

INTERNATIONAL STANDARD

IEC 61811-11

QC 160101

First edition
2002-11

Electromechanical elementary relays of assessed quality –

Part 11: Blank detail specification – Relays for industrial application

*Relais élémentaires électromécaniques
soumis au régime d'assurance de la qualité –*

*Partie 11:
Spécification particulière cadre –
Relais pour applications industrielles*



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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTROMECHANICAL ELEMENTARY RELAYS
OF ASSESSED QUALITY –****Part 11: Blank detail specification –
Relays for industrial application**

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.
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International Standard IEC 61811-11 has been prepared by IEC technical committee 94: All-or-nothing electrical relays.

This standard cancels and replaces IEC 60255-19-1 (1983).

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

FDIS	Report on voting
94/169/FDIS	94/173/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.

The QC number that appears on the front cover of this publication is the specification number in the IEC Quality Assessment System for Electronic Components (IECQ).

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

The committee has decided that the contents of this publication will remain unchanged until 2006. At this date, the publication will be

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- withdrawn;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

Withdrawing

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[IEC 61811-11:2002](https://standards.iteh.ai/catalog/standards/iec/23615068-0bd1-435b-a492-0bfe503a8061/iec-61811-11-2002)

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ELECTROMECHANICAL ELEMENTARY RELAYS OF ASSESSED QUALITY –

Part 11: Blank detail specification – Relays for industrial application

1 General

1.1 Scope

This part of IEC 61811 is a blank detail specification applicable to electromechanical elementary (non-specified time all-or-nothing) relays of assessed quality for industrial application.

It is based on the generic specification IEC 61811-1 and the sectional specification IEC 61811-10 and selects from IEC 61810-7 the appropriate test and measurement procedures to be used in detail specifications derived from this specification. Moreover it contains a basic test schedule to be used in the preparation of such specifications.

1.2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60062:1992, *Marking codes for resistors and capacitors*

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*
Amendment 1 (1992)

IEC 60068-2-10:1988, *Basic environmental testing procedures – Part 2: Tests – Test J and guidance: mould growth*

IEC 60068-2-21:1999, *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*

IEC 60068-2-47:1999, *Environmental testing – Part 2-47: Test methods – Mounting of components, equipment and other articles for vibration, impact and similar dynamic tests*

IEC 60255-23:1996, *Electrical relays – Part 23: Contact performance*

IEC 60695-2-11, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products*

IEC 60695-2-12, *Fire hazard testing – Part 2-12: Glowing/hot-wire based test methods – Glow-wire flammability test method for materials*

IEC 61810-1:1998, *Electromechanical non-specified time all-or-nothing relays – Part 1: General requirements*

IEC 61810-5:1998, *Electromechanical non-specified time all-or-nothing relays – Part 5: Insulation coordination*

IEC 61810-7:1997, *Electromechanical all-or-nothing relays – Part 7: Test and measurement procedures*

IEC 61811-1:1999, *Electromechanical non-specified time all-or-nothing relays of assessed quality – Part 1: Generic specification*

IEC 61811-10:2002, *Electromechanical elementary relays of assessed quality – Part 10: Sectional specification – Relays for industrial application*

IEC QC 001002, *Rules of procedure for the IEC Quality Assessment System for Electronic Components (IECQ)*

IEC QC 001005, *Register of firms, products and services approved under the IECQ System, including ISO 9000*

1.3 Front page of detail specification

The layout of the front page of detail specification is as follows:

[1]	QC xxxxx [2] Edition: Page 1 of
Electronic components of assessed quality in accordance with: IEC 61810-7:1997 IEC 61811-1:1999 IEC 61811-10:2002	[3] [4]
Detail specification for electromechanical non-specified time all-or-nothing relays for industrial application Type: [5] Construction: [6]	
Outline drawing [7] Dimensions in mm	Application [8]
Coil data [9] - Rated voltage: - Rated power:	
Contact data [10]	
Temperature range [11] - Operating temperature: - Storage temperature:	
Information about manufacturers who have components qualified to this detail specification is available in the current QC 001005.	

Key to front page:

The numbers between square brackets on the front page correspond to the following indications which should be given in the appropriate boxes.

Identification of the detail specification

- [1] The name of the National Standards Organization under whose authority the detail specification is published and, if applicable, the organization from whom the detail specification is available.
- [2] The IECQ symbol and the number allotted to the completed detail specification by the IECQ Secretariat.
- [3] The number and the year of availability of the IEC generic and/or sectional specification and the IEC standard concerning test and measurement procedures; also national reference, if different.
- [4] If different from the IECQ number, the national number of the detail specification, date of issue and any further information required by the national system, together with any amendment numbers.

Identification of the relay

- [5] A brief description of the relay or range of relays.
- [6] Information on typical construction.
- [7] An outline drawing with main dimensions which are of importance for interchangeability and/or reference to the appropriate national or international document for outlines. Alternatively, this drawing may be given in an annex to the detail specification, but [7] should always contain an illustration of the general outer appearance of the relay.
- [8] Typical field of application and assessment level (if applicable).
- [9] Available nominal coil voltages and rated power.
- [10] Available contact arrangements and contact current and voltage.
- [11] Temperature range and climatic category according to IEC 60068-1 (if applicable).

2 Characteristic values of the relay

These shall be in accordance with IEC 61810-1 as applicable.

2.1 General data

Contact application category: CA ...

Contact arrangement: ...

Mass: ... g max.

Finish of the relay housing: ...

Finish of the terminals: ...

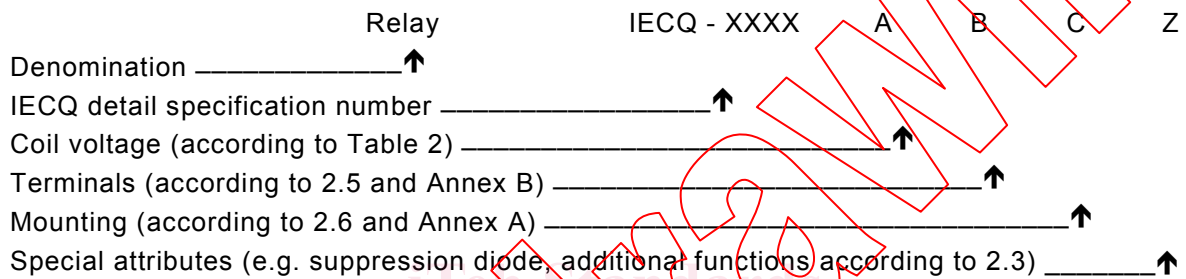
Insulation resistance: ... M Ω min.

Dielectric strength: ... V min.

Table 1 – Dielectric test voltages

	Test voltage V a.c. min.	Impulse voltage ... / ... μs V min.
Open contacts		
Between adjacent contacts		
Contacts to case		
Coil to contacts		
Coil to case		

2.2 Construction of IECQ type designation (ordering information)



The reference to monostable or bistable, polarized or non-polarized, number and kind of contacts and general coil additives shall be given in the title of the specification. Only if one (or more) of these attributes is optional, shall the respective code(s) be given. There shall be no special marks or open space for non applicable criteria.

2.3 Coil data

Table 2 – Coil data

Code letter	Coil voltage d.c./a.c.		Coil resistance and / or impedance at 23 °C Ω ± ... %	Must operate voltage d.c./a.c. V _{max} at 23 °C	Must release voltage d.c./a.c.		Must not release voltage d.c./a.c. V _{min} at 23 °C	Rated power/ burden W/VA	Suppression or special function code or letter ¹⁾
	V _{rated}	V _{max.}			V _{max} at 23 °C	V _{min} at 23 °C			

¹⁾ Configuration of coil suppression or special function, if applicable (details may be given in an annex).

2.4 Contact data

2.4.1 Contact number, contact configuration and application categories

To be given in the detail specification.