

CONSOLIDATED VERSION

VERSION CONSOLIDÉE



**Connectors for electronic equipment –
Part 7: Detail specification for 8-way, unshielded, free and fixed connectors**

**Connecteurs pour équipements électroniques –
Partie 7: Spécification particulière pour les fiches et les embases non écrantées
à 8 voies**



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CONTENTS

1	General	8
1.1	Scope.....	8
1.2	Normative references	8
2	Terms and definitions	10
3	Common features and typical connector pair	12
3.1	View showing typical fixed and free connectors	12
3.2	Mating information.....	12
3.2.1	General	12
3.2.2	Contacts – mating conditions	13
3.2.3	Fixed connector.....	15
3.2.4	Free connector	18
4	Cable terminations and internal connections – Fixed and free connectors	20
4.1	General.....	20
4.2	Termination types.....	20
4.2.1	Solder terminations (under consideration)	20
4.2.2	Solderless terminations	20
5	Gauges	21
5.1	Fixed connectors	21
5.2	Free connectors	24
6	Characteristics	26
6.1	General.....	26
6.2	Pin and pair grouping assignment	26
6.3	Classification into climatic category.....	26
6.4	Electrical characteristics.....	27
6.4.1	Creepage and clearance distances	27
6.4.2	Voltage proof.....	27
6.4.3	Current-temperature derating	27
6.4.4	Initial contact resistance – interface only (separable fixed and free contact)	28
6.4.5	Input to output d.c. resistance	28
6.4.6	Input-to-output d.c. resistance unbalance	28
6.4.7	Initial insulation resistance	29
6.4.8	Transfer impedance.....	29
6.5	Transmission characteristics	29
6.6	Mechanical characteristics	29
6.6.1	Mechanical operation	29
6.6.2	Effectiveness of connector coupling devices	29
6.6.3	Insertion and withdrawal forces	29
7	Tests and test schedule.....	29
7.1	General.....	29
7.2	Arrangement for contact resistance test	30
7.3	Arrangement for vibration test (test phase CP1)	31
7.4	Test procedures and measuring methods	31
7.5	Preconditioning	32
7.6	Wiring and mounting of specimens	32
7.6.1	Wiring.....	32

7.6.2 Mounting	32
7.7 Test schedules	32
7.7.1 Basic (minimum) test schedule	32
7.7.2 Full test schedule	32
Annex A (normative) Gauging continuity procedure.....	41
Annex B (normative) Locking-device mechanical operation.....	45
Annex C (normative) Gauge requirements	46
Annex D (normative) Keystone connector information	47
Annex E (normative) Levels of compatibility.....	49
Figure 1 – View showing typical fixed and free connectors.....	12
Figure 2 – Contact interface dimensions with terminated free connector	13
Figure 3 – Fixed connector details	16
Figure 4 – Free connector view.....	18
Figure 5 – “Go” gauge.....	21
Figure 6 – “No-go” gauges	23
Figure 7 – “No-go” gauges	24
Figure 8 – “Go” gauge.....	25
Figure 9 – Fixed connector pin and pair grouping assignment (front view of connector)	26
Figure 10 – Connector de-rating curve	28
Figure 11 – Arrangement for contact resistance test	30
Figure 12 – Arrangement for vibration test	31
Figure A.1 – Gauge.....	43
Figure A.2 – Gauge insertion	44
Figure D.1 – Keystone connector.....	47
Figure D.2 – Panel drawing.....	48
Table 1 – Dimensions for Figure 2	14
Table 2 – Dimensions for Figure 3	17
Table 3 – Dimensions for Figure 4	19
Table 4 – Dimensions for Figures 5 and 6.....	23
Table 5 – Dimensions for Figure 7	24
Table 6 – Dimensions for Figure 8	25
Table 7 – Climatic categories – selected values.....	26
Table 8 – Creepage and clearance distances.....	27
Table 9 – Test group P	33
Table 10 – Test group AP	34
Table 11 – Test group BP	36
Table 12 – Test group CP	37
Table 13 – Test group DP	38
Table 14 – Test group EP	39
Table 15 – Test group FP.....	40
Table A.1 – Dimensions for Figure A.1	42
Table D.1 – Dimensions for Figure D.1	47

Table D.2 – Dimensions.....	48
Table E.1 – Levels of compatibility ^{b)} ^{c)} and required parameters ^{b)}	50

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

CONNECTORS FOR ELECTRONIC EQUIPMENT –

Part 7: Detail specification for 8-way, unshielded, free and fixed connectors

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This Consolidated version is not an official IEC Standard and has been prepared for user convenience. Only the current versions of the standard and its amendment(s) are to be considered the official documents.

This Consolidated version of IEC 60603-7 bears the edition number 3.2. It consists of the first edition (2008-07) [documents 48B/1883A/FDIS and 48B/1917/RVD], its amendment 1 (2011-09) [documents 48B/2145/CDV and 48B/2205/RVC] and its amendment 2 (2019-01) [documents 48B/2679/FDIS and 48B/2689/RVD]. The technical content is identical to the base edition and its amendments.

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendments 1 and 2. Additions are in green text, deletions are in

strikethrough red text. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 60603-7 has been prepared by subcommittee 48B: Connectors, of IEC technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

This third edition cancels and replaces the second edition published in 1996 and constitutes a technical revision. This edition includes the following significant technical change with respect to the previous edition:

- Drawings and test schedules were updated based on the work done developing IEC 60603-7-4.
- A corrected figure (Figure 10) illustrating a connector de-rating curve has been prepared and inserted in the text.
- Annex D contains the dimensions that define the panel mounting features on the connector and panel that were referenced as the Type A, variant 03 connector in the previous edition.

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

A list of all parts of IEC 60603-7 series, under the general title: *Connectors for electronic equipment*, can be found on the IEC website.

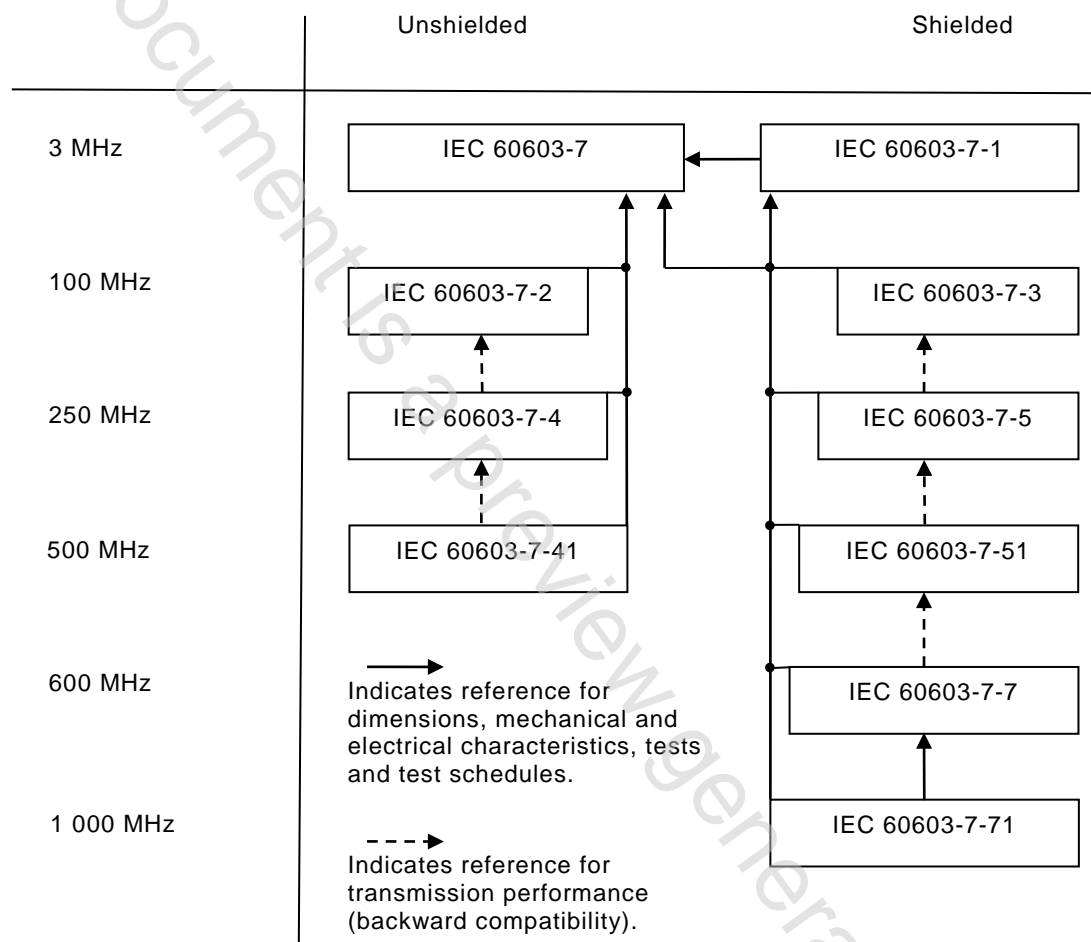
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INTRODUCTION

IEC 60603-7 is the base specification of the whole series. Subsequent specifications do not duplicate information given in the base document, but list only additional requirements. For complete specification regarding a component of a higher number document all lower numbered documents must be considered as well. The following diagram shows the interrelation of the documents:



It should be noted that during the preparation of the third edition of IEC 60603-7, the subcommittee 48B Cat 6&7 project team members determined the current de-rating curve in the standard was not correct. Several experts researched the current rating-temperature rise measurements for 60603-7 style connectors and verified that the de-rating curve in the published standard has been incorrect for many years. A corrected figure (Figure 10) has been prepared and inserted in this edition.

CONNECTORS FOR ELECTRONIC EQUIPMENT –

Part 7: Detail specification for 8-way, unshielded, free and fixed connectors

1 General

1.1 Scope

This part of IEC 60603-7 covers 8-way unshielded free and fixed connectors, it is intended to specify the common dimensions, mechanical, electrical and environmental characteristics and tests for the family of IEC 60603-7-x connectors.

These connectors are intermateable (according to IEC 61076-1 level 2) and interoperable with other IEC 60603-7 series connectors.

Annex E (normative) is added to provide details regarding the levels of compatibility to be declared by the manufacturer as appropriate.

1.2 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 60050-581, *International Electrotechnical Vocabulary (IEV) – Chapter 581: Electromechanical components for electronic equipment*

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

IEC 60068-2-14, *Basic environmental testing procedures – Part 2-14: Tests – Test N: Change of temperature*

IEC 60068-2-38, *Basic environmental testing procedures – Part 2-38: Tests – Test Z/AD: Composite temperature/ humidity cyclic test*

IEC 60352-2, *Solderless connections – Part 2: Crimped connections – General requirements, test methods and practical guidance*

IEC 60352-3, *Solderless connections – Part 3: Solderless accessible insulation displacement connections – General requirements, test methods and practical guidance*

IEC 60352-4, *Solderless connections – Part 4: Solderless non-accessible insulation displacement connections – General requirements, test methods and practical guidance*

IEC 60352-5, *Solderless connections – Part 5: Press-in connections – General requirements, test methods and practical guidance*

IEC 60352-6, *Solderless connections – Part 6: Insulation piercing connections – General requirements, test methods and practical guidance*

IEC 60352-7, *Solderless connections – Part 7: Spring clamp connections – General requirements, test methods and practical guidance*

IEC 60512 (all parts), *Connectors for electronic equipment – Tests and measurements*

IEC 60512-1-100, *Connectors for electronic equipment – Tests and measurements – Part 1-100: General – Applicable publications*

IEC 60603-7 (all parts), *Connectors for electronic equipment*

IEC 60664-1, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 61076-1:2006, *Connectors for electronic equipment – Product Requirements – Part 1: Generic specification*

IEC 61076-3:2008, *Connectors for electrical and electronic equipment – Product requirements – Part 3: Rectangular connectors – Sectional specification*

IEC 61156 (all parts), *Multicore and symmetrical pair/quad cables for digital communications*

IEC 61156-1, *Multicore and symmetrical pair/quad cables for digital communications – Part 1: Generic specification*

IEC 61156-2, *Multicore and symmetrical pair/quad cables for digital communications – Part 2: Horizontal floor wiring – Sectional specification*

IEC 61156-3, *Multicore and symmetrical pair/quad cables for digital communications – Part 3: Work area wiring – Sectional specification*

IEC 61156-4, *Multicore and symmetrical pair/quad cables for digital communications – Part 4: Riser cables – Sectional specification*

IEC 61156-5, *Multicore and symmetrical pair/quad cables for digital communications – Part 5: Symmetrical pair/quad cables with transmission characteristics up to 600 MHz – Horizontal floor wiring – Sectional specification*

IEC 61156-6, *Multicore and symmetrical pair/quad cables for digital communications – Part 6: Symmetrical pair/quad cables with transmission characteristics up to 1 000 MHz – Work area wiring – Sectional specification*

IEC 61156-7, *Multicore and symmetrical pair/quad cables for digital communications – Part 7: Symmetrical pair cables with transmission characteristics up to 1 200 MHz – Sectional specification for digital and analog communication cables*

ISO/IEC 11801, *Information technology – Generic cabling for customer premises*

ISO 1302, *Geometrical Product Specifications (GPS) – Indication of surface texture in technical product documentation*

ITU-T Recommendation K.20:2000 ¹, *Resistibility of telecommunication equipment installed in a telecommunications centre to overvoltages and overcurrents*

ITU-T Recommendation K.44:2000 ², *Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents – Basic Recommendation*

¹ This document has been replaced by a new edition (2003), but for the purposes of this standard, the 2000 edition is cited.