IEC 60730-2-14

Edition 2.0 2021-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 2
AMENDEMENT 2

Automatic electrical controls –
Part 2-14: Particular requirements for electric actuators

Dispositifs de commande électrique automatiques –
Partie 2-14: Exigences particulières pour les actionneurs électriques

IEC 60730-2-14:2017-08/AMD2:2021-10(en-fr)

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AUTOMATIC ELECTRICAL CONTROLS –

Part 2-14: Particular requirements for electric actuators

AMENDMENT 2

FOREWORD

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Amendment 2 to IEC 60730-2-14:2017 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
72/1284/FDIS	72/1286/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 Amendment 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/standardsdev/publications/.

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- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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FOREWORD

Replace the third paragraph, beginning with "This Part 2-14 is intended to be used"*, as modified by Amendment 1, with the following:*

This part -2-14 is intended to be used in conjunction with IEC 60730-1. It was established on the basis of the fifth edition of that standard (2013) including its amendment 1 (2015) and amendment 2 (2021). Consideration may be given to future editions of, or amendments to, IEC 60730-1.

Delete the text beginning with "The "in some country notes"", *as well as the two bullet points*.

*Add the following text before "*In this publication*":*

The reader's attention is drawn to the fact that Annex AA and Annex BB list all of the "in-some-country" clauses on differing practices of a less permanent nature relating to the subject of this document.

1 Scope and normative references

1.1 Scope

Replace the NOTE with the following:

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

Replace the second paragraph with the following:

This document is applicable to **electric actuators** for building automation within the scope of ISO 16484.

1.1.1

Replace the first paragraph with the following:

1.1.1 *Replacement*:

This part 2-14 applies to the inherent safety, to the **operating values**, **operating times** and **operating sequences** where such are associated with equipment safety, and to the testing of **electric actuators** used in or in association with equipment.

Replace, in the NOTE, the word "may" *with* "can".

Replace the second paragraph with the following:

This document is also applicable to the **functional safety** of l**ow complexity safety related systems** and **controls**.

1.1.2

Replace the text with the following:

1.1.2 *Replacement*:

This part -2-14 applies to automatic **electric actuators**, 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.

Requirements for manual switches not integral with an **electric actuator** are contained in IEC 61058-1 and IEC 61058-1-1.

1.1.3

Replace the text with the following:

1.1.3 Void.

1.1.4

Replace the text with the following:

1.1.4 Void.

1.1.5

Replace the text, as modified by Amendment 1, with the following:

1.1.5 *Replacement:*

This part 2-14 applies to AC or DC powered **electric actuators** with a rated voltage not exceeding 690 V AC or 600 V DC.

1.1.6

Replace the text, as modified by Amendment 1, with the following:

1.1.6 *Replacement*:

This part 2-14 does not 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 household equipment or as determined by the manufacturer applies.

Add the following subclause:

1.2 Normative references

Additional reference:

IEC 61058-1-1, *Switches for appliances – Part 1-1: Requirements for mechanical switches*

7 Information

Add the following heading:

7.2 Methods of providing information

Table 1 – (7.2 of edition 3) – Required information and methods of providing information

Replace Item 23 of Table 1 with the following:

Information	Clause or subclause	Method
23 Maximum temperature of mounting surface ($T_{s\ max}$) if it differs by more than 20 K from T_{max}	6.12.2, 14.1, 17.3	D

7.3.1

Replace the NOTE with the following text:

Actuators of class II construction provided with a cord for connection to the **fixed wiring** which does not have a plug fitted may carry the symbol for class II construction.

27 Abnormal operation

27.2.3 Blocked mechanical output test (abnormal temperature test)

Replace the first paragraph with the following:

Electric actuators where the motor employs insulation for the protection against electric shock shall withstand the effects of blocked output without exceeding the temperatures indicated in Table 26. Temperatures are measured by the method specified in 14.7.1.

Electrical actuators where the motor employs only **functional insulation** shall withstand the effects of a blocked output. During the test the exceeding of temperatures in Table 26 is allowed provided that, after the test, the **electric actuator** complies with items a) to g) of H.27.1.1.3, where applicable.

27.102 Running overload

27.102.3

Replace the text with the following:

27.102.3 *During the test, the winding temperature of motors employing insulation for the protection against electric shock prior to the operation of the protective device or protective circuit shall not exceed*

- *140 °C, for class 105 (A) winding insulation;*
- *155 °C, for class 120 (E) winding insulation;*
- *165 °C, for class 130 (B) winding insulation;*
- *180 °C, for class 155 (F) winding insulation;*
- *200 °C, for class 180 (H) winding insulation;*
- *220 °C, for class 200 (N) winding insulation;*
- *240 °C, for class 220 (R) winding insulation;*
- *270 °C, for class 250 winding insulation.*

***Electrical actuators** where the motor employs only **functional insulation** shall comply with items a) to g) of H.27.1.1.3, where applicable.*

NOTE If the load cannot be increased in appropriate steps, the motor and the protective electronics, if applicable, can be removed from the appliance and tested separately.

Annex H
(normative)

Requirements for electronic controls

H.26 Electromagnetic compatibility (EMC) requirements – Immunity

H.26.8 Surge immunity test

H.26.8.101 Compliance

Replace, in item a), the word "standard" *with* "document".

H.26.9 Electrical fast transient/burst immunity test

H.26.9.101 Compliance

Replace in item a), the word "standard" *with* "document".

H.26.11 Electrostatic discharge test

H.26.11.101 Compliance

Replace, in item a), the word "standard" *with* "document".

H.26.12 Radio-frequency electromagnetic field immunity

H.26.12.2 Immunity to conducted disturbances

H.26.12.2.101 Compliance

Replace, in item a), the word "standard" *with* "document".

H.26.12.3 Immunity to radiated disturbances

H.26.12.3.101 Compliance

Replace, in item a), the word "standard" *with* "document".

H.26.13 Test of influence of supply frequency variations

H.26.13.101 Compliance

Replace, in item a), the word "standard" *with* "document".

H.26.14 Power frequency magnetic field immunity test

H.26.14.101 Compliance

Replace, in item a), the word "standard" *with* "document".

H.26.15.4 Compliance

Replace, in item a), the word "standard" *with* "document".

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

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DISPOSITIFS DE COMMANDE ÉLECTRIQUE AUTOMATIQUES –

Partie 2-14: Exigences particulières pour les actionneurs électriques

AMENDEMENT 2

AVANT-PROPOS

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L'amendement 2 de l'IEC 60730-2-14:2017 a été établi par le comité d'études 72 de l'IEC: Commandes électriques automatiques.

Le texte de cet Amendement est issu des documents suivants:

Projet	Rapport de vote
72/1284/FDIS	72/1286/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à son approbation.

La version française de cette norme n'a pas été soumise au vote.