

**ELEKTRILISED AUTOMAATJUHTIMISSEADMED. OSA 2-5:  
ERINÕUDED AUTOMAATSETELE ELEKTRILISTELE  
PÕLETIJUHTIMISSÜSTEEMIDELE**

**Automatic electrical controls - Part 2-5: Particular requirements for automatic electrical burner control systems (IEC 60730-2-5:2013 , modified + IEC 60730-2-5:2013/A1:2017 + IEC 60730-2-5:2013/A2:2021)**

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

See Eesti standard EVS-EN 60730-2-5:2015+A1+A2:2021 sisaldb Euroopa standardi EN 60730-2-5:2015 ja selle muudatuste A1:2019 ja A2:2021, ja paranduse AC:2023 ingliskeelset teksti.	This Estonian standard EVS-EN 60730-2-5:2015+A1+A2:2021 consists of the English text of the European standard EN 60730-2-5:2015 and its amendments A1:2019 and A2:2021 and its corrigendum AC:2023.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.  Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 27.02.2015, muudatused A1 12.04.2019 ja A2 12.03.2021.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.  Date of Availability of the European standard is 27.02.2015, for A1 12.04.2019 and A2 12.03.2021.
Muudatusega A1 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega <b>[A1] &lt;A1&gt;</b> .  Muudatusega A2 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega <b>[A2] &lt;A2&gt;</b> .  Parandusega AC lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega <b>[AC] &lt;AC&gt;</b> .  Selles standardis on rahvusvahelise standardi ühismuudatused tähistatud püstkriipsuga teksti vasakul veerisel.	The start and finish of text introduced or altered by amendment A1 is indicated in the text by tags <b>[A1] &lt;A1&gt;</b> .  The start and finish of text introduced or altered by amendment A2 is indicated in the text by tags <b>[A2] &lt;A2&gt;</b> .  The start and finish of text introduced or altered by corrigendum AC is indicated in the text by tags <b>[AC] &lt;AC&gt;</b> .  In this document, the common modifications to the International Standard are indicated by a vertical line in the left margin of the text.
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**EUROPEAN STANDARD**  
**NORME EUROPÉENNE**  
**EUROPÄISCHE NORM**

**EN 60730-2-5 + A1 + A2**

February 2015, April 2019, March 2021

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English Version

**Automatic electrical controls -  
Part 2-5: Particular requirements for automatic electrical burner  
control systems  
(IEC 60730-2-5:2013 , modified + IEC 60730-2-5:2013/A1:2017  
+ IEC 60730-2-5:2013/A2:2021)**

Dispositifs de commande électrique automatiques -  
Partie 2-5: Exigences particulières pour les systèmes de  
commande électrique automatiques des brûleurs  
(IEC 60730-2-5:2013 , modifiée + IEC 60730-2-  
5:2013/A1:2017 + IEC 60730-2-5:2013/A2:2021)

Automatische elektrische Regel- und Steuergeräte für den  
Hausgebrauch und ähnliche Anwendungen -  
Teil 2-5: Besondere Anforderungen an automatische  
elektrische Brenner-Steuerungs- und  
Überwachungssysteme  
(IEC 60730-2-5:2013 , modifiziert + IEC 60730-2-  
5:2013/A1:2017 + IEC 60730-2-5:2013/A2:2021)

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Comité Européen de Normalisation Electrotechnique  
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**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## Foreword

This document (EN 60730-2-5:2015) consists of the text of IEC 60730-2-5:2013 prepared by IEC/TC 72 "Automatic electrical controls", together with the common modifications prepared by CLC/TC 72 "Automatic controls for household use".

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2015-08-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-11-17

This document supersedes EN 60730-2-5:2002.

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

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

## Endorsement notice

The text of the International Standard IEC 60730-2-5:2013 was approved by CENELEC as a European Standard with agreed common modifications.

**[A1] Amendment A1 European foreword**

The text of document 72/1084/FDIS, future IEC 60730-2-5/A1, prepared by IEC/TC 72 "Automatic electrical controls" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60730-2-5:2015/A1:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2019-10-12
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-04-12

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IEC 60947 (series)	NOTE	Harmonized as EN 60947 (series)
IEC 62282-3-100	NOTE	Harmonized as EN 62282-3-100

[A1]

**[A2] Amendment A2 European foreword**

The text of document 72/1259/FDIS, future IEC 60730-2-5/A2, prepared by IEC/TC 72 "Automatic electrical controls" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60730-2-5:2015/A2:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2021-12-04 level by publication of an identical national standard or by endorsement
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IEC 60730-2-6      NOTE      Harmonized as EN 60730-2-6

[A2]



IEC 60730-2-5

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CONSOLIDATED VERSION

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



**Automatic electrical controls –  
Part 2-5: Particular requirements for automatic electrical burner control systems**

**Commandes électriques automatiques –  
Partie 2-5: Exigences particulières pour les systèmes de commande électrique  
automatique des brûleurs**



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IEC 60730-2-5

Edition 4.2 2021-01  
CONSOLIDATED VERSION

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



**Automatic electrical controls –  
Part 2-5: Particular requirements for automatic electrical burner control systems**

**Commandes électriques automatiques –  
Partie 2-5: Exigences particulières pour les systèmes de commande électrique  
automatique des brûleurs**

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International Standard IEC 60730-2-5 has been prepared by IEC technical committee 72: Automatic electrical controls.

The text of this standard is based on the following documents:

FDIS	Report on voting
72/922/FDIS	72/929/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This part 2-5 is intended to be used in conjunction with IEC 60730-1. A2 It was established on the basis of the fifth edition:2013, including Amendment 1:2015 and Amendment 2:2020 of that publication A2. Consideration may be given to future editions of, or amendments to, IEC 60730-1.

A2 deleted text A2

This part 2-5 supplements or modifies the corresponding clauses in IEC 60730-1 so as to convert that publication into the IEC standard: Safety requirements for automatic electrical burner control systems.

Where this part 2-5 states "addition", "modification", or "replacement", the relevant requirement, test specification or explanatory matter in Part 1 should be adapted accordingly.

Where no change is necessary, this part 2-5 indicates that the relevant clause or subclause applies.

In the development of a fully international standard, it has been necessary to take into consideration the differing requirements resulting from practical experience in various parts of the world and to recognize the variation in national electrical systems and wiring rules.

The "in some countries" notes regarding differing national practices are contained in the following subclauses:

- 2.3.127
- 6.11
- 15.7
- 17.16.102.1
- A2 H.26.11.101 A2
- A2 Table H.24, Note i A2

In this publication:

- 1) The following print types are used:
  - Requirements proper: in roman type;
  - *Test specifications: in italic type;*
  - Explanatory matter; in small roman type;
  - Words defined in Clause 2: **bold**.
- 2) Subclauses, notes, tables and figures which are additional to those in Part 1 are numbered starting from 101, *additional annexes* are lettered AA, BB, etc.

A list of all parts of the IEC 60730 series, under the general title *Automatic electrical controls* can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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**[A1] AMENDMENT A1 FOREWORD**

This amendment has been prepared by IEC technical committee 72: Automatic electrical controls.

The text of this amendment is based on the following documents:

FDIS	Report on voting
72/1084/FDIS	72/1103/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

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[A1]

**[A2] AMENDMENT A2 FOREWORD**

This amendment has been prepared by IEC technical committee 72: Automatic electrical controls.

The text of this amendment is based on the following documents:

FDIS	Report on voting
72/1259/FDIS	72/1262/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

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[A2]

## AUTOMATIC ELECTRICAL CONTROLS –

### Part 2-5: Particular requirements for automatic electrical burner control systems

#### 1 Scope and normative references

This clause of Part 1 is applicable except as follows:

[A<sub>1</sub>] 1.1 Scope

[A<sub>2</sub>] Replacement [A<sub>2</sub>]

This part of IEC 60730 applies to automatic electrical **burner control systems** for the **automatic control** of burners for oil, gas, coal or other combustibles intended to be used

- for household and similar use,
- in shops, offices, hospitals, farms and commercial and industrial applications.

This International Standard is applicable

- to a complete **burner control system**,
- to a separate **programming unit**,
- to a separate electronic high-voltage **ignition source**,
- to a separate **flame detector** and
- to a separate **high-temperature operation (HTO) detector**.
- [A<sub>2</sub>] to a **burner control system** intended to be used in warm air heating appliances (furnaces) where the appliance is equipped with an electromechanical differential pressure control to monitor the difference of the combustion air pressure (Type 2.AL). This pressure control provides a switch as an alternative to one of the two switching elements to directly de-energize the safety relevant terminals. [A<sub>2</sub>]

NOTE 1 Throughout this document, where it can be used unambiguously, the word "system" means "burner control system" and "systems" means "burner control systems".

NOTE 2 Throughout this document, the word "equipment" means "appliance and equipment."

This standard does not apply to thermoelectric flame supervision controls; thermoelectric flame supervision controls are covered by ISO 23551-6.

This document also applies to electrical **burner control systems** intended exclusively for industrial process applications e.g. those applications covered by ISO TC 244 (ISO 13577).

[A<sub>2</sub>] This document applies to controls powered by primary or secondary batteries, requirements for which are contained within the standard, including Annex V. [A<sub>2</sub>]

**1.1.1** This document applies to the inherent safety, to the declared **operating values**, **operating times** and **operating sequences** where such are associated with burner safety and to the testing of automatic electrical **burner control systems** used in, on, or in association with, burners.

NOTE Requirements for specific **operating values**, **operating times** and **operating sequences** are given in the standards for appliances and equipment.

**1.1.2** This document applies to AC or DC powered systems with a rated voltage not exceeding 660 V AC or 600 V DC.

**1.1.3** This document does not take into account the **response value** of an **automatic action** of a **control**, if such a **response value** is dependent upon the method of mounting the **control** in the equipment. Where a **response value** is of significant purpose for the protection of the **user**, or surroundings, the value defined in the appropriate equipment standard or as determined by the manufacturer applies.

**1.1.4** This document applies also to systems incorporating **electronic devices**, requirements for which are contained in Annex H.

**1.1.5** This document applies to systems using NTC or PTC thermistors, additional requirements for which are contained in Annex J.

**1.1.6** This document includes systems responsive to flame properties and temperature for HTO. **A1**

**A1** deleted text **A1**

**A2** **1.1.7** This document applies to the electrical and functional safety of controls capable of receiving and responding to communications signals. The signals may be transmitted to or received from external units, connected wired or wireless, that may or may not be part of the burner control system.

**1.1.8** This document does not address the integrity of the output signal to the network devices, such as interoperability with other devices, unless it has been evaluated as part of the control system. **A2**

## **A1** 1.2 **A1** Normative references

This clause of Part 1 is applicable except as follows:

*Addition:*

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

**A1** deleted text **A1**

**A1** IEC 60079-20-1:2010, *Explosive atmospheres – Part 20-1: Material characteristics for gas and vapour classification – Test methods and data*

ISO 23551-6:2014, *Safety and control devices for gas burners and gas-burning appliances – Particular requirements – Part 6: Thermoelectric flame supervision controls* **A1**

**A1** *Replacement:*

IEC 60127-1:2015, *Miniature fuses – Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links* **A1**

## 2 **A1** Terms and definitions **A1**

This clause of Part 1 is applicable except as follows: