



SLOVENSKI STANDARD
SIST EN 50113:2001

01-september-2001

Measurement, control, regulation - Electrical temperature sensors - Isolating tubes for thermocouples

Measurement, control, regulation - Electrical temperature sensors - Isolating tubes for thermocouples

Messen, Steuern, Regeln - Elektrische Temperaturlaufnehmer - Isolierrohre für Thermopaare

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Mesure, commande, régulation - Capteurs électriques de température - Tubes isolants pour couples thermoélectriques

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Ta slovenski standard je istoveten z: EN 50113:1994

ICS:

17.200.20	Instrumenti za merjenje temperature	Temperature-measuring instruments
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en

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EUROPEAN STANDARD

EN 50113

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 1994

UDC 621.317.39:536.532:621.362.1

Descriptors: Industrial-process, temperature measurement, electrical temperature sensors, thermocouples, isolating tubes for thermocouples

English version

Measurement, control, regulation
Electrical temperature sensors
Isolating tubes for thermocouples

Mesure, commande, régulation
 Capteurs électriques de température
 Tubes isolants pour couples
 thermoélectriques

Messen, Steuern, Regeln
 Elektrische Temperaturlaufnehmer
 Isolierrohre für Thermopaare



REPUBLIKA SLOVENIJA
 MINISTRSTVO ZA ŠOLSTVO, ZNANOST IN ŠPORT
 Urad RS za meroslovje
 LJUBLJANA

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-09- 2001

SIST. **EN 50113**
 PREVZET PO METODI RAZGLASITVE

<https://standards.iteh.ai/catalog/standards/sist/615c53a4-5ee0-41ba-9b05-8b0917684414/sist-50113-1994>

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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.

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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

Foreword

This European Standard was prepared by the CENELEC Technical Board Working Group BTWG 68-2.

The text of the draft based on BT (DE/Notification) 160, was submitted to the CENELEC formal vote in August 1993 and was approved by CENELEC as EN 50113 on 1994-03-08.

The following dates were fixed:

- latest date of publication of an identical national standard (dop) 1995 - 03 - 15
- latest date of withdrawal of conflicting national standards (dow) 1995 - 03 - 15

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1 Scope

This standard applies to ceramic insulating tubes for use with thermocouples.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revision of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

HD 426.3 S1 1987 Specification for ceramic and glass insulating materials
Part 3: Individual materials (ICE 672-3:1984)

3 dimensions, designation

All dimensions are in millimetres.

3.1 Insulating tubes with single hole insulators for thermocouples types A and B

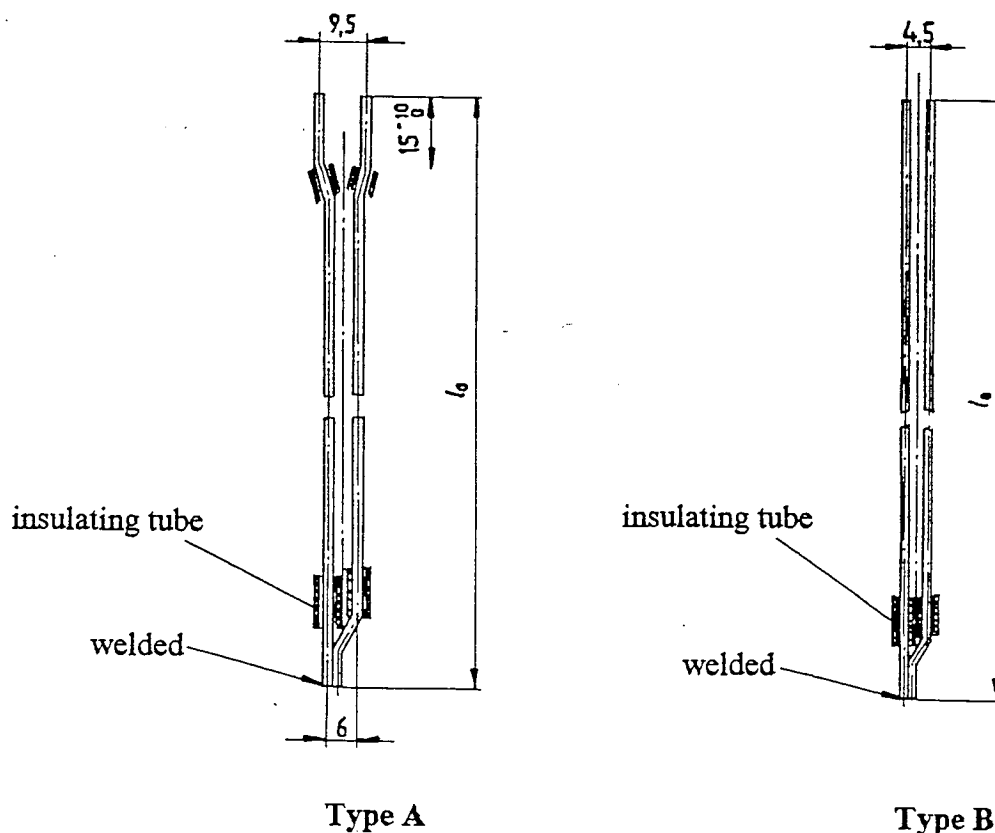
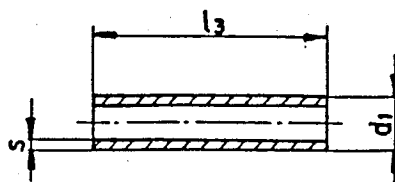


Table 1: Dimensions for insulating tubes with one borehole



d_1	s	Length of insulating tube $l_3 \pm 1$	For thermocouples wires of diameter
$2,7 \pm 0,2$	$0,5 \begin{matrix} 0 \\ -0,1 \end{matrix}$	5 or 25	1; 1,38
$4 \pm 0,3$	$1 \pm 0,1$		1,38
$6 \pm 0,3$	$1 \pm 0,1$		3

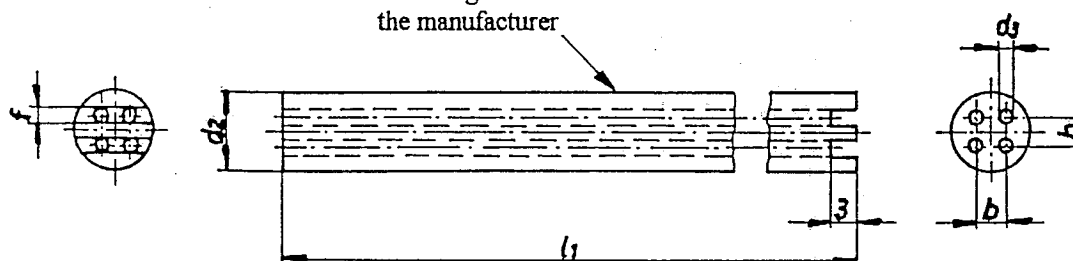
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3.2 Four hole ceramic insulators for thermocouples types C and D

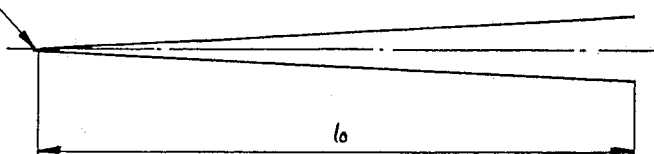
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code letter or code mark
for insulation material
following the choice of
the manufacturer



welded



Type C and Type D

Table 2: Dimensions for 4 hole insulators

$d_2 \pm 0,3$	$b \pm 0,1$	$d_3 \pm 0,1 = c$	1) For straight t/c assemblies without interchangeable measuring probe with nominal length l							For thermocouples with diameter
			180	250	355	500	710	1000	1400	
			Length of insulation tube $l_3 \pm 2$							
5,5 2)	2	1,2	205	275	380	560	770	1060	-	$\leq 0,8$
8,5 2)	3	1,5	-	-	-	560	770	1060	1460	≤ 1

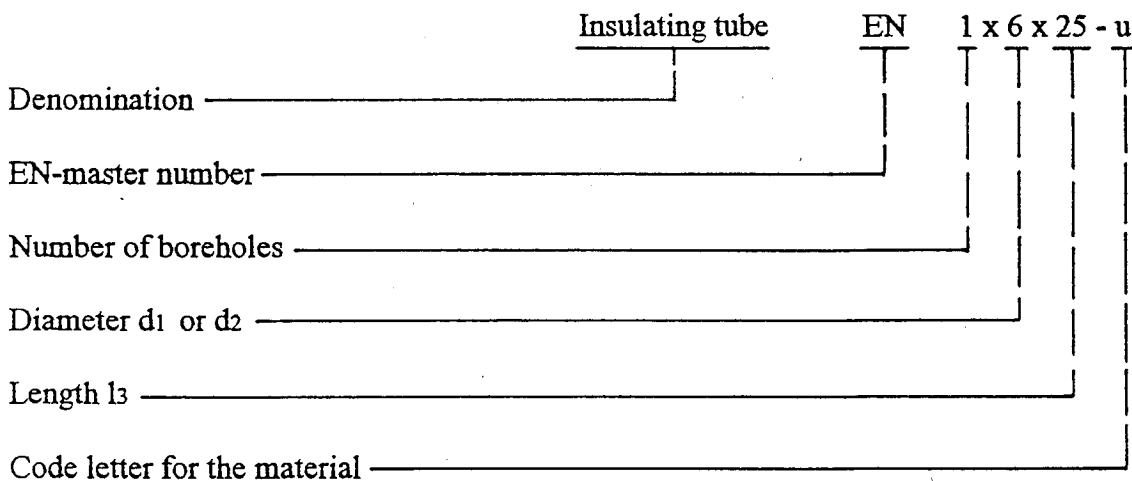
1) Nominal length l: Dimension from tip of protection tube to lower edge of connection head with a straight t/c assembly.

2) It must be possible to insert an insulation tube with four boreholes of $d_2 = 5,5$ mm into a tube having an inside diameter of 6 mm and an insulation tube with four boreholes of $d_2 = 8,5$ mm into a tube having an inside diameter of 10 mm.

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3.3 Description

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4 Material

Table 3: Code letters for ceramic insulation tubes

Code letter	Material according to HD 426.3 S1	For temperatures up to
u	C 610	1500 °C
y	C 799	1800 °C

5 Finishing

Insulation tubes with single borehole: unglazed

Insulation tubes with four boreholes: unglazed

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