# IEC 60393-4

Edition 3.0 2023-10

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Potentiometers for use in electronic equipment –**
**Part 4: Sectional specification: Single-turn rotary power potentiometers**

**Potentiomètres utilisés dans les équipements électroniques –**
**Partie 4: Spécification intermédiaire: Potentiomètres rotatifs monotours à forte dissipation**



IEC 60393-4:2023-10

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 31.040.20

ISBN 978-2-8322-7611-2

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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# POTENTIOMETERS FOR USE IN ELECTRONIC EQUIPMENT –

## Part 4: Sectional specification: Single-turn rotary power potentiometers

## FOREWORD

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IEC 60393-4 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment. It is an International Standard.

This third edition cancels and replaces the second edition published in 1992 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) the document structure has been organized to follow new sectional specification structure decided in TC 40;
b) the information on the assessment level EZ and FZ (zero nonconforming) has been revised.

The text of this International Standard is based on the following documents:

| Draft | Report on voting |
|---|---|
| 40/3074/FDIS | 40/3085/RVD |

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 60393 series, published under the general title *Potentiometers for use in electronic equipment*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

# POTENTIOMETERS FOR USE IN ELECTRONIC EQUIPMENT –

## Part 4: Sectional specification: Single-turn rotary power potentiometers

## 1 Scope

This part of IEC 60393 is applicable to single-turn rotary power potentiometers wire-wound technology. Enamelled, cemented, moulded, enclosed.

This specification is applicable to rotary potentiometers with nominal dissipation in excess of 10 W, the resistive element of which consists of a wire or a wound tape. All the potentiometers specified by this specification are slider-driven without reduction. Their stroke less than 360° is limited by stops.

This document specifies preferred ratings and characteristics and selects from IEC 60393-1, appropriate quality assessment procedures, tests and measuring methods. It provides general performance requirements for this type of potentiometer.

This document gives the minimum performance requirements and test severities.

Annex A lists the letters and symbols used in the clauses of this document.

## 2 Normative reference

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60062:2016, *Marking codes for resistors and capacitors*
IEC 60062:2016/AMD1:2019

IEC 60063, *Preferred number series for resistors and capacitors*

IEC 60068-2-1, *Environmental testing – Part 2-1: Tests – Test A: Cold*

IEC 60068-2-2, *Environmental testing – Part 2-2: Tests – Test B: Dry heat*

IEC 60393-1:2008, *Potentiometers for use in electronic equipment – Part 1: Generic specification*

IEC 60915, *Capacitors and resistors for use in electronic equipment – Preferred dimensions of shaft ends, bushes and for the mounting of single-hole, bush-mounted, shaft-operated electronic components*

IEC 61439-1, *Low-voltage switchgear and control gear assemblies – General rules*

IEC 61193-2:2007, *Quality assessment systems – Part 2: Selection and use of sampling plans for inspection of electronic components and packages*