

CONSOLIDATED VERSION

VERSION CONSOLIDÉE



**Automatic electrical controls for household and similar use –
Part 2-8: Particular requirements for electrically operated water valves, including
mechanical requirements**

**Dispositifs de commande électrique automatiques à usage domestique et
analogue –
Partie 2-8: Règles particulières pour les électrovannes hydrauliques, y compris
les prescriptions mécaniques**



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VERSION REDLINE



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE –

Part 2-8: Particular requirements for electrically operated water valves, including mechanical requirements

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This Consolidated version of IEC 60730-2-8 bears the edition number 2.2. It consists of the second edition (2000-02) [documents 72/428/FDIS and 72/439/RVD], its amendment 1 (2002-11) [documents 72/553/FDIS and 72/557/RVD] and its amendment 2 (2015-11) [documents 72/1011A/FDIS and 72/1025/RVD]. The technical content is identical to the base edition and its amendments.

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendments 1 and 2. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 60730-2-8 has been prepared by IEC technical committee 72: Automatic controls for household use.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

This part 2-8 is intended to be used in conjunction with IEC 60730-1. It was established on the basis of the ~~second~~ **fourth** edition (~~1993~~ **2010**) of that publication ~~and its amendments 1 (1994) and 2 (1997)~~. Consideration may be given to future editions of, or amendments to, IEC 60730-1.

This part 2-8 supplements or modifies the corresponding clauses in IEC 60730-1 so as to convert that publication into the IEC standard: *Safety requirements for electrically operated water valves, including mechanical requirements*.

Where this part 2-8 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 2-8 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 part 2-8,~~ The "in some countries" notes regarding differing national practices are contained in the following ~~subclauses~~ **elements**:

- **Table 1, items 113 and 114**
- 14.7.4, note 101
- 16.2.1
- ~~27.2.101~~ **27.2.3.1**
- annex CC
- table DD.1.2.1, note 1
- table DD.6, note 1
- ~~H.26.9~~

In this publication:

- 1) The following print types are used:
 - Requirements proper: in roman type.
 - *Test specifications: in italic type.*
 - Notes: in smaller roman type.
- 2) Subclauses, notes, tables or figures 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 the base publication and its amendments 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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AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE –

Part 2-8: Particular requirements for electrically operated water valves, including mechanical requirements

1 Scope and normative references

This clause of part 1 is ~~replaced~~ applicable as follows:

~~Replacement:~~

1.1 This part 2-8 applies to electrically operated water valves for use in, on or in association with equipment for household and similar use ~~that may use electricity, gas, oil, solid fuel, solar thermal energy, etc. or a combination thereof~~, including heating, air-conditioning and similar applications. ~~The equipment may use electricity, gas, oil, solid fuel, solar thermal energy, etc., or a combination thereof.~~

1.1.1 This part 2-8 applies to the inherent safety, to the operating values, ~~operating times and~~ operating sequences where such are associated with equipment ~~protection safety~~, and to the testing of automatic electrical controls ~~devices~~ used in, on or in association with, household and similar equipment.

1.1.2 This part 2-8 contains requirements for electrical features of water valves and requirements for mechanical features of valves that affect their intended operation.

This part 2-8 is also applicable to electrically operated water valves for appliances within the scope of IEC 60335.

Electrically operated valves for equipment not intended for normal household use but which may nevertheless be used by the public, such as equipment intended to be used by laymen in shops, in light industry and on farms, are within the scope of this part 2-8.

This part 2-8 does not apply to:

- electrically operated water valves of nominal connection size above DN 50;
- electrically operated water valves for admissible nominal pressure rating above 1,6 MPa;
- food dispensers;
- detergent dispensers;
- steam valves;
- electrically operated water valves designed exclusively for industrial applications.

1.1.2 Throughout this part 2-8, where it can be used unambiguously, the term:

- "valve" is used to denote an electrically operated water valve (including actuator and valve body assembly);
- "actuator" means "electrically operated mechanism or prime mover";
- "valve body" means "valve body assembly";
- "equipment" includes "appliance" and "control system".

1.1.3 This part 2-8 also applies to actuators and to valve bodies which are designed to be fitted to each other.

1.1.4 This part 2-8 applies to individual valves, valves utilized as part of a system and valves mechanically integral with multi-functional controls having non-electrical outputs.

NOTE Attention is drawn to the fact that, in many countries, additional test requirements and by-laws have been established by the water authorities or companies.

1.5 Normative references

This clause of part 1 is applicable except as follows:

Addition:

IEC 60335 (all parts), *Household and similar electrical appliances – Safety*

IEC 60730-1:2010, *Automatic electrical controls – Part 1: General requirements*

ISO 7-1:1994, *Pipe threads where pressure-tight joints are made on the threads – Part 1: Dimensions, tolerances and designation*

ISO 65:1981, *Carbon steel tubes suitable for screwing in accordance with ISO 7-1*

ISO 228-1:~~1994~~, *Pipe threads where pressure-tight joints are not made on the threads – Part 1: Dimensions, tolerances and designation*

ISO 630:~~1995~~, *Structural steels – Plates, wide flats, bars sections and profiles*

~~ISO 1179:1981, Pipe connections threaded to ISO 228-1 for plain end steel and other metal tubes in industrial applications~~

ISO 1179-1, *Connections for general use and fluid power – Ports and stud ends with ISO 228-1 threads with elastomeric or metal-to-metal sealing – Part 1: Threaded ports*

ISO 4144:~~1979~~, *Pipework – Stainless steel fittings threaded in accordance with ISO 7-1*

ISO 4400:~~1994~~, *Fluid power systems and components – Three-pin electrical plug connectors with earth contact – Characteristics and requirements*

ISO 6952:~~1994~~, *Fluid power systems and components – Two-pin electrical plug connectors with earth contact – Characteristics and requirements*

2 Definitions

This clause of part 1 is applicable, except as follows:

2.2 Definitions of types of control according to purpose