

INTERNATIONAL STANDARD

EXTENDED VERSION

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Automatic electrical controls -

Part 2-24: Particular requirements for displacement electrical controls

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Automatic electrical controls -
Part 2-24: Particular requirements for displacement electrical controls**

FOREWORD

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The specific content of IEC 60730-2-24:2026 is displayed on a blue background.

IEC 60730-2-24 has been prepared by IEC technical committee 72: Automatic electrical controls. It is an International Standard.

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

Draft	Report on voting
72/1506/CDV	72/1525/RVC

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.

This part 2-24 is intended to be used in conjunction with IEC 60730-1. It was established on the basis of the sixth edition of that standard (2022). Consideration may be given to future editions of, or amendments to, IEC 60730-1.

This part 2-24 supplements or modifies the corresponding clauses in IEC 60730-1, so as to convert that publication into the IEC standard: Particular requirements for displacement electrical controls.

Where this part 2-24 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, part 2-24 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.

In this publication:

- The following print types are used:
 - requirements proper: in roman type;
 - test specifications: *in italic type*;
 - explanatory matter: in smaller roman type.
 - Defined terms: **bold type**.
- Subclauses, notes or items 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 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,
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1 Scope

This part of IEC 60730 applies to automatic **displacement electrical controls**

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

NOTE 1 Through this document, the word "**control**" means "**displacement electrical control**".

EXAMPLE 1 **Displacement electrical controls** used in electrical pressure cookers with gross volume up to 25 l, with working pressure over 4 kPa and less than 150 kPa.

- that are AC or DC powered **controls** with a rated voltage not exceeding 690 V AC or 600 V DC;
- used in, on, or in association with equipment that use electricity;
- that are mechanically or electrically operated, responsive to change of position of **point of action**.

NOTE 2 Requirements for manual switches not forming part of an automatic **control** are covered in IEC 61058-1-1.

This document applies to

- inherent safety of automatic electro-mechanical **displacement electrical controls**;
- functional safety of automatic electro-mechanical **displacement electrical controls**;
- the operating values, operating times, and operating sequences where such are associated with equipment safety;
- **displacement electrical controls** having temperature sensing element(s), in which cases additional requirements can be considered to be necessary. Requirements for temperature sensing controls are included in IEC 60730-2-9.

This document specifies the requirements for construction, operation and testing of automatic **displacement electrical controls** used in, on, or in association with equipment.

This document does not

- apply to automatic electronic controls;
- 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.

NOTE 3 For more information about guidance to the application of **displacement electrical controls**, see Annex AA.

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.

IEC 60038, *IEC standard voltages*

IEC 60065:2014, *Audio, video and similar electronic apparatus – Safety requirements*

IEC 60068-2-75, *Environmental testing – Part 2-75: Tests – Test Eh: Hammer tests*

IEC 60085, *Electrical insulation – Thermal evaluation and designation*

IEC 60099-1:1991, *Surge arresters – Part 1: Non-linear resistor type gapped surge arresters for a.c. systems*¹

IEC 60112:2020, *Method for the determination of the proof and the comparative tracking indices of solid insulating materials*

IEC 60127 (all parts), *Miniature fuses*

IEC 60227-1, *Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V – Part 1: General requirements*

IEC 60245-1, *Rubber insulated cables – Rated voltages up to and including 450/750 V – Part 1: General requirements*

IEC 60269 (all parts), *Low-voltage fuses*

IEC 60335-1:2020, *Household and similar electrical appliances – Safety – Part 1: General requirements*

IEC 60384-14, *Fixed capacitors for use in electronic equipment – Part 14: Sectional specification – Fixed capacitors for electromagnetic interference suppression and connection to the supply mains*

IEC 60384-16, *Fixed capacitors for use in electronic equipment – Part 16: Sectional specification – Fixed metallized polypropylene film dielectric DC capacitors*

IEC 60384-17, *Fixed capacitors for use in electronic equipment – Part 17: Sectional specification – Fixed metallized polypropylene film dielectric AC and pulse capacitors*

IEC 60417, *Graphical symbols for use on equipment* standards.iteh.ai

IEC 60423, *Conduit systems for cable management – Outside diameters of conduits for electrical installations and threads for conduits and fittings*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP code)*

IEC 60529:1989/AMD1:1999

IEC 60529:1989/AMD2:2013

IEC 60539 (all parts), *Directly heated negative temperature coefficient thermistors*

IEC 60664-1:2007², *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC TR 60664-2 (all parts), *Insulation coordination for equipment within low-voltage systems*

IEC 60664-3:2016, *Insulation coordination for equipment within low-voltage systems – Part 3: Use of coating, potting or moulding for protection against pollution*

IEC 60664-4, *Insulation coordination for equipment within low-voltage systems – Part 4: Consideration of high-frequency voltage stress*

¹ Withdrawn.

² Withdrawn.