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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

Documents
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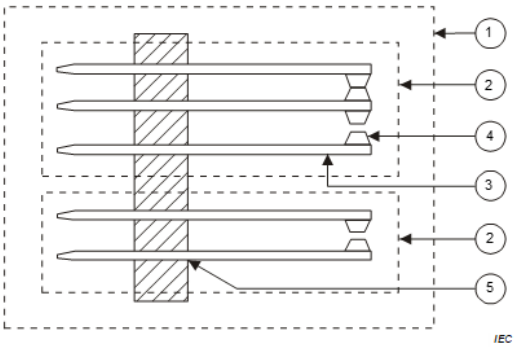
Further consequences:

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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