IEC 60915

Edition 2.0 2006-11

INTERNATIONAL STANDARD

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

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

PRICE CODE P

ICS 31.040; 31.060

ISBN 2-8318-8916-2

CONTENTS

FOREWORD 3

1 Scope and object 5
2 Normative references 5
3 Preferred dimensions of shaft ends and bushes 5
3.1 Plain round shaft 6
3.2 Flatted shaft 7
3.3 Slotted shaft 8
3.4 Concentric shafts 9
4 Preferred dimensions for the mounting of single-hole, bush mounted shaft - operated electronic components 10
4.1 Single-hole bush mounting with antirotation lug (non-turn device) on mounting face 10
4.2 Single and double flatted bush mounting 13
4.3 Single-hole bush mounting with antirotation lug (non-turn device) on bush 14
4.4 Fixing (or mounting) nuts 15
4.5 Washers (flat, spring and internal tooth) 15

Figure 1 – Plain round shaft 6
Figure 2 – Flatted shaft 7
Figure 3 – Slotted shaft 8
Figure 4 – Concentric shaft 9
Figure 5 – Essential component dimensions 10
Figure 6 – Essential panel cut-out dimensions 11
Figure 7 – Essential component dimensions 13
Figure 8 – Essential panel cut-out dimensions 13
Figure 9 – Essential component dimensions 14
Figure 10 – Essential panel cut-out dimensions 14
Figure 11 – Fixing (or mounting) nuts 15

Table 1 – Preferred dimensions of plain round shaft 6
Table 2 – Preferred dimensions of flatted shaft 7
Table 3 – Preferred dimensions of slotted shaft 8
Table 4 – Preferred dimensions of concentric shafts 9
Table 5 – Preferred dimensions of bush, lug (non-turn device) and related place 12
Table 6 – Preferred dimensions of bush and mounting hole 13
Table 7 – Preferred dimensions of bush, lug (non-turn device) and mounting hole 14
Table 8 – Preferred dimensions of fixing (or mounting) nuts 15

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. 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 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 IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60915 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This second edition cancels and replaces the first edition published in 1987 and constitutes a minor revision, related to Tables, Figures and references.

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

CDV	Report on voting
40/1654/CDV	40/1783/RVC

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 the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. 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.

The contents of the corrigendum 2 of March 2008 have been included in this copy. It cancels and replaces the corrigendum 1 of May 2007.

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

1 Scope and object

This International Standard is applicable to variable capacitors, potentiometers and variable resistors for use in electronic equipment.

The dimensions given in this standard have been selected from IEC 60390 and IEC 60620 because the ranges of dimensions included in these standards were considered too large and contained too many variants for capacitors and resistors for electronic equipment. Consequently this standard contains preferred dimensions for shaft ends and bushes and for the mounting of single-hole, bush-mounted, shaft-operated variable capacitors, variable resistors and potentiometers. If other dimensions not listed in this standard have to be used, it is recommended to select them also from the above-mentioned standards.

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 60390, *Dimensions of spindle ends for manually operated electronic components*

IEC 60620, *Dimensions for the mounting of single-hole, bush-mounted, spindle-operated electronic components*