SLOVENSKI STANDARD
SIST EN 62193:2004

01-februar-2004

Delo pod napetostjo - Teleskopske palice in teleskopske merilne palice (IEC 62193:2003)

Live working - Telescopic sticks and telescopic measuring sticks

Arbeiten unter Spannung - Teleskopische Stangen und teleskopische Messstangen

Travaux sous tension - Perches télescopiques et perches de mesure téléscopiques

Ta slovenski standard je istoveten z: **EN 62193:2003**

ICS:

13.260	Varstvo pred električnim udarom. Delo pod napetostjo	Protection against electric shock. Live working

SIST EN 62193:2004 **en**

EUROPEAN STANDARD **EN 62193**

NORME EUROPÉENNE

EUROPÄISCHE NORM October 2003

ICS 13.260; 29.240.20; 29.260.99

English version

Live working - Telescopic sticks and telescopic measuring sticks
(IEC 62193:2003)

Travaux sous tension -
Perches télescopiques
et perches de mesure téléscopiques
(CEI 62193:2003)

Arbeiten unter Spannung -
Teleskopische Stangen
und teleskopische Messstangen
(IEC 62193:2003)

This European Standard was approved by CENELEC on 2003-09-23. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

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Ref. No. EN 62193:2003 E

Foreword

The text of document 78/513/FDIS, future edition 1 of IEC 62193, prepared by IEC TC 78, Live working, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62193 on 2003-09-23.

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)	2004-07-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2006-10-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annexes B, C, D, E and ZA are normative and annexes A and F are informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62193:2003 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60743	NOTE	Harmonized as EN 60743:2001 (not modified).
IEC 61472	NOTE	Harmonized as EN 61472:1995 (modified).
IEC 61477 + A1	NOTE	Harmonized as EN 61477:2002 + A1:2002 (not modified).

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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 revisions 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 (including amendments).

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60060-1 + corr. March	1989 1990	High-voltage test techniques Part 1: General definitions and test requirements	HD 588.1 S1	1991
IEC 60068-1	1988	Environmental testing Part 1: General and guidance	EN 60068-1 [1)]	1994
IEC 60068-2-18	2000	Part 2-18: Tests - Tests R and guidance: Water	EN 60068-2-18	2001
IEC 60417 database	2002	Graphical symbols for use on equipment	-	-
IEC 60832 (mod)	1988	Insulating poles (insulating sticks) and universal tool attachments (fittings) for live working	EN 60832	1996
IEC 60855 (mod)	1985	Insulating foam-filled tubes and solid rods for live working	EN 60855	1996
IEC 61235 (mod)	1993	Live working - Insulating hollow tubes for electrical purposes	EN 61235	1995
IEC 61318	- [2)]	Live working - Quality assurance plans applicable to tools, devices and equipment	-	-

[1)] EN 60068-1 includes corrigendum October 1988 + A1:1992 to IEC 60068-1.

[2)] To be published.

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Travaux sous tension – Perches téléscopiques et perches de mesure téléscopiques

Live working – Telescopic sticks and telescopic measuring sticks

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LIVE WORKING – TELESCOPIC STICKS AND TELESCOPIC MEASURING STICKS

FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62193 has been prepared by IEC technical committee 78: Live working.

The text of this standard is based on the following documents:

FDIS	Report on voting
78/513/FDIS	78/523/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until 2010. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

INTRODUCTION

This International Standard has been prepared according to the requirements of IEC 61477 where applicable.

The quality plan elements of this standard were prepared in accordance with the requirements of IEC 61318.

LIVE WORKING – TELESCOPIC STICKS AND TELESCOPIC MEASURING STICKS

1 Scope

This International Standard covers telescopic sticks and telescopic measuring sticks to be used for live working on a.c. or d.c. electrical installations at 1 000 V and above for a.c. and 1 500 V and above for d.c.

The telescopic sticks are designed to accept attachments that meet appropriate live working standards and, together with these attachments, may be used to perform mechanical work on live parts at a distance. Telescopic sticks are also designed to accept diagnostic devices that meet appropriate live working standards and are used to make the diagnostic devices reach parts of an installation to be tested. Telescopic measuring sticks, or telescopic sticks equipped with graduations, are used to measure distances to or between live parts.

NOTE Under certain circumstances, the telescopic sticks covered by this standard can be used for installing portable earthing or earthing and short-circuiting equipment if the mechanical stresses during use are lower than the rated values.

The tools (telescopic sticks and telescopic measuring sticks) covered by this standard are for use under dry conditions but could also be used under very humid conditions, using appropriate working procedures.

Telescopic hook sticks are not covered by this standard. Telescopic bonding sticks and any other speciality telescopic sticks designed at the request of users are not covered by this standard.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60060-1:1989, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-18:2000, *Environmental testing – Part 2-18: Tests – Test R and guidance: Water*

IEC 60417-DB:2002[1], *Graphical symbols for use on equipment*

IEC 60832:1988, *Insulating poles (insulating sticks) and universal tool attachments (fittings) for live working*

IEC 60855:1985, *Insulating foam-filled tubes and solid rods for live working*

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[1] "DB" refers to the IEC on-line database.

IEC 61235:1993, *Live working – Insulating hollow tubes for electrical purposes*

IEC 61318, *Live working – Quality assurance plans applicable to tools, devices and equipment* [2]

3 Terms and definitions

For the purposes of this document, the following definitions apply.

3.1
telescopic stick
hand stick made of retractable insulating tubes including at least one filled or solid section which is fitted with a universal splined-head or other fitting and intended to be used under tension/compression and/or torque

NOTE 1 The telescopic stick may be used as a measuring stick when appropriately marked.

NOTE 2 For use in Sweden, the filled or solid section(s) may be replaced by section(s) of sealed hollow tubes.

[Definition 3.1.14 of IEC 60743, modified]

3.2
telescopic measuring stick
hand stick made of retractable insulating tubes including at least one filled or solid section. This tool is used to determine conductor-to-ground and conductor-to-conductor distances and other clearances and not intended to be used under tension/compression and/or torque

NOTE For use in Sweden, the filled or solid section(s) may be replaced by section(s) of sealed hollow tubes.

[Definition 3.1.15 of IEC 60743, modified]

3.3
bonding stick
hand stick used to apply bonding leads

3.4
tip section
working end of the tool, filled or solid, which provides the primary insulating characteristics when fully extended. It is the part of the tool which comes in contact or in close proximity with the live part

NOTE For use in Sweden, the filled or solid-tip section may be replaced by a section of sealed hollow tube.

3.5
hydrophobic
lacking affinity for water (water repellence). An hydrophobic material prevents water droplets spreading on its surface

3.6
lock assembly
device or mechanism that locks the telescopic sections in the working position

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[2] To be published.