

Distributed by:



www.Jameco.com ♦ 1-800-831-4242

The content and copyrights of the attached
material are the property of its owner.

Jameco Part Number 1303249

FEATURES AND SPECIFICATIONS

Features and Benefits

- Performance levels 1 and 2
- Flux proof option
- FMLB/LMFB pins (extended/recessed) available
- Board lock option
- Solder tails for 1.6mm (.062") PCBs (for 2.4mm (.094") PCBs on request)
- High temperature version on request

Reference Information

Product Specification: PS-85003-0001

Packaging: Tray

UL File No.: E29179

CSA File No.: LR19980-390

Mates With:

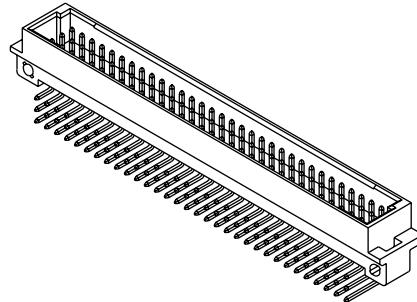
85042—Straight female style C

85052—Right angle female style R

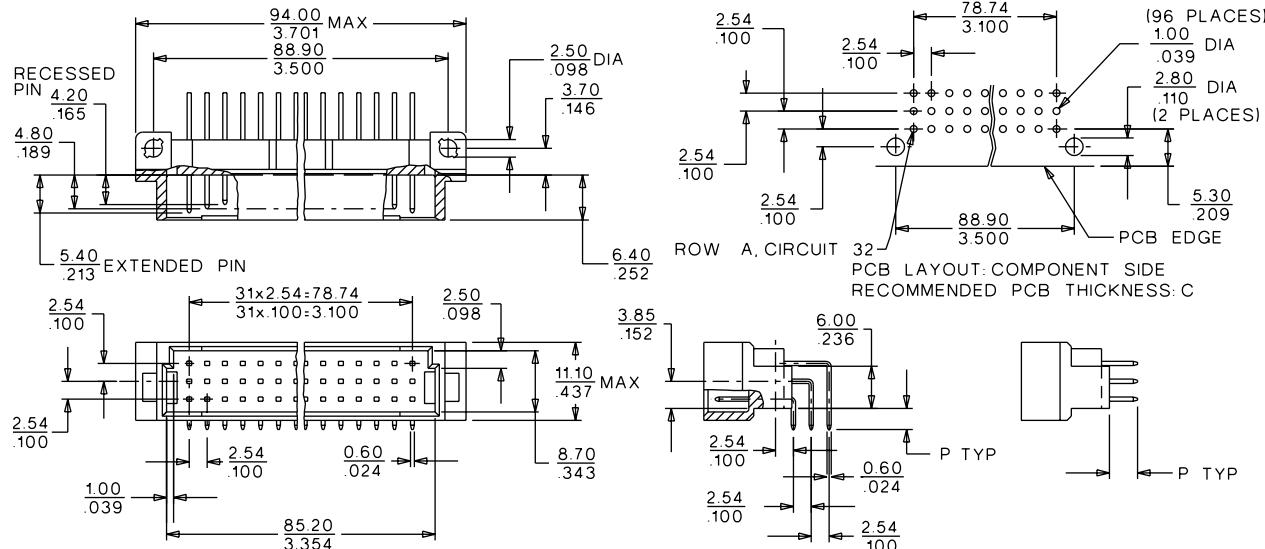


2.54mm (.100") Pitch DIN 41612/IEC 603-2 Connector

85003 Male Style C



CATALOG DRAWING (FOR REFERENCE ONLY)



ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Contact Loading	Rows	Solder Tail Dimension P	Option(s)
	1	2				
32	85003-0634	85003-0220	Even only	a, c	3.0 (.118)	
		85003-1263			4.0 (.157)	Board locks, flux-proof
		85003-0256				Straight solder tail
64	85003-0610	85003-0127	Full	a, c	3.0 (.118)	Board locks
	85003-1603	85003-0309				Flux-proof
		85003-0153				FMLB-4 pins: 1, 32 a, c
		85003-0141				FMLB-2 pins: 1, 32 a
		85003-0646				FMLB-6 pins: 1, 2, 3 a, c
		85003-1457				FMLB-4 pins: 30, 32 a, c
		85003-2385				Coding
	85003-0282	85003-0139				Coding, board locks
		85003-1081				Coding, FMLB-4 pins: 1, 32 a, c
		85003-1550				
		85003-0165			4.0 (.157)	Straight solder tail

For other versions, including high temperature, contact Molex

* Performance levels based on test conditions per DIN 41612, part 5:

1: >500 mating cycles. 10 day industrial environment (S02)

2: >400 mating cycles. 4 day industrial environment (S02)

Circuits	Order No.		Contact Loading	Rows	Solder Tail Dimension P	Option(s)
	1	2				
96	85003-0555	85003-0177	Full	a, b, c	3.0 (.118)	
	85003-1691	85003-0567				Board locks
		85003-0206				Flux-proof
	85003-2529	85003-0191				FMLB-4 pins: 1, 32 a+c
		85003-1483				FMLB-6 pins: 1, 32 a, b, c, board locks
	85003-2830	85003-0658				FMLB-2 pins: 1, 32 a
	85003-0294	85003-0189				Coding
		85003-1548				Coding, FMLB-4 pins: 1, 32 a, c
	85003-0359	85003-0218			4.0 (.157)	Straight solder tail



PRODUCT SPECIFICATION



LANGUAGE ENGLISH

CONNECTORS FOR FREQUENCIES BELOW 3 MHz FOR USE WITH PRINTED BOARDS

1.0 Scope:

This specification covers the 2.54 mm (0.1 inch) centerlined, 2 and 3 rows gold plated connector series terminated with solder technology to daughter cards. (right angle male)

2.0 Product Description:

2.1	Product Name	and	Part Number
	3 rows male connector style C with 96, 48, and 30 contacts		85003-***
	2 rows male connector style B with 64 and 32 contacts		85001-***
	3 rows male connector style M with 78,60,42 and 24 contacts		85009-***

2.2 Dimensions, Material, Platings and Markings

See the appropriate sales drawings for information on

Material of reading:	Thermoplastic Polyester
Standard:	
High temperature:	PCT (230°C / 50 sec.)
Flammability:	UL 94 V0

2.2.2 Material of male contacts: CuZn (brass)

2.2.3 Plating standard: PL1 = min. 1.0µm (39.37µin) Au over 2,5µm Ni
PL2 = min. 0.6µm (23.62µin) Au over 2,5µm Ni
PL3 = min. 0.25µm (9.84µin) Au over 2,5µm Ni



PRODUCT SPECIFICATION



LANGUAGE ENGLISH

2.2 Dimensions, Material....

(continued from page 2)

2.2.4 Marking standard:

Marking of connector and packaging
shall contain: Manufacturing name,
Part number and date of manufacturing

3.0 **Normative references:** for connector style for testing

DIN 41612 Part 2 and 8 / IEC 603-2
IEC 512

4.0 Rating and characteristics:

Working voltage:	depends on application
Current rating:	1A at 70°C (all contacts), up to 2.5 A when selective loaded
Insulation resistance:	$10^{12} \Omega$
Climatic category:	PL1: 55/125/56 PL2: 55/125/21 PL3: 55/125/00
Temperature:	Operating: -55°C to +125°C Non operating: -55°C to +125°C.....
Printed board:	Thickness: 1.6 mm (0.063 in)
Contact spacing:	2.54 mm (0.1 in)

5.0 Performance:

5.1 Electrical Performance

5.1.1 Creepage and clearance distance

5.1.1.1 Minimum distance between contact rows

Creepage: 1.2 mm (0.047 in)

Clearance: 1.2 mm (0.047 in)

REV	E	E	E	E	E												
SHT	1	2	3	4	5												
REVISE ON PC ONLY						TITLE PRODUCT SPECIFICATION for male conn. DIN 41612 style C, B, M											
E	98/04/03 Ca ECN No. MG1998-2770																
REV	DESCRIPTION					THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION											
DESIGN CONTROL Biberach			STATUS		WRITTEN BY:	CHECKED BY:	APPROVED BY:	DATE: YR / MO / DAY									
					Carabetta			95 / 07 / 28									
DOCUMENT NO. PS-85003-0001												FILE NAME	SHT NO.				
												PS85003.S	2 OF 5				
ES-40000-3996			REV. A		SHEET 9		95/MAR/10		EC U5-0926			DCBRD09.SAM					



PRODUCT SPECIFICATION



LANGUAGE ENGLISH

5.1 Electrical Performance (continued from page 2)

5.1.1.2 Minimum distance between adjacent contact

Creepage: 1.2 mm (0.047 in)

Clearance: 1.2 mm (0.047 in)

5.1.1.3 Minimum distance between contacts and chassis

Creepage: 1.8 mm (0.071 in)

Clearance: 1.6 mm (0.063 in)

5.1.2 Voltage proof:

Conditions: IEC 512-2, test 4a

Voltage proof (contact/contact) 1000 V (r.m.s.)

5.1.3 Current carrying capacity at 70°C:

Conditions: IEC 512-3, test 5b

Current carrying capacity: 1A

5.1.4 Initial contact resistance

Conditions: IEC 512-2, test 2a

Contact resistance: 20 mΩ max

5.1.5 Initial insulation resistance:

IEC 512-2 test 3a: Method B

Contact resistance: $10^{12} \Omega$ min

5.2 Mechanical Performance

5.2.1 Insertion and withdrawal forces

Condition: IEC 512-7 test 13b

Style	No. of contacts	max. forces
C	96	90 N
C	48	45 N
C	30	28 N
B	64	60 N
B	32	30 N
M	78	74 N ¹⁾
M	60	57 N ¹⁾
M	42	40 N ¹⁾
M	24	23 N ¹⁾

REV	E	E	E	E	E									
SHT	1	2	3	4	5									
REVISE ON PC ONLY						TITLE PRODUCT SPECIFICATION for male conn. DIN 41612 style C, B, M								
E	98/04/03 Ca ECN No. MG1998-2770													
REV	DESCRIPTION					THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								
DESIGN CONTROL Biberach				STATUS		WRITTEN BY:	CHECKED BY:	APPROVED BY:	DATE: YR / MO / DAY 95 / 07 / 28					
DOCUMENT NO. PS-85003-0001											FILE NAME	SHT NO.		
											PS85003.S	3 OF 5		
ES-40000-3996 REV. A SHEET 9 95/MAR/10 EC U5-0926 DCBRD09.SAM														



PRODUCT SPECIFICATION



LANGUAGE ENGLISH

Relative humidity: 95%
Recovery time: 2 h

5.3 Environmental Performance (continued from page 4)

5.3.2.3 Cold:

Conditions: IEC 512-6, test 11j
-55C° duration 2h

5.3.2.4 Damp heat, cycling remaining cycles:

Conditions: acc. to 5.3.2.2 / IEC 512-6, test 11m

5.3.3 Damp heat, steady state:

Conditions: IEC 512-6, test 11c
40C° and 95% relative humidity
Unloaded polarizing voltage: 60V d.c.
Recovery time: 2 h
Performance level 1: 56 days
Performance level 2: 21 days

5.3.4 Corrosive atmosphere:

Conditions: IEC 512-6, test 11g
5.3.4.1 Method A: 10 ppm SO₂ + Method B: 1 ppm H₂S
Performance level 1 10 days + 4 days
Performance level 2 4 days + 4 days

5.3.4.2 Mixed gas: 0.5 ppm SO₂ ± 0.1 ppm H₂S

Mixed gas: 0.5 ppm CO_2
Performance level 1 10 days
Performance level 2 4 days

6.0 Special feature

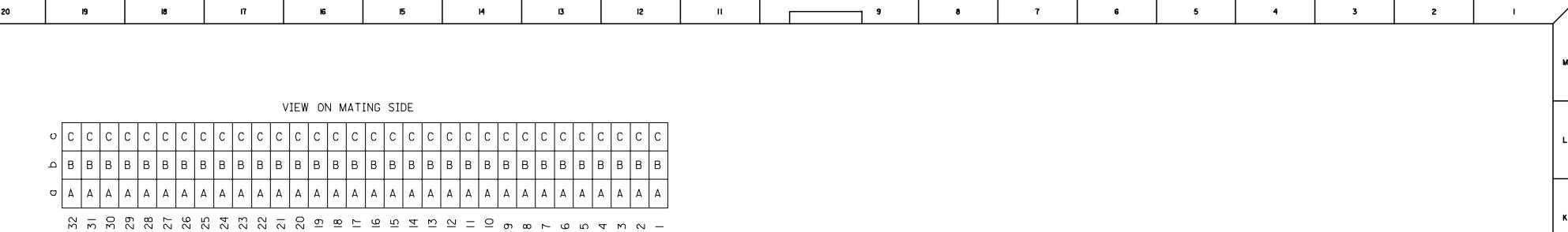
6.1 Coding device

6.2 First make last break contacts

6.2 First make last 6.3 Retention clip

6.4 Lubrication (polyphe nylether)

6.5 Anti flux treatment: DIN 41640 part 84



A = 32 STANDARD CONTACTS L = 3

B = 32 STANDARD CONTACTS L = 3

C = 32 STANDARD CONTACTS L = 3

S = 96 TOTAL NUMBER OF CONTACTS

MARKING	STANDARD	
PERFORMANCE LEVEL	G2/0 = CONTACT AREA LEVEL2 / TERMINATION TIN	
FLUX PROOF	NO	
FIXING CLIP	NO	
DIMENSIONS	SD-85003-0001 SHT 1	

C	G2/0	cl-32
B	G2/0	bl-32
A	G2/0	al-32
CONTACT SYMBOL	PERFORMANCE LEVEL	CONTACT POSITION NUMBER

EC NO.1 2004-XXXX		DRAWN BY S.09/09/03		CHECKED BY C.09/09/03		APPROVED BY G.L. 09/09/03		REV. C		DIMENSIONS: <input type="checkbox"/> MM <input type="checkbox"/> INCH <input type="checkbox"/> INCH <input type="checkbox"/> MM <input type="checkbox"/> MM ONLY		SHT REV	
TITLE: 96 POS MALE CONNECTOR ACCORDING DIN 41612 STYLE C CONTACTS ARRANGEMENT													
MOLEX INCORPORATED													
GENERAL TOLERANCES (UNLESS SPECIFIED)		SCALE <input type="checkbox"/> MM <input checked="" type="checkbox"/> INCH		DESIGN UNITS <input type="checkbox"/> MM <input checked="" type="checkbox"/> INCH		DRAWN BY & DATE S.S. 09/09/1999		THIRD ANGLE PROJECTION <input checked="" type="checkbox"/> INCH <input type="checkbox"/> MM		REVISE ON CAD ONLY			
MAJOR 		4 PLACES $\pm 0.$		$\pm .$		CHECKED BY & DATE G.L. 09/09/1999							
CRITICAL 		3 PLACES $\pm 0.$		$\pm .$		APPROVED BY & DATE G.L. 09/09/1999							
REF.		2 PLACES $\pm 0.$		$\pm .$		ANGULAR: $\pm .$							
DESCRIPTION		1 PLACE $\pm 0.$		$\pm .$		CAD FILENAME SD-85003-0177,SD		MATERIAL NO. 85003-0177		DRAWING NO. SD-85003-0177		SHEET NO. 1 OF 1	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS													
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.													