

# INTERNATIONAL STANDARD

EXTENDED VERSION

This full version of IEC 60730-2-15:2026 includes the content of the references made to IEC 60730-1:2022

**Automatic electrical controls -  
Part 2-15: Particular requirements for automatic electrical air flow, water flow  
and water level sensing controls**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Automatic electrical controls -  
Part 2-15: Particular requirements for automatic electrical air flow,  
water flow and water level sensing controls**

FOREWORD

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IEC 60730-2-15 has been prepared by IEC technical committee 72: Automatic electrical controls. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2017. This edition constitutes a technical revision.

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

- a) adoption to IEC 60730-1:2022 with all of 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
72/1524/FDIS	72/1533/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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

This part 2-15 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 2-15 supplements or modifies the corresponding clauses in IEC 60730-1, so as to convert that publication into the IEC standard: Particular requirements for automatic electrical air flow, water flow and water level sensing controls.

Where this part 2-15 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, 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 Q, Annex R, Annex S, and 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, 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.

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- reconfirmed,
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# Sample Document

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## 1 Scope

This part of IEC 60730 applies to automatic electrical air flow, water flow and water level sensing controls

- for use in, on, or in association with boilers with a maximum pressure rating of 2 000 kPa (20 bar) and equipment for general household and similar use including controls for heating, air-conditioning and similar applications;

NOTE 1 Throughout this document, the word "equipment" means "appliance and equipment" and "controls" means "automatic electrical air flow, water flow and water level sensing controls".

EXAMPLE 1 Water flow and water level sensing controls of the float or electrode-sensor type used in boiler applications and air flow, water flow and water level sensing controls for swimming pool pumps, water tank pumps, cooling towers, dishwashers, washing machines, air conditioning chillers and ventilation applications.

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

EXAMPLE 2 Independently mounted air flow, water flow and water level sensing controls in smart grid systems and controls for building automation systems within the scope of ISO 16484-2.

- 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 Controls for commercial boilers, heating and air-conditioning equipment.

- that are smart enabled controls;

EXAMPLE 4 Smart grid control, remote interfaces/control of energy-consuming equipment including computer or smart phone.

- 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, 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 air flow, water flow and water level;
- 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 electrical air flow, water flow and water level sensing controls, and
- functional safety of automatic air flow, water flow and water level sensing electrical controls 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 electrical air flow, water flow and water level sensing controls used in, on, or in association with an equipment.

This document takes into account the response value of an automatic action of a control where such a response value is dependent upon the method of mounting the control. Where a response value is of significant purpose for the protection of the user, or surroundings, the value defined in the appropriate household equipment standard or as determined by the manufacturer applies.

This document does not

- apply to air flow, water flow and water level sensing **controls** 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 air flow, water flow and water level sensing **controls** intended specifically for industrial applications in cases where no relevant safety standard exists;
- 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 pressure sensing controls, the requirements for which are contained in IEC 60730-2-6.

## 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*<sup>1</sup>

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*

<sup>1</sup> Withdrawn.