SLOVENSKI STANDARD
SIST EN 60730-2-5:1996/A1:1997

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Automatic electrical controls for household and similar use - Part 2: Particular requirements for automatic electrical burner control systems - Amendment A1 (IEC 730-2-5:1993/A1:1996)

Automatic electrical controls for household and similar use -- Part 2: Particular requirements for automatic electrical burner control systems

Automatische elektrische Regel- und Steuergeräte für den Hausgebrauch und ähnliche Anwendungen -- Teil 2: Besondere Anforderungen an automatische elektrische Brenner-Steuerungs- und Überwachungssysteme

Dispositifs de commande électrique automatiques à usage domestique et analogue -- Partie 2: Règles particulières pour les systèmes de commande électrique automatiques des brûleurs

Ta slovenski standard je istoveten z: **EN 60730-2-5:1995/A1:1996**

ICS:

97.120	Avtomatske krmilne naprave za dom	Automatic controls for household use

SIST EN 60730-2-5:1996/A1:1997 **en**

EUROPEAN STANDARD

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English version

Automatic electrical controls for household and similar use Part 2: Particular requirements for automatic electrical burner control systems (IEC 730-2-5:1993/A1:1996)

Dispositifs de commande électrique automatiques à usage domestique et analogue
Partie 2: Règles particulières pour les systèmes de commande électrique automatiques des brûleurs
(CEI 730-2-5:1993/A1:1996)

Automatische elektrische Regel- und Steuergeräte für den Hausgebrauch ähnliche Anwendungen
Teil 2: Besondere Anforderungen an automatische elektrische Brenner-Steuerungs- und Überwachungssysteme
(IEC 730-2-5:1993/A1:1996)

This amendment A1 modifies the European Standard EN 60730-2-5:1995; it was approved by CENELEC on 1996-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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

The text of document 72/342/FDIS, future amendment 1 to IEC 730-2-5:1993, prepared by IEC TC 72, Automatic controls for household use, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60730-2-5:1995 on 1996-10-01.

The following dates were fixed:

– latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	1997-07-01
– latest date by which the national standards conflicting with the amendment have to be withdrawn	(dow)	-

Endorsement notice

The text of amendment 1:1996 to the International Standard IEC 730-2-5:1993 was approved by CENELEC as an amendment to the European Standard without any modification.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
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1993

AMENDEMENT 1
AMENDMENT 1

1996-07

Amendement 1

Dispositifs de commande électrique automatiques à usage domestique et analogue –

Partie 2-5: Règles particulières pour les systèmes de commande électrique automatiques des brûleurs

Amendment 1

Automatic electrical controls for household and similar use –

Part 2-5: Particular requirements for automatic electrical burner controls

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Международная Электротехническая Комиссия

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FOREWORD

This amendment has been prepared by IEC technical committee 72: Automatic controls for household use.

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

FDIS	Report on voting
72/342/FDIS	72/353/RVD

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

Page 11

2 Definitions

2.2 *Definitions of types of control according to purpose*

Add, on page 13, the following additional definition:

2.2.107 **multitry burner control system:** A system that allows more than one valve open period during its declared operating sequence.

2.3 *Definitions relating to the function of controls*

Add, on page 17, the following additional definitions:

2.3.127 **valve open period:** For multitry burner control systems, the period of time between the signal to energize the fuel flow means and the signal to de-energize the fuel flow means, if proof of the supervised burner flame is not established.

NOTE – In the USA, this period is referred to as the trial for ignition period.

2.3.128 **valve sequence period:** For multitry burner control systems, the sum of all valve open periods prior to lock-out, if proof of the supervised burner flame is not established.

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7 Information

Table 7.2

Add the following items on page 31:

	Information	Clause or subclause	Method
127	Other system components for use with the submitted components to provide a complete system	2.2.101, 2.2.102, 2.2.104, 2.2.106	D
128	For each valve open period, the maximum time (if applicable)	2.3.127, 11.3.113, 11.3.114, 15.5 p)	D
129	Maximum valve sequence period (if applicable)	2.3.128, 11.3.112, 15.5 q)	D

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11 Constructional requirements

11.3 *Actuation and operation*

Add the following to subclause 11.3.107, on page 39:

Controls declared in table 7.2, item 102, have the self-checking rate evaluated as part of the declared sequence and timings. This requirement shall be evaluated in clauses 15, 17 and subclauses H27.1.3.102 to H27.1.3.103.2 inclusive.

Add the following new subclauses:

11.3.112 For multi-try burner control systems, the system shall go to lock-out at the end of the valve sequence period.

11.3.113 For multi-try burner control systems, further valve open periods may be initiated either as a result of loss of supervised flame during the running position or failure to prove supervised flame during the declared valve sequence period.

NOTE – Re-ignition (see 11.3.108.5) is also allowed if declared.

11.3.114 For multi-try burner control systems, the valve open periods may have different values during the valve sequence period.

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15 Manufacturing deviation and drift

15.5 *Operating times*

Add the following new items on page 49:

p) valve open period;

q) valve sequence period.

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H27 Abnormal operation

H27.1.3 *Add the following new text:*

Replace item d) by the following:

The system shall comply with the requirements of clause 8 and subclause 13.2 for basic insulation.

H27.1.3.101 *Replace the existing paragraph by the following new text:*

Automatic burner control systems shall comply with subclauses H27.1.3.102 to H27.1.3.105 inclusive and with the requirements of software class C (if applicable).

Add the following additional subclauses:

H27.1.3.102 *Systems for non-permanent operation/systems without self-checking feature*

H27.1.3.102.1 *First fault*

Any fault in any one component or any one fault together with any other fault arising from the first fault shall result in either:

a) the system proceeding to safety shut-down (terminals for fuel flow means are de-energized) and it remains in this condition so long as the fault appears; or

b) the system proceeding to lock-out, provided that the subsequent reset from lock-out under the same fault condition results in lock-out; or

c) the system continuing to operate, the fault being identified during the next start-up sequence, the result being a) or b); or

d) the systems remaining operational in accordance with clause 15.

H27.1.3.102.2 *Second fault*

If when appraised according to the test conditions and criteria of H27.1.3, the first fault results in the system remaining operational in accordance with clause 15, any further independent fault considered together with the first fault shall result in either H27.1.3.102.1 a), b), c) or d). During assessment, the second fault shall only be evaluated when a start-up sequence has been performed between the first and the second fault. A third independent fault is not considered.

H27.1.3.102.3 During the start-up phase and shut-down phase (if applicable), the first and second fault analysis methodology of H27.1.3.102.1 and H27.1.3.102.2 is used.

H27.1.3.103 *Systems for permanent operation/system with self-checking feature*

H27.1.3.103.1 *First fault*

Any fault in any one component or any one fault together with any other fault arising from the first fault shall result in either:

a) the system proceeding to safety shut-down (terminals for fuel flow means are de-energized) and it remains in this condition so long as the fault appears; or

b) the system proceeding to lock-out, provided that the subsequent reset from lock-out under the same fault condition results in returning to lock-out; or

c) the system remaining operational in accordance with clause 15.

For a) and b) the identification of the fault and the subsequent reaction shall be in a timespan less than 1 h.

H27.1.3.103.2 *Second fault*

If when appraised according to the test conditions and criteria of H27.1.3, the first fault results in the system remaining operational in accordance with clause 15, any further independent fault considered together with the first fault shall result in either H27.1.3.103.1 a), b) or c). During assessment, the second fault shall not be considered to occur within 1 h of the first fault. A third independent fault is not considered.

H27.1.3.104 *Checking circuits*

Subclauses H27.1.3.102 to H27.1.3.103.2 inclusive are not applicable to that part of a circuit associated with the checking requirement of 11.101.3 or to external devices connected to the burner control system.

H27.1.3.105 The effect of internal faults shall be assessed by simulation and/or examination of the circuit design. The fault shall be considered to have occurred at any stage of the programme sequence.