BRITISH STANDARD

BS EN
50425:2008

# Switches for household and similar fixed electrical installations — Collateral standard — Fireman's switches for exterior and interior signs and luminaires

ICS 29.120.40

# National foreword

This British Standard is the UK implementation of EN 50425:2008.

The UK participation in its preparation was entrusted to Technical Committee PEL/23, Electrical accessories.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN 50425

February 2008

ICS 29.120.40

English version

# Switches for household and similar fixed electrical installations - Collateral standard - Fireman's switches for exterior and interior signs and luminaires

Interrupteurs pour installations électriques fixes domestiques et analogues - Norme collatérale - Interrupteurs pompiers pour enseignes lumineuses et luminaires extérieurs et intérieurs

Schalter für Haushalt und ähnliche ortsfeste elektrische Installationen - Kollaterale Norm - Feuerwehrschalter für äußere und innere Anzeigen und Leuchten

This European Standard was approved by CENELEC on 2007-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**



Ref. No. EN 50425:2008 E

## Foreword

This European Standard has been prepared by the Technical Committee CENELEC TC 23BX, D.C. plugs and socket outlets and switches for household and similar fixed electrical installations.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50425 on 2007-10-01.

The following dates were fixed:

| | | |
|---|---|---|
| – latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2008-10-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2010-10-01 |

This European Standard has to be used in conjunction with EN 60669-1:1999 *Switches for household and similar fixed-electrical installations - Part 1: General requirements*. It lists the additional changes necessary to convert it into the European Standard *Switches for household and similar fixed electrical installations - Collateral standard – Fireman's switches for exterior and interior signs and luminaries.*

When this standard states 'addition', 'modification' or 'replacement' to Part 1, the relevant text of EN 60669-1:1999 is to be adapted accordingly.

NOTE The subclauses, tables and figures that are numbered starting from 101 are additional to those in EN 60669-1:1999.

## 1 Scope

This clause of Part 1 applies with the following modifications:

*Replacement of the first paragraph:*

This collateral standard applies to fireman's switches used for the breaking of the low voltage circuits for exterior and interior signs and luminaires e.g. neon signs for a.c. only with a rated voltage not exceeding 440 V and a rated current not exceeding 125 A.

NOTE 1 The working voltage for the signs and luminous-discharge-tube installations is higher than 1 kV but lower than 10 kV and these should be in accordance with EN 50107 series.

*Renumbering of the subsequent notes.*

*Replacement of the 6$^{th}$ paragraph and the new Note 6 by:*

Fireman's switches complying with this standard are suitable for use between –20 °C and +70 °C.

NOTE 6 Fireman's switches are designed for overvoltage category III and used in environment of pollution degree 2 according to EN 60664-1.

## 2 Normative references

See Annex ZA.

## 3 Definitions

This clause of Part 1 applies with the following addition:

*Additional new definition:*

**3.101**
**fireman's switch**
switch for emergency disconnection of lighting installations

## 4 General requirements

This clause of Part 1 applies.

## 5 General notes on tests

This clause of Part 1 applies.

## 6 Ratings

This clause of Part 1 applies with the following modifications:

**6.2** *Deletion in the first paragraph of the values* "6 A" *and* "10 A"

*Addition of the values* "80 A, 100 A and 125 A."

## 7 Classification

This clause of Part 1 applies except as follows.

**7.1.1**

*Addition at the end:*

Fireman's switches shall be only of pattern number 2, 3 or 03.

**7.1.2** This subclause of Part 1 is not applicable.

**7.1.4**

*Replacement:*

**7.1.4** according to the degree of protection against harmful effects due to the ingress of water:

– IPX5: switches protected against water jets;

– IPX6: switches protected against powerful water jets.

NOTE For an explanation of IP codes, see EN 60529.

**7.1.5**

*Replacement:*

**7.1.5** according to the method of actuating the switch:

– tumbler.

NOTE No other actuating method is permitted.

**7.1.6**

*Replacement:*

**7.1.6** according to the method of mounting the switch:

– surface-type;

– semi flush-type.

NOTE No other method of mounting is permitted.

**7.1.9**

*Replacement:*

**7.1.9** according to the degree of protection against access to hazardous parts and against harmful effects due to the ingress of solid foreign objects

– IP5X: switches protected against access to hazardous parts with a wire and dust-protected;

– IP6X: switches protected against access to hazardous parts with a wire and dust-tight.

**7.2** *Replacement in Table 1, first column, last line, of the values* "16, 20, 25, 32, 40, and 63" *by* "equal to and above 16".

## 8 Marking

This clause of Part 1 applies except as follows.

**8.1** *Replacement of the first dash with:*

– rated current in amperes (A);

*Addition:*

– symbols IEC 60417-5007 and IEC 60417-5008 respectively for open position (OFF) and closed position (ON),

**8.3** *Addition:*

The following information shall be distinctly and durably marked on the fireman's switch in a position where it can be clearly seen without opening the enclosure and when the switch is installed:

– 'I' and 'O' symbols not less than 10 mm high;

– letters reading NEON in letters not less than 15 mm high.

**8.6** *Deletion of Note 1.*

## 9 Checking of dimensions

This clause of Part 1 applies.

## 10 Protection against electric shock

This clause of Part 1 applies.

## 11 Provision for earthing

This clause of Part 1 applies.

## 12 Terminals

This clause of Part 1 applies except as follows:

*Replacement of Table 2 by the following new table:*

**Table 2 – Relationship between rated currents and connectable cross-sectional areas of copper conductors for screw type terminals**

| Ranges of rated currents A | Rigid conductors (solid or stranded) [a] | |
|---|---|---|
| | Nominal cross-sectional areas $mm^2$ | Diameter of largest conductor mm |
| 16 [b] | From 1,5 up to 4 inclusive | 2,72 |
| Above 16 up to and including 25 | From 2,5 up to 6 inclusive | 3,34 |
| Above 25 up to and including 32 | From 4 up to 10 inclusive | 4,34 |
| Above 32 up to and including 50 | From 6 up to 16 inclusive | 5,46 |
| Above 50 up to and including 80 | From 10 up to 25 inclusive | 6,85 |
| Above 80 up to and including 100 | From 16 up to 35 inclusive | 7,90 |
| Above 100 up to and including 125 | From 25 up to 50 inclusive | 9,10 |

[a] The use of flexible conductors is permitted.

[b] Each supply terminal of fireman's switches, other than those of pattern numbers 3 and 03, shall allow the connection of two 2,5 $mm^2$ conductors. For fireman's switches having a rated voltage not exceeding 250 V a round hole is sufficient for the connection of two 2,5 $mm^2$ conductors.

**12.2.5** *Replacement of Table 3 by the following new table:*

**Table 3 – Tightening torque for verification of the mechanical strength of screw-type terminals**

| Nominal diameter of thread mm | Torque Nm | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| Up to and including 1,6 | 0,05 | – | 0,1 | 0,1 | – |
| Above 1,6 up to and including 2,0 | 0,1 | – | 0,2 | 0,2 | – |
| Above 2,0 up to and including 2,8 | 0,2 | – | 0,4 | 0,4 | – |
| Above 2,8 up to and including 3,0 | 0,25 | – | 0,5 | 0,5 | – |
| Above 3,0 up to and including 3,2 | 0,3 | – | 0,6 | 0,6 | – |
| Above 3,2 up to and including 3,6 | 0,4 | – | 0,8 | 0,8 | – |
| Above 3,6 up to and including 4,1 | 0,7 | 1,2 | 1,2 | 1,2 | 1,2 |
| Above 4,1 up to and including 4,7 | 0,8 | 1,2 | 1,8 | 1,8 | 1,8 |
| Above 4,7 up to and including 5,3 | 0,8 | 1,4 | 2,0 | 2,0 | 2,0 |
| Above 5,3 up to and including 6,0 | 1,2 | 1,8 | 2,5 | 3,0 | 3,0 |
| Above 6,0 up to and including 8,0 | 2,5 | 2,5 | 3,5 | 6,0 | 4,0 |
| Above 8,0 up to and including 10,0 | – | 3,5 | 4,0 | 10,0 | 6,0 |
| Above 10,0 up to and including 12,0 | – | 4,0 | – | – | 8,0 |
| Above 12,0 up to and including 15,0 | – | 5,0 | – | – | 10,0 |

NOTE 1 Column 1 applies to screws without heads if the screw when tightened does not protrude from the hole, and to other screws which cannot be tightened by means of a screwdriver with a blade wider than the diameter of the screw.

Column 2 applies to nuts of mantle terminals which are tightened by means of a screwdriver.

Column 3 applies to other screws which are tightened by means of a screwdriver.

Column 4 applies to nuts of mantle terminals in which the nut is tightened by means other than a screwdriver.

Column 5 applies to screws or nuts, other than nuts of mantle terminals, which are tightened by means other than a screwdriver.

Where a screw has a hexagonal head with a slot for tightening with a screwdriver and the values of columns 3 and 5 are different, the test is made twice, first applying to the hexagonal head the torque specified in column 5 by means other than a screwdriver and then applying the torque specified in column 3 by means of a screwdriver. If the values of columns 3 and 5 are the same, only the test with the screwdriver is made.

NOTE 2 For mantle terminals the specified nominal diameter is that of the slotted stud.

NOTE 3 The shape of the blade of the test screwdriver should suit the head of the screw to be tested.

NOTE 4 The screws and nuts should not be tightened in jerks.

*Replacement of Table 4 by the following new table:*

**Table 4 – Test values for flexion and pull-out for copper conductors**

| **Conductor cross-sectional area** mm² | **Diameter of bushing hole** [a] mm | **Height *H*** [b] mm | **Mass for conductor** kg |
|---|---|---|---|
| 1,5 | 6,5 | 260 | 0,4 |
| 2,5 | 9,5 | 280 | 0,7 |
| 4,0 | 9,5 | 280 | 0,9 |
| 6,0 | 9,5 | 280 | 1,4 |
| 10,0 | 9,5 | 280 | 2,0 |
| 16,0 | 13,0 | 300 | 2,9 |
| 25,0 | 13,0 | 300 | 4,5 |
| 35,0 | 14,5 | 320 | 6,8 |
| 50,0 | 16,0 | 340 | 9,5 |

[a] If the bushing hole diameter is not large enough to accommodate the conductor without binding, a bushing having the next larger hole size may be used.

[b] Tolerance for height *H* = ±15 mm.

**12.2.6** *Replacement of Table 5 by the following new table:*

**Table 5 – Test values for pull-out test**

| **Cross-sectional area of conductors accepted by the terminal** mm² | **From 1,5 up to 2,5 inclusive** | **From 2,5 up to 4 inclusive** | **From 4 up to 6 inclusive** | **From 6 up to 10 inclusive** | **From 10 up to 16 inclusive** | **From 16 up to 25 inclusive** | **From 25 up to 35 inclusive** | **From 35 up to 50 inclusive** |
|---|---|---|---|---|---|---|---|---|
| Pull N | 50 | 50 | 60 | 80 | 90 | 100 | 190 | 235 |

**12.2.7** *Replacement of Table 6 by the following new table:*

**Table 6 – Composition of conductors**

| **Cross-sectional area** mm² | **Number of wires and nominal diameter of wires** mm | |
|---|---|---|
| | **Solid conductor** | **Stranded conductor** |
| 1,5 | 1 × 1,38 | 7 × 0,52 |
| 2,5 | 1 × 1,78 | 7 × 0,67 |
| 4,0 | 1 × 2,25 | 7 × 0,86 |
| 6,0 | 1 × 2,76 | 7 × 1,05 |
| 10,0 | 1 × 3,57 | 7 × 1,35 |
| 16,0 | – | 7 × 1,70 |
| 25,0 | – | 7 × 2,14 |
| 35,0 | – | 7 × 2,53 |
| 50,0 | – | 19 × 1,83 |

**12.3.2** *Replacement of Table 7 by the following new table:*

**Table 7 – Relationship between rated currents and connectable cross-sectional areas of copper conductors for screwless terminals**

| Rated current<br>A | Conductors | | |
|---|---|---|---|
| | Nominal cross-sectional areas<br>$mm^2$ | Diameter of largest rigid conductor<br>mm | Diameter of largest flexible conductor<br>mm |
| 16 [a] | 1,5 to 2,5 | 2,13 | 2,21 |
| [a] Each supply terminal of fireman's switches other than those of pattern numbers 3 and 03 shall allow the connection of two 2,5 $mm^2$ conductors. In such cases a terminal with separate independent clamping means for each conductor shall be used. | | | |

**12.3.11** *Replacement of Table 8 by the following new table:*

**Table 8 – Test current for the verification of electrical and thermal stresses in normal use of screwless terminals**

| Rated current<br>A | Test current<br>A | Cross-sectional area of the conductor<br>$mm^2$ |
|---|---|---|
| 16 | 22 | 2,5 |

**12.3.12** *Replacement of Tables 9 and 10 by the following new tables:*

**Table 9 – Cross-sectional areas of rigid copper conductors for deflection test of screwless terminals**

| Rated current of the fireman's switch<br>A | Cross-sectional area of the test conductor<br>$mm^2$ | |
|---|---|---|
| | 1st test sequence | 2nd test sequence |
| 16 | 1,5 | 2,5 |

**Table 10 – Deflection test forces**

| Cross-sectional area of the test conductor<br>$mm^2$ | Force for deflecting the test conductor [a]<br>N |
|---|---|
| 1,5 | 0,5 |
| 2,5 | 1,0 |
| [a] The forces are chosen so that they stress the conductors close to the limit of elasticity. | |

## 13 Constructional requirements

This clause of Part 1 applies except as follows.

**13.9** This subclause is not applicable.

**13.15.1** *Replacement of the fifth paragraph with:*

*The fireman's switches are then placed for 2 h in a heating cabinet as described in 15.1, the temperature being maintained at 70 °C ± 2 °C.*

*Additional subclauses:*

**13.101 Actuating handle**

Once installed, the handle **off** position shall be in the vertical position (± 15°) and the handle **on** position shall be 80° (+ 15°) from the handle **off** position.

NOTE 1 The **on** position means powered and the **off** position means unpowered.

NOTE 2 The **off** position of the handle (vertically up or vertically down) may be specified in National Wiring Regulations.

Compliance is checked by inspection and measurements.

**13.102 Functional specifications**

The actuating handle shall be easy to identify and the length of the actuating handle shall be not less than 30 mm. The length is the length of protrusion from enclosure in the on position.

If the actuating handle has a ring, the minimum internal diameter of that ring shall be 15 mm.

*Compliance is checked by measurement.*

**13.103 Operating forces**

The force to operate the switch shall be between 10 N and 50 N.

The effort is applied at the end of the actuating handle or using the ring, if any.

*Compliance is checked by measurement after the mechanism is operated 5 times.*

*After the test the specimen shall show no damages which may impair its further use.*

**13.104 Enclosure access**

Access to live parts shall be openable only by means of a tool in the **off** position.

*Compliance is checked by inspection.*

**13.105 Degree of protection against mechanical impacts**

The degree of protection against mechanical impacts shall be not less than IK 7 in accordance with EN 62262.

*Compliance is checked by the tests of Clause 20.*

**13.106 Interlock system**

An interlock system shall be provided to avoid unintentional operation from the **off** position to the **on** position.

*Compliance is checked by inspection.*

### 13.107 Illuminated indicator

If the enclosure includes an illuminated indicator, it shall be

– coloured red, and

– illuminated when the switch contacts are closed, and

– visible at a distance of 3 m with ambient lighting having a value between 100 lux and 500 lux.

The measure shall be carried out vertically in front of the product (see Figure 101). The illuminated indicator shall have a life duration of 50 000 h.

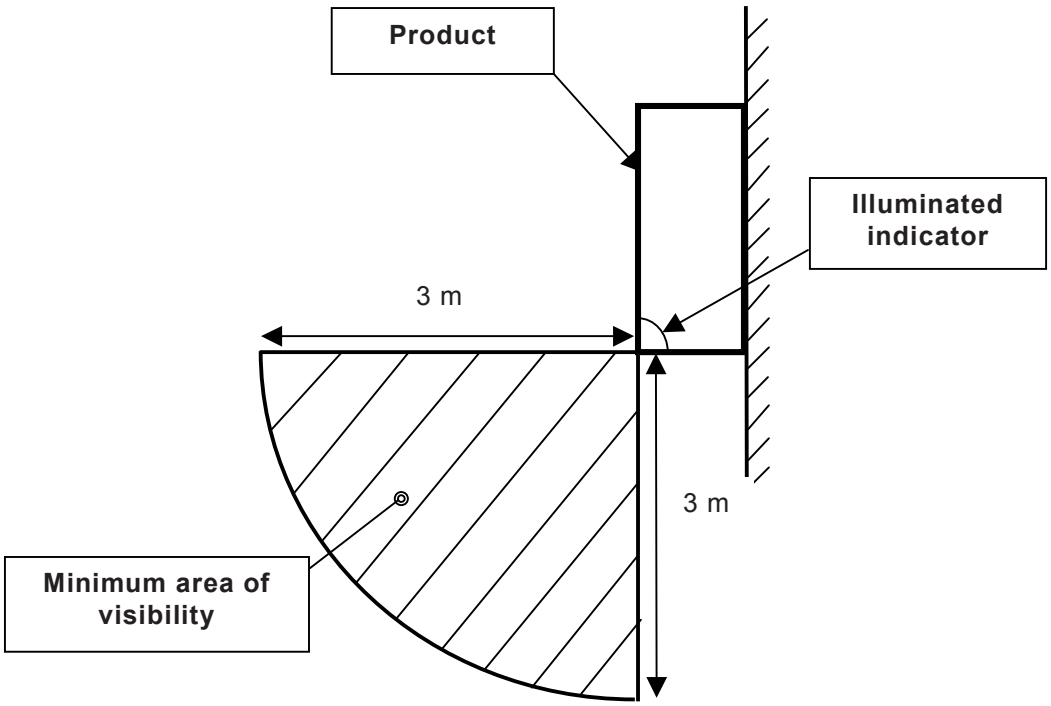



**Figure 101 – Minimum area of visibility**

*Compliance is checked by inspection and declaration from the supplier of the illuminated indicator.*

### 13.108 Colouring

The colour of the enclosure shall be red (RAL 3000 or 3020) and the colour of the actuating handle shall be black.

*Compliance is checked by inspection.*

## 14 Mechanism

This clause of Part 1 applies.

## 15 Resistance to ageing, protection provided by enclosures of switches and resistance to humidity

This clause of Part 1 applies except as follows:

**15.2.3** *Addition at the end of the second paragraph:*

After the test no water shall have entered the fireman's switch.

## 16 Insulation resistance and electric strength

This clause of Part 1 applies except as follows.

*Additional subclause:*

**16.101** Fireman's switches shall be suitable for isolation. They shall be tested in the new, clean and dry conditions, when in the open position, across the terminals of each pole.

*Compliance is checked by the following test.*

*The 1,2/50 impulse voltage according to Figure 6 of HD 588.1 is applied between the line terminals connected together and the load terminals connected together with the contacts in the open position.*

*The impulses are given by a generator producing positive and negative impulses having a front time of 1,2 µs and a time to half value of 50 µs, the tolerances being*

*± 5 % for the peak value,*

*± 30 % for the front time,*

*± 20 % for the time to half value.*

*The shape of the impulses is adjusted with the fireman's switch under test connected to the impulse generator. For this purpose appropriate voltage dividers and voltage sensors shall be used.*

*Small oscillations in the impulses are allowed, provided that their amplitude near the peak of the impulse is less than 5 % of the peak value.*

*For oscillations on the first half of the front, amplitudes up to 10 % of the peak value are allowed.*

*The test voltage shall be chosen from Table 101, in accordance with the rated voltage of the fireman's switch.*

*The impulse voltage shall be applied 3 times at intervals of 1 s minimum.*

*There shall be no discharges during the test.*

NOTE 1 The surge impedance of the test apparatus should be 500 Ω; a substantial reduction of this value is under consideration.

NOTE 2 The expression “discharge“ is used to cover the phenomena associated with the failure of insulation under electric stress, which includes current flow and a drop in voltage.

**Table 101 – Test voltage across the open contacts for verifying the suitability for isolation, referred to the rated voltage of the fireman's switch and to the altitude where the test is carried out**

| Rated voltage | Test voltage [kV] and corresponding altitudes above sea level [m] | | | | |
|---|---|---|---|---|---|
| V | Sea level | 200 | 500 | 1 000 | 2 000 |
| 250/440 | 6,2 | 6 | 5,8 | 5,6 | 5 |

## 17 Temperature rise

This clause of Part 1 applies except as follows.

*Replacement of Table 15 by the following new Table:*

**Table 15 – Temperature-rise test currents and cross-sectional areas of copper conductors**

| Rated current<br>A | Test current<br>A | Nominal cross-sectional area of conductors<br>$mm^2$ |
|---|---|---|
| 16 | 20,0 | 4[a] |
| 20 | 25,0 | 4 |
| 25 | 32,0 | 6 |
| 32 | 38,0 | 10 |
| 40 | 46,0 | 16 |
| 45 | 51,0 | 16 |
| 50 | 57,5 | 16 |
| 63 | 75,0 | 25 |
| 80 | 90,0 | 25 |
| 100 | 115,0 | 35 |
| 125 | 145,0 | 50 |

[a] For fireman’s switches having a rated voltage not exceeding 250 V, other than those of pattern number 3 and 03 the test shall be carried out with conductors having a cross-sectional area of 2,5 $mm^2$.

*Replacement of the penultimate paragraph before Note 5:*

*The temperature rise of the terminals shall not exceed 45 K for fireman’s switches having rated current up to and including 63 A or 65 K for fireman’s switches having rated current greater than 63 A.*

## 18 Making and breaking capacity

This clause of Part 1 applies.

## 19 Normal operation

This clause of Part 1 applies except as follows.

**19.1** *Replacement of the sentence "*The number of operations is shown in Table 17." *with* "The number of operations is limited to 500.".

Table 17 is not applicable.

*Addition:*

After the normal operation tests the fireman's switch shall comply with 6 mA max. leakage current test with a voltage of 110 % of the rated voltage.

**19.2** This subclause is not applicable.

*Addition of a new Subclause 19.101:*

**19.101** Fireman's switches shall operate correctly at ambient temperatures between –20 °C and +70 °C.

*Compliance is checked by the following test.*

*The fireman's switch is first placed in a freezer at a temperature of –20 °C for 2 h. Then the fireman's switch is taken out of the freezer and operated for 10 cycles without current in order to verify that the contacts open and close for every operation.*

*Then the fireman's switch is kept at ambient temperature for 4 h.*

*Finally the fireman's switch is placed in a heating cabinet at a temperature of +70 °C for 2 h. Then the fireman's switch is taken out of the heating cabinet and operated for 10 cycles without current in order to verify that the contacts open and close for every operation.*

## 20 Mechanical strength

This clause of Part 1 applies except as follows:

**20.1** *Replacement:*

**20.1** The degree of protection against mechanical impacts shall be not less than IK 7 in accordance with EN 62262.

Blows shall be applied according to Figure 102 of this standard.

## 21 Resistance to heat

This clause of Part 1 applies except as follows:

**21.3** *Replacement:*

*Parts of insulating material not necessary to retain current-carrying parts and parts of the earthing circuit in position, even though they are in contact with them, are subjected to a ball pressure test in accordance with 21.2.*

## 22 Screws, current-carrying parts and connections

This clause of Part 1 applies.

## 23 Creepage distances, clearances and distances through sealing compound

This clause of Part 1 applies except as follows.

*Replacement of point 1 of Table 20:*

| | | |
|---|---|---|
| 1 | Between live parts which are separated when the contacts are open | 4 |

*Replacement of point 6 of Table 20:*

| | | |
|---|---|---|
| 6 | Between live parts which are separated when the contacts are open | 4 |

*Addition of the following footnote to Table 20:*

[101] If the value is lower than 4 mm but not lower than 3 mm the fireman's switch complies with this standard if it fulfils the requirements of 16.201.

## 24 Resistance of insulating material to abnormal heat, to fire and to tracking

This clause of Part 1 applies.

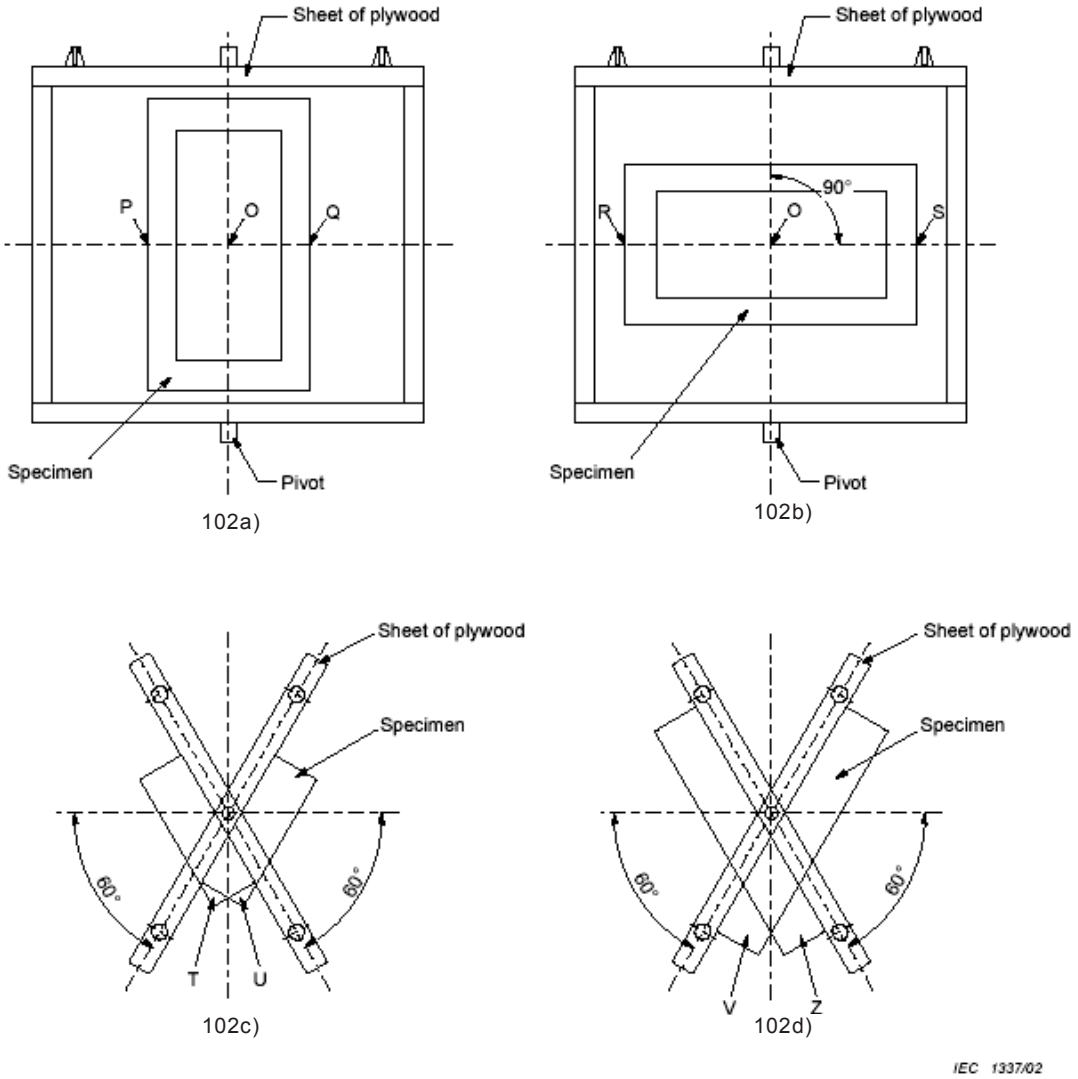
## 25 Resistance to rusting

This clause of Part 1 applies.

## 26 EMC requirements

This clause of Part 1 applies.

*Addition of the following new figure:*




| Application of the blows | | | |
|---|---|---|---|
| **Sketch** | **Total number of blows** | **Points of application** | **Parts to be tested** |
| 102a) | 3 | One at the centre<br>One between 0 and P [a]<br>One between 0 and Q [a] | A |
| 102b) | 2 | One between 0 and R [a]<br>One between 0 and S [a] | A |
| 102c) | 2 | One on the surface T [a]<br>One on the surface U [a] | B, C and D |
| 102d) | 2 | One on the surface V [a]<br>One on the surface Z [a] | B, C and D |
| [a] The blow is applied to the most unfavourable point. | | | |

**Figure 102 – Sketches showing the application of blows**

# Annex ZA
(normative)

## Normative references to international publications with their corresponding European publications

This annex of Part 1 applies with the following additions:

| Publication | Year | Title | EN/HD | Year |
|---|---|---|---|---|
| - | - | Signs and luminous-discharge-tube installations operating from a no-load rated output voltage exceeding 1 kV but not exceeding 10 kV - Part 1: General requirements | EN 50107-1 | 2002 |
| - | - | Signs and luminous-discharge-tube installations operating from a no-load rated output voltage exceeding 1 kV but not exceeding 10 kV - Part 2: Requirements for earth-leakage and open-circuit protective devices | EN 50107-2 | 2005 |
| IEC 60669-1 (mod) | 1998 | Switches for household and similar fixed electrical installations - Part 1: General requirements | EN 60669-1 | 1999 |
| IEC 60669-2-4 (mod) | 2004 | Switches for household and similar fixed electrical installations - Part 2-4: Particular requirements - Isolating switches | EN 60669-2-4 | 2005 |
| IEC 62262 | 2002 | Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code) | EN 62262 | 2002 |
| IEC 60364-5-51 (mod) | 1994 | Electrical installations of buildings - Part 5: Selection and erection of electrical equipment Chapter 51: Common rules | HD 384.5.51 S2[1)] | 1996 |

1) HD 384.5.51 :1996 is superseded by HD 60364-5-51 :2006, which is based on IEC 60364-5-51 :2001 (mod).

# Annex ZB
(normative)

## Special national conditions

**Special national condition**: National characteristic or practice that cannot be changed even over a long period, e.g. climatic conditions, electrical earthing conditions.

NOTE If it affects harmonization, it forms part of the European Standard / Harmonization Document.

For the countries in which the relevant special national conditions apply these provisions are normative, for other countries they are informative.

| Clause | Special national condition |
|---|---|
| **Foreword** | **United Kingdom**<br>Add an additional paragraph:<br>"Fireman's switches which cover applications suited to light industrial units, retail units and petrol station forecourts fall under the scope of EN 60947-3."<br>since the scope of EN 60669-1 only covers household & similar fixed electrical installations. |
| **13.108** | **France**<br>The enclosure of the fireman's switch and of the actuating handle could be of an other colour than red if it is equipped with an red illuminated indicator according to 13.107.<br>The colours yellow, green and blue are not allowed (according to NF X 08-003-1). |

# Annex ZC
(informative)

## A-deviations

**A-deviation**: National deviation due to regulations, the alteration of which is for the time being outside the competence of the CENELEC national member.

This European Standard falls under Directive 2006/95/EC.

NOTE (from CEN/CENELEC IR Part 2:2006, 2.17) Where standards fall under EC Directives, it is the view of the Commission of the European Communities (OJ No C 59, 1982-03-09) that the effect of the decision of the Court of Justice in case 815/79 Cremonini/Vrankovich (European Court Reports 1980, p. 3583) is that compliance with A-deviations is no longer mandatory and that the free movement of products complying with such a standard should not be restricted except under the safeguard procedure provided for in the relevant Directive.

A-deviations in an EFTA-country are valid instead of the relevant provisions of the European Standard in that country until they have been removed.

**Clause** **Deviation**

**1** **Italy** (Installation Rules)

The Italian installation rules may require different protection switching devices in order to comply with the function given in the scope of this standard. The installation practice shall be in accordance with the requirements of the following Italian legislative decrees, applicable to the the various types of installations.

| Decree | Title |
|---|---|
| DPR 27/04/55 No. 547 | Norme per la prevenzione degli infortuni sul lavoro |
| DPR 09/04/59 No. 128 | Norme di polizia delle miniere e delle cave |
| DM 12/01/71 No. 208 | Norme di sicurezza per gli impianti di distribuzione stradale di gas di petrolio liquefatto per autotrazione |
| DM 08/03/85 | Direttive sulle misure più urgenti ed essenziali di prevenzione incendi ai fini del rilascio del nullaosta provvisorio di cui alla legge 7 dicembre 1984, n. 818 |
| DM 11/01/88 | Norme prevenzioni incendi nelle metropolitane |
| DM 20/05/92 No. 569 | Regolamento contenente norme di sicurezza antincendio per gli edifici storici e artistici destinati a musei, gallerie, esposizioni e mostre |
| DM 26/08/92 | Norme di prevenzione incendi per l'edilizia scolastica |
| DM 09/04/94 | Approvazione della regola tecnica di prevenzione incendi per la costruzione e l'esercizio delle attività ricettive turistico-alberghiere. |
| DPR 30/06/95 No. 418 | Regolamento concernente norme di sicurezza antincendio per gli edifici di interesse storico-artistico destinati a biblioteche ed archivi |
| DM 12/04/96 | Approvazione della regola tecnica di prevenzione incendi per la progettazione, la costruzione e l'esercizio degli impianti termici alimentati da combustibili gassosi |
| DM 19/08/96 | Approvazione della regola tecnica di prevenzione incendi per la progettazione, costruzione ed esercizio dei locali di intrattenimento e di pubblico spettacolo |
| DM 18/09/02 | Approvazione della regola tecnica di prevenzione incendi per la progettazione, la costruzione e l'esercizio delle strutture sanitarie pubbliche e private |
| DM 28/04/05 | Approvazione della regola tecnica di prevenzione incendi per la progettazione, la costruzione e l'esercizio degli impianti termici alimentati da combustibili liquidi |
| DM 18/03/96 DM 16/05/05 | Norme di sicurezza per la costruzione e l'esercizio degli impianti sportivi |
| DM 22/02/06 | Approvazione della regola tecnica di prevenzione incendi per la progettazione, la costruzione e l'esercizio di edifici e/o locali destinati ad uffici |
| DM 31/08/06 | Approvazione della regola tecnica di prevenzione incendi per la progettazione, costruzione ed esercizio degli impianti di distribuzione di idrogeno per autototrazione |

**8.3 United kingdom**

(UK wiring rules) Building and Buildings, England and Wales - The Building (Amendment) Regulations 2003 {Statutory Instrument 2003 No. 2692} which require compliance with UK Wiring Rules BS 7671:2001 (incl. Amendment 2), Clause 537-04-06.

The following information shall be distinctly and durably marked on the fireman's switch in a position where it can be clearly seen from a person standing on the ground at the intended site, without opening the enclosure and when the switch is installed:

– "ON" and "OFF" positions, in letters not less than 10 mm high;

– letters reading "FIREMAN'S SWITCH" or "FIRE SWITCH" in letters not less than 10 mm high.

**13.101 United kingdom**

(UK wiring rules) Building and Buildings, England and Wales - The Building (Amendment) Regulations 2003 {Statutory Instrument 2003 No. 2692} which require compliance with UK Wiring Rules BS 7671:2001 (incl. Amendment 2), Clause 537-04-06.

Once installed, the handle **off** position shall be up.

NOTE 1 The **on** position means powered and the **off** position means unpowered.

Compliance is checked by inspection.

**13.107 United kingdom**

(UK wiring rules) Building and Buildings, England and Wales - The Building (Amendment) Regulations 2003 {Statutory Instrument 2003 No. 2692} which require compliance with UK Wiring Rules BS 7671:2001 (incl. Amendment 2), Clause 537-04-06.

This subclause does not apply.

In the UK, indication must be 'clearly indicated' as required by BS 7671 which means that use of an illuminated indicator is considered unsafe since a false indication will occur if there is a failure of the illumination indicator or circuit.

**24 France**

(Regulation of 1980 the 25$^{th}$ of June modified by the Regulation of 2001 the 19$^{th}$ of November)

All the tests shall be carried out at a temperature of 850 °C.

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