







# 72/1431/CDV

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OF INTEREST TO THE FOLLOWING COMMITTEES:	PROPOSED HORIZONTAL STANDARD: <input type="checkbox"/> Other TC/SCs are requested to indicate their interest, if any, in this CDV to the secretary.
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TITLE:

**Automatic electrical controls - Part 2-12: Particular requirements for electrically operated door locks**

PROPOSED STABILITY DATE: 2028

NOTE FROM TC/SC OFFICERS:

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**AUTOMATIC ELECTRICAL CONTROLS –**

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**Part 2-12: Particular requirements for electrically operated door locks**

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## FOREWORD

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IEC 60730-2-12 has been prepared by IEC technical committee 72: AUTOMATIC ELECTRICAL CONTROLS. It is an International Standard.

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This 4.0 edition cancels and replaces the 3.0 edition published in 2015. This edition constitutes a technical revision.

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This edition includes the following significant technical changes with respect to the previous edition:

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...;

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a) adoption to IEC 60730-1 Ed.6.0 with all of its significant changes to IEC 60730-1 Ed 5.2,

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

Draft	Report on voting
XX/XX/FDIS	XX/XX/RVD

111  
112 Full information on the voting for its approval can be found in the report on voting indicated in  
113 the above table.

114 The language used for the development of this International Standard is English.

115 This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in  
116 accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available  
117 at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are  
118 described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

119 A list of all parts of the IEC 60730 series, under the general title: AUTOMATIC ELECTRICAL  
120 CONTROL, can be found on the IEC website.

121 This part 2-12 is intended to be used in conjunction with IEC 60730-1. It was established on the  
122 basis of the sixth edition of that standard (2022). Consideration may be given to future editions  
123 of, or amendments to, IEC 60730-1.

124 This part 2-12 supplements or modifies the corresponding clauses in IEC 60730-1, so as to  
125 convert that publication into the IEC standard: Particular requirements for electric actuators.

126 Where this part 2-12 states "addition", "modification" or "replacement", the relevant require-  
127 ment, test specification or explanatory matter in part 1 should be adapted accordingly.

128 Where no change is necessary part 2-12 indicates that the relevant clause or subclause applies.

129 In the development of a fully international standard it has been necessary to take into  
130 consideration the differing requirements resulting from practical experience in various parts of  
131 the world and to recognize the variation in national electrical systems and wiring rules.

132 The reader's attention is drawn to the fact that Annex Q, Annex R, Annex S and Annex T list all  
133 of the "in-some-country" clauses on differing practices of a less permanent nature relating to  
134 the subject of this document.

135 In this publication:

136 1) The following print types are used:

- 137 – requirements proper: in roman type;
- 138 – *test specifications: in italic type;*
- 139 – explanatory matter: in smaller roman type.
- 140 – Defined terms: **bold type.**

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

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146 The committee has decided that the contents of this document will remain unchanged until the  
147 stability date indicated on the IEC website under [webstore.iec.ch](https://webstore.iec.ch) in the data related to the  
148 specific document. At this date, the document will be

- 149 • reconfirmed,
- 150 • withdrawn,
- 151 • replaced by a revised edition, or
- 152 • amended.

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## AUTOMATIC ELECTRICAL CONTROLS –

### Part 2-12: Particular requirements for electrically operated door locks

#### 1 Scope

This clause of Part 1 is replaced by the following:

This document applies to automatic **electrically operated door locks**

- for use in, on, or in association with equipment for household appliance and similar use, including equipment for heating, air-conditioning and similar applications;

NOTE 1 Throughout this document, the word "equipment" means "appliance and equipment" and „controls“ means „door locks“.

NOTE 2 Throughout this standard, the word “door” means “door, cover or lid”. The words “door lock” means “electrically operated door lock”

- for equipment that is used by the public, such as equipment intended to be used in shops, offices, hospitals, farms and commercial and industrial applications;

EXAMPLE 1 Controls for commercial catering, heating and air-conditioning equipment.

- that are AC or DC powered controls with a rated voltage not exceeding 690 V AC or 600 V DC where the DC source is provided by primary or secondary batteries;
- used in, on, or in association with equipment that use electricity, gas, oil, solid fuel, solar thermal energy, etc., or a combination thereof;
- utilized as part of a control system or controls which are mechanically integral with multifunctional controls having non-electrical outputs;
- using NTC or **PTC thermistors** and to discrete **thermistors**, requirements for which are contained in Annex J;
- that have electrical circuits and control circuits which are, for example, operated by bimetals, magnet coils, memory metals, pressure elements, temperature-sensitive expansion elements or electronic elements.

NOTE 3 Requirements for manually actuated mechanical switches not forming part of an automatic control are contained in IEC 61058-1-1.

**This document applies to**

- the inherent safety of **electrically operated door locks**, and
- functional safety of **electrically operated door locks** and safety related systems,
- **electrically operated door locks** where the performance (for example the effect of EMC phenomena) of the product can impair the overall safety and performance of the controlled system,
- the operating values, operating times, and operating sequences where such are associated with equipment safety.

This document specifies the requirements for construction, operation and testing of automatic electrical controls used in, on, or in association with an equipment.

This document does not

- apply to **electrically operated door locks** intended exclusively for industrial process applications unless explicitly mentioned in the relevant part 2 or the equipment standard.

200 However, this document can be applied to evaluate automatic electrical controls intended  
201 specifically for industrial applications in cases where no relevant safety standard exists.

- 202 • take into account the response value of an automatic action of a control, if such a response  
203 value is dependent upon the method of mounting the control in the equipment. Where a  
204 response value is of significant purpose for the protection of the user, or surroundings, the  
205 value defined in the appropriate equipment standard or as determined by the manufacturer  
206 will apply.
- 207 • address the integrity of the output signal to the network devices, such as interoperability  
208 with other devices unless it has been evaluated as part of the control system.

## 209 2 Normative references

210 This clause of Part 1 is applicable

## 211 3 Terms and definitions

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

### 213 3.1 Definitions of types of control according to purpose

214 *Add the following definitions*

#### 215 3.1.1

##### 216 **electrically operated door lock**

217 incorporated or integrated **electrically operated mechanism** intended to control the door  
218 **locking** in equipment by means of a mechanical output mechanism which physically secures a  
219 door, **cover** or lid

### 220 3.2 Definitions relating to the function of controls

221 *Add the following definitions*

#### 222 3.2.1

##### 223 **drop-out value**

224 **operating value** at which the **locking** means is disengaged.

#### 225 3.2.2

##### 226 **locking**

227 mechanical action intended to block a door mechanism in such a way that opening of the door  
228 is prevented under defined conditions.

#### 229 3.2.3

##### 230 **locking delay**

231 period of time elapsing between the signal to lock and completion of the **locking** action.

#### 232 3.2.4

##### 233 **locking force**

234 minimum mechanical force intended for the door lock to prevent opening of the door.

#### 235 3.2.5

##### 236 **locking security**

237 condition in which the door lock either prevents an appliance door from being opened or  
238 prevents the appliance from being operated, even if the door lock is damaged.

#### 239 3.2.6

##### 240 **unlocking security**

241 period of time elapsing between the signal to unlock and completion of the unlocking action.