

Connectors for electrical and electronic equipment -  
Product requirements - Part 2-010: Circular connectors  
- Detail specification for connectors with outer or inner  
push-pull locking mechanism, based on mating  
interfaces according to IEC 61076-2-101, IEC  
61076-2-109, IEC 61076-2-111 and IEC 61076-2-113

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 61076-2-010:2021 sisaldab Euroopa standardi EN IEC 61076-2-010:2021 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 61076-2-010:2021 consists of the English text of the European standard EN IEC 61076-2-010:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 30.07.2021.	Date of Availability of the European standard is 30.07.2021.
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English Version

**Connectors for electrical and electronic equipment - Product requirements - Part 2-010: Circular connectors - Detail specification for connectors with outer or inner push-pull locking mechanism, based on mating interfaces according to IEC 61076-2-101, IEC 61076-2-109, IEC 61076-2-111 and IEC 61076-2-113 (IEC 61076-2-010:2021)**

Connecteurs pour équipements électriques et électroniques  
- Exigences de produit - Partie 2-010: Connecteurs  
circulaires - Spécification particulière relative aux  
connecteurs avec mécanisme de verrouillage de type  
pousser-tirer externe ou interne, basés sur des interfaces  
d'accouplement conformes à l'IEC 61076-2-101, l'IEC  
61076-2-109, l'IEC 61076-2-111 et l'IEC 61076-2-113  
(IEC 61076-2-010:2021)

Steckverbinder für elektrische und elektronische  
Einrichtungen - Produktanforderungen - Teil 2-010:  
Rundsteckverbinder- Bauartspezifikation für Push-pull-  
Steckverbinder mit äußerem Verriegelungsmechanismus,  
basierend auf Kontaktschnittstellen nach IEC 61076-2-101,  
IEC 61076-2-109, IEC 61076-2-111 und IEC 61076-2-113  
(IEC 61076-2-010:2021)

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## European foreword

The text of document 48B/2876/FDIS, future edition 1 of IEC 61076-2-010, 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 IEC 61076-2-010:2021.

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## Annex ZA (normative)

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

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.

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

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-581	2008	International Electrotechnical Vocabulary -- Part 581: Electromechanical components for electronic equipment		-
IEC 60068-1	-	Environmental testing - Part 1: General and guidance	EN 60068-1	-
IEC 60512-1	-	Connectors for electrical and electronic equipment - Tests and measurements - Part 1: Generic specification	EN IEC 60512-1	-
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	EN 60512-2-1	-
IEC 60512-3-1	-	Connectors for electronic equipment - Tests and measurements - Part 3-1: Insulation tests - Test 3a: Insulation resistance	EN 60512-3-1	-
IEC 60512-4-1	-	Connectors for electronic equipment - Tests and measurements - Part 4-1: Voltage stress tests - Test 4a: Voltage proof	EN 60512-4-1	-
IEC 60512-5-1	-	Connectors for electronic equipment - Tests and measurements - Part 5-1: Current-carrying capacity tests - Test 5a: Temperature rise	EN 60512-5-1	-
IEC 60512-6-3	-	Connectors for electronic equipment - Tests and measurements - Part 6-3: Dynamic stress tests - Test 6c: Shock	EN 60512-6-3	-
IEC 60512-6-4	-	Connectors for electronic equipment - Tests and measurements - Part 6-4: Dynamic stress tests - Test 6d: Vibration (sinusoidal)	EN 60512-6-4	-

IEC 60512-9-1	-	Connectors for electronic equipment -EN 60512-9-1 Tests and measurements - Part 9-1: Endurance tests - Test 9a: Mechanical operation	-
IEC 60512-13-1	-	Connectors for electronic equipment -EN 60512-13-1 Tests and measurements - Part 13-1: Mechanical operation tests - Test 13a: Engaging and separating forces	-
IEC 60512-13-2	-	Connectors for electronic equipment -EN 60512-13-2 Tests and measurements - Part 13-2: Mechanical operation tests - Test 13b: Insertion and withdrawal forces	-
IEC 60512-13-5	-	Connectors for electronic equipment -EN 60512-13-5 Tests and measurements - Part 13-5: Mechanical operation tests - Test 13e: Polarizing and keying method	-
IEC 60512-15-6	-	Connectors for electronic equipment -EN 60512-15-6 Tests and measurements - Part 15-6: Connector tests (mechanical) - Test 15f: Effectiveness of connector coupling devices	-
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	1991
-	-	+ corrigendum May 1993	
+ A1	1999	+ A1	2000
+ A2	2013	+ A2	2013
IEC 60664-1	-	Insulation coordination for equipment within low-voltage supply systems - Part 1: Principles, requirements and tests	-
IEC 60998-2-1 (mod)	2002	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	2004
IEC 61076-1	2006	Connectors for electronic equipment -EN 61076-1 Product requirements - Part 1: Generic specification	2006
+ A1	2019	+ A1	2019
IEC 61076-2-012	-	Connectors for electrical and electronic equipment - Product Requirements - Part 2-012: Circular connectors - Detail specification for connectors with inner push-pull locking based on M12 connector interfaces according to IEC 61076-2-101, IEC 61076-2-109, IEC 61076-2-111 and IEC 61076-2-113	-
IEC 61076-2-101	2012	Connectors for electronic equipment -EN 61076-2-101 Product requirements - Part 2-101: Circular connectors - Detail specification for M12 connectors with screw-locking	2012

IEC 61076-2-109	2014	Connectors for electronic equipment -EN 61076-2-109	2014
		Product requirements - Part 2-109: Circular connectors - Detail specification for connectors with M 12 × 1 screw- locking, for data transmission frequencies up to 500 MHz	
IEC 61076-2-111	2017	Connectors for electrical and electronicEN IEC 61076-2-	2018
		equipment - Product requirements - Part111 2-111: Circular connectors - Detail specification for power connectors with M12 screw-locking	
IEC 61076-2-113	2017	Connectors for electronic equipment -EN 61076-2-113	2017
		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 61984	-	Connectors - Safety requirements andEN 61984	-
		tests	

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Connecteurs pour équipements électriques et électroniques – Exigences de  
produit –**

**Partie 2-010: Connecteurs circulaires – Spécification particulière relative aux  
connecteurs avec mécanisme de verrouillage de type pousser-tirer externe ou  
interne, basés sur des interfaces d'accouplement conformes à l'IEC 61076-2-101,  
l'IEC 61076-2-109, l'IEC 61076-2-111 et l'IEC 61076-2-113**



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## NORME INTERNATIONALE

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# INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

### **Part 2-010: Circular connectors – Detail specification for connectors with outer or inner push-pull locking mechanism, based on mating interfaces according to IEC 61076-2-101, IEC 61076-2-109, IEC 61076-2-111 and IEC 61076-2-113**

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International Standard IEC 61076-2-010 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/2876/FDIS	48B/2887/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

A list of all parts in the IEC 61076 series, published under the general title *Connectors for electrical and 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 [webstore.iec.ch](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 International Standard may involve the use of patent(s) concerning the free connectors

The IEC takes no position concerning the evidence, validity and scope of these patent rights.

The holder of this patent right has assured the IEC that he/she is willing to give free licences with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with the IEC.

Information may be obtained from:

Molex LLC  
2222 Wellington Court  
Lisle, IL60532  
USA

HARTING Electronics GmbH  
Marienwerderstraße 3  
32339 Espelkamp  
Germany

Table 1 – Content of document

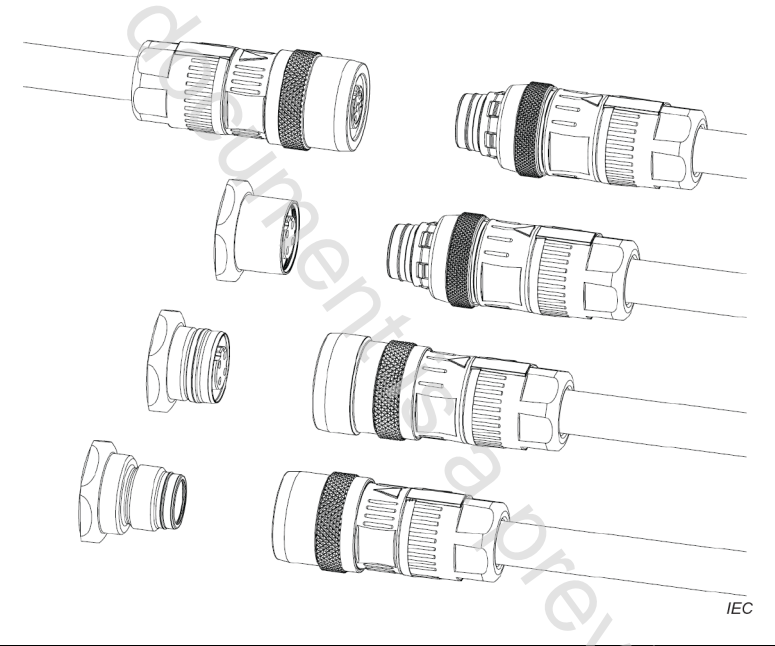
<p>IEC SC 48B – Electrical connectors</p> <p>Specification available from:</p> <p>IEC General secretariat</p> <p>Or from the addresses shown on the inside cover.</p>	<p>IEC 61076-2-010 Ed. 1</p>
<p>DETAIL SPECIFICATION in accordance with IEC 61076-1</p>	
	<p>Circular M12 connectors with push-pull locking for power and/or signal and/or data transmission</p> <p>Fixed connectors with male and female contacts, mateable with M12 screw or push-pull plugs</p> <p>Free cable connectors with male or female contacts with push-pull locking</p> <p>Rewireable – Non-rewirable</p> <p>Fixed connectors, with front, rear or single hole mounting</p> <p>Straight and right-angled free cable connectors</p>

Table 1 shows the content of this document.