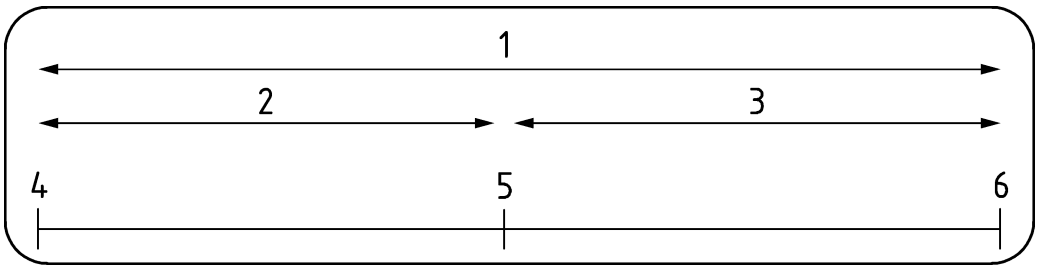
3.18
apparatus
single piece of equipment with (a) direct function(s) intended for final use

3.19
system
combination of apparatus and/or active components constituting a single functional unit and intended to be installed and operated to perform (a) specific task(s)

3.20
fault tolerating time
time between the occurrence of a fault and the shutdown of the burner, which is tolerated by the application without creating a hazardous situation

Note 1 to entry: Actions other than shutdown of a burner are possible if they can show prevention of hazardous situations.

Note 2 to entry: For illustration see Figure 2.



Key

1	fault tolerating time	4	fault occurs
2	fault detection time	5	fault flagged
3	max. fault reaction time	6	shutdown

Figure 2 — Fault tolerating time

3.21
fault reaction time
time for a control function, within the fault tolerating time, to react on a fault and initiate a shut-down

3.22
normal operation
use of the control or its associated equipment for the purpose for which it was made and in the intended manner under the conditions as specified

3.23
safety shutdown
process which is affected immediately following the response of a protection device or the detection of a fault in the control system and assumes a state in which the output terminals ensure a safe situation

3.24
reset
action releasing the control from lock-out

3.25
lock-out
safety-shutdown condition of the system, where a release from this condition can be accomplished by a reset

3.25.1
non-volatile lock-out
safety-shutdown condition of the system, where a restart can only be accomplished by the manual reset of the system and by no other means

3.25.2
volatile lock-out
safety-shut-down condition of the system, where a restart can only be accomplished by either the manual reset of the system, or an interruption of the main power and its subsequent restoration