

OSM/IN DECISION

Standard: EN 61242:1997 + A1:2008	Sub clauses: 3.13 - 12.11.1	Sheet N°: OSM/IN 266
Subject: Trip-free mechanism of cut-outs in cable-reels	Key words: <ul style="list-style-type: none"> - Trip-free mechanism - Cut-out 	Meeting N°: 22 (2012) Item: 6.1
<p>Question: How should a trip-free mechanism of a cut-out in a cable-reel function, after it has tripped due to over-current or over temperature and is reset, when fault still exists? Which constructional features (Type D and/or Type E), according to the classification given in IEC/EN 60730-2-9 shall be taken into consideration for cut-outs incorporated in cable-reels?</p> <p>Decision: Both types are allowed as the pushing on the button of Type E is not keeping the fault.</p> <p>Explanatory notes: The definition of a trip-free mechanism in EN 61242 does not clearly state in which position the actuating member of a cut-out should trip compared to EN 60730-1 (see page 2). EN 61242 standard is also missing references to which type of features in EN 60730-1 which are appropriate to fit the description of a trip-free mechanism, therefore this gives room for interpretation (see page 2, details given in Annex EE of EN 60730-2-9 included).</p> <p>This OSM/IN decision is based on the decision agreed by CLC/TC 23BX during the 27th plenary meeting held in Copenhagen on June 14th, 2012 (see item 13.3 of doc. TC23BX/Sec0247/RM). During this meeting CLC/TC 23BX also decided to give the task to the Secretary to send document OSM/IN TC-Letter CLC-TC23BX-031 (registered as document TC23BX/Sec0243/INF) to MT10 of IEC SC23B with the task to prepare a proposal for the modification of IEC 61242 standard.</p> <p>Remark: OSM/IN enquiry as Draft OSM/IN 264.</p>		

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Definition in EN 61242

3.13

trip-free mechanism

Mechanism designed so that disconnection can neither be prevented nor inhibited by a reset mechanism, and so that the contacts can neither be prevented from opening nor be maintained closed against a continuation of the excess temperature or current.

Definition in EN 60730-1

2.3.15

trip-free

automatic action, with a reset actuating member, in which the automatic action is independent of manipulation or position of the reset mechanism.

Definitions of type of features in EN 60730-1 clause 6.4.3 and EN 60730-2-9 clause EE.3.4.2

- a trip-free mechanism which cannot even momentarily be reclosed against the fault (Type 1.D or 2.D).
- A trip-free mechanism in which the contacts cannot be prevented from opening or maintained closed against a continuation of the fault (Type 1.E or 2.E).

Annex EE in EN 60730-2-9

(informative)

Guide to the application of temperature sensing controls within the scope of EN 60730-2-9

EE.3.4.2 Constructional features

The following constructional features can be declared. The incorporation of these features into the design of a control will depend on the intended final use of the control, its application within an equipment, or the type of equipment in which it is incorporated.

- A trip-free mechanism which cannot even momentarily be reclosed against the fault (Type 1.D or 2.D, see 6.4.3.4).

This type of mechanism may be required by some equipment standards, where even a very short reclosure of the contacts while the equipment is in a fault condition could result in an escalation of the fault condition. An example is where such reclosure could result in the operation of a safety valve allowing steam to escape.

- A trip-free mechanism in which the contacts cannot be prevented from opening or maintained closed against a continuation of the fault (Type 1.E or 2.E, see 6.4.3.5).

An example is a current-sensing control which has to be reclosed or can be reclosed momentarily to detect that the excess current fault still exists. A mechanism of this type would be acceptable in applications where a very short reclosure would not seriously affect the fault conditions in the controlled equipment, for example an electric room heater.