IEC 61810-1

Edition 4.1 2019-11
CONSOLIDATED VERSION

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Electromechanical elementary relays –
Part 1: General and safety requirements

Relais électromécaniques élémentaires –
Partie 1: Exigences générales et de sécurité

IEC 61810-1:2015-02+AMD1:2019-11 CSV(en-fr)

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Relais électromécaniques élémentaires – Partie 1: Exigences générales et de sécurité

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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IEC 61810-1
Edition 4.0 2015-02

ELECTROMECHANICAL ELEMENTARY RELAYS –

Part 1: General and safety requirements

INTERPRETATION SHEET 1

This interpretation sheet has been prepared by IEC technical committee 94: All-or-nothing electrical relays.

The text of this interpretation sheet is based on the following documents:

DISH	Report on voting
94/785/DISH	94/806/RVDISH

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

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Interpretation of Subclause 11.4: Final dielectric strength

Question: What dielectric strength values apply in case of functional insulation for contact gaps?

Interpretation: *Micro-disconnection is part of the functional insulation, whenever a reference is given within this standard to functional insulation – only micro-disconnection requirements are applicable for the contact gap within the contact – see 'Figure A.2 of IEC 61810-1' – contact [number 2].*

IEC 61810-1:2015-02/ISH1:2023-02(en)

ICS 29.120.70

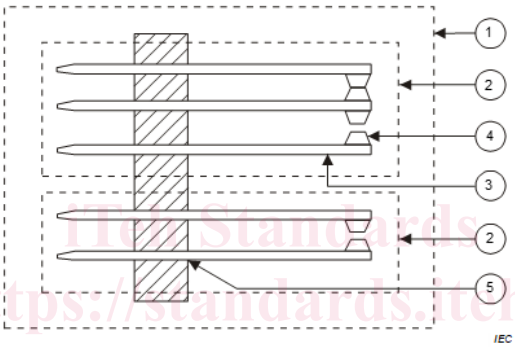
Further consequences:

1) In 11.4 final dielectric test with 75 % of the values indicated in Table 13 and Table 14 for functional insulation (including micro-disconnection) is requested. For the contact gap and contact *[number 2]* – see Figure A.2 in IEC 61810-1 – the requirements for micro-disconnection applies.

   If the contact is defined as full-disconnection – the requirements are accordingly for full disconnection (basic insulation).

   An example for functional insulation could be between adjacent contacts (at multipole relays) necessary for proper function only or the necessary integrity of the contact gap (micro-disconnection).

2) The explaining wording for “insulation between contacts” referenced in Table 13, Note h) and Table 14, Note e) has to be interpreted as “adjacent contacts” – see Figure A.2 of IEC 61810-1 – contact *[number 2]* to contact *[number 2]* of a contact set *[number 1].*



Key

1	contact set	2	contact	3	contact member
4	contact point	5	fixing		

Figure A.2 – Example explaining terms relating to contacts

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTROMECHANICAL ELEMENTARY RELAYS –

Part 1: General and safety requirements

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IEC 61810-1 edition 4.1 contains the fourth edition (2015-02) [documents 94/380/FDIS and 94/384/RVD], its corrigenda 1 (2017-06), 2 (2018-02), its amendment 1 (2019-11) [documents 94/450/CDV and 94/460/RVC] and the Interpretation Sheet 1 of January 2023.

This Final version does not show where the technical content is modified by amendment 1. A separate Redline version with all changes highlighted is available in this publication.

International Standard IEC 61810-1 has been prepared by IEC technical committee 94: All-or-nothing electrical relays.

This fourth edition constitutes a technical revision.

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

– two main test procedures were introduced: procedure A, reflecting the procedure known from Edition 3 of this standard and procedure B, reflecting the assessment according to North American requirements;
– inclusion of dedicated device application tests especially relevant for applications in the North American Market (see Clause D.1);
– introduction of testing under single mounting condition;
– clarification of insulation requirements after endurance testing;
– inclusion of provisions for basic safety requirements;
– update of references.

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

A list of all parts of IEC 61810 series, published under the general title *Electromechanical elementary relays* can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendment will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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