



BSI Standards Publication

Automatic electrical controls

Part 2-14: Particular requirements for electric actuators

National foreword

This British Standard is the UK implementation of EN IEC 60730-2-14:2025. It is identical to IEC 60730-2-14:2025. It supersedes BS EN IEC 60730-2-14:2019+A1:2022, which will be withdrawn on 30 June 2028.

The UK participation in its preparation was entrusted to Technical Committee CPL/72, Electrical control devices for household equipment and appliances.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Amendments/corrigenda issued since publication

Date	Text affected
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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 60730-2-14

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Supersedes EN IEC 60730-2-14:2019; EN IEC 60730-2-14:2019/A2:2021; EN IEC 60730-2-14:2019/A1:2022

English Version

**Automatic electrical controls - Part 2-14: Particular requirements
for electric actuators
(IEC 60730-2-14:2025)**

Dispositifs de commande électrique automatiques -
Partie 2-14: Exigences particulières pour les actionneurs
électriques
(IEC 60730-2-14:2025)

Automatische elektrische Regel- und Steuergeräte für den
Hausgebrauch und ähnliche Anwendungen - Teil 2-14:
Besondere Anforderungen an elektrische Stellantriebe
(IEC 60730-2-14:2025)

This European Standard was approved by CENELEC on 2025-05-15. CENELEC 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 CENELEC 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 CENELEC 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 Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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

European foreword

The text of document 72/1476/FDIS, future edition 3 of IEC 60730-2-14, prepared by TC 72 "Automatic electrical controls" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60730-2-14:2025.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2026-06-30 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2028-06-30 document have to be withdrawn

This document supersedes EN IEC 60730-2-14:2019 and all of its amendments and corrigenda (if any).

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 60730-2-14:2025 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60034 (series) NOTE Approved as EN IEC 60034 (series)

IEC 60730-2-8 NOTE Approved as EN IEC 60730-2-8

Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

Annex ZA of Part 1 is applicable except as follows.

Addition:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60730-1	2022	Automatic electrical controls - Part 1: General requirements	EN IEC 60730-1	2024
			+ A11	2024

CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references.....	6
3 Terms and definitions.....	6
3.2 Definitions of types of control according to purpose.....	6
3.3 Definitions relating to the function of controls	6
4 General	7
5 Required technical information.....	7
5.2 Methods of providing technical information	7
5.3 Class II symbol.....	9
6 Protection against electric shock	9
7 Provision for protective earthing.....	9
8 Terminals and terminations.....	9
9 Constructional requirements	10
10 Threaded parts and connections	10
11 Creepage distances, clearances and distances through solid insulation	10
12 Components.....	10
13 Fault assessment on electronic circuits	10
13.1 Fault assessment for inherent safety	10
14 Moisture and dust resistance	10
15 Electric strength and insulation resistance.....	11
16 Heating.....	11
17 Manufacturing deviation and drift.....	12
18 Environmental stress.....	12
19 Endurance	12
20 Mechanical strength.....	13
21 Resistance to heat, fire and tracking.....	13
22 Resistance to corrosion.....	13
23 Electromagnetic compatibility (EMC) requirements – Emission	13
24 Normal operation	13
25 Electromagnetic compatibility (EMC) requirements – Immunity	13
25.1 General	13
26 Abnormal operation tests.....	13
26.1 Abnormal temperature test	13
Annex H (normative) Requirements related to functional safety	17
Annex R (informative) National differences relevant in the United States of America	23
Annex S (informative) National differences relevant in Japan	24
Annex T (informative) National differences relevant in Canada.....	25
Bibliography.....	26
Table 1 – Required technical information and methods of providing these information	8

INTERNATIONAL ELECTROTECHNICAL COMMISSION

AUTOMATIC ELECTRICAL CONTROLS –**Part 2-14: Particular requirements for electric actuators**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
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IEC 60730-2-14 has been prepared by IEC technical committee 72: Automatic electrical controls. It is an International Standard.

This third edition cancels and replaces the second edition published in 2017, Amendment 1:2019 and Amendment 2:2021. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

Adoption of IEC 60730-1:2022 with all its significant changes to IEC 60730-1:2013, IEC 60730-1:2013/AMD1:2015 and IEC 60730-1:2013/AMD2:2020.

The text of this International Standard is based on the following documents:

Draft	Report on voting
72/1476/FDIS	72/1479/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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

This part 2-14 is intended to be used in conjunction with IEC 60730-1:2022. Consideration may be given to future editions of, or amendments to, IEC 60730-1.

This part 2-14 supplements or modifies the corresponding clauses in IEC 60730-1, so as to convert that publication into the IEC standard: Particular requirements for electric actuators.

Where this part 2-14 states "addition", "modification" or "replacement", the relevant requirement, test specification or explanatory matter in part 1 should be adapted accordingly.

When a particular subclause of Part 1 is not mentioned in this Part 2-14, that 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 reader's attention is drawn to the fact that Annex R to Annex T list all of the "in-some-country" clauses on differing practices of a less permanent nature relating to the subject of this document.

In this publication:

- 1) The following print types are used:
 - *test specifications: in italic type;*
- 2) Subclauses, notes or items which are additional to those in Part 1 are numbered starting from 101, additional annexes are lettered AA, BB, etc.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

AUTOMATIC ELECTRICAL CONTROLS –

Part 2-14: Particular requirements for electric actuators

1 Scope

Replacement:

This part of IEC 60730 applies to automatic **electric actuators**

- for use in, on, or in association with equipment for household appliance and similar use;

NOTE 1 Throughout this document, the word "equipment" means "appliance and equipment" and "control" means "**electric actuator**".

EXAMPLE 1 **Electric actuators** for appliances within the scope of IEC 60335.

- for building automation within the scope of ISO 16484 series and IEC 63044 series (HBES/BACS);

EXAMPLE 2 Independently mounted **electric actuators** for HVAC air-handling systems..

- for equipment that is used by the public, such as equipment intended to be used in shops, offices, hospitals, farms and commercial and industrial applications;

EXAMPLE 3 **Electric actuators** for commercial catering, heating, and air-conditioning equipment.

- that are **smart enabled**;
- that are AC or DC powered **electric actuators** with a rated voltage not exceeding 690 V AC or 600 V DC;
- used in, on, or in association with equipment that use electricity, gas, oil, solid fuel, solar thermal energy, etc., or a combination thereof;
- utilized as part of a **control system** or **controls** which are mechanically integral with **multifunctional controls** having non-electrical outputs;
- using NTC or **PTC thermistors** and to discrete **thermistors**, requirements for which are contained in Annex J;
- that are mechanically or electrically operated, responsive to or controlling such characteristics as temperature, pressure, passage of time, humidity, light, electrostatic effects, flow, or liquid level, current, voltage, acceleration, or combinations thereof;
- as well as manual controls when such are electrically and/or mechanically integral with automatic controls.

NOTE 2 Requirements for manually actuated mechanical switches not forming part of an automatic control are contained in IEC 61058-1-1.

This document applies to

- the inherent safety of automatic **electric actuators**, and
- functional safety of automatic **electric actuators** and safety related systems,
- controls where the performance (for example the effect of EMC phenomena) of the product can impair the overall safety and performance of the controlled system,
- the operating values, operating times, and operating sequences where such are associated with equipment safety.

This document specifies the requirements for construction, operation and testing of automatic **electric actuators** used in, on, or in association with an equipment.

This document does not

- apply to automatic **electric actuators** intended exclusively for industrial process applications unless explicitly mentioned in the relevant part 2 or the equipment standard. However, this document can be applied to evaluate automatic **electric actuators** intended specifically for industrial applications in cases where no relevant safety standard exists;
- take into account the **response value** of an **automatic action** of an **electric actuator**, if such a **response value** is dependent upon the method of mounting the **electric actuator** 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 will apply;
- 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;
- apply to **electric actuators** which are mechanically integrated with valves covered by a separate part 2 (e.g. IEC 60730-2-8);
- apply to electric motors, requirements for which are contained in IEC 60034.

2 Normative references

This clause of Part 1 is applicable except as follows.

Addition:

IEC 60730-1:2022, *Automatic electrical controls – Part 1: General requirements*

3 Terms and definitions

This clause of Part 1 is applicable except as follows.

3.2 Definitions of types of control according to purpose

Additional definitions:

3.2.101

electric actuator

device in which a **prime mover** is mechanically linked to a valve, damper or similar device and which responds to **initiation** from a **control** or switch

Note 1 to entry: The **electric actuator** moves the valve, damper or similar device to defined positions and may also incorporate other functions, such as electric interlock switches and/or feedback.

3.3 Definitions relating to the function of controls

Additional definitions:

3.3.101

multi-position action

action denoting that the **electric actuator** operates in such a manner that only two or more defined positions can be reached

3.3.102

modulating action

action denoting that the **electric actuator** operates in such a manner that every position between two defined limits can be reached