

Connectors with assessed quality, for use in d.c., low-frequency analogue and in digital high-speed data applications —

Part 4: Printed board connectors —

Section 105: Detail specification for 9 mm circular connector with 3 to 8 contacts for use in a wide range of applications including the telecommunication and audio industry

The European Standard EN 61076-4-105:1998 has the status of a
British Standard

ICS 31.220.10

National foreword

This British Standard is the English language version of EN 61076-4-105:1998. It is identical with IEC 61076-4-105:1995. This standard is a harmonized specification within the IEC quality assessment system for electronic components (IECQ). In the IECQ system, this specification is numbered QC 480301XX0006.

The UK participation in its preparation was entrusted by Technical Committee EPL/48, Electromechanical components for electronic equipment, to Subcommittee EPL/48/2, Connectors for electronic equipment, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

From 1 January 1997, all IEC publications have the number 60000 added to the old number. For instance, IEC 27-1 has been renumbered as IEC 60027-1. For a period of time during the change over from one numbering system to the other, publications may contain identifiers from both systems.

Cross-references

Attention is drawn to the fact that CEN and CENELEC standards normally include an annex which lists normative references to international publications with their corresponding European publications. The British Standards which implement these international or European publications may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 40, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

This British Standard, having been prepared under the direction of the Electrotechnical Sector Board, was published under the authority of the Standards Board and comes into effect on 15 October 1998

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Amendments issued since publication

Amd. No.	Date	Comments

Contents

	Page
National foreword	Inside front cover
Foreword	2
Text of EN 61076-4-105	5

Connectors with assessed quality, for use in d.c., low
frequency analogue and in digital high-speed data
applications
Part 4: Printed board connectors
Section 105: Detail specification for 9 mm circular connector
with 3 to 8 contacts for use in a wide range of applications
including the telecommunication and audio industry

(IEC 61076-4-105:1995)

Connecteurs sous assurance de la qualité, pour utilisation dans le cadre d'applications analogiques en courant continu et à basse fréquence et dans le cadre d'applications numériques utilisant des débits élevés pour le transfert des données

Partie 4: Connecteurs pour cartes imprimées

Section 105: Spécification particulière d'un connecteur circulaire de 9 mm, de 3 à 8 contacts, à utiliser dans une large gamme d'applications incluant les télécommunications et le grand public
(CEI 61076-4-105:1995)

Steckverbinder mit bewerteter Qualität für Gleichspannungs- und Niederfrequenzanwendungen sowie digitale Anwendungen mit hoher Übertragungsrate

Teil 4: Steckverbinder für gedruckte Schaltungen
Hauptabschnitt 105: Bauartspezifikation für 9 mm Rund-Steckverbinder mit 3 bis 8 Kontakten für unterschiedlichsten Gebrauch inklusive Telekommunikations- und Audioanwendungen
(IEC 61076-4-105:1995)

This European Standard was approved by CENELEC on 1998-08-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B-1050 Brussels

Foreword

The text of the International Standard IEC 61076-4-105:1995, prepared by SC 48B, Connectors, of IEC TC 48, Electromechanical components and mechanical structures for electronic equipment, was submitted to the formal vote and was approved by CENELEC as EN 61076-4-105 on 1998-08-01 without any modification.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1999-08-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1999-08-01

Annexes designated “normative” are part of the body of the standard.

In this standard, Annex A, Annex B, Annex C, Annex D and Annex ZA are normative.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61076-4-105:1995 was approved by CENELEC as a European Standard without any modification.

Contents

	Page
Foreword	2
1 General data	5
1.1 Recommended method of mounting	5
1.2 Minimum and maximum number of contacts	5
1.3 Rating and characteristics	5
1.4 Normative references	5
1.5 Marking	6
1.5.1 IEC type designation	6
1.6 Drawings and dimensions	7
1.6.1 General	7
1.6.2 Isometric view and common features	7
1.6.3 Mating information	8
1.6.4 Survey of styles and variants	11
1.6.5 Fixed connector	11
1.6.6 Free connectors with male contacts	18
1.6.7 Accessories	19
1.6.8 Mounting information for fixed connectors	19
1.6.9 Gauges	22
2 Characteristics	22
2.1 Climatic category	22
2.2 Electrical characteristics	22
2.2.1 Creepage and clearance distances	22
2.2.2 Voltage proof	23
2.2.3 Current-carrying capacity	23
2.2.4 Initial contact resistance	23
2.2.5 Initial insulation resistance	24
2.3 Mechanical characteristics	24
2.3.1 Mechanical operation	24
2.3.2 Insertion and withdrawal forces	24
3 Test schedule	24
3.1 General	24
3.1.1 Arrangements for dynamic stress tests	25
3.2 Test schedule tables	26
3.2.1 Preliminary group P	26
3.2.2 Group AP	27
3.2.3 Group BP	29
3.2.4 Group CP	30
3.2.5 Group DP	30
3.2.6 Group EP — Not applicable	30
3.2.7 Group FP — Not applicable	30

	Page		Page
3.2.8 Group GP (applicable to free connectors only)	31	Figure 19 — Pad pattern for surface-mount connectors	21
4 Quality assessment procedures	31	Figure 20 — Panel cut-out dimensions	21
4.1 Qualification approval testing	31	Figure 21 — Sizing and retention force gauges for female contacts	22
4.1.1 Method 1	31	Figure 22 — Contact resistance measurement points	23
4.1.2 Method 2	32	Figure 23 — Arrangement for dynamic stress tests	25
4.2 Quality conformance inspection	32	Figure A.1	37
4.2.1 Lot-by-lot tests	32	Figure A.2	37
4.2.2 Periodic tests	32	Figure A.3	38
4.3 Delayed delivery, re-inspection	33	Table 1 — Style survey	11
Annex A (normative) Mixed industrial flowing gas test procedure	34	Table 2 — Hole pattern matrix for right-angle and vertical fixed connectors	19
Annex B (normative) Mechanical tests	38	Table 3 — Surface-mounted circuit and pad pattern	20
Annex C (normative) Microsection	39	Table 4 — Sizing gauges and retention force gauges	22
Annex D (normative) Random vibration test procedure	39	Table 5 — Climatic category	22
Annex ZA (normative) Normative references to international publications with their corresponding European publications	Inside back cover	Table 6 — Creepage and clearance distance	23
Figure 1 — Isometric views	7	Table 7 — Number of mechanical operations	24
Figure 2 — Contact arrangements	8	Table 8 — Number of specimens	25
Figure 3 — Mating face of fixed connector	9	Table 9 — Number of specimens and permitted defects	31
Figure 4 — Mating face of free connector	10	Table 10 — Quality conformance inspection, lot-by-lot tests	32
Figure 5 — Shielded right-angle connector	12	Table 11 — Quality conformance inspection, periodic tests	33
Figure 6 — Shielded right-angle surface-mounted connector	13	Table 12 — Delayed delivery, re-inspection	33
Figure 7 — Shielded right-angle connector with board retention	13	Table A.1	36
Figure 8 — Shielded right-angle connector with grounding	14	Table B.1	39
Figure 9 — Shielded vertical connectors	14		
Figure 10 — Unshielded vertical connectors	15		
Figure 11 — Vertical connector with panel screw-down	15		
Figure 12 — Contact arrangements for fixed connector with female contacts	16		
Figure 13 — Through-hole soldering	17		
Figure 14 — Surface mount	17		
Figure 15 — Dimensions of connectors with male contacts	18		
Figure 16 — Insulation displacement connection	18		
Figure 17 — Hole pattern for right-angle connectors	19		
Figure 18 — Hole pattern for vertical connectors	20		

1 General data

1.1 Recommended method of mounting

A complete connector consists of a fixed connector and a free connector. The fixed connector is mounted vertically or at a right angle to the printed circuit board. The free connector is terminated to a cable consisting of three to eight conductors (shielded or un-shielded).

1.2 Minimum and maximum number of contacts

The fixed and the free connector have a range of three to eight contacts. Each connector is keyed to prevent mismatching. Examples of contact arrangements are shown in Figure 2.

1.3 Rating and characteristics

Working voltage:	30 V a.c. r.m.s. or d.c.
Current rating:	1 A max.
Insulation resistance:	1 000 MΩ min.
Climatic category:	PL1: 55/100/56 PL2: 55/100/21 PL3: Not applicable
Printed board thickness:	1,58 mm (0,062 in)
Contact spacing:	Varies with number of contacts.

1.4 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this section of IEC 1076-4. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this section of IEC 1076-4 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 68-1:1988, *Environmental testing — Part 1: General and guidance*.

IEC 326-2:1990, *Printed boards — Part 2: Test methods*.
Amendment 1 (1992)

IEC 352-4:1994, *Solderless connections — Part 4: Solderless non-accessible insulation displacement connections — General requirements, test methods and practical guidance*.

IEC 410:1973, *Sampling plans and procedures for inspection by attributes*.

IEC 512-2:1985, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods — Part 2: General examination, electrical continuity and contact resistance tests, insulation tests and voltage stress tests*.
Amendment 1 (1994)

IEC 512-4:1976, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods — Part 4: Dynamic stress tests*.

IEC 512-5:1992, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods — Part 5: Impact tests (free components), static load tests (fixed components), endurance tests and overload tests*.

IEC 512-6:1984, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods — Part 6: Climatic tests and soldering tests*.

IEC 512-7:1993, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods — Part 7: Mechanical operating tests and sealing tests*.

IEC/DIS 1076-1:1995, *Connectors with assessed quality, for use in d.c., low-frequency analogue and in digital high-speed data applications — Part 1 Generic specification*¹⁾.

IEC/DIS 1076-4:1995, *Connectors with assessed quality, for use in d.c., low-frequency analogue and in digital high-speed data applications — Part 4: Sectional specification — Printed board connectors*²⁾.

ISO 468:1982, *Surface roughness — Parameters, their values and general rules for specifying requirements*.

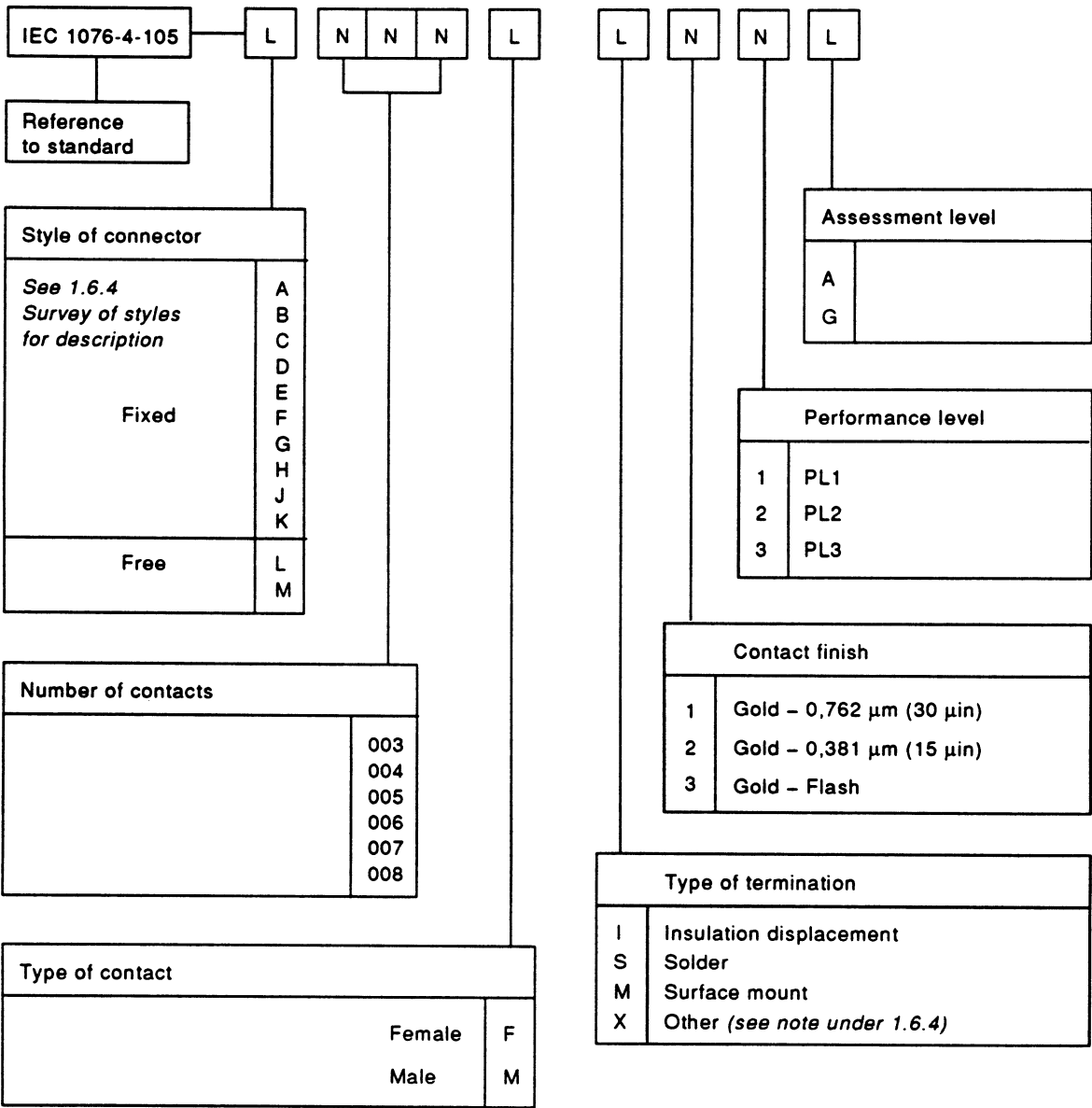
¹⁾ At present, at the stage of draft international standard: 48B/363/DIS.

²⁾ At present, at the stage of draft international standard: 48B/364/DIS.

1.5 Marking

Each connector and its associated package shall be marked in accordance with the requirements specified in 2.5 of the future IEC 1076-1.

1.5.1 IEC type designation



"L" stands for letter
"N" stands for number

Example:
IEC 1076-4-105 – A008FS11G

Eight-position shielded right-angle fixed soldered connector with female contacts with 0,76 µm gold finish for performance level 1 and assessment level G.

1.6 Drawings and dimensions

1.6.1 General

Dimensions in inches are original. Dimensions are shown in millimetres with inch dimensions in brackets. Drawings are shown in third-angle projection. The shape of the connectors may deviate from those given in the following figures as long as the specified dimensions are not influenced.

1.6.2 Isometric view and common features

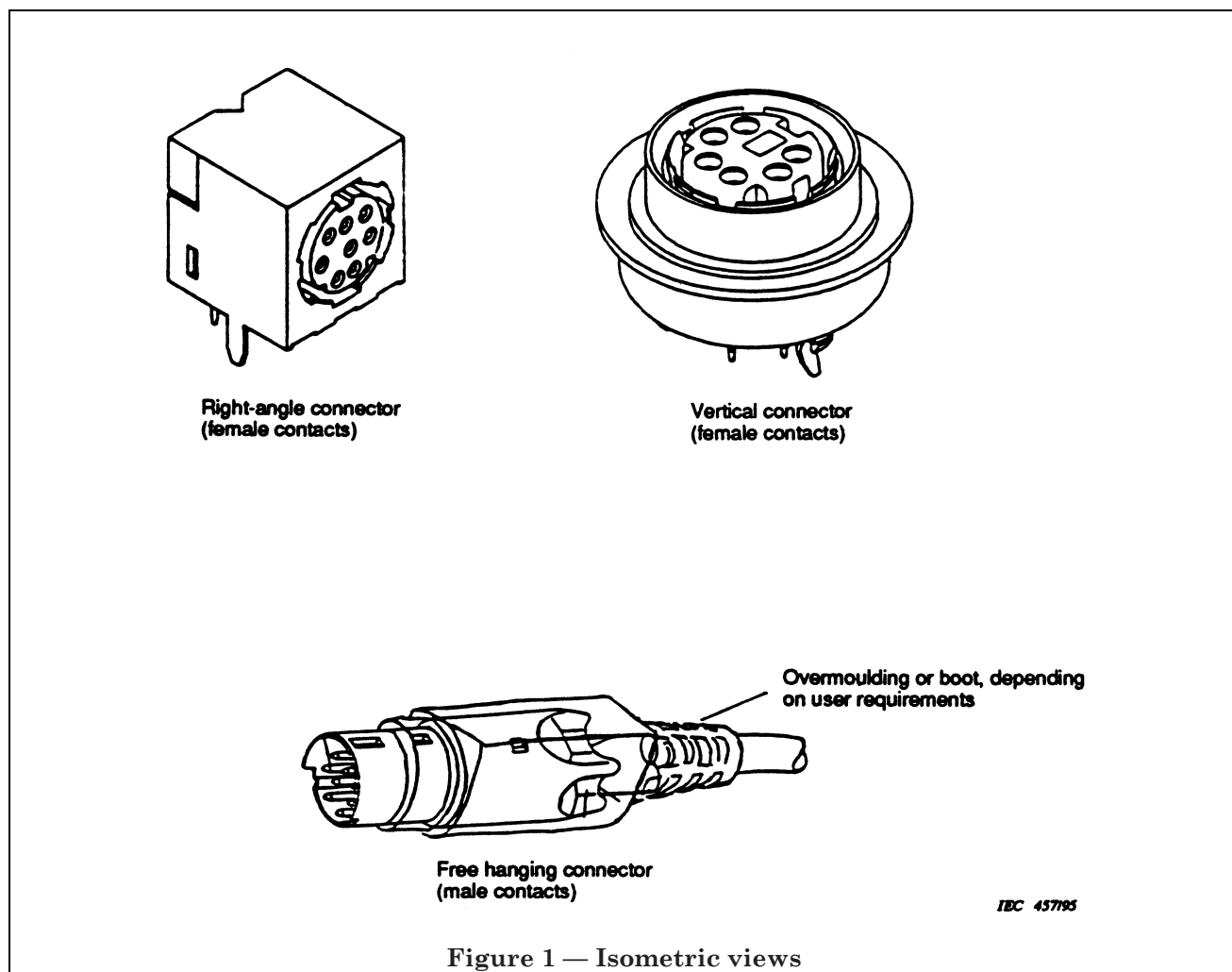
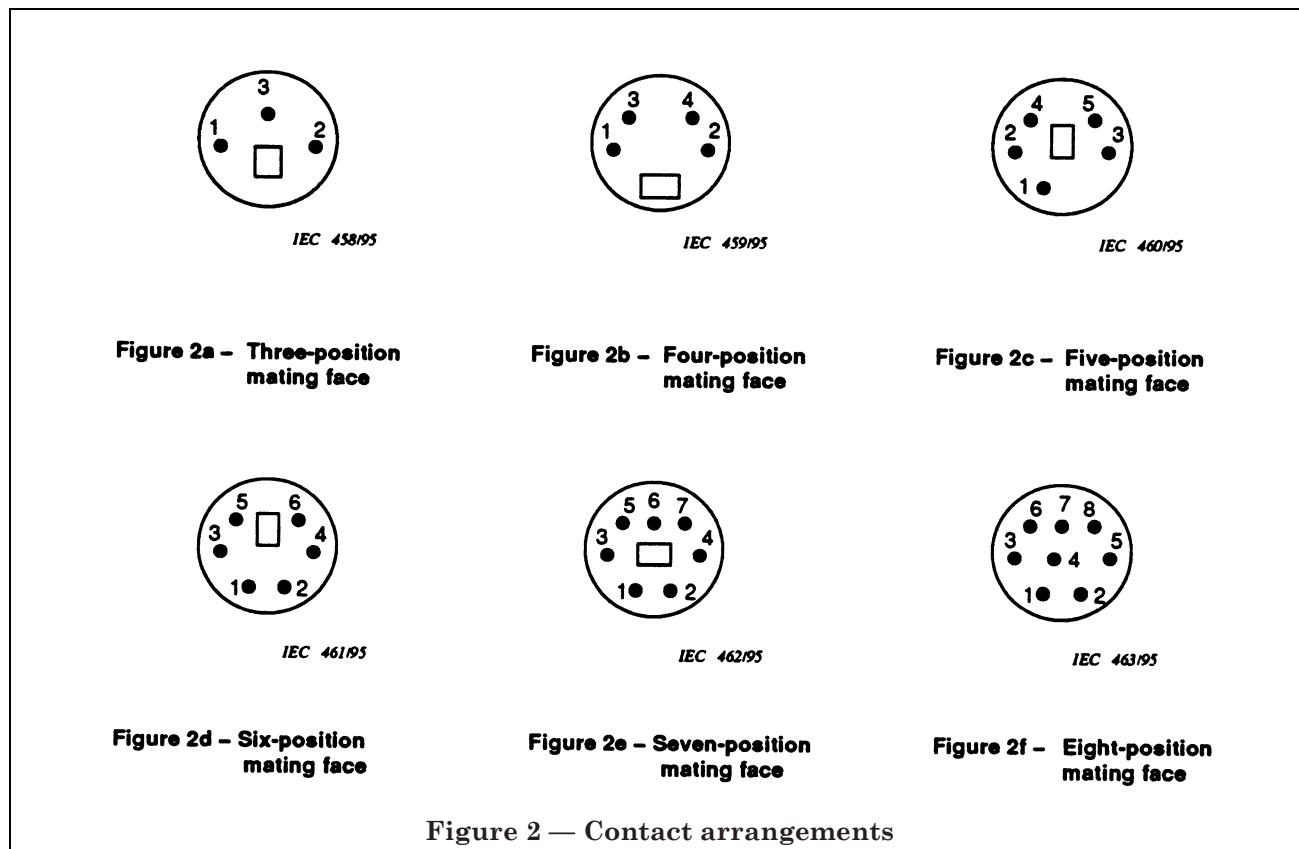


Figure 1 — Isometric views

1.6.3 Mating information

Contact arrangements, mating face view of connector with male contacts. Mating face view of connector with female contacts is mirror image.



1.6.3.1 Dimensions of mating face

1.6.3.1.1 Dimensions shown are for the mating face of fixed connectors with female contacts only

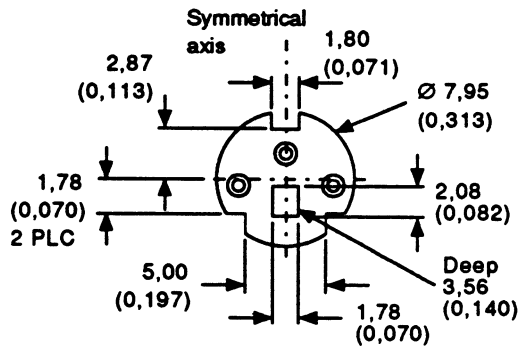


Figure 3a – Three-position mating face

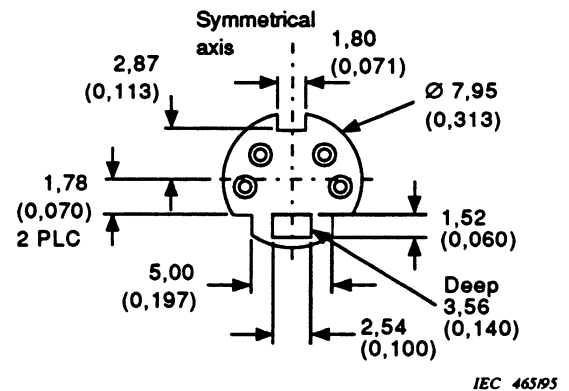


Figure 3b – Four-position mating face

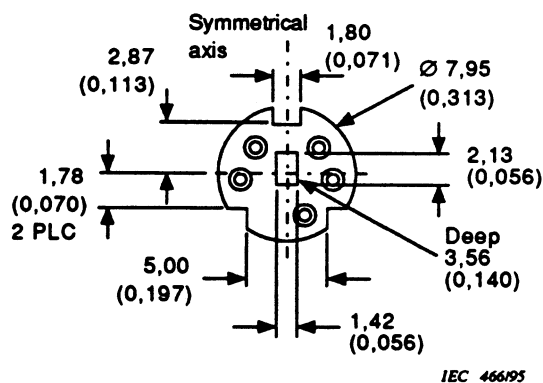


Figure 3c – Five-position mating face

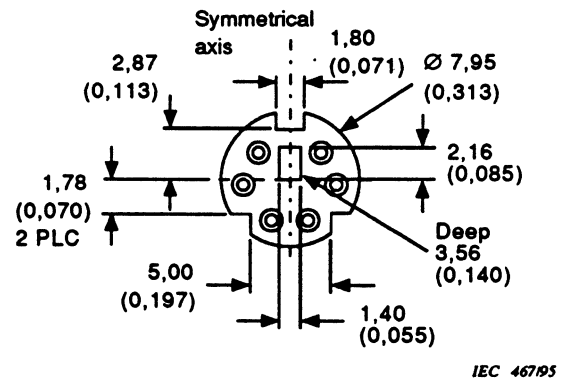


Figure 3d – Six-position mating face

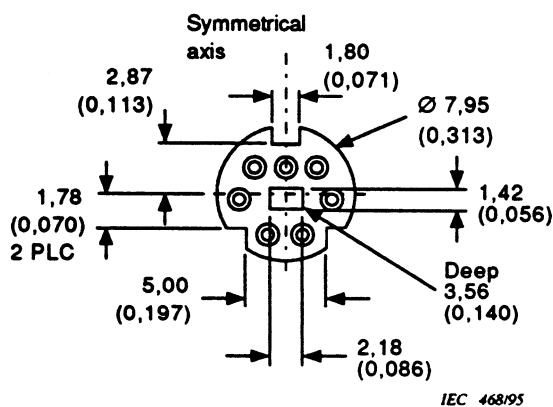


Figure 3e – Seven-position mating face

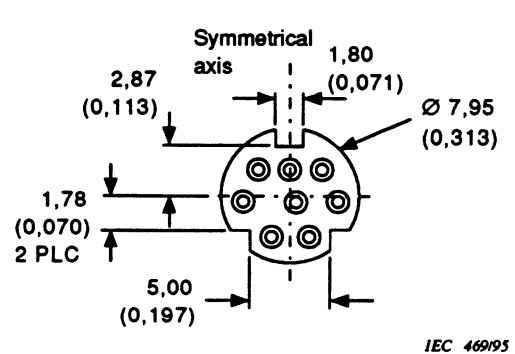


Figure 3f – Eight-position mating face

Figure 3 — Mating face of fixed connector

1.6.3.1.2 Dimensions shown are for the mating face of free connectors with male contacts

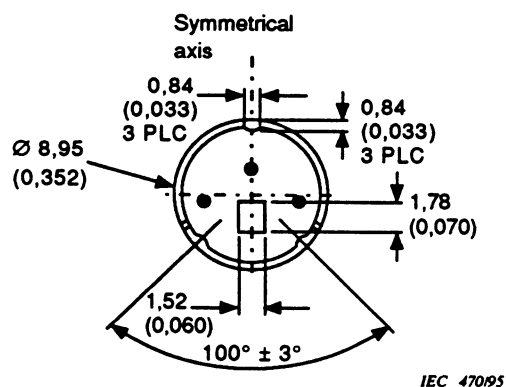


Figure 4a – Three-position mating face

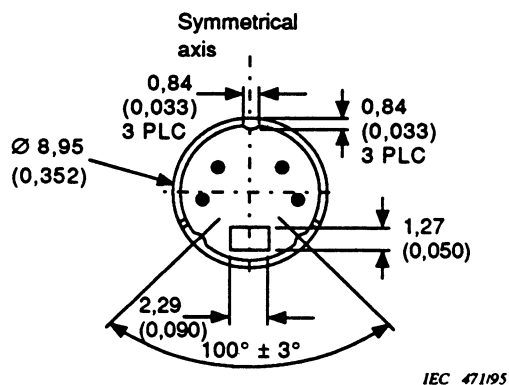


Figure 4b – Four-position mating face

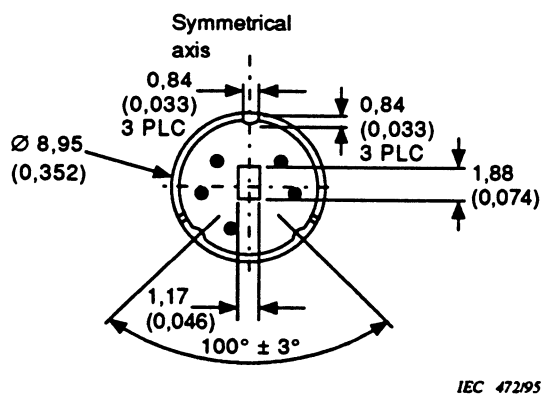


Figure 4c – Five-position mating face

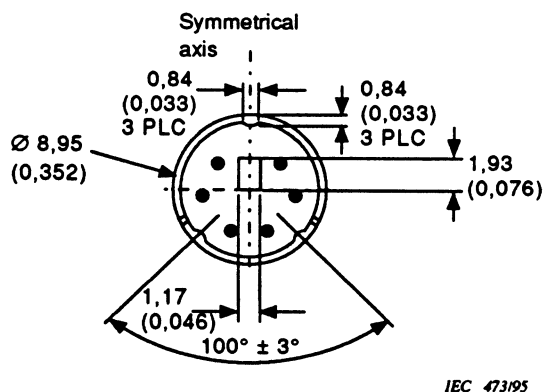


Figure 4d – Six-position mating face

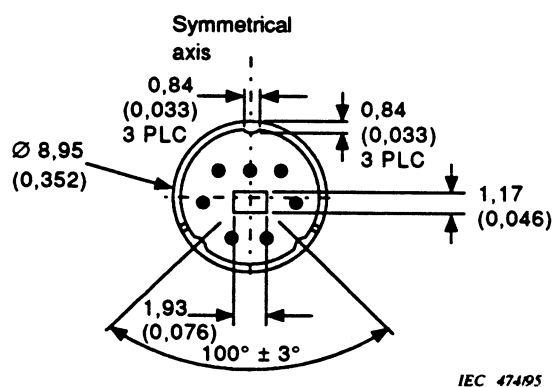


Figure 4e – Seven-position mating face

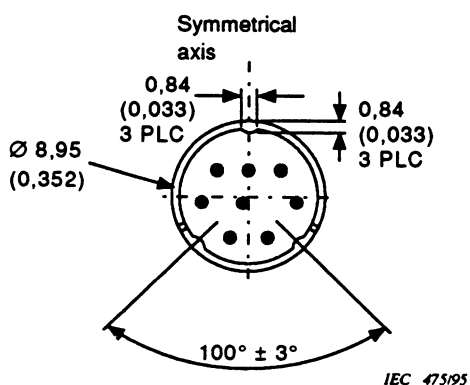


Figure 4f – Eight-position mating face

Figure 4 — Mating face of free connector