

Subject 60730-2-13

September 7, 2018

SUMMARY OF TOPICS

The following changes in requirements to the Standard for Automatic Electrical Controls – Part 2-13: Particular Requirements for Humidity Sensing Controls, UL 60730-2-13, are being proposed for preliminary review and comment only:

1. For Preliminary Review Only: ANSI approval of the third edition of UL 60730-2-13.

COMMENTS DUE: October 8, 2018

This proposal is for review and comment only (no ballot at this time). Please note that comments on a preliminary review document will not receive a response from the proposal author through CSDS. Instead, the proposal author will be asked to review the comments and adjust the proposals and/or supporting rationale as the author determines to be appropriate. The preliminary review process is an informal mechanism that provides authors with the opportunity to refine their proposals before they advance to the next stage in UL's standards development process.

In some cases, the author of the proposals may choose to discontinue them. In this case, the author need not do anything after preliminary review has ended. Normally, the next step in the process is the more formal STP ballot and stakeholder review process. Only comments posted during the STP ballot and stakeholder review process will be provided with a response in CSDS.

UL's goal is to have no interest category comprise more than one-third of the STP membership balance. To improve the current balance for STP 60730E, UL is looking for participants in all the categories except producers. Definitions for these interest categories are available on the Standards STP Internet site:

<http://ulstandards.ul.com/develop-standards/participation/interest-categories/>

If you are interested in applying for STP 60730E membership or are aware of potential candidates for this STP, please contact the STP Project Manager, Alan.T.McGrath@ul.com.

For your convenience in review, proposed additions to existing requirements are shown underlined and proposed deletions are shown ~~lined-out~~.

1. For Preliminary Review Only: ANSI approval of the third edition of UL 60730-2-13.

RATIONALE

Proposal submitted by: Joseph Antony, UL LLC

The IEC published the third edition of IEC 60730-2-13 in October 2017. Therefore, UL is proposing a new edition of UL 60730-2-13.

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NATIONAL DIFFERENCES

GENERAL

National Differences from the text of International Electrotechnical Commission (IEC) Publication 60730-2-13, Automatic Electrical Controls – Part 2-13: Particular Requirements for Humidity Sensing Controls, copyright 2017, are indicated by notations (differences) and are presented in bold text. The national difference type is included in the body.

There are five types of National Differences as noted below. The difference type is noted on the first line of the National Difference in the standard. The standard may not include all types of these National Differences.

DR – These are National Differences based on the **national regulatory requirements**.

D1 – These are National Differences which are based on **basic safety principles and requirements**, elimination of which would compromise safety for consumers and users of products.

D2 – These are National Differences from IEC requirements based on existing **safety practices**. These requirements reflect national safety practices, where empirical substantiation (for the IEC or national requirement) is not available or the text has not been included in the IEC standard.

DC – These are National Differences based on the **component standards** and will not be deleted until a particular component standard is harmonized with the IEC component standard.

DE – These are National Differences based on **editorial comments or corrections**.

Each national difference contains a description of what the national difference entails. Typically one of the following words is used to explain how the text of the national difference is to be applied to the base IEC text:

Addition / Add - An addition entails adding a complete new numbered clause, subclause, table, figure, or annex. Addition is not meant to include adding select words to the base IEC text.

Modification / Modify - A modification is an altering of the existing base IEC text such as the addition, replacement or deletion of certain words or the replacement of an entire clause, subclause, table, figure, or annex of the base IEC text.

Deletion / Delete - A deletion entails complete deletion of an entire numbered clause, subclause, table, figure, or annex without any replacement text.

INTERNATIONAL ELECTROTECHNICAL COMMISSION

AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE – Part 2-13: Particular requirements for humidity sensing controls

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. 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 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 IEC National Committees.

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6) All users should ensure that they have the latest edition of this publication.

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8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.

9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60730-2-13 has been prepared by IEC technical committee 72: Automatic electrical controls.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
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72/1078/FDIS	72/1108/RVD
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Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

This third edition cancels and replaces the second edition, published in 2006. This edition constitutes a technical revision. This edition includes alignment with the text of 60730-1 fifth edition and the following significant technical changes with respect to the previous edition:

- a) alignment of the EMC requirements in Clause H.26 to those in other part 2 standards;
- b) addition of requirements in Clause H.27 to cover class B and C control functions of humidity sensing controls.

This Part 2-13 is intended to be used in conjunction with IEC 60730-1. It was established on the basis of the 5th edition of that standard (2013). Consideration may be given to future editions of, or amendments to, IEC 60730-1.

This part 2-13 supplements or modifies the corresponding clauses in IEC 60730-1, so as to convert that publication into the IEC standard: Particular requirements for humidity sensing controls.

Where this part 2-13 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 2-13 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 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 annexes are lettered AA, BB, etc.

A list of all parts of the IEC 60730 series, under the general title Automatic electrical controls can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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

A bilingual version of this publication may be issued at a later date.

101DV DE *Modification of the 6th paragraph after item (9) by replacing it with the following paragraph:*

This Part 2-13 is intended to be used in conjunction with UL 60730-1, edition 5.

102DV DE *Modification of Item (1) of the paragraph starting with, "In this publication"*

– words in SMALL ROMAN CAPITALS in the text are defined in clause 2.

103DV DE *Addition to the part 2:*

The numbering system in the standard uses a space instead of a comma to indicate thousands and uses a comma instead of a period to indicate a decimal point. For example, 1 000 means 1,000 and 1,01 means 1.01.

UL 60730-2-13**1 Scope and normative references**

This clause of Part 1 is applicable except as follows:

1.1 Scope*Replacement:*

This part of IEC 60730 applies to automatic electrical humidity sensing controls for use in, on or in association with equipment ~~for household and similar use~~, including controls for heating, air-conditioning and similar applications. The equipment may use electricity, gas, oil, solid fuel, solar thermal energy, etc. or a combination thereof.

NOTE Throughout this standard, the word "equipment" includes "appliance" and "control system".

This International Standard is applicable to automatic electrical humidity sensing controls forming part of a building automation control system within the scope of ISO 16484.

This standard also applies to automatic electrical humidity sensing controls for equipment that may be used by the public, such as equipment intended to be used in shops, offices, hospitals, farms and commercial and industrial applications.

This standard does not apply to automatic electrical humidity sensing controls intended exclusively for industrial process applications unless explicitly mentioned in the equipment standard.

~~1.1.1 Replace the note following the second paragraph with the following new note:~~

~~Throughout this standard, the word "equipment" includes "appliance" and "control system".~~

1.1.2 *Replacement:*

This standard applies to automatic electrical controls, mechanically or electrically operated, responsive to or controlling humidity.

1.1.3 Not applicable.

2 Terms and Definitions

This clause of Part 1 is applicable except as follows:

2.2 Definitions of types of control according to purpose**2.2.19 *Addition:***

Note 1 to entry: In general, a humidity sensing control is an operating control.

Additional definitions:

2.2.101 humidity sensing control automatic electrical control which is either intended to keep the controlled humidity above, below or between a particular value(s)

2.2.102 **room humidistat** independently mounted or incorporated humidity sensing control intended to control the humidity of habitable space

3 General requirements

This clause of Part 1 is applicable.

4 General notes on tests

This clause of Part 1 is applicable.

5 Rating

This clause of Part 1 is applicable.

6 Classification

This clause of Part 1 is applicable except as follows:

6.3.9 Additional subclauses:

6.3.9.101 – humidity sensing control;

6.3.9.102 – room humidistat;

7 Information

This clause of Part 1 is applicable.

8 Protection against electric shock

This clause of Part 1 is applicable.

9 Provision for protective earthing

This clause of Part 1 is applicable.

10 Terminals and terminations

This clause of Part 1 is applicable.

11 Constructional requirements

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

~~11.4.3 Addition:~~

~~In Canada and the United States, a capacitor may not be connected across the contacts of a control with a Type 2 action.~~

12 Moisture and dust resistance

This clause of Part 1 is applicable.

13 Electric strength and insulation resistance

This clause of Part 1 is applicable except as follows:

Table 12 (13.2 of edition 3) Insulation or disconnection test voltages

Addition to Note footnote5 p):

In the case of humidity sensing controls it may be necessary to provide specially calibrated samples to enable this test to be performed.

14 Heating

This clause of Part 1 is applicable.

15 Manufacturing deviation and drift

This clause of Part 1 is applicable except as follows:

~~15.1 Modification:~~

~~The explanatory matter is not applicable.~~

15.4 Addition:

Alternatively, the declared manufacturing deviation and drift may be expressed separately as a tolerance value to the declared operating value.

15.5.3 Additional subclauses:

15.5.3.101 Controls intended for setting by the user shall be set at the maximum humidity value permitted by the adjustment unless otherwise declared by the manufacturer.

15.5.3.102 The operation of the control shall be sensed by a suitable device with a sensing current not exceeding 0,05 A.

The circuit voltage may be any convenient value that will give reliable indication of the function being monitored.

15.5.4 Not applicable.

16 Environmental stress

This clause of Part 1 is applicable.

17 Endurance

This clause of Part 1 is applicable except as follows:

17.1.3 Test sequence and conditions

Additional subclause: