SLOVENSKI STANDARD
SIST EN 60730-2-9:1997

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Automatic electrical controls for household and similar use - Part 2: Particular requirements for temperatur sensing controls (IEC 730-2-9:1992, modified)

Automatic electrical controls for household and similar use -- Part 2: Particular requirements for temperature sensing controls

Automatische elektrische Regel- und Steuergeräte für den Hausgebrauch und ähnliche Anwendungen -- Teil 2: Besondere Anforderungen an temperaturabhängige Regel- und Steuergeräte

Dispositifs de commande électrique automatiques à usage domestique et analogue -- Partie 2: Règles particulières pour les dispositifs de commande thermosensibles

Ta slovenski standard je istoveten z: **EN 60730-2-9:1995**

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97.120	Avtomatske krmilne naprave za dom	Automatic controls for household use

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EUROPEAN STANDARD

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Descriptors: Electrical household appliance, control, automatic control, definition, requirement, test, temperature sensing device, thermostat

English version

Automatic electrical controls for household and similar use
Part 2: Particular requirements for temperature sensing controls
(IEC 730-2-9:1992, modified)

Dispositifs de commande électrique automatiques à usage domestique et analogue
Partie 2: Règles particulières pour les dispositifs de commande thermosensibles
(CEI 730-2-9:1992, modifiée)

Automatische elektrische Regel- und Steuergeräte für den Hausgebrauch und ähnliche Anwendungen
Teil 2: Besondere Anforderungen an Temperaturabhängige Regel- und Steuergeräte
(IEC 730-2-9:1992, modifiziert)

This European Standard was approved by CENELEC on 1994-10-04. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, 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

This European Standard has been prepared by the CENELEC Technical Committee TC 72 Automatic controls for household use.

It consists of the text of IEC 730-2-9:1992 and a number of common modifications which were submitted to the formal vote and approved by CENELEC as EN 60730-2-9 on 1994-10-04.

The following dates were fixed:

- latest date of publication of an identical national standard	(dop)	1996-01-01
- latest date of withdrawal of conflicting standards	(dow)	1999-01-01

For products which have complied with the relevant national standard before 1999-01-01 as shown by the manufacturer or by a certification body, this previous standard may continue to apply until 2004-01-01.

This Part 2 has to be used in conjunction with EN 60730-1: 1991, Automatic electrical controls for household and similar use - Part 1: General requirements, and its amendments A1:1991, A11:1991 and A12: 1993. Consideration may be given to future editions of, or amendments to, EN 60730-1.

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

Sub-clauses which are in addition to those in IEC 730-1 are numbered 101, 102 etc. Sub-clauses which are in addition to those in IEC 730-2-9 are numbered 601, 602, etc. Additional appendices are labelled AA, BB etc. CENELEC annexes are numbered ZA, ZB, etc.

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

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

NOTE: In this document the following print types are used:
- requirements proper: in roman type;
- *test specifications: in italic type;*
- explanatory matter: in smaller roman type;
- instructions for modification of the reference document: **in bold type.**

Endorsement Notice

The text of the International Standard IEC 730-2-9 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

Foreword **Delete.**

1 Scope

1.1 **Add** an explanation paragraph as follows:

Examples of such controls include boiler thermostats, fan controls, temperature limiters and thermal cut-outs.

1.1.1 **Delete** the second sentence of the first paragraph, and the explanation paragraph.

1.1.3 **Replace** the first paragraph by:

EN 60730-2-1 is not applicable to temperature sensing controls.

1.1.4 **Replace** 'IEC 328' by 'IEC 1058-1'.

2 Definitions

2.2.9 **Delete** 'bi-metallic' from the title.

Replace 'IEC 691' by 'EN 60691'.

Add the following text to the replacement

Non bi-metallic single operation device denotes a part of a control the operation of which cannot be separated from other functions of the control and having a non bi-metallic temperature sensing element which operates only once and then requires complete or partial replacement.

When such parts can be tested separately, they are considered to be thermal links within the scope of EN 60691.

4 General notes on tests

4.2.1 **Delete** 'bi-metallic' in the addition.

7 Information

7.2.103 **Add** to the table 'bi-metallic' prior to SOD.

7.2.601 **Add** to the table the following further item

601	Automatic reset temperature of a manual reset thermal cut-out (this shall not be higher than minus 20°C).	11.4.601 2.2.9	X

11 Constructional requirements

11.4.3.101 **Delete** the explanation paragraph.

11.4.101 **Delete** the second explanation paragraph.

Add new subclause

11.4.601 Manual reset thermal cut-out.

A manual reset thermal cut-out shall be so designed that it does not automatically reset at any temperature higher than that declared in table 7.2 Requirement 601.

11.101 **Delete** the explanation paragraph.

12 Moisture and dust resistance

12.101.3 **Delete** the explanation paragraph.

13 Electric strength and insulation resistance

13.2 **Delete** the addition.

15 Manufacturing deviation and drift

15.1 **Delete** the addition.

15.5.3.109 **Delete** 'bi-metallic' in two places.

16 Environmental stress

Delete 'bi-metallic' in the addition

17 Endurance

17.8.4.101 **Delete** the explanation paragraph.

17.15 **Delete** 'bi-metallic' in the title and in the first paragraph.

17.15.1 **Replace** by the following

After the appropriate tests of clause 15, the same six samples of bi-metallic single operation devices shall be maintained at minus 35°C or 0°C as declared in table 7.2, requirement 103.

The test will continue for 7 hours. The device shall not reset during this period, as determined by the tests of 15.5.3.109.

17.15.2 **Delete** 'bi-metallic' in the first line.

17.15.2.1 **Delete** 'bi-metallic' in two places.

17.15.3 **Replace** by the following

For bi-metallic single operation devices with a declared reset temperature of minus 35°C and for all non bi-metallic single operation devices, six untested samples shall be subjected to an over-voltage test for one cycle under the electrical conditions of table 17.2-1 or 17.2-2, as appropriate.

The test of 15.5.3.109 shall be repeated.

17.16.102 **Delete** up to 17.16.102.3 inclusive.

17.16.105 **Delete**.

17.101.1 **Delete** the explanation paragraph.

20 Creepage distances, clearances and distances through insulation

20.3 **Delete** (Already deleted in Part 1)

APPENDIX C **Delete**.

APPENDIX D **Delete**.

APPENDIX CC

Table CC2 **Delete**.

ANNEX ZB (NORMATIVE)

Other international publications quoted in this standard with the references of the relevant European publications

Additions/modifications to EN 60730-1:1991 Annex ZB

Add under IEC Publication:

IEC 691	1980	Thermal links	EN 60691 1987

Replace the reference to prEN 61058-1 by EN 61058-1 : 1992.

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INTERNATIONAL STANDARD

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Dispositifs de commande électrique automatiques à usage domestique et analogue

Partie 2:
Règles particulières pour les dispositifs de commande thermosensibles

Automatic electrical controls for household and similar use

Part 2:
Particular requirements for temperature sensing controls

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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 temperature sensing control

FOREWORD

1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.

2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.

3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

This part of International Standard IEC 730 has been prepared by IEC Technical Committee No. 72: Automatic controls for household use.

It forms the first edition of IEC Publication 730-2-9.

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

DIS	Report on Voting	Amendment to DIS	Report on Voting
72(CO)60	72(CO)84	72(CO)76	72(CO)86

Full information on the voting for the approval of this part can be found in the Voting Reports 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 on the first edition of IEC 730-1 (1986), as modified by its Amendment No. 1 (1990) and Amendment No. 2 (1991). 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: Safety requirements for temperature sensing controls.

Where this first edition 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 practice are contained in the following subclauses:

- 11.4.3.101
- 11.4.101
- 11.101
- 12.101.6
- 13.2
- 14.1.1
- 17.8.4.101
- 17.15.3
- 17.15.3.1
- 17.16.102
- 17.16.105
- Appendix C
- Appendix D
- CC.2

In this publication:

1) The following print types are used:

- Requirements proper: in roman type.
- *Test specifications: in italic type.*
- Explanatory matter: in smaller roman type.

2) Subclauses, notes or items which are additional to those in Part 1 are numbered starting from 101, additional appendices are lettered AA, BB, etc.

Add the following to the list of standards quoted in Part 1:

IEC 691: 1980, *Thermal-links.*