



# SLOVENSKI STANDARD

## oSIST prEN 50216-4:2013

01-december-2013

Nadomešča:

SIST EN 50216-4:2002

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**Armature močnostnih transformatorjev in dušilk - 4. del: Osnovni pribor (ozemljitveni priključek, naprave za polnjenje in praznjenje, termometrski žep, kolesni sestav)**

Power transformer and reactor fittings - Part 4: Basic accessories (earthing terminal, drain and filling devices, thermometer pocket, wheel assembly)

Zubehör für Transformatoren und Drosselspulen -- Teil 4: Kleine Zubehörteile (Erdungsanschlussstück, Ablass- und Füllrichtungen, Thermometertasche, Rollen)

Accessoires pour transformateurs de puissance et bobines d'inductance -- Partie 4: Accessoires de base (borne de terre, orifice de remplissage, vanne de vidange, doigt de gant, galets de roulement)

**Ta slovenski standard je istoveten z: prEN 50216-4:2013**

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**ICS:**

29.180      Transformatorji. Dušilke      Transformers. Reactors

**oSIST prEN 50216-4:2013**

**en**



English version

**Power transformer and reactor fittings -  
Part 4: Basic accessories (earthing terminal, drain and filling devices,  
thermometer pocket, wheel assembly)**

Accessoires pour transformateurs de puissance et bobines d'inductance -  
Partie 4: Accessoires de base (borne de terre, orifice de remplissage, vanne de vidange, doigt de gant, galets de roulement)

Zubehör für Transformatoren und Drosselspulen -  
Teil 4: Kleine Zubehörteile (Erdungsanschlussstück, Ablass- und Fülleinrichtungen, Thermometertasche, Rollen)

This draft European Standard is submitted to CENELEC members for CENELEC enquiry.  
Deadline for CENELEC: 2014-01-03.

It has been drawn up by CLC/TC 14.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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# CENELEC

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

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24 **Foreword**

25 This document (prEN 50216-4:2013) has been prepared by CLC/TC 14 "Power transformers".

26 This document is currently submitted to the Enquiry.

27 This document will supersede EN 50216-4:2002.

28 EN 50216-4 is to be read in conjunction with EN 50216-1, *Power transformer and reactor fittings – Part 1:*  
29 *General.*

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## prEN 50216-4:2013 (E)

30 **1 Scope**

31 This part of EN 50216 specifies basic accessories of transformers / reactors, such as

32 — thermometer pockets, to be used for liquid immersed transformers,

33 — earth terminals; to be used for liquid immersed and dry-type transformers,

34 — draining plugs, to be used for liquid immersed distribution transformers,

35 — filling openings, to be used for liquid immersed distribution transformers,

36 — rollers, choice and distance to be used for liquid immersed and dry-type transformers

37 After agreement between purchaser and manufacturer, this part of EN 50216 may still be applicable either as  
38 a whole or in part to large power transformers or special transformers.

39 **2 Normative references**

40 The following documents, in whole or in part, are normatively referenced in this document and are  
41 indispensable for its application. For dated references, only the edition cited applies. For undated references,  
42 the latest edition of the referenced document (including any amendments) applies.

43 *Addition to EN 50216-1:*

EN 13674-1 *Railway application – Track – Rail – Part 1: Vignole railway rails 46 kg/m and above*

EN 50464 series *Three-phase oil-immersed distribution transformers 50 Hz, from 50 to 2 500 kVA with highest voltage for equipment not exceeding 36 kV*

EN 50522 *Earthing of power installations exceeding 1 kV a.c.*

EN 50541 series *Three-phase dry-type distribution transformers 50 Hz, from 100 to 3 150 kVA, with highest voltage for equipment not exceeding 36 kV*

EN 60076 series *Power transformers (IEC 60076 series)*

44 **3 Terms and definitions**

45 For the purpose of this document, the following terms and definitions apply.

46 **3.1**47 **thermometer pocket**

48 device, generally mounted (may be welded) on the transformer or reactor cover, intended to house a  
49 thermometer to measure the insulating liquid temperature (marking A)

50 **3.2**51 **earth terminal**

52 terminal placed on the dry-type transformer/reactor structure or on the liquid immersed transformer/reactor  
53 tank/enclosure, for connection to an earthing system (marking B)

- 54 **3.3**  
55 **draining plug**  
56 device intended to sample or remove the insulating liquid from a transformer tank (marking C)
- 57 **3.4**  
58 **filling openings**  
59 facility for filling a transformer tank with insulating liquid (marking D)
- 60 **3.5**  
61 **roller**  
62 device equipped with wheels to be fixed at the bottom of the transformer for the positioning on final installation  
63 place
- 64 **3.6**  
65 **wheel assembly**  
66 set of rollers used for scrolling the transformer on the beam (U) or rail track of the final installation place
- 67 **4 Thermometer pockets to be used for liquid immersed transformers**
- 68 **4.1 General**
- 69 Clause 4 specifies the thermometer pockets for liquid immersed transformers in order to ensure the  
70 interchangeability of the accessories to this pocket.
- 71 The location and the method of fitting on the cover are not specified by this European Standard.
- 72 The transformer shall be in accordance with the EN 60076 series and EN 50464-1 for liquid immersed  
73 transformer.
- 74 The opening shall be protected against the ingress of moisture and foreign bodies.
- 75 The pocket has to be filled with oil or other suitable medium to ensure transfer of heat.
- 76 **4.2 Dimensions of thermometer pockets (dimensions in mm)**
- 77 The closure (like a bolt / cap to avoid get in dust and water) is not specified by this European Standard.



prEN 50216-4:2013 (E)

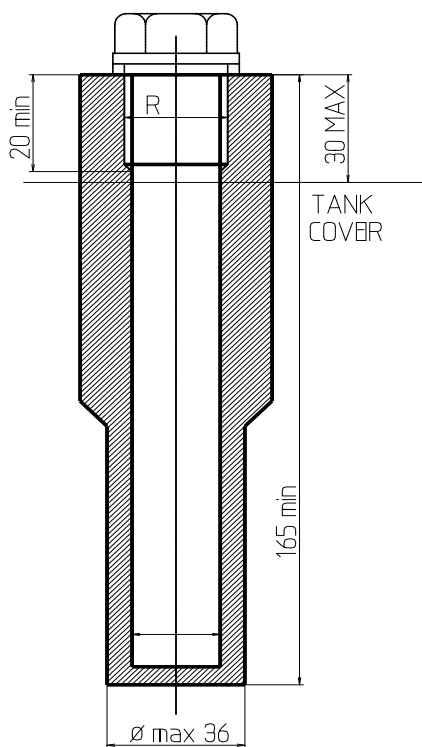


Figure 1 — Type A1 R=1"

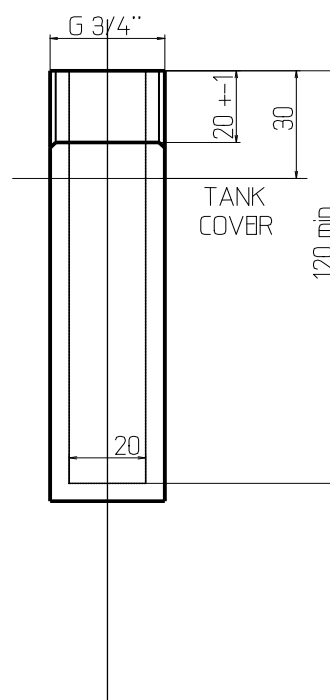


Figure 2 — Type A2 R=3/4" G

## 78 5 Earth terminals to be used for liquid immersed and dry-type transformers

### 79 5.1 General

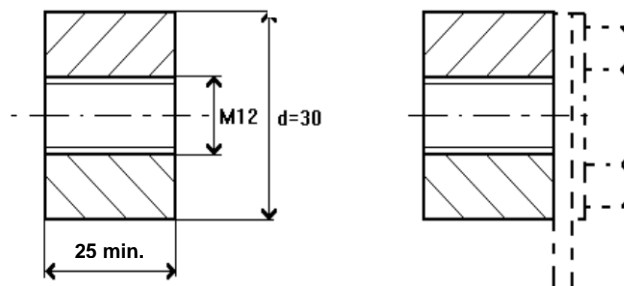
80 Clause 5 specifies the shape and dimensions of earth terminals for liquid immersed transformers, complying  
 81 with the EN 60076 series and EN 50464 series for liquid immersed transformers and EN 50541 series for dry-  
 82 type transformers.

83 The terminal shall ensure continuous electrical continuity and shall be capable of carrying a current calculated  
 84 to EN 50522.

85 Three types are available with different current rating, according to the practice of different countries.

86 **5.2 Dimensions of different earth terminals**

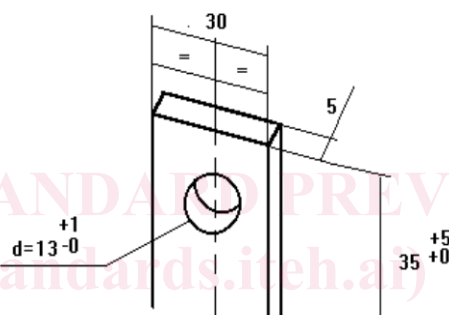
87 Dimensions in millimetres



88

89 **a) Type B1**

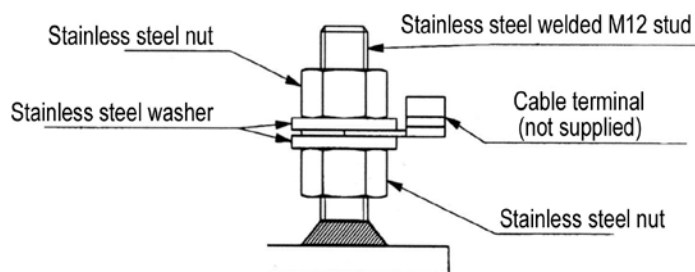
90 Dimensions in millimetres



91

92 **b) Type B2**

93 Dimensions in millimetres



94

95 Length min. 40 mm / circular welding seam min. 4 mm in height

96 **c) Type B3**97 **Figure 3 — Typical earth terminals used for distribution transformers types B1, B2 and B3**