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PUBLICLY AVAILABLE SPECIFICATION

PRE-STANDARD

Connectors for electronic equipment – Product requirements – Part 2-108: Circular connectors – Detail specification for glass to metal seal style M12 connectors with screw-locking intended to mate with connectors conforming to IEC 61076-2-101

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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A PAS is a technical specification not fulfilling the requirements for a standard, but made available to the public.

IEC-PAS 61076-2-108 has been prepared by subcommittee 48B: Connectors, of technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

The text of this PAS is based on the following document:	This PAS was approved for publication by the P-members of the committee concerned as indicated in the following document
Draft PAS	**Report on voting**
48B/1975/PAS	48B/2037/RVD

Following publication of this PAS, which is a pre-standard publication, the technical committee or subcommittee concerned may transform it into an International Standard.

This PAS shall remain valid for an initial maximum period of 3 years starting from the publication date. The validity may be extended for a single 3-year period, following which it shall be revised to become another type of normative document, or shall be withdrawn.

This PAS complements IEC 61076-2-101 Ed.2 by adding glass to metal seal styles and the required testing. The following notable additions have been made:

– the introduction of glass to metal seal fixed connector styles WM, XM, YM and ZM;
– the glass to metal styles are intermateable with free connector styles in IEC 61076-2-101 Ed.2;
– pressure differential test has been added to the test groups;
– additional contact termination types added:
  - eyelet – the termination end is flattened and pierced with a hole to provide both mechanical retention of the wire as well as solder attachment,
  - rounded – terminal post with rounded (domed) end,
  - PCB – termination spills suitable for insertion into printed circuits.

CONNECTORS FOR ELECTRONIC EQUIPMENT – PRODUCT REQUIREMENTS –

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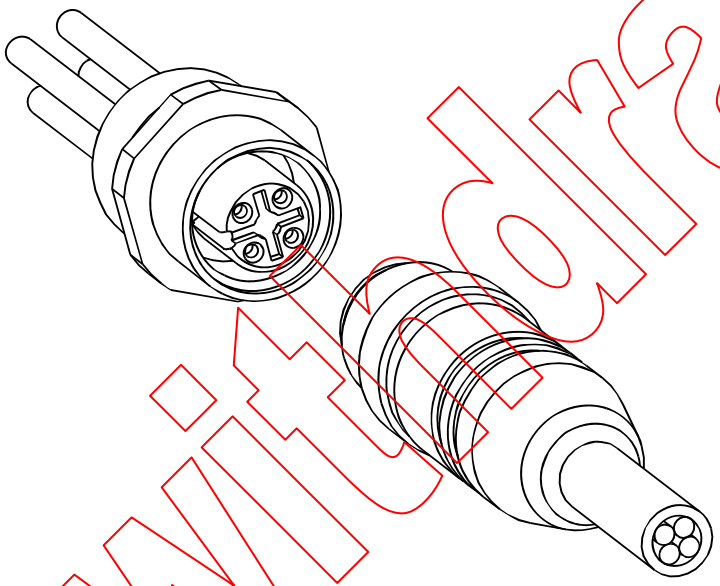
IEC SC 48B – Connectors Specification available from: IEC General secretariat or from the addresses shown on the inside cover.	IEC/PAS 61076-2-108 Ed.1
ELECTRONIC COMPONENTS DETAIL SPECIFICATION in accordance with IEC 61076-1	Page 5 of 17
 Fixed connector with glass to metal seal Free connector shown is representative only and shall conform to IEC 61076-2-101	Circular connectors M12 2 to 12 way Male contacts Female connectors Rewireable Fixed connectors with glass to metal seals Flange mounting Single hole mounting Pin contacts only

1 General information

Throughout this standard dimensions are in mm.

1.1 Scope

This PAS describes circular connectors M12 typically used for industrial process measurement and control. These connectors consist of fixed glass to metal sealed styles with rewireable male contacts. Female connectors have round contacts ∅ 0,6 mm, ∅ 0,76 mm, ∅ 0,8 mm and ∅ 1,0 mm.

The different codings prevent the mating of these coded male or female connectors to any other interfaces and cross-mating between the different codings.

NOTE M12 is the dimension of the thread of the screw locking mechanism of these circular connectors.

1.2 Recommended method of termination

The contact terminations shall be of the following types: Eyelet, solder PCB, rounded or crimp.

1.2.1 Number of contacts or contact cavities

The number of contacts or contact cavities shall be in accordance with 1.2.1 of IEC 61076-2-101.

1.3 Ratings and characteristics

The ratings and characteristics shall be in accordance with 1.3 of IEC 61076-2-101.

1.4 Normative references

The following referenced documents are indispensable for the application 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 60512 (all parts), *Connectors for electronic equipment – Tests and measurements*

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

IEC 61076-2-101:2008, *Connectors for electronic equipment – Product requirements – Part 2-101: Circular connectors – Detail specification for M12 connectors with screw-locking*

IEC 61984:2008, *Connectors – Safety requirements and tests*