

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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EUROPEAN STANDARD

**EN 60730-2-8**

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2002

ICS 97.120

Supersedes EN 60730-2-8:1995 + A1:1997 + A2:1997

English version

**Automatic electrical controls for household and similar use**  
**Part 2-8: Particular requirements for electrically operated water valves,**  
**including mechanical requirements**  
(IEC 60730-2-8:2000, modified)

Dispositifs de commande électrique  
automatiques à usage domestique  
et analogue  
Partie 2-8: Règles particulières pour  
les électrovannes hydrauliques,  
y compris les prescriptions mécaniques  
(CEI 60730-2-8:2000, modifiée)

Automatische elektrische Regel- und  
Steuergeräte für den Hausgebrauch  
und ähnliche Anwendungen  
Teil 2-8: Besondere Anforderungen  
an elektrisch betriebene Wasserventile,  
einschließlich mechanischer  
Anforderungen  
(IEC 60730-2-8:2000, modifiziert)

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This European Standard was approved by CENELEC on 2001-12-04. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of the International Standard IEC 60730-2-8:2000, prepared by IEC TC 72, Automatic controls for household use, together with the common modifications prepared by the Technical Committee CENELEC TC 72, Automatic controls for household use, was submitted to the formal vote and was approved by CENELEC as EN 60730-2-8 on 2001-12-04.

This European Standard supersedes EN 60730-2-8:1995 + corrigendum March 2001 + A1:1997 + A1:1997/corrigendum March 2001 + A2:1997 + A2:1997/corrigendum March 2001.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement dop 2002-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn dow 2008-12-01

This Part 2-8 is to be used in conjunction with EN 60730-1:1995, Automatic electrical controls for household and similar use - Part 1: General requirements, and its amendments. Consideration may be given to future editions of EN 60730-1.

This Part 2-8 supplements or modifies the corresponding clauses of EN 60730-1 so as to convert it into the European Standard: Particular requirements for electrically operated water valves, including mechanical requirements.

Where a particular clause or subclause of Part 1 is not mentioned in this Part 2-8, that clause or subclause applies as far as is reasonable. Where this Part 2-8 states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

Where reference is made to other international or harmonized standards, the edition of that standard quoted in annex ZA (normative) is applicable.

There are no special national conditions (snc) causing a deviation from this European Standard other than those listed in annex ZB of EN 60730-1.

There are no national deviations from this European Standard other than those listed in Annex ZC of EN 60730-1.

In this standard:

- 1) The following print types are used:
  - Requirements proper: in roman type;
  - *Test specifications: in italic type;*
  - Explanatory matter: in small roman type.
- 2) Subclauses, notes, tables and figures which are additional to those in Part 1 are numbered starting from 101, additional annexes are lettered AA, BB, etc.

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annexes H, BB, CC, DD, EE and ZA are normative and annex AA is informative.

Annex ZA has been added by CENELEC.

**Endorsement notice**

The text of the International Standard IEC 60730-2-8:2000 was approved by CENELEC as a European Standard with agreed common modifications as given below.

**COMMON MODIFICATIONS**

**Foreword Delete**

**1 Scope and normative references**

1.1 **Replace** the second paragraph by:  
EN 60730-2-1 does not apply to water valves.

1.1.4 **Delete** the explanation paragraph.

**7 Information**

Table 7.2 **Add** the following item to the table

113	For valves intended to be connected to the water supply mains	18.101.1	D
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7.4.4 Change the reference to this subclause to 7.4.5.

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**10 Terminals and terminations (standards.iteh.ai)**

10.2 **Delete** the third explanation paragraph.  
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https://standards.iteh.ai/catalog/standards/sist/30e7ded5-ec29-41c7-a293-70780593e0d9/sist-en-60730-2-8-2002](https://standards.iteh.ai/catalog/standards/sist/30e7ded5-ec29-41c7-a293-70780593e0d9/sist-en-60730-2-8-2002)

**14 Heating**

14.7.4 In the addition to the notes of Table 14.1, **delete** "(120 °C in some countries)".

**16 Environmental stress**

16.2.1 **Delete** the note.

**17 Endurance**

17.7 **Delete** the words in the title in parentheses.

**18 Mechanical strength**

18.101.1 **Add:**

For valves declared to be connected to the water supply mains the test shall be performed at 1,5 times the declared maximum working pressure or 1,6 MPa (16 bar), whichever is the greater.

**27 Abnormal operation**

27.2.101.1 **Delete** the note.

**Annexes**

Annex H

H.26.9 **Delete** the replacement.

Annex CC **Delete** the two notes.

Annex DD

DD.1.2.1 **Delete** the note and the annotation in the table.

DD.6 **Delete** the note and the annotation in the table.

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**Annex ZA**  
(normative)

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

**Additions to annex ZA of EN 60730-1:1995**

**Add** under ISO publications:

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 and steel and other metal tubes in industrial applications	-	-
ISO 4144	1979	Stainless steel fittings threaded to 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	-	-

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NORME  
INTERNATIONALE

INTERNATIONAL  
STANDARD

CEI  
IEC

60730-2-8

Deuxième édition  
Second edition  
2000-02

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**Dispositifs de commande électrique automatiques  
à usage domestique et analogue –**

**Partie 2-8:  
Règles particulières pour les électrovannes  
hydrauliques, y compris les prescriptions  
mécaniques**

**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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International Electrotechnical Commission  
Telefax: +41 22 919 0300

3, rue de Varembe Geneva, Switzerland  
e-mail: inmail@iec.ch IEC web site <http://www.iec.ch>



Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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Pour prix, voir catalogue en vigueur  
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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**

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

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

This second edition cancels and replaces the first edition published in 1992, amendment 1 (1994) and amendment 2 (1997). This second edition constitutes a technical revision.

The text of this second edition is based on the following documents:

FDIS	Report on voting
72/428/FDIS	72/439/RVD

<https://standards.iso.org/standards/sist/60730-2-8-2002/70780593e0d9/sist-en-60730-2-8-2002>

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

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 edition (1993) 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:

- 14.7.4, note 101
- 16.2.1
- 27.2.101
- 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 this publication will remain unchanged until 2002-06. At this date, the publication will be

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

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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 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.

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

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

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

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 designed exclusively for industrial applications.

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; [SIST EN 60730-2-8:2002](https://standards.iteh.ai/catalog/standards/sist/30e7ded5-ec29-41c7-a293-70780593e0d9/sist-en-60730-2-8-2002)
- detergent dispensers; <https://standards.iteh.ai/catalog/standards/sist/30e7ded5-ec29-41c7-a293-70780593e0d9/sist-en-60730-2-8-2002>
- steam valves.