

<b>STN</b>	<b>Konektory pre elektronické zariadenia Požiadavky na výrobok Časť 2-113: Kruhové konektory Podrobná špecifikácia na konektory so závitovým zaistením M12 s výkonovými a signálnymi kontaktmi na prenos dát s frekvenciou do 100 MHz</b>	<b>STN EN 61076-2-113</b>  35 4621
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Connectors for electronic equipment - Product requirements - Part 2-113: Circular connectors - Detail specification for connectors with M12 screw locking with power and signal contacts for data transmission with frequency up to 100 MHz

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/17

Obsahuje: EN 61076-2-113:2017, IEC 61076-2-113:2017

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Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2017  
Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnožovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.

EUROPEAN STANDARD

**EN 61076-2-113**

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2017

ICS 31.220.10

English Version

**Connectors for electronic equipment - Product requirements -  
Part 2-113: Circular connectors - Detail specification for  
connectors with M12 screw locking with power and signal  
contacts for data transmission with frequency up to 100 MHz  
(IEC 61076-2-113:2017)**

Connecteurs pour équipements électroniques - Exigences de produit - Partie 2-113: Connecteurs circulaires - Spécification particulière relative aux connecteurs à contacts de puissance et de signalisation, avec verrouillage à vis M12 pour les transmissions de données à des fréquences allant jusqu'à 100 MHz  
(IEC 61076-2-113:2017)

Steckverbinder für elektronische Einrichtungen - Produktanforderungen - Teil 2-113: Rundsteckverbinder - Bauartspezifikation für Steckverbinder mit Daten- und Leistungskontakten mit Schraubverriegelung M12 für Frequenzen bis 100 MHz  
(IEC 61076-2-113:2017)

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**EN 61076-2-113:2017****European foreword**

The text of document 48B/2539/FDIS, future edition 1 of IEC 61076-2-113, prepared by SC 48B "Electrical connectors" of IEC/TC 48 "Electrical connectors and mechanical structures for electrical and electronic equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61076-2-113:2017.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2017-12-28
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2020-03-28

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-581	-	International Electrotechnical Vocabulary (IEV) - Part 581: Electromechanical components for electronic equipment	-	-
IEC 60068-1	-	Environmental testing - Part 1: General and guidance	EN 60068-1	-
IEC 60068-2-60	-	Environmental testing - Part 2-60: Tests - Test Ke: Flowing mixed gas corrosion test	EN 60068-2-60	-
IEC 60352	Series	Solderless connections	EN 60352	Series
IEC 60512	Series	Connectors for electronic equipment - Tests and measurements	EN 60512	Series
IEC 60512-1-2	-	Connectors for electronic equipment - Tests and measurements - Part 1-2: General examination - Test 1b: Examination of dimension and mass	EN 60512-1-2	-
IEC 60512-1-100	-	Connectors for electronic equipment - Tests and measurements - Part 1-100: General - Applicable publications	EN 60512-1-100	-
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	EN 60529	-
IEC 60664-1	-	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1	-
IEC 60998-2-1	-	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units	EN 60998-2-1	-
IEC 60999	Series	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units	EN 60999	Series

**EN 61076-2-113:2017**

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61076-1	2006	Connectors for electronic equipment - Product requirements - Part 1: Generic specification	EN 61076-1	2006
IEC 61984	-	Connectors - Safety requirements and tests	EN 61984	-
IEC 62197-1	-	Connectors for electronic equipment - Quality assessment requirements - Part 1: Generic specification	EN 62197-1	-
ISO 1302	-	Geometrical Product Specifications (GPS) - Indication of surface texture in technical product documentation	EN ISO 1302	-



# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

**Connectors for electronic equipment – Product requirements –  
Part 2-113: Circular connectors – Detail specification for connectors with M12  
screw locking with power and signal contacts for data transmission with  
frequency up to 100 MHz**

**Connecteurs pour équipements électroniques – Exigences de produit –  
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connecteurs à contacts de puissance et de signalisation, avec verrouillage à vis  
M12 pour les transmissions de données à des fréquences allant 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  
 Fax: +41 22 919 03 00  
[info@iec.ch](mailto:info@iec.ch)  
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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

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M12 pour les transmissions de données à des fréquences allant jusqu'à 100 MHz**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**CONNECTORS FOR ELECTRONIC EQUIPMENT –  
PRODUCT REQUIREMENTS –**
**Part 2-113: Circular connectors – Detail specification for connectors  
with M12 screw locking with power and signal contacts for data  
transmission with frequency up to 100 MHz**

## FOREWORD

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International Standard IEC 61076-2-113 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 standard is based on the following documents:

FDIS	Report on voting
48B/2539/FDIS	48B/2547/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 document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61076 series, under the general title *Connectors for electronic equipment – Product requirements*, 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 "<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

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning connectors given in this specification.

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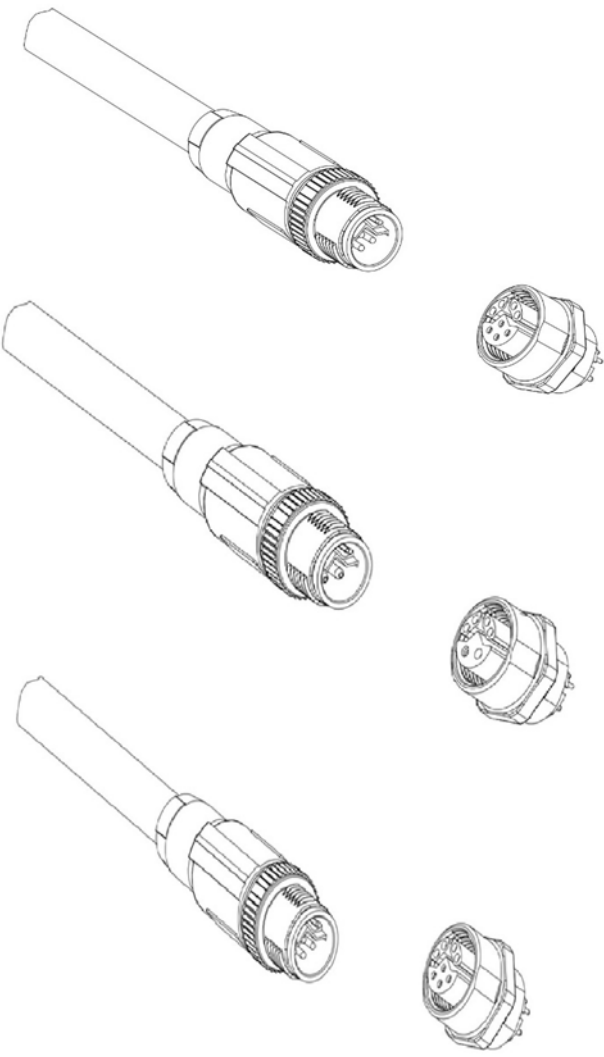
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<p>IEC SC 48B – Electrical connectors</p> <p>Specification available from: IEC General secretariat</p> <p>Or from the addresses shown on the inside cover.</p>	IEC 61076-2-113Ed1
<p>ELECTRONIC COMPONENTS</p> <p>DETAIL SPECIFICATION in accordance with IEC 61076-1</p>	
 <p style="text-align: center;"><i>EC</i></p>	<p>Circular connectors</p> <p>M12 6 and 8 way</p> <p>Male and female connectors</p> <p>Rewireable – Non-rewireable</p> <hr/> <p>Free cable connectors</p> <p>Straight and right angle connectors</p> <p>Fixed connectors</p> <p>Single hole mounting</p>

## CONNECTORS FOR ELECTRONIC EQUIPMENT – PRODUCT REQUIREMENTS –

### Part 2-113: Circular connectors – Detail specification for connectors with M12 screw locking with power and signal contacts for data transmission with frequency up to 100 MHz

#### 1 Scope

This part of IEC 61076 describes M12 circular connectors with two data pairs and power contacts with current ratings up to 12 A, that are typically used for data and power applications in industrial premises. These connectors consist of both fixed and free connectors either rewirable or non rewirable, with screw-locking. Male connectors have round contacts diameters of 1,50 mm, 1,00 mm and 0,60 mm.

The different codings provided by this document prevent the mating of accordingly coded male or female connectors to any other similarly sized interfaces covered by other standards and the cross-mating between the different codings provided by this document.

NOTE M12 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 – 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 connectors*

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

IEC 60512-1-2, *Connectors for electronic equipment – Tests and measurements – Part 1-2: General examination – Test 1b: Examination of dimension and mass*

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

IEC 60529, *Degrees of protection provided by enclosure (IP code)*

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



IEC 60998-2-1, *Connecting devices for low-voltage circuits for household and similar purposes – Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units*

IEC 60999 (all parts), *Connecting devices – Electrical copper conductors – Safety requirements for screw-type and screwless-type clamping units*

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

IEC 61984, *Connectors – Safety requirements and tests*

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