
Automatic electrical controls for household and similar use -- Part 2-19: Particular requirements for electrically operated oil valves, including mechanical requirements

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EUROPEAN STANDARD

EN 60730-2-19

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2002

ICS 97.120

English version

Automatic electrical controls for household and similar use
Part 2-19: Particular requirements for electrically operated oil valves,
including mechanical requirements
(IEC 60730-2-19:1997 + A1:2000, modified)

Dispositifs de commande électrique
automatiques à usage domestique
et analogue
Partie 2-19: Règles particulières pour
électrovannes de combustible liquide, y
compris les prescriptions mécaniques
(CEI 60730-2-19:1997 + A1:2000,
modifiée)

Automatische elektrische Regel- und
Steuergeräte für den Hausgebrauch
und ähnliche Anwendungen
Teil 2-19: Besondere Anforderungen
an elektrisch betriebene Ölventile,
einschließlich mechanischer
Anforderungen
(IEC 60730-2-19:1997 + A1:2000,
modifiziert)

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This European Standard was approved by CENELEC on 2001-10-01. 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 60730-2-19:1997 and its amendment 1:2000, 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 60730-2-19 on 2001-10-01.

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) 2002-10-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2008-10-01

This Part 2-19 is to be used in conjunction with EN 60730-1:2000, 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 2-19 supplements or modifies the corresponding clauses of EN 60730-1 so as to convert it into the European Standard: Particular requirements for electrically operated oil valves, including mechanical requirements.

Where a particular clause or subclause of Part 1 is not mentioned in this Part 2-19, that clause or subclause applies as far as is reasonable. Where this Part 2-19 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.

Annexes designated "normative" are part of the body of the standard.
In this standard, annexes H and ZA are normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60730-2-19:1997 and its amendment 1:2000 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	Add: The requirements of EN 264 also apply. Where there is an overlap between the mechanical (including endurance) requirements of EN 264 and those of this Part 2-19 the requirements of EN 264 apply.
6	Classification
6.103	Delete the 'in some countries' note.
7	Information
Table 7.2	Delete item 120. Delete note 102.
11	Constructional requirements
11.103	Delete the 'in some countries' note.
11.104.6	Delete the 'in some countries' note.
11.105.1	Delete the 'in some countries' note.
11.105.2	Delete the 'in some countries' note.
11.108	Replace 'under consideration' in the note by 'given in EN 264'.
11.113	Delete.
18	Mechanical strength
18.102	Delete.
27	Abnormal operation
27.2.101.1	Delete the 'in some countries' note.
28	Guidance on the use of electronic disconnection
	Replace 'See annex H' by: This clause of Part 1 is applicable.
Annex H	
H.28	Guidance on the use of electronic disconnection
H.28	Delete the subclause.

Annex ZA
(normative)

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

Additions to annex ZA of EN 60730-1:2000

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
-	-	Safety shut-off devices for combustion plants using liquid fuels - Safety requirements and testing	EN 264	1991
IEC 60730-2-14 (mod)	1995	Automatic electrical controls for household and similar use - Part 2-14: Particular requirements for electric actuators	EN 60730-2-14	1997
ISO 7-1	1994	Pipe threads where pressure-tight joints are made on the threads - Part 1: Dimensions, tolerances and designation	-	-
ISO 228-1	1994	Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation	-	-
ISO 274	1975	Copper tubes of circular section - Dimensions	-	-
ISO 301	1981	Zinc alloy ingots intended for casting	-	-
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	-	-
ISO 7005-1	1992	Metallic flanges - Part 1: Steel flanges	-	-
ISO 7005-2	1988	Metallic flanges - Part 2: Cast iron flanges	-	-

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Première édition
First edition
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**Dispositifs de commande électrique automatiques à
usage domestique et analogue –**

**Partie 2:
Règles particulières pour les électrovannes
de combustible liquide, y compris
les prescriptions mécaniques**

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**Part 2:
Particular requirements for electrically
operated oil valves, including mechanical
requirements**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD
AND SIMILAR USE –**
**Part 2: Particular requirements for electrically operated oil 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 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 60730-2-19 has been prepared by IEC technical committee 72: Automatic controls for household use.

The text of this standard is based on the following documents:

FDIS	Report on voting
72/350/FDIS	72/373/RVD

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 part 2 is intended to be used in conjunction with IEC 730-1. It was established on the basis of the second edition (1993) of that publication. Consideration may be given to future editions of, or amendments to, IEC 730-1.

This part 2 supplements or modifies the corresponding clauses in IEC 730-1, so as to convert that publication into the IEC standard: *Particular requirements for electrically operated oil valves, including mechanical requirements.*

Where this part 2 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 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.

The "in some countries" notes regarding differing national practices are contained in the following subclauses:

- 6.103
- Table 7.2, requirement 120
- Table 7.2, note 102
- 11.103
- 11.104.6
- 11.105.1
- 11.105.2
- 11.113
- 18.102
- H26.10

In this publication:

1) The following print types are used:

- requirements proper: in roman type;
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2) Subclauses, notes or items which are additional to those in part 1 are numbered starting from 101.

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AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE –

Part 2: Particular requirements for electrically operated oil valves, including mechanical requirements

1 Scope and normative references

This clause of part 1 is not applicable.

Replacement:

1.1 This part 2 of IEC 730 applies to electrically operated oil valves for use in, on or in association with equipment for household and similar use that use electricity, in combination with fuel in the liquid state such as distillates, residual fuels, etc.

This part 2 also applies to electrically operated oil valves using NTC or PTC thermistors, requirements for which are contained in annex J.

1.1.1 This part 2 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 electrically operated oil valves used in, or in association with, household or similar equipment.

This part 2 is also applicable to controls for appliances within the scope of IEC 335-1.

Throughout this part 2 the word "equipment" means "appliance and equipment".
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[https://standards.iteh.ai/catalog/standards/sist/06a7915f-d6ca-4481-83f6-](https://standards.iteh.ai/catalog/standards/sist/06a7915f-d6ca-4481-83f6-d603328e9586/sist-en-60730-2-19-2002)

This part 2 does not apply to electrically operated oil valves designed exclusively for industrial applications.
d603328e9586/sist-en-60730-2-19-2002

Electrically operated oil valves for equipment not intended for normal household use, but which nevertheless may 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.

This part 2 identifies a number of mechanical features as "under consideration". Until these mechanical requirements are incorporated in this part 2, each country using this part 2 will have to quantify these requirements.

Compliance of an electrically operated oil valve with this part 2 does not imply that the valve is acceptable without further tests for these mechanical features.

1.1.2 This part 2 applies to manual controls when such are electrically and/or mechanically integral with electrically operated oil valves.

Requirements for manual switches not forming part of an electrically operated oil valve are contained in IEC 1058-1.

This part 2 does not apply to electrically operated oil valves of nominal connection size above DN 150.

Hereinafter, the term "valve" is used to denote an electrically operated oil valve (including prime mover and valve body).

1.1.3 This part 2 does not apply to electric actuators which are covered by IEC 730-2-14.

1.1.4 This part 2 also applies to valves utilized as part of a system, or valves mechanically integral with multifunctional controls.

1.2 This part 2 applies to valves with a rated voltage not exceeding 660 V and with a rated current not exceeding 63 A.

1.3 This part 2 does not take into account the response value of an automatic action of a valve, 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 household equipment standard or as determined by the manufacturer shall apply.

1.4 This part 2 applies also to valves incorporating electronic devices, requirements for which are contained in annex H.

1.5 *Normative references*

This clause of part 1 is applicable except as follows:

Addition:

IEC 335-1: 1991, *Safety of household and similar electrical appliances – Part 1: General requirements*

IEC 529: 1989, *Degrees of protection provided by enclosures (IP Code)*

IEC 730-2-14: 1995, *Automatic electrical controls for household and similar use – Part 2: Particular requirements for electric actuators*

IEC 1058-1:1990, *Switches for appliances – 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 228-1: 1994, *Pipe threads where pressure-tight joints are not made on the threads – Part 1: Dimensions, tolerances and designation*

ISO 274: 1975, *Copper tubes of circular section – Dimensions*

ISO 301: 1981, *Zinc alloy ingots intended for casting*

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