

# 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 –  
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**



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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**

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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

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## INTRODUCTION

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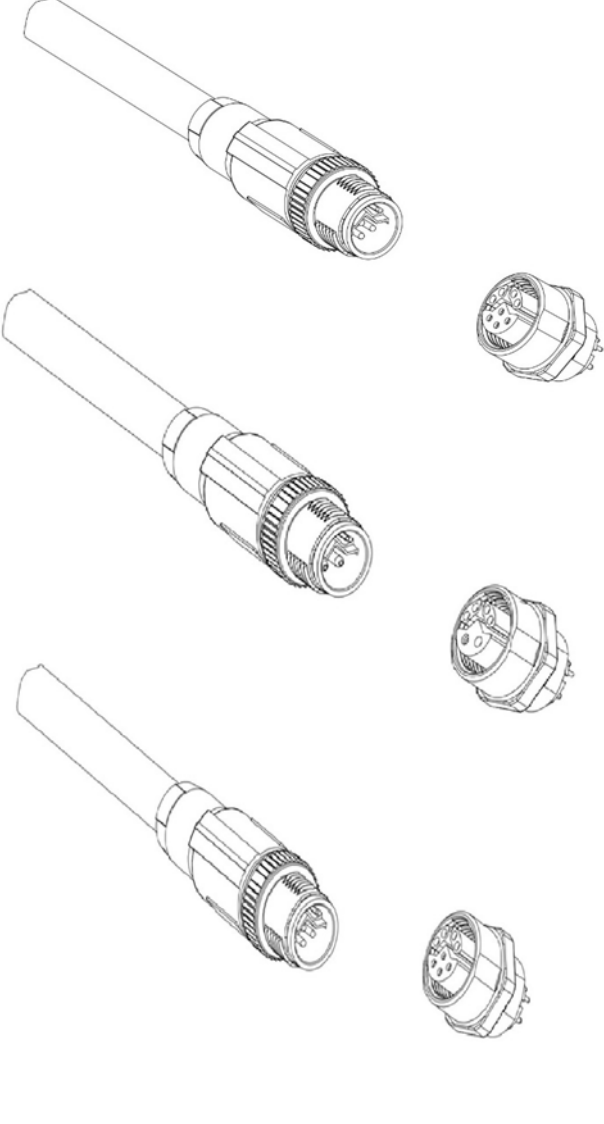
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<p>IEC SC 48B – Electrical connectors Specification available from: IEC General secretariat Or from the addresses shown on the inside cover.</p>	<p>IEC 61076-2-113Ed1</p>
<p>ELECTRONIC COMPONENTS DETAIL SPECIFICATION in accordance with IEC 61076-1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