ICS 23.060.40 SLOVENSKÁ TECHNICKÁ NORMA Január 2023

STN	**Bezpečnostné a ovládacie zariadenia horákov a spotrebičov na plynné palivá Časť 3: Elektronické regulátory tlaku a(alebo) prietoku na vstupný tlak do 500 kPa vrátane**	**STN EN 88-3** 06 1021

Safety and control devices for gas burners and gas burning appliances - Part 3: Pressure and/or flow rate regulators for inlet pressures up to and including 500 kPa, electronic types

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 12/22

Obsahuje: EN 88-3:2022

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EUROPEAN STANDARD
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EN 88-3

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English Version

Safety and control devices for gas burners and gas burning appliances - Part 3: Pressure and/or flow rate regulators for inlet pressures up to and including 500 kPa, electronic types

Dispositifs de sécurité et de contrôle pour les brûleurs à gaz et appareils utilisant des combustibles gazeux - Partie 3 : Régulateurs de pression et/ou de débit de type électronique pour pression amont inférieure ou égale à 500 kPa

Sicherheits- und Regeleinrichtungen für Gasbrenner und Gasbrennstoffgeräte - Teil 3: Druck- und/oder Durchflussregler für Eingangsdrücke bis einschließlich 500 kPa, elektronische Ausführung

This European Standard was approved by CEN on 8 August 2022.

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

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

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Contents

Page

European foreword ... 4
Introduction ... 5
1 Scope ... 7
2 Normative references ... 7
3 Terms and definitions ... 8
4 Classification ... 13
4.1 Classes of control ... 13
4.2 Groups of control ... 13
4.3 Classes of control functions ... 13
4.4 Types of *DC* supplied controls ... 13
5 Test conditions and uncertainty of measurements ... 14
6 Design and construction ... 14
6.1 General ... 14
6.2 Mechanical parts of the control ... 14
6.3 Materials ... 16
6.4 Gas connections ... 16
6.5 Electrical parts of the control ... 17
6.6 Protection against internal faults for the purpose of functional safety ... 17
7 Performance ... 18
7.1 General ... 18
7.2 Leak-tightness ... 18
7.3 Torsion and bending ... 19
7.4 Rated flow rate ... 19
7.5 Durability ... 20
7.6 Performance tests for electronic controls ... 20
7.7 Long-term performance for electronic controls ... 20
7.8 Data exchange ... 20
7.101 Regulator performance ... 20
7.102 Regulator performance with respect to application safety ... 27
8 Electrical requirements ... 27
8.1 General ... 27
8.2 Protection by enclosure ... 27
8.101 Plug connections ... 27
9 Electromagnetic compatibility (EMC) ... 28
9.1 Protection against environmental influences ... 28
9.2 Supply voltage variations below 85 % of rated voltage ... 28
9.3 Voltage dips and interruptions ... 28
9.4 Supply frequency variations ... 28
9.5 Surge immunity tests ... 28
9.6 Electrical fast transient/burst ... 28
9.7 Immunity to conducted disturbances induced by radio frequency fields ... 28
9.8 Immunity to radiated disturbances induced by radio frequency fields ... 28
9.9 Electrostatic discharge tests ... 28
9.10 Power frequency magnetic field immunity tests ... 28

9.11 Harmonics and interharmonics including mains signalling at a. c. power port, low frequency immunity tests 28
10 Marking, instructions 28
10.1 Marking 28
10.2 Instructions 29
10.3 Warning notice 30
Annex A (informative) Abbreviations and Symbols 31
A.1 Abbreviations 31
A.2 Symbols 31
Annex B (informative) Leak-tightness test for gas controls – volumetric method 32
Annex C (informative) Leak-tightness test for gas controls – pressure loss method 33
Annex D (normative) Calculation of pressure loss into leakage rate 34
Annex E (normative) Electrical/electronic component fault modes 35
Annex F (normative) Additional requirements for safety accessories and pressure accessories as defined in EU Directive 2014/68/EU 36
Annex G (normative) Materials for pressurized parts 37
Annex H (normative) Additional materials for pressurized parts 38
Annex I (normative) Requirements for controls used in *DC* supplied burners and appliances burning gaseous or liquid fuels 39
Annex J (normative) Method for the determination of a Safety integrity level (SIL) 40
Annex K (normative) Method for the determination of a Performance Level (PL) 41
Annex L (informative) Relationship between Safety Integrity Level (SIL) and Performance Level (PL) 42
Annex M (normative) Reset functions 43
Annex N (informative) Guidance document on Environmental Aspects 44
Annex O (normative) Seals of elastomer, cork and synthetic fibre mixtures 45
Annex ZA (informative) Relationship between this European Standard and the essential requirements of Regulation (EU) 2016/426 aimed to be covered 46
Bibliography 49

European foreword

This document (EN 88-3:2022) 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 April 2023, and conflicting national standards shall be withdrawn at the latest by October 2025.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

The EN 88 series consists of the following parts:

— EN 88-1, *Safety and control devices for gas burners and gas burning appliances — Part 1: Pressure regulators for inlet pressures up to and including 50 kPa*;

— EN 88-2, *Safety and control devices for gas burners and gas burning appliances — Part 2: Pressure regulators for inlet pressures above 50 kPa up to and including 500 kPa*;

— EN 88-3, *Safety and control devices for gas burners and gas burning appliances — Part 3: Pressure and/or flow rate regulators for inlet pressures up to and including 500 kPa, electronic types*.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

This document is intended to be used in conjunction with EN 13611:2019.

EN 13611:2019 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.

The general requirements for controls are given in EN 13611:2019, and methods for classification and assessment for new controls and control functions are given in EN 14459:2021 (see Figure 1). EN 126:2012 (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 (see Figure 1, control functions).

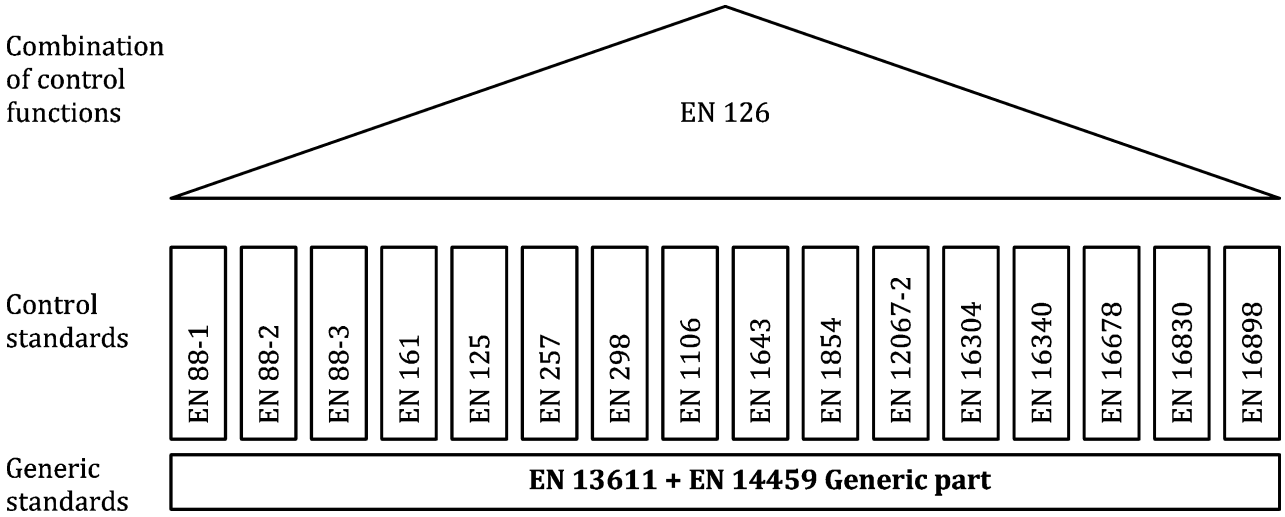

Figure 1 — Interrelation of control standards

EN 13611:2019 should be used in conjunction with the specific standard for a specific type of control (e.g. EN 88-1:2022, EN 88-2:2022, EN 88-3:2022, EN 125:2022, EN 126:2012, EN 161:2022, EN 257:2022, EN 298:2022, EN 1106:2022, EN 1643:2022, EN 1854:—[1], EN 12067-2:2022, EN 16304:2022, EN 16340:2014, EN 16678:2022 and EN 16898:2022), or for controls for specific applications.

EN 13611:2019 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 14459:2021 provides methods for classification and assessment of new control principles.

Primarily in industrial applications it is common practice to rate the safety of a plant based on values describing the likelihood of a dangerous failure. These values are being used to determine Safety Integrity Levels or Performance Levels when the system is being assessed in its entirety.

CEN/TC 58 standards for safety relevant controls do go beyond this approach, because for a certain life time for which the product is specified, designed and tested a dangerous failure is not allowed at all. Failure modes are described and assessed in greater detail.

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1 Under preparation. Stage at the time of publication: FprEN 1854:2022.

Measures to prevent from dangerous situations are defined. Field experience over many decades is reflected in the CEN/TC 58 standards. Requirements of EN 13611:2019 can be considered as proven in practice.

This document refers to clauses of EN 13611:2019 or adapts clauses 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 subclauses to the structure of EN 13611:2019 which are particular to this document. Subclauses which are additional to those in EN 13611:2019 are numbered starting from 101. It should be noted that these clauses, subclauses and Annexes are not indicated as an addition.

If by reference to EN 13611:2019 the term “control” is given, this term should be read as “regulator”.

1 Scope

EN 13611:2019, Clause 1 applies with the following modification and addition:

Modification:

The 1st paragraph of EN 13611:2019, Clause 1 is replaced by:

This document specifies the safety, design, construction, and performance requirements and testing for electronic pressure and/or flow rate regulators for burners and appliances burning one or more gaseous fuels, hereafter referred to as “regulators”.

This document is applicable to regulators with declared maximum inlet pressures up to and including 500 kPa and of nominal connection sizes up to and including DN 250.

Addition:

This document is applicable to:

— regulators which use auxiliary energy;

— regulators, which function by controlling a gas outlet pressure or a gas flow rate;

— regulators with a modular structure specified as a unit;

— regulators intended for gas appliances to be installed indoor or in the open air and exposed to the environment.

This document is not applicable to:

— regulators connected directly to a gas distribution network or to a container that maintains a standard distribution pressure.

The 4th paragraph of EN 13611:2019, Clause 1 is removed.

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 161:2022, *Automatic shut-off valves for gas burners and gas appliances*

EN 13611:2019[2], *Safety and control devices for burners and appliances burning gaseous and/or liquid fuels — General requirements*

EN 14459:2021, *Safety and control devices for burners and appliances burning gaseous or liquid fuels — Control functions in electronic systems — Methods for classification and assessment*

EN 175301-803:2006, *Detail Specification: Rectangular connectors — Flat contacts, 0,8 mm thickness, locking screw not detachable*

2 As impacted by EN 13611:2019/AC:2021.