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**Potentiometers for use
in electronic equipment –**

**Part 6:
Sectional specification:
Surface mount preset potentiometers**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

POTENTIOMETERS FOR USE IN ELECTRONIC EQUIPMENT –**Part 6: Sectional specification:
Surface mount preset potentiometers**

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.
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- 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.
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- 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 60393-6 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

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

FDIS	Report on voting
40/1288/FDIS	40/1324/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.

This Sectional Specification is to be used in conjunction with IEC 60393-1:1989.

The committee has decided that the contents of this publication will remain unchanged until 2008. At this date, the publication will be

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- withdrawn;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

A bilingual version of this publication may be issued at a later date.

POTENTIOMETERS FOR USE IN ELECTRONIC EQUIPMENT –

Part 6: Sectional specification: Surface mount preset potentiometers

1 General

1.1 Scope

This International Standard is applicable to surface mount preset potentiometers for use in electronic equipment.

1.2 Object

The object of this standard is to prescribe preferred ratings and characteristics and to select the appropriate quality assessment procedures, tests and measuring methods from IEC 60393-1 and to give general performance requirements for this type of potentiometer.

Test severities and requirements prescribed in Detail Specifications referring to this Sectional Specification shall be of equal or higher performance level, lower performance levels are not permitted.

1.3 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 60063:1963, *Preferred number series for resistors and capacitors*

Amendment 1 (1967)

Amendment 2 (1977)

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

IEC 60068-2-20, *Environmental testing. Part 2: Tests. Test T: Soldering*

IEC 60068-2-21, *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*

IEC 60068-2-45, *Environmental testing. Part 2: Tests. Test XA and guidance: Immersion in cleaning solvents*

IEC 60068-2-58, *Environmental testing – Part 2-58: Tests – Test Td – Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)*

IEC 60393-1:1989, *Potentiometers for use in electronic equipment – Part 1: Generic Specification*

Amendment 1 (1992)

IEC 60410:1973, *Sampling plans and procedures for inspection by attributes*

IEC QC 001001:2000, *IEC Quality Assessment System for Electronic Components (IECQ) – Basic rules*

IEC QC 001002-3:1998, *IEC Quality Assessment System for Electronic Components (IECQ) – Rules of procedure – Part 3: Approval procedures*

1.4 Information to be given in a Detail Specification

Detail Specifications shall be derived from the relevant Blank Detail Specification.

Detail Specifications shall not specify requirements inferior to those of the generic, sectional or Blank Detail Specification.

When more severe requirements are included, they shall be listed in 1.8 of the Detail Specification and indicated in the test schedules, for example by an asterisk.

NOTE The information given in 1.4.1 and 1.4.3 may, for convenience, be presented in tabular form.

The following information shall be given in each Detail Specification and the values quoted shall preferably be selected from those given in the appropriate Clause of this Sectional Specification.

1.4.1 Outline drawing and dimensions

The Detail Specification shall incorporate an illustration of the surface mount preset potentiometer as aid to easy recognition and for comparison of the surface mount potentiometer with others.

Dimensions and their associated tolerances, which affect interchangeability and mounting, shall be given in the Detail Specification. All dimensions shall be stated in millimetres.

Normally the numerical values shall be given for the length, width and thickness of the body.

Where space is insufficient to show the detail dimensions required for inspection purposes, such dimensions shall appear on the drawing forming an annex to the Detail Specification.

Recommended land patterns shall be given in Detail Specification.

When the outline drawing is other than described above, the Detail Specification shall state such dimensional information as will adequately describe the surface mount potentiometer.

1.4.2 Mounting

The Detail Specification shall give guidance on methods of mounting for normal use.

Mounting for test and measurement purposes (when required) shall be in accordance with the following Subclauses¹, unless otherwise specified.

1.4.2.1 Surface mount potentiometers shall be mounted on a suitable substrate; the method of mounting will depend on the potentiometer construction. The Detail Specification shall indicate which material is to be used for electrical measurements.

The substrate shall have metallized land areas of proper spacing to permit mounting of surface mount potentiometers, and it shall provide electrical connection to the surface mount potentiometer terminals. The details shall be specified in the Detail Specification.

¹ The text of 1.4.2 and its Subclauses will be integrated in a future edition of IEC 60393-1.