IEC 61076-3-123

Edition 1.0 2019-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Connectors for electrical and electronic equipment – Product requirements – Part 3-123: Rectangular connectors – Detail specification for hybrid connectors for industrial environments, for power supply and fibre optic data transmission, with push-pull locking

Connecteurs pour équipements électriques et électroniques – Exigences de produit –
Partie 3-123: Connecteurs rectangulaires – Spécification particulière relative aux connecteurs hybrides dans des environnements industriels pour l'alimentation et la transmission de données fibronique, avec verrouillage de type pousser-tirer

IEC 61076-3-123:2019(en-fr)

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

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

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International Standard IEC 61076-3-123 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/2742/FDIS	48B/2753/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.

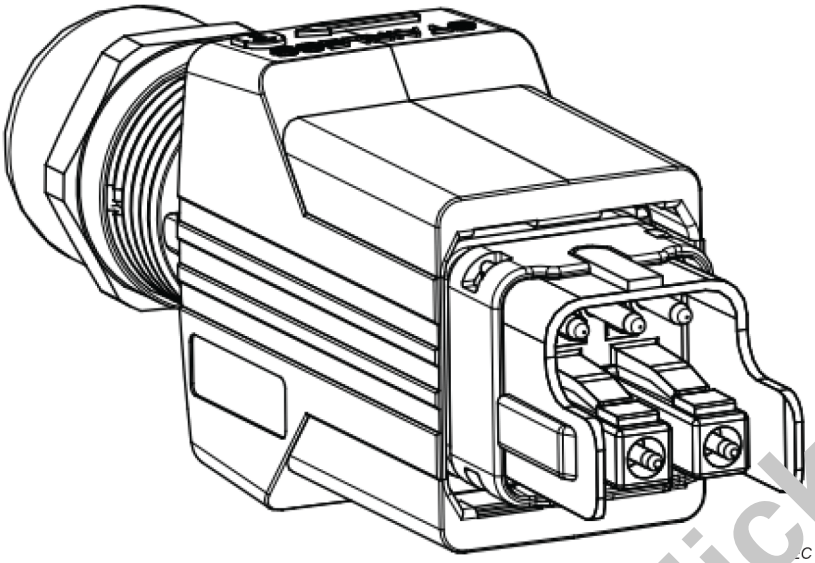
A list of all parts in the IEC 61076 series, published under the general title *Connectors for electrical and electronic equipment – Product requirements*, can be found on the IEC website.

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- withdrawn,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

IEC SC 48B – Electrical connectors Specification available from: IEC General secretariat or from the addresses shown on the inside cover.	IEC 61076-3-123 Ed.1
DETAIL SPECIFICATION in accordance with IEC 61076-1	
	Rectangular connectors Detail specification for hybrid connectors for industrial environments, for power supply and fibre optic data transmission, with push-pull locking Male and female connectors Male and female contacts Optical ferrules and isolators Rewirable – Non-rewirable
	Free cable connectors Straight and right angle connectors Fixed connectors Flange mounting Single hole mounting

CONNECTORS FOR ELECTRICAL AND ELECTRONIC EQUIPMENT – PRODUCT REQUIREMENTS –

Part 3-123: Rectangular connectors – Detail specification for hybrid connectors for industrial environments, for power supply and fibre optic data transmission, with push-pull locking

1 Scope

This part of IEC 61076 covers hybrid rectangular connectors with a 3 poles 16 A electric portion for power supply and a duplex fibre optic connector type LC portion for data transmission. These connectors consist of fixed and free connectors, either rewirable or non-rewirable (for both portions) and use the rectangular push-pull housing described in IEC 61076-3-117 with IP65/IP67 degree of protection, for harsh applications. The mating dimensions of such housings allow fulfilling the performance class Category I according to IEC 61753-1-3 in regards to the fibre optic portion of the connector with the exception of the operating temperature range which is –25 °C/+70 °C.

The electric portion may have different rated insulation voltages. Male connectors have 3 electric round contacts Ø1,6 mm, with 16 A rated current.

NOTE Only the phase/neutral contacts are loaded upon current-carrying capacity test of 4.4 and 6.4.3 and electrical load and temperature test in 7.2.2.6 (DP2) and 7.2.2.12 (KP5)

The fibre optic portion provides data transmission by using the common mating configurations for all variants of the type LC duplex fibre optic connectors as defined in IEC 61754-20, for dedicated fibre types and fibre termination technology covered therein.

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.

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 60050-581:2008, *International Electrotechnical Vocabulary – Chapter 581: Electro-mechanical components for electronic equipment*

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

IEC 60068-2-30, *Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12 h + 12 h cycle)*

IEC 60352-1:1997, *Solderless connections – Part 1: Wrapped connections – General requirements, test methods and practical guidance*

IEC 60352-2:2006, *Solderless connections – Part 2: Crimped connections – General requirements, test methods and practical guidance*