

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Connectors for electrical and electronic equipment – Product requirements – Part 2-114: Circular connectors – Detail specification for connectors with M8 screw-locking with power contacts and signal contacts for data transmission up to 100 MHz

Connecteurs pour équipements électriques et électroniques – Exigences de produit – Partie 2-114: Connecteurs circulaires – Spécification particulière pour les connecteurs avec verrouillage M8 avec contacts de puissance et contact de signaux pour transmission de données jusqu'à 100 MHz



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IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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CONTENTS

FOREWORD.....	6
INTRODUCTION.....	8
1 Scope.....	9
2 Normative references	9
3 Terms and definitions	11
4 Technical information	12
4.1 Systems of levels.....	12
4.1.1 Performance levels	12
4.1.2 Compatibility levels, according to IEC 61076-1	12
4.2 Codings	12
4.3 Classification into climatic categories.....	12
4.4 Creepage and clearance distances	12
4.5 Current-carrying capacity.....	12
4.6 Marking.....	12
4.7 Characteristics.....	12
5 Dimensional information	12
5.1 General.....	12
5.2 Isometric view and common features	13
5.2.1 General	13
5.2.2 Common features	13
5.2.3 Reference system.....	13
5.3 Engagement (mating) information	13
5.3.1 Engaging (mating) direction.....	13
5.3.2 Contact levels and sequencing.....	14
5.3.3 Perpendicular to the engaging (mating) direction	14
5.3.4 Inclination.....	14
5.4 Fixed connectors	14
5.4.1 Dimensions.....	14
5.4.2 Termination	15
5.5 Free connectors – Dimensions.....	16
5.5.1 General.....	16
5.5.2 Style M.....	17
5.5.3 Style KM.....	17
5.5.4 Style LM.....	18
5.5.5 Style MM.....	18
5.5.6 Style JF.....	18
5.5.7 Style KF.....	19
5.5.8 Style LF.....	19
5.5.9 Style MF.....	20
5.5.10 Interface dimensions – Fixed connectors with D-coding	20
5.5.11 Interface dimensions – Fixed connectors with P-coding	21
5.5.12 Interface dimensions – Free connector with D-coding	22
5.5.13 Interface dimensions – Free connector with P-coding	23
5.6 Accessories	25
5.7 Mounting information for connectors – Mounting on panels	25
5.8 Gauges.....	25

5.8.1	Sizing gauges and retention force gauges	25
5.8.2	Mechanical function, engaging/separating/insertion/withdrawal force gauges	26
5.8.3	Probes	26
5.8.4	Contact resistance gauge	26
5.8.5	Test panel (for voltage proof test)	26
5.8.6	Test panel (for EMC/ crosstalk, etc.)	26
6	Characteristics	26
6.1	General	26
6.2	Pin assignment and other definitions	27
6.3	Classification into climatic categories	27
6.4	Electrical characteristics	27
6.4.1	Creepage and clearance distances	27
6.4.2	Voltage proof	27
6.4.3	Current-carrying capacity (Table 11)	28
6.4.4	Contact and shield resistance	28
6.4.5	Insulation resistance	28
6.4.6	Impedance	28
6.5	Mechanical characteristics	28
6.5.1	Mechanical operation	28
6.5.2	Effectiveness of connector coupling device	29
6.5.3	Engaging and separating forces (or insertion and withdrawal forces)	29
6.5.4	Contact retention in insert	29
6.5.5	Polarization and coding method	29
6.6	Other characteristics	30
6.6.1	Shock and vibration (method either random or sine)	30
6.6.2	Degree of protection provided by enclosures (IP code)	32
6.6.3	Screen and shielding properties	32
6.7	Environmental aspects	32
6.7.1	Marking of insulation material (plastics)	32
6.7.2	Design/ use of material	32
7	Test schedule	32
7.1	General	32
7.1.1	Overview	32
7.1.2	Climatic category	33
7.1.3	Creepage and clearance distances	33
7.1.4	Arrangement for contact resistance measurement	33
7.1.5	Arrangement for dynamic stress tests	34
7.1.6	Wiring of specimens	34
7.2	Test schedules	34
7.2.1	General	34
7.2.2	Basic (minimum) test schedule	34
7.2.3	Full test schedule	34
7.3	Test procedures and measuring methods	43
7.4	Pre-conditioning	43
7.5	Wiring and mounting of specimens	43
7.5.1	Wiring	43
7.5.2	Mounting	43
Annex A (normative) Contact and pair designation for balanced cabling with D-coding		44

Annex B (normative) Contact and pair designation for balanced cabling with P-coding.....	45
Figure 1 – Engagement (mating) information.....	13
Figure 2 – Fixed connector with wire ends, male contacts, single hole mounting.....	15
Figure 3 – Fixed connector with wire ends, female contacts, single hole mounting.....	15
Figure 4 – Cable outlet orientation of male and female angled versions KM, MM, KF, MF.....	16
Figure 5 – Rewireable connector, male contacts, straight version, with locking nut.....	17
Figure 6 – Rewireable connector, male contacts, angled version, with locking nut.....	17
Figure 7 – Non-rewireable connector, male contacts, straight version, with locking nut.....	18
Figure 8 – Non-rewireable connector, male contacts, angled version, with locking nut.....	18
Figure 9 – Rewireable connector, female contacts, straight version, with locking nut.....	18
Figure 10 – Rewireable connector, female contacts, angled version, with locking nut.....	19
Figure 11 – Non-rewireable connector, female contacts, straight version, with locking nut.....	19
Figure 12 – Non-rewireable connector, female contacts, angled version, with locking nut.....	20
Figure 13 – Fixed connector with D-coding.....	20
Figure 14 – Fixed connector with P-coding.....	21
Figure 15 – Free connector with D-coding.....	22
Figure 16 – Free connector with P-coding.....	24
Figure 17 – Gauge dimensions.....	26
Figure 18 – Dynamic stress test arrangement.....	31
Figure 19 – Contact resistance arrangement.....	34
Figure A.1 – Mating side contact arrangement for balanced cabling with D-coding.....	44
Figure B.1 – Mating side contact arrangement for balanced cabling with P-coding.....	45
Table 1 – Connectors dimensions in raised and locked position.....	14
Table 2 – Styles of fixed connector.....	14
Table 3 – Styles of free connector.....	16
Table 4 – Dimensions of fixed connector with D-coding.....	21
Table 5 – Dimensions of fixed connector with P-coding.....	22
Table 6 – Dimensions of free connector with D-coding.....	23
Table 7 – Dimensions of free connector with P-coding.....	25
Table 8 – Gauges.....	26
Table 9 – Ratings of connectors.....	27
Table 10 – Climatic category.....	27
Table 11 – Current-carrying capacity.....	28
Table 12 – Number of cycles of mechanical operations.....	29
Table 13 – Insertion and withdrawal forces.....	29
Table 14 – Insertion force.....	29
Table 15 – Rated voltage – Rated impulse voltage – Pollution degree.....	33
Table 16 – Voltage proof.....	33
Table 17 – Number of test specimens and contacts.....	34
Table 18 – Test group P.....	35
Table 19 – Test group AP.....	36

Table 20 – Test group BP 38

Table 21 – Test group CP 39

Table 22 – Test group DP 40

Table 23 – Test group GP 40

Table 24 – Test group MP 42

Table A.1 – Contact and pair designation for balanced cabling with D-coding 44

Table A.2 – Recommended applications for D-coded connectors 44

Table B.1 – Contact and pair designation for balanced cabling with P-coding 45

Table B.2 – Recommended applications for P-coded connectors 45

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**CONNECTORS FOR ELECTRICAL AND ELECTRONIC EQUIPMENT –
PRODUCT REQUIREMENTS –**

**Part 2-114: Circular connectors – Detail specification
for connectors with M8 screw-locking with power contacts and
signal contacts for data transmission up to 100 MHz**

FOREWORD

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International Standard IEC 61076-2-114 has been prepared by subcommittee 48B: Electrical connectors, of IEC technical committee 48: Electrical connectors and mechanical structures for electrical and electronic equipment

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

FDIS	Report on voting
48B/2814/FDIS	48B/2830/RVD

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

This first edition cancels and replaces IEC PAS 61076-2-114, published in 2016.

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

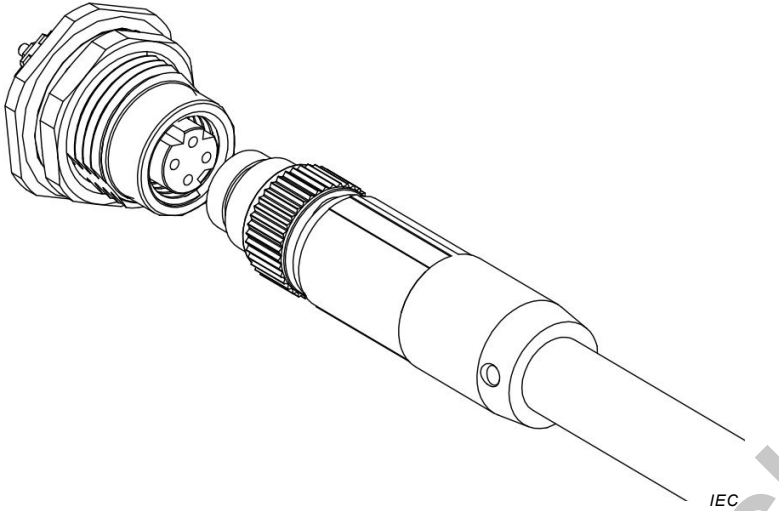
A list of all parts of IEC 61076 series, under the general title *Connectors for electrical and electronic equipment – Product requirements*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

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

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

INTRODUCTION

<p>IEC SC 48B – Electrical connectors Specification available from: IEC General secretariat or from the addresses shown on the inside cover.</p>	<p>IEC 61076-2-114 Ed. 1</p>
<p>DETAIL SPECIFICATION in accordance with IEC 61076-1</p>	
	<p>Circular connectors for data and power applications with M8 screw-locking and 4 ways</p> <p>Male and female connectors</p> <p>Male and female contacts</p> <p>Rewireable – Non-rewireable</p> <p>Free cable connectors</p> <p>Straight and angled connectors</p> <p>Fixed connectors</p> <p>Flange mounting</p> <p>Single or mounting</p>

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CONNECTORS FOR ELECTRICAL AND ELECTRONIC EQUIPMENT – PRODUCT REQUIREMENTS –

Part 2-114: Circular connectors – Detail specification for connectors with M8 screw-locking with power contacts and signal contacts for data transmission up to 100 MHz

1 Scope

This part of IEC 61076 describes circular connectors with M8 screw locking typically used for data and power transmissions in industrial applications. These connectors consist of fixed and free connectors that are either rewirable or non-rewirable. Data transmission performance is for Category 5 up to 100 MHz.

Two coded versions, identified as D-coded and P-coded, are provided that differ by their pin size and optionally by number of poles, hence by the function provided for field applications.

Male connectors have round contacts \varnothing 0,8 mm for D-coded, and \varnothing 1 mm for P-coded connectors.

The coding provided by this document prevents the mating of accordingly coded male or female connectors to any other similarly sized interfaces covered by other standards.

NOTE M8 is the dimension of the thread of the screw-locking mechanism of these circular connectors.

2 Normative references

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

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

IEC 60068-2-60, *Environmental testing – Part 2: Tests – Test Ke: Flowing mixed gas corrosion test*

IEC 60352 (all parts), *Solderless connections*

IEC 60512-2-1, *Connectors for electronic equipment – Tests and measurements – Part 2-1: Electrical continuity and contact resistance tests – Test 2a: Contact resistance – Millivolt level method*

IEC 60512-3-1, *Connectors for electronic equipment – Tests and measurements – Part 3-1: Insulation tests – Test 3a: Insulation resistance*

IEC 60512-4-1, *Connectors for electronic equipment – Tests and measurements – Part 4-1: Voltage stress tests – Test 4a: Voltage proof*