

DETAIL SPECIFICATION

CECC 75 301-803

SPÉCIFICATION PARTICULIÈRE

BAUARTSPEZIFIKATION

April 1996

English version

**Detail Specification:
Rectangular connectors
Flat contacts, 0,8 mm thickness,
locking screw not detachable**



This CECC Detail Specification was approved on 1995-09-07.

Up-to-date lists and bibliographical references of other detail specifications relating to EN 175300:1992 may be obtained on application to the Central Secretariat or to any CENELEC member.

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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

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Ref. No. CECC 75 301-803:1996 E

Foreword

This Detail Specification was prepared by CLC/TC CECC/SC 48B (former WG 25), Low frequency connectors.

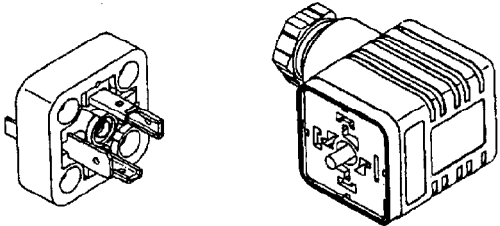
It is based on draft DIN 43650 part 1, January 1995 and DIN 43650 part 2, July 1983, ISO 4400:1994 and ISO 6952:1994.

It covers a range of rectangular connectors with flat contacts, 0,8 mm thickness, locking screw not detachable, intended for use in industrial installations for connection or termination of sub-assemblies or components in electrical equipment in measuring, regulating and control circuits, in equipment for power supply, in fluid and air power system and components and other electronic devices employing similar techniques.

The text of this Detail Specification was circulated to the members of CLC/TC CECC/SC 48B and was approved for publication.

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CECC WG25: LF Connectors Specification available from the addresses shown on the blue fly-sheet ELECTRONIC COMPONENTS OF ASSESSED QUALITY – DETAIL SPECIFICATION IN ACCORDANCE WITH EN 175 300: 1992	CECC 75 301 – 803 Issue 1 Page 3 of 30 pages
see 5 for dimensions 	1 SCOPE Detail specification for rectangular connectors, flat contacts, 0,8 mm thickness, locking screw not detachable. 2 or 3 contacts + protective earth (PE) contact Termination: Screw, solder Assessment levels: B and G (*)

Climatic category: see 6.1

Electrical characteristics: see 6.2

Mechanical characteristics: see 6.3

Ordering information: see 9

(*) see 7 and 8

Information about manufacturers who have components qualified to this detail specification is available in the current CECC 00 200: (Register of Firms, Products and Services Approved under the CECC System).

2 Related documents

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

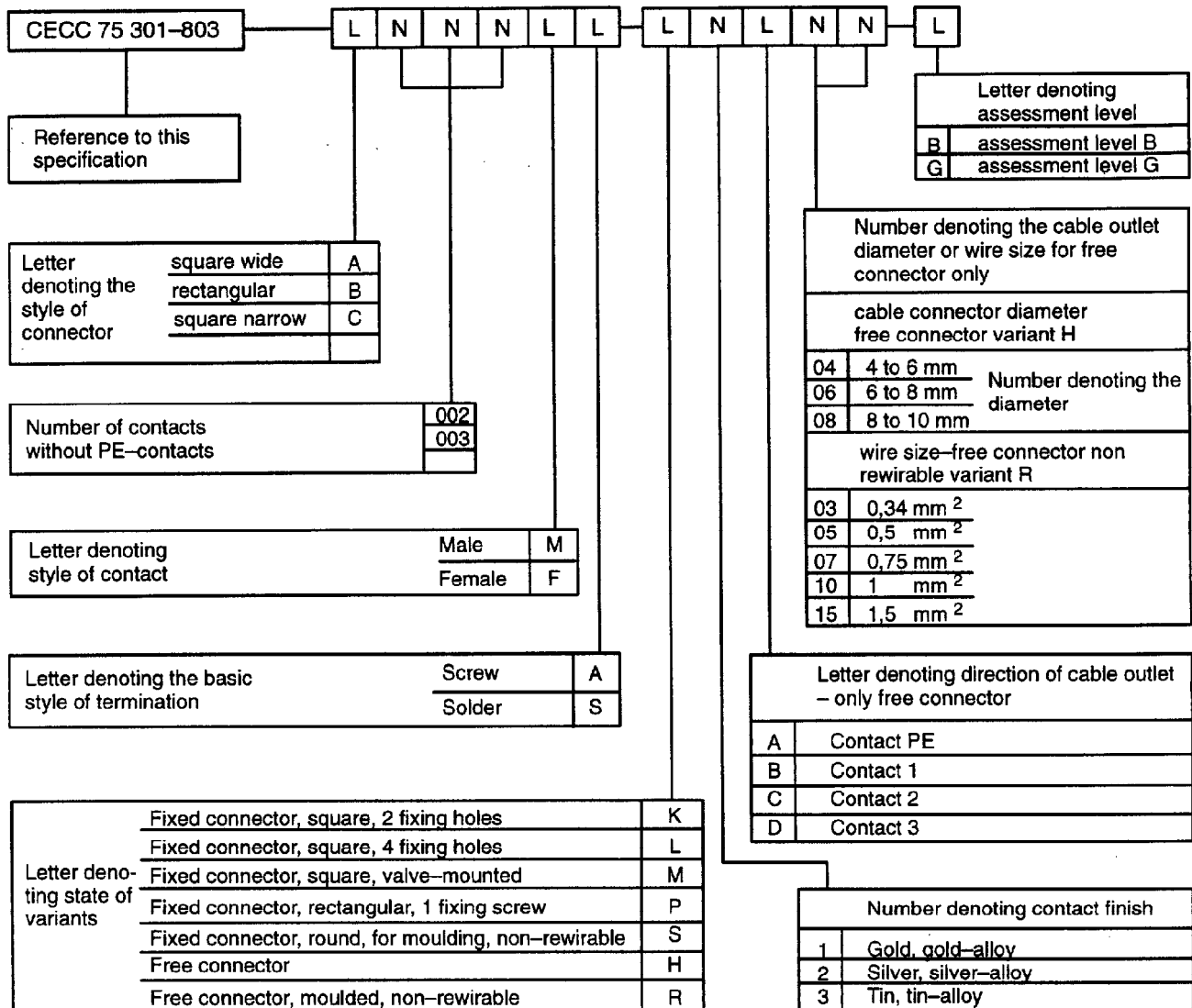
pr EN 2591	(1992):	Aerospace series; elements of electrical and optical connection; test methods; general
EN 175 300	(1992):	(CECC 75 300, Issue 1, 1989) Rectangular connectors
IEC 68-1	(1988):	Environmental testing Part 1: General and guidance
IEC 410	(1973):	Sampling plans and procedures for inspections by attributes
IEC 417	(1973):	Graphical symbols for use on equipment. Index, survey and compilation of the single sheets
IEC 512-1	(1984):	Electromechanical components for electronic equipment; basic testing procedures and measuring methods Part 1: General Amendment No. 1 (1988)
IEC 512-2	(1985):	Part 2: General examination, electrical continuity and contact resistance tests, insulation tests and voltage stress tests
IEC 512-3	(1976):	Part 3: Current-carrying capacity tests
IEC 512-5	(1992):	Part 5: Impact tests (free components), static load tests (fixed components), endurance tests and overload tests
IEC 512-7	(1993):	Part 7: Mechanical operating tests and sealing tests
IEC 512-8	(1984):	Part 8: Connector tests (mechanical) and mechanical tests on contacts and terminations, Amendment No. 1 (1985)
IEC 512-9	(1992):	Part 9: Miscellaneous tests
IEC 529	(1989):	Degrees of protection provided by enclosures (IP code)
IEC 664-1	(1992):	Insulation co-ordination for equipment within low-voltage systems Part 1: Principles, requirements and tests
IEC 760	(1989):	Flat, quick-connect terminations, Amendment No. 1 (1993)
IEC 999	(1993):	Connection devices – Safety requirements for screw-type and screwless-type clamping units for electrical copper conductors
ISO 468	(1982):	Surface roughness. Parameters, their values and general rules for specifying requirements
ISO 1043-1	(1990):	Plastics; Symbols; Part 1: Basic polymers and their special characteristics
ISO 1043-2	(1990):	Plastics; Symbols; Part 2: fillers and reinforcing materials
ISO 4400	(1994):	Fluid power systems and components – Three-pin electrical plug connectors with earth contact – Characteristics and requirements
ISO 6743-4	(1982):	Lubricants, industrial oils and related products (class L) Classification; Part 4: Family H (Hydraulic systems)
ISO 6952	(1994):	Fluid power systems and components – Two-pin electrical plug connectors with earth contact – Characteristics and requirements

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3 Style designation

Connectors with assessment level according to this specification shall be designated by the following system:



Note: "L" stands for letter
"N" stands for number

Examples: Fixed connector style A, having 3 male contacts with tin-alloy contact finish with solder terminations. Variant M assessment level G:
CECC 75 301-803-A003MS-M3-G

Free connector style A, having 2 female contacts with silver-alloy contact finish with screw terminations. Variant H cable outlet on contact 3 (D) and cable outlet dia 6,5 and assessment level B:
CECC 75 301-803-A002FA-H2D08-B

4 Common features

4.1 Isometric view

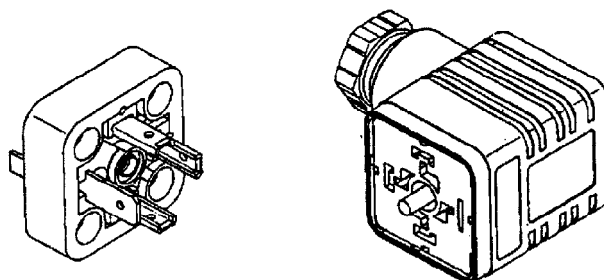


Figure 1 – Isometric view

4.2 Mating information

Arrow indicate mating direction

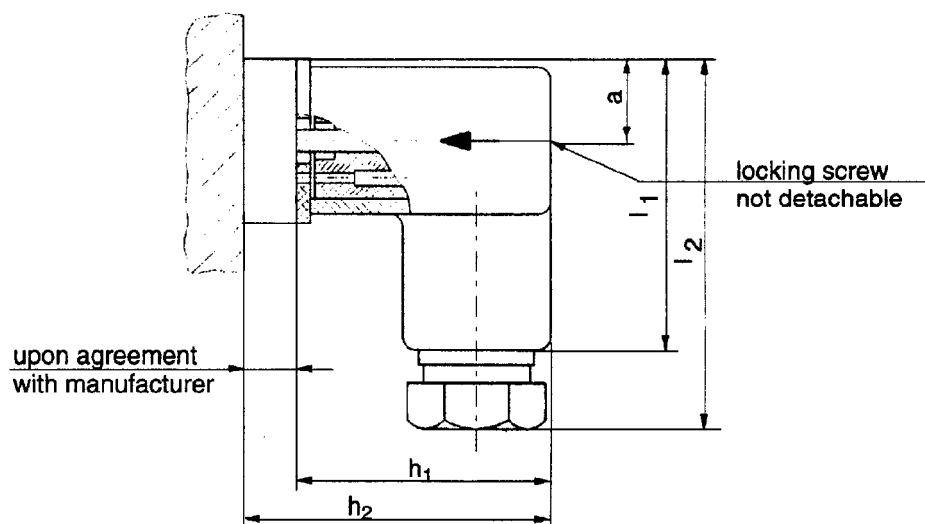


Figure 2

Table 1 – Mating dimensions of permissible styles

Style	Combination of variants	a max. (mm)	l_1 max. (mm)	l_2 max. (mm)	h_1 max. (mm)	h_2 max. (mm)
A	HF-KM	15	45	60	41,8	61,8
	HF-LM	15	45	60	41,8	61,8
	HF-MM	15	45	60	41,8	61,8
	HF-SM	15	45	60	41,8	1)
B	HF-RM	14,75	45	60	42,3	62,3
C	HF-KM	8,5	34	44	27,7	47,7
	HF-SM	8,5	34	44	27,7	1)

Note: 1) upon agreement between manufacturer and user

4.3 Survey of styles

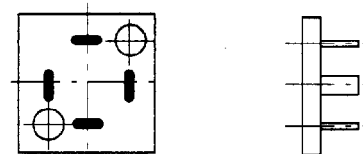
Number of contacts: 2 + PE; 3 + PE

Connector shape: Style A: square □ 28 mm, Style B: rectangular, Style C: square □ 16 mm

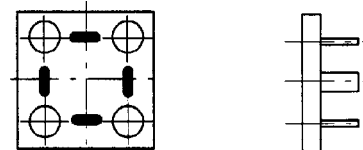
4.3.1 Survey of variants

4.3.1.1 Fixed connectors (male contacts)

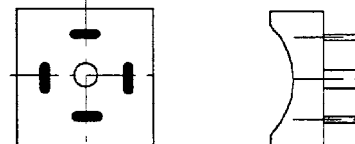
Variant K,
square, 2 fixing holes, front mounting



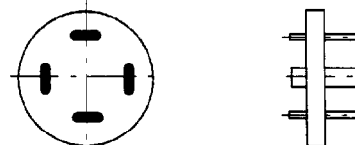
Variant L,
square, 4 fixing holes, front mounting



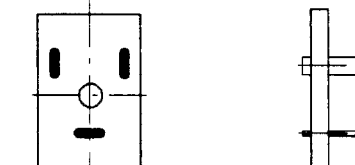
Variant M,
square, 1 fixing screw, front mounting



Variant S,
round, for potting, rear mounting (tube)

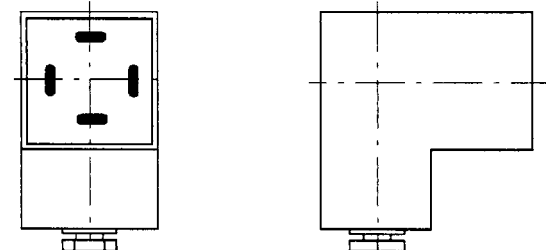


Variant P,
rectangular, 1 fixing screw

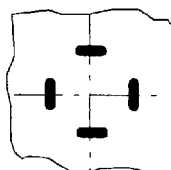


4.3.1.2 Free connectors (female contacts)

Variant H,
free connector



Variant R,
free connector, non-rewirable



5 Dimensions

5.1 General

Dimensions in mm are original. Drawings are shown in the first angle projection. The shape of the connectors may deviate from those given in the following drawings as long as the specified dimensions are not influenced.

Missing dimensions shall be chosen according to common characteristics and the intended use.

5.2 Fixed connector

5.2.1 Connector style A, with male contacts

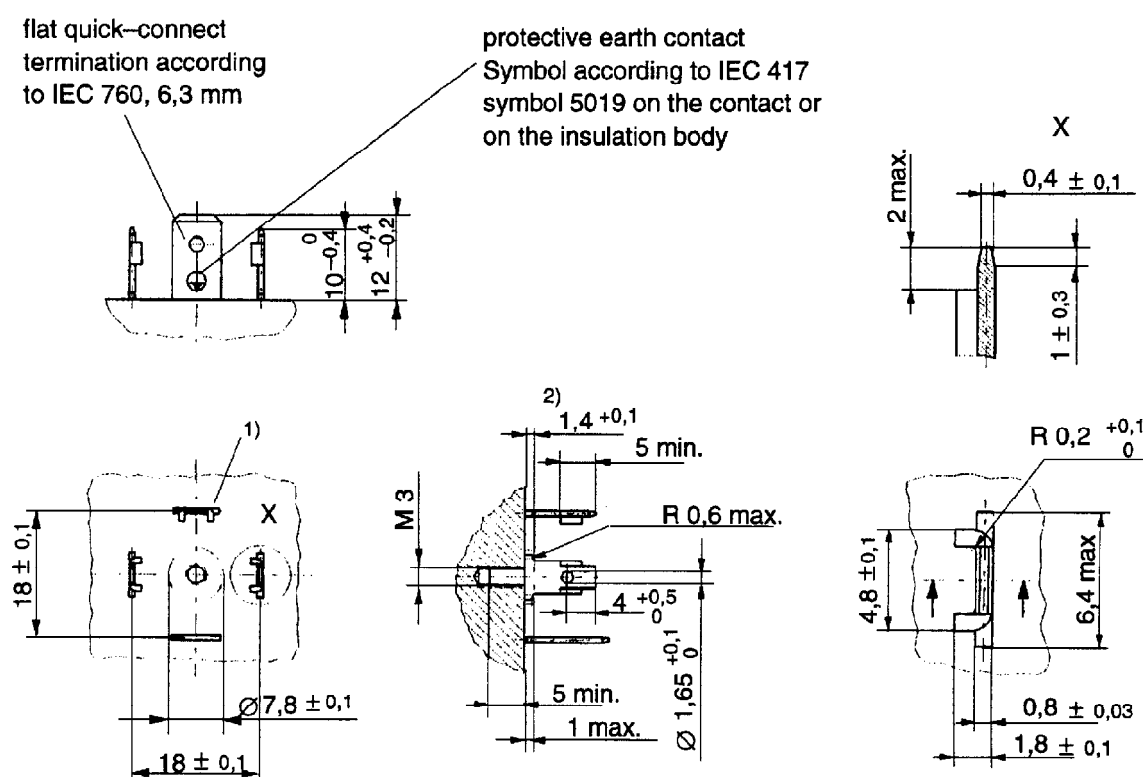


**Figure 3 – Mating dimensions, 2 and 3 contacts + protective earth;
Variant K, L, M and S**

Note: 1) Version 2 contacts + protective earth without contact Nr. 3
2) Boundary step, optional

5.2.1.1 Variant K, square, 2 fixing holes, front mounting

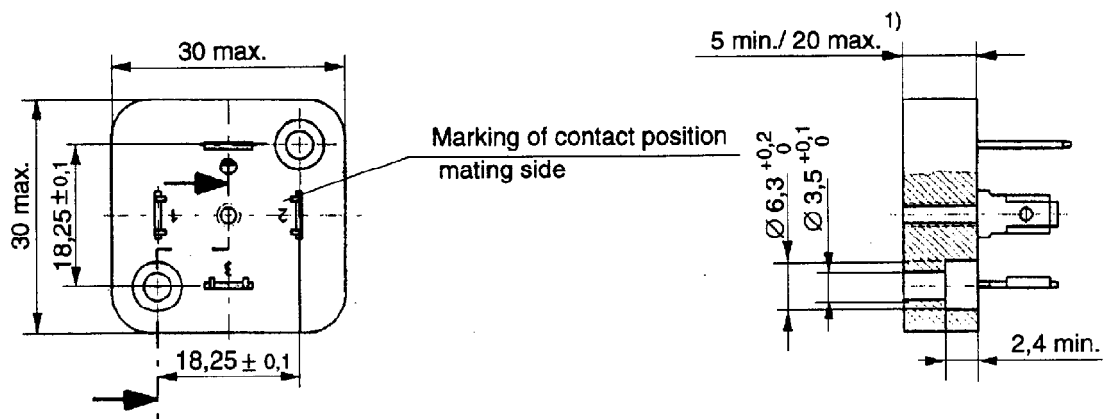


Figure 4 – Connector style A, variant K, square, 2 fixing holes

5.2.1.2 Variant L, square, 4 fixing holes, front mounting

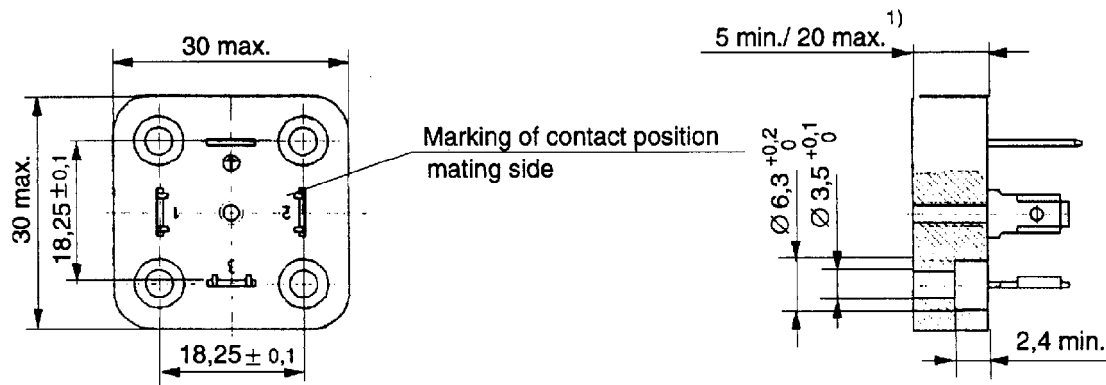


Figure 5 – Connector style A, variant L, square, 4 fixing holes

Note: 1) upon agreement between manufacturer and user