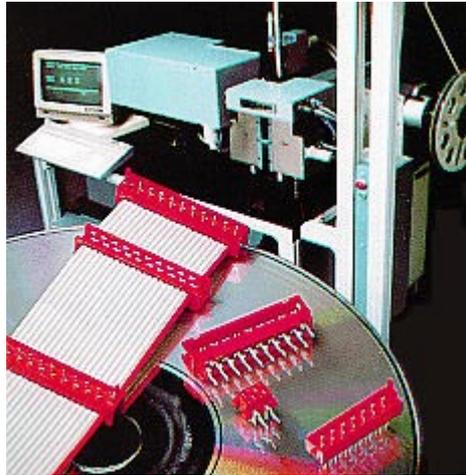


AMP Micro-MaTch Miniature Connector System General Information



Product Facts

- One of the smallest systems available at 1.27 mm
- UL-recognized: File No. E28476, Vol. 23, Section 4
- High performance/cost ratio
- Wire connectors supplied on-tape and suitable for mass termination of 28 AWG [0.08 mm² to 0.09 mm²] ribbon cable
- Tin plated contact design
- Guaranteed minimum contact force of 2.0 N
- Fretting corrosion proof thanks to additional positioning spring member
- Fully plated contacts: no bare edges and no migration of corrosion products
- Contacts fully protected by polyester housings, except for side-entry female board connector
- Full range of application tooling from hand tool to fully automated equipment
- Board connectors supplied on-tape.

Description

The AMP Micro-MaTch connector family, with its contact spacing of 1.27mm, fully complies with the electronic packaging requirements of today and the future.

Miniaturization and the trend toward higher density of electronic functions on a substrate led to the introduction of smaller interconnection systems.

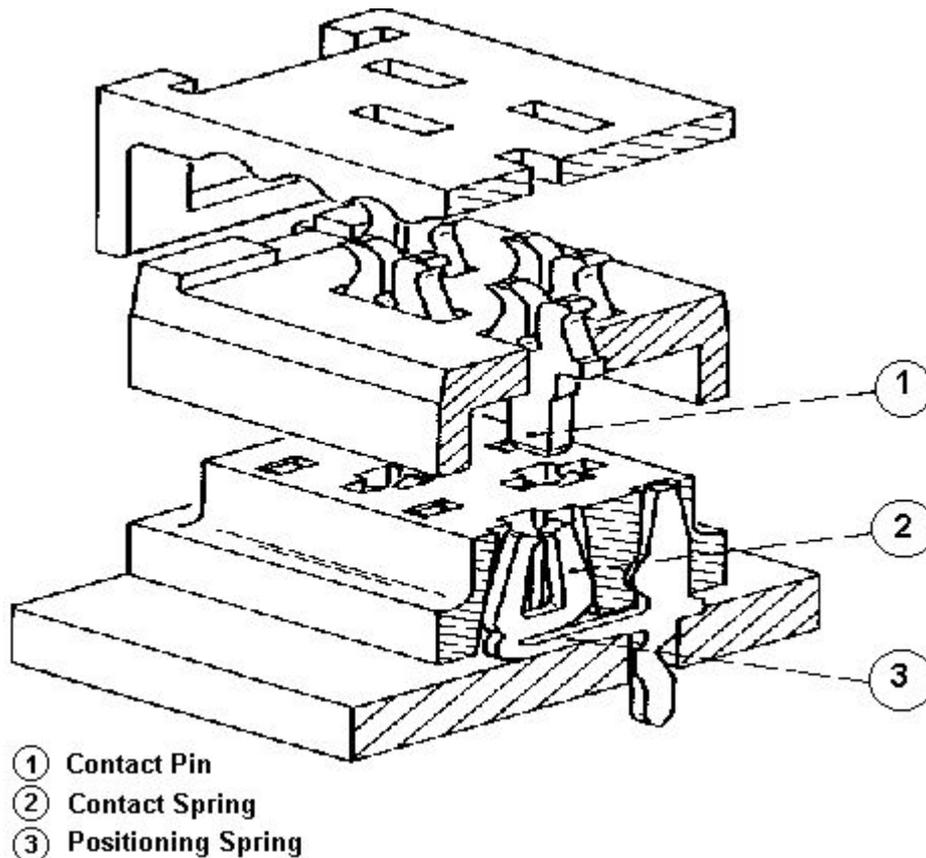
The system offers a range of board and wire connectors, enabling a variety of wire-to-board and board-to-board interconnections.

The AMP Micro-MaTch contact concept is essentially different from other systems available. The contact spring is located in the board connector and not in the cable connector, which is usually the case.

The counter part, incorporated in the cable connector, is a simple pin, either with an insulation displacement section, suitable for the mass termination of cable or with a kinked solder leg to be soldered onto a pc board.

The separation of these two basic functions of the contact system (contact force generation and wire termination), enables the independent optimization of both functions and also leads to relatively simple contact shapes. Because of their shapes, contacts can be post-plated, leaving no bare edges in the contact and wire slot area.

The contact spring system features an additional spring member (the positioning spring), which compensates positional tolerances. In this way the contact spring can be fully optimized for its basic function, so that the relatively high contact force, required for tin plated contact systems, can be guaranteed under all circumstances.



The Micro-MaTch contact spring system is absolutely fretting corrosion proof by its design.

Technical Data

Flammability Rating:

per UL 94 V-O

Contact Resistance:

10 m Ω max.

Insulation Resistance:

1,000 M Ω min.

Nominal Voltage:

100 V

220 V (double contact spacing)

Current Rating:

1.5 A max.

Temperature Range:

-40 °C to + 105 °C (operating)

Mating Force:

5 N max. per contact

Unmating Force:

1 N min. per contact

PC Board Connectors

PC Board Thickness:

1.6 mm nominal

PC Board Hole Diameter:

0.8 mm for solder connectors

Wire Connectors

Cable Type:

Ribbon cable, UL Style 2651

Conductor Spacing:

1.27mm (.050")

Conductor Diameter:

Solid 0.30 mm diameter

Stranded 0.08 mm²

7 x 0.12-0.13 mm

Insulation Type:

Semi-rigid PVC

Insulation Diameter:

0.9 ± 0.1 mm

Technical Documents

AMP Product Specification:

108-19052

AMP Application Specification:

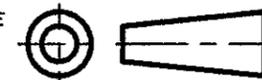
114-19016

DO NOT SCALE

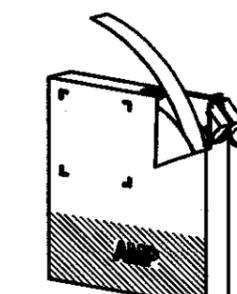
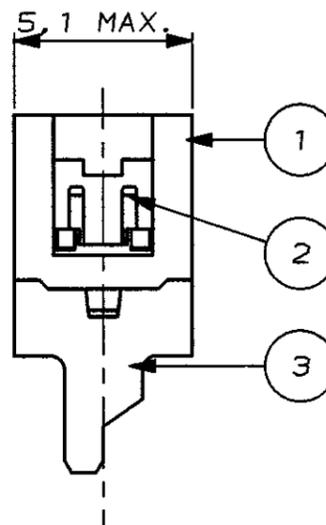
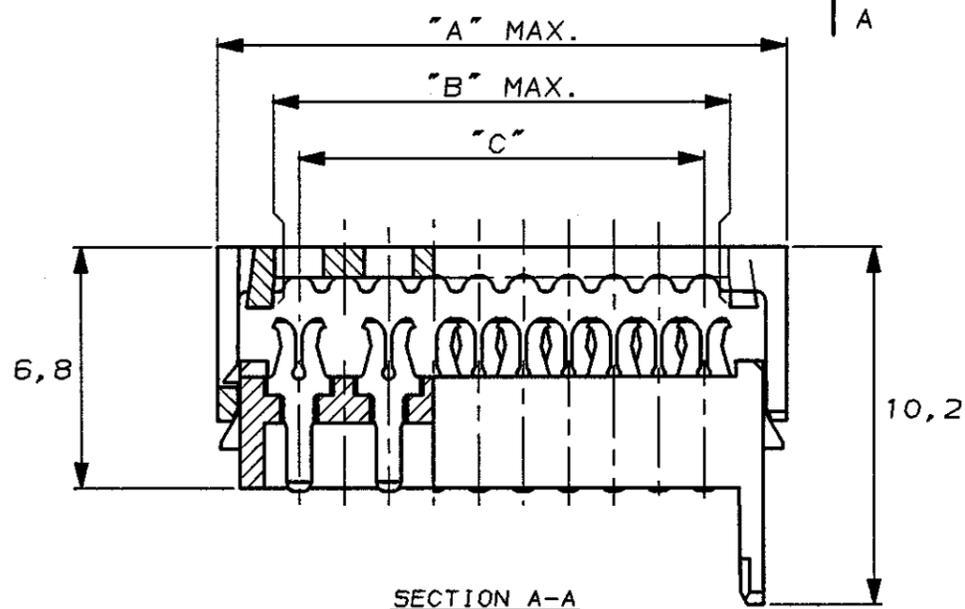
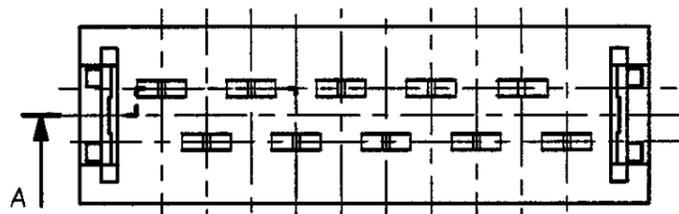
DIMENSIONS IN mm

METRIC

THIRD ANGLE
PROJECTION

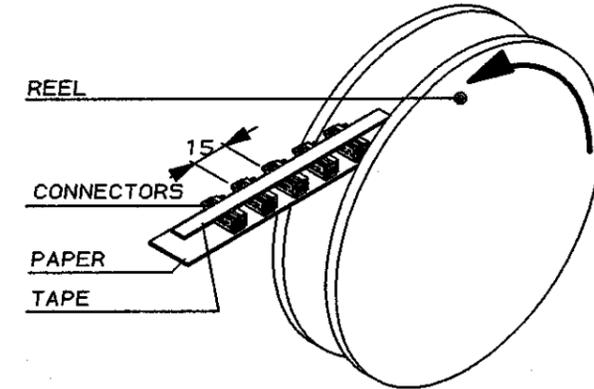


NUMBER OF POSITIONS	PARTNUMBER BOXPACKAGING	PARTNUMBER REELPACKAGING	NUMBER OF POSITIONS	DIMENSION		
				"A" MAX.	"B" MAX.	"C"
4	7-215083-4	0-215083-4	4	8,6	5,4	3,81
6	7-215083-6	0-215083-6	6	11,1	8,0	6,35
8	7-215083-8	0-215083-8	8	13,6	10,5	8,89
10	8-215083-0	1-215083-0	10	16,2	13,0	11,43
12	8-215083-2	1-215083-2	12	18,7	15,6	13,97
14	8-215083-4	1-215083-4	14	21,3	18,1	16,51
16	8-215083-6	1-215083-6	16	23,8	20,7	19,05
18	8-215083-8	1-215083-8	18	26,3	23,2	21,59
20	9-215083-0	2-215083-0	20	28,9	25,7	24,13

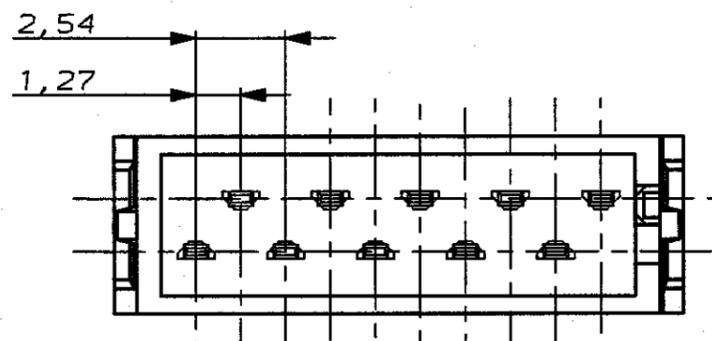


250 CONNECTORS PER BOX

DEREELING DIRECTION AND POSITION OF CONNECTORS



2500 CONNECTORS PER REEL



NOTE

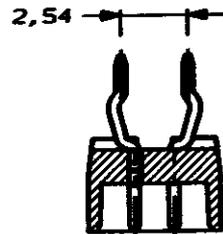
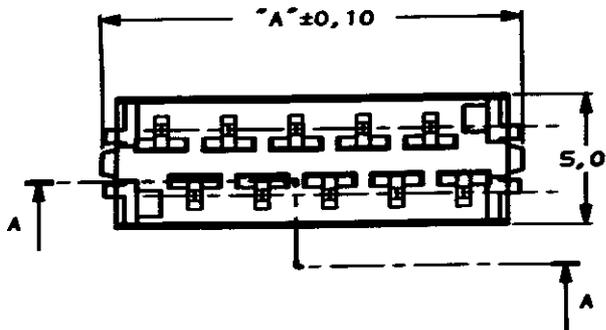
1. 10 POSITIONS AS SHOWN

DESCRIPTION	MATERIAL	ITEM
MALE HOUSING	GLASS FILLED POLYESTER (RED)	3
MALE CONTACT	PHBR. PLATING TIN-LEAD 93-7	2
COVER	GLASS FILLED POLYESTER (RED)	1

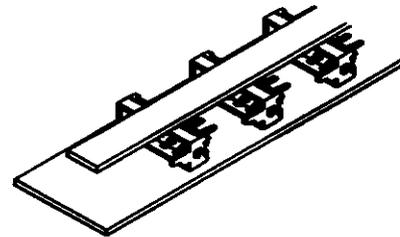
-					CUSTOMER DRAWING		FOR REFERENCE ONLY WILL NOT BE UPDATED	
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-					ALL INTERNATIONAL RIGHTS RESERVED.		AMP PRODUCTS MAY BE COVERED BY U.S. AND FOREIGN AND/OR PATENTS PENDING.	
-					THIS DRAWING IS UNPUBLISHED		RELEASED FOR PUBLICATION	
-					AMP		AMP HOLLAND B.V. 's-Hertogenbosch, The Netherlands.	
P	EH-1428-95	HvD	HvD	01.96	NAME MicroMatch MALE ASS'Y PITCH 1,27 mm			
N	-	PvT	H.K.	01.85	DWG. No. C-215083			
LTR.	REVISION RECORD	DR.	CHK.	DATE	REV. LTR. P		SHEET 1 OF 2	
DR.:	P.v.Tongeren	CHK.:	H.Kokken	APP.:	-		-	
DATE:	-	DATE:	-	DATE:	-		-	

DO NOT SCALE
DIMENSIONS IN mm

METRIC

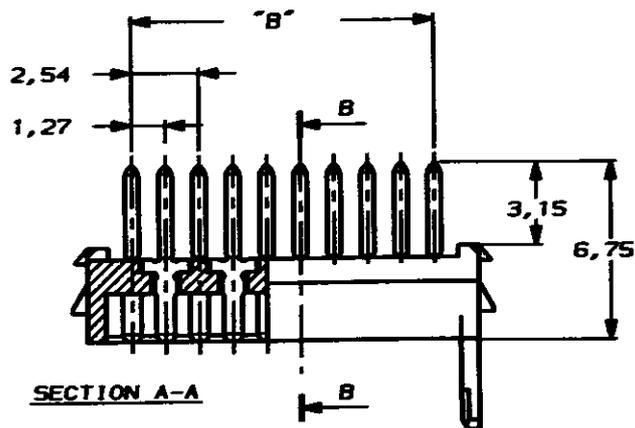


SECTION B-B

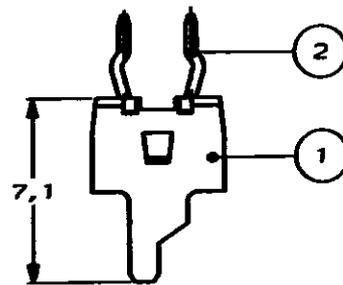


DETAIL A

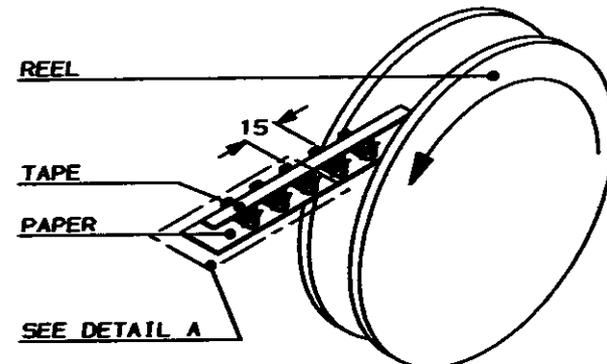
PARTNUMBER	NUMBER OF POSITIONS	DIMENSION	
		"A"	"B"
0-215464-4	4	8,3	3,81
0-215464-6	6	10,8	6,35
0-215464-8	8	13,4	8,89
1-215464-0	10	15,9	11,43
1-215464-2	12	18,5	13,97
1-215464-4	14	21,0	16,51
1-215464-6	16	23,5	19,05
1-215464-8	18	26,1	21,59
2-215464-0	20	28,6	24,13



SECTION A-A



DEREELING DIRECTION AND POSITION OF CONNECTORS

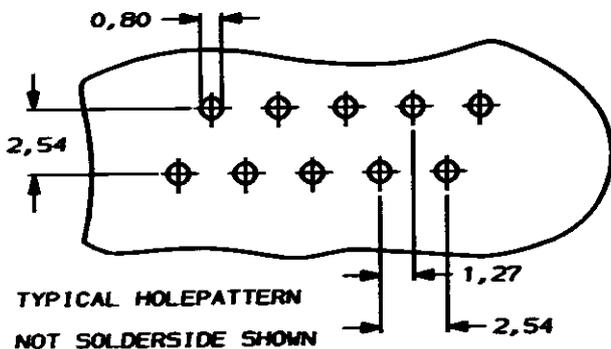


2500 CONNECTORS PER REEL FOR ALL PARTNUMBERS
FOR 250 CONNECTORS PER BOX SEE SHEET 2

FOR REFERENCE ONLY
WILL NOT BE UP - DATED

THIS DRAWING IS
PRELIMINARY

DESCRIPTION	MATERIAL	ITEM
MALE CONTACT	PHBR. PLATING; TIN-LEAD 93-7	2
HOUSING	GLASS FILLED POLYESTER (RED)	1



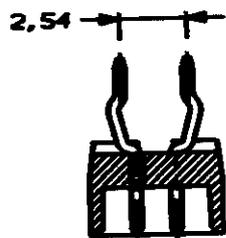
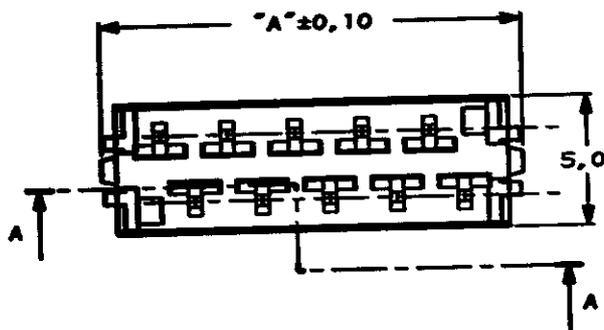
REV.	J	PRO1
SHEET	1	2

CUSTOMER DRAWING		AMP		AMP-HOLLAND B.V. 's-Hertogenbosch, The Netherlands.	
FOR REFERENCE ONLY WILL NOT BE UPDATED		THIS DRAWING IS UNPUBLISHED. RELEASED FOR PUBLICATION.			
DR. P. VAN TONGEREN DATE 20-11-85		WIRE RANGE		NAME	
CHK. H. KROON DATE		INSUL. RANGE		Micro-MaTch MALE-ON-BOARD	
APP. [Signature]		SIZE A3		SHEET 1 OF 2	
DATE 14.6.91		DWS. No. C-215464		REV. DATE	
				D M Y	
				5 4 91	
				REV. LTR. J	

DO NOT SCALE
DIMENSIONS IN mm

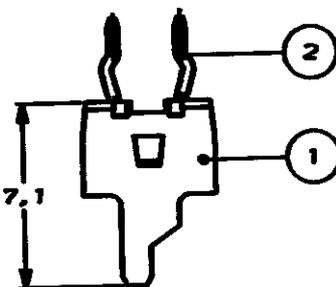
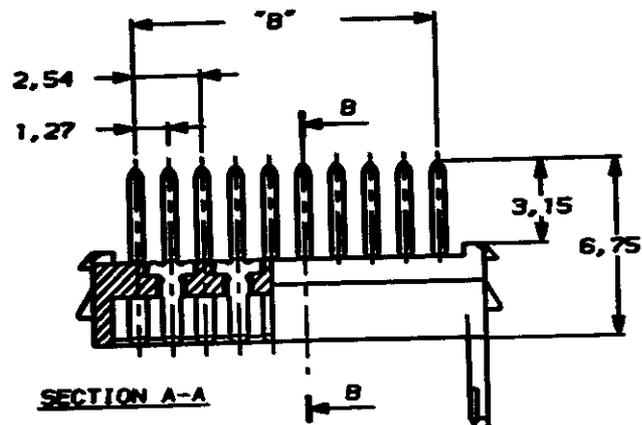
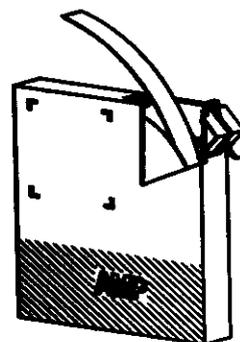
METRIC

THIRD ANGLE
PROJECTION

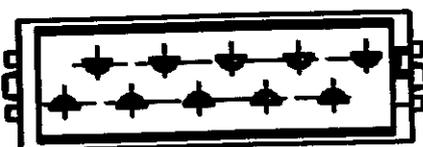


FOR REFERENCE ONLY
WILL NOT BE UP-DATED

NUMBER OF POSITIONS	PARTNUMBER MALE-ON-BOARD
4	7-215464-4
6	7-215464-6
8	7-215464-8
10	8-215464-0
12	8-215464-2
14	8-215464-4
16	8-215464-6
18	8-215464-8
20	9-215464-0

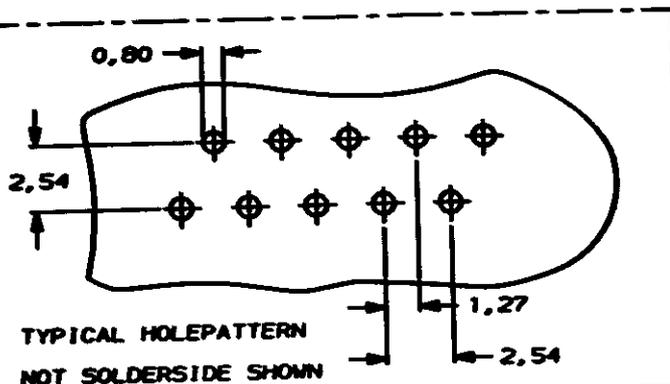


250 CONNECTORS PER BOX FOR ALL PARTNUMBERS.
FOR 2500 CONNECTORS PER REEL SEE SHEET 1.



THIS DRAWING IS
PRELIMINARY

DESCRIPTION	MATERIAL	ITEM
MALE CONTACT HOUSING	PHBR. PLATING, TIN-LEAD 93-7 GLASS FILLED POLYESTER (RED)	2 1



CUSTOMER DRAWING		AMP		AMP-HOLLAND B.V. 's-Hertogenbosch, The Netherlands.	
FOR REFERENCE ONLY WILL NOT BE UPDATED		THIS DRAWING IS UNPUBLISHED RELEASED FOR PUBLICATION			
© COPYRIGHT 1991 BY AMP-HOLLAND B.V. ALL INTERNATIONAL RIGHTS RESERVED. AMP PRODUCTS MAY BE COVERED BY U.S. AND FOREIGN PATENTS AND/OR PATENTS PENDING.		Micro-MaTch MALE-ON-BOARD 1,6mm P.C.BOARD, POLARIZED		REV. DATE D M Y 5 4 91	
DR. P. VAN TONGEN	DATE 05-04-81	WIRE RANGE	NAME	REV. LTR. PRO1	
CHK. H. KROON	DATE	INSUL. RANGE			
APP. [Signature]	DATE 1989	SIZE A3	SHEET 2 OF 2	Dwg. No. C-215464	

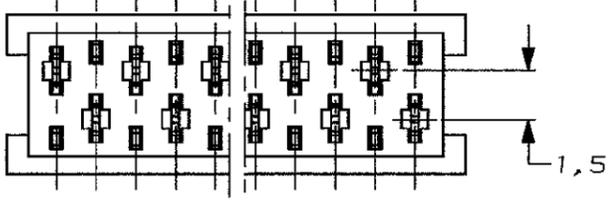
8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

NOTES:
 ▲ DIRECTION OF KINK OPTIONAL.

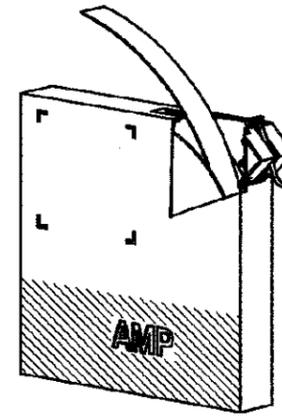
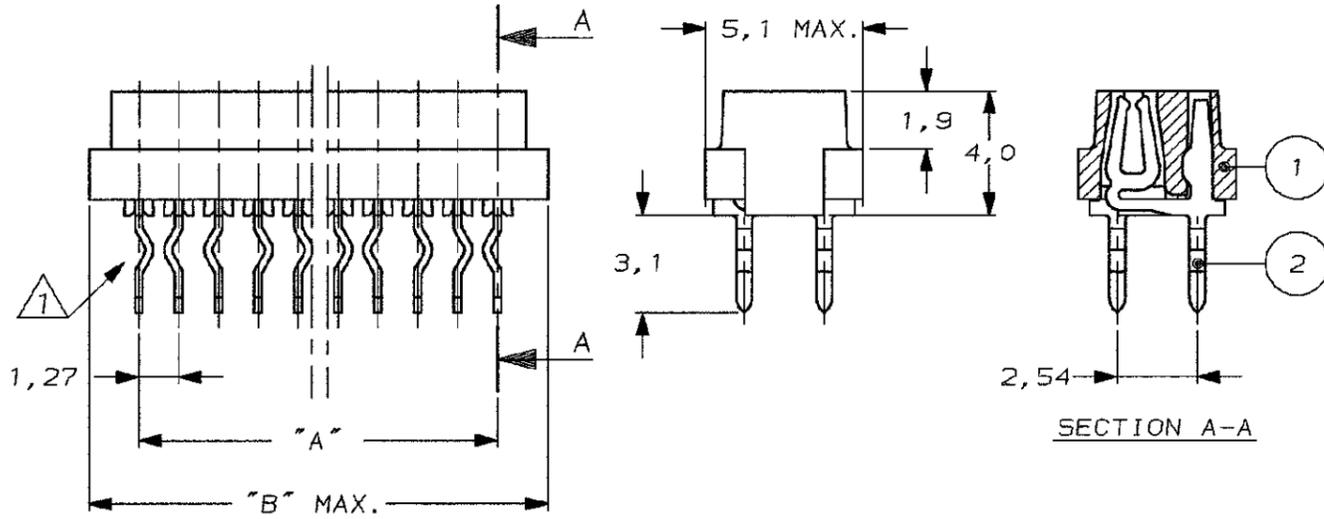
DO NOT SCALE
 DIMENSIONS IN mm

METRIC

THIRD ANGLE
 PROJECTION

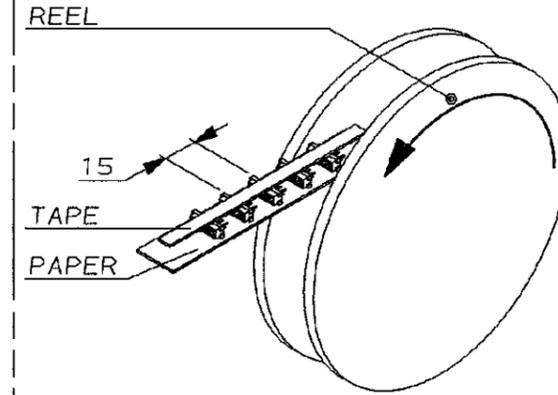


PARTNUMBER	PARTNUMBER	NUMBER OF POSITIONS	"A"	"B" MAX.
7-215079-4	0-215079-4	4	3,81	7,1
7-215079-6	0-215079-6	6	6,35	9,7
7-215079-8	0-215079-8	8	8,89	12,2
8-215079-0	1-215079-0	10	11,43	14,7
8-215079-2	1-215079-2	12	13,97	17,3
8-215079-4	1-215079-4	14	16,51	19,8
8-215079-6	1-215079-6	16	19,05	22,4
8-215079-8	1-215079-8	18	21,59	24,9
9-215079-0	2-215079-0	20	24,13	27,4

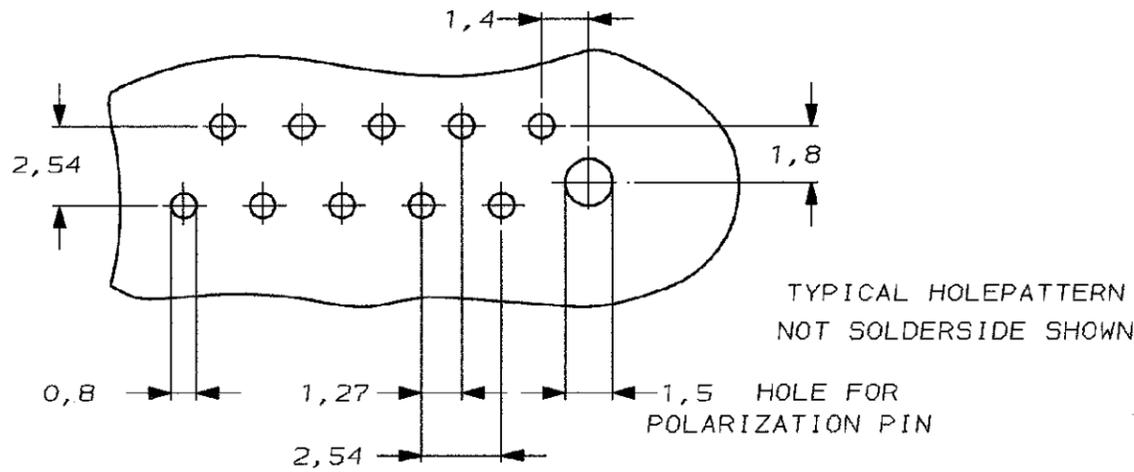


250 CONNECTORS PER BOX.

DEREELING DIRECTION AND POSITION OF CONNECTORS.



2500 CONNECTORS PER REEL.



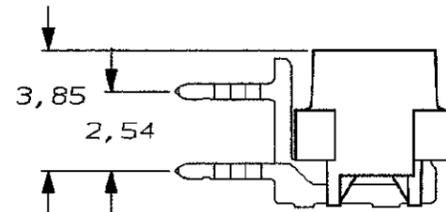
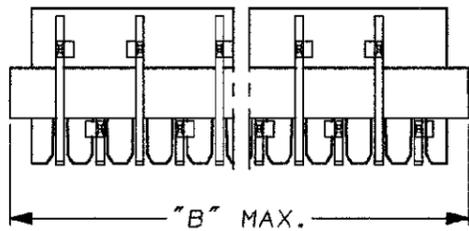
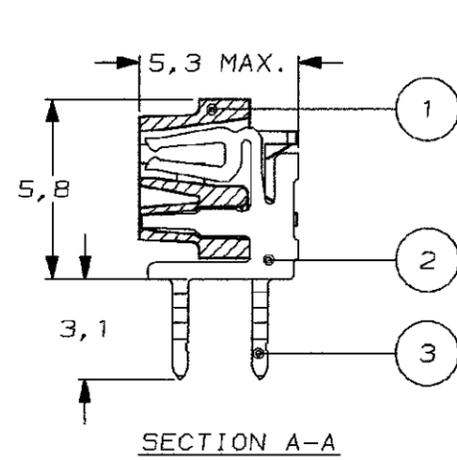
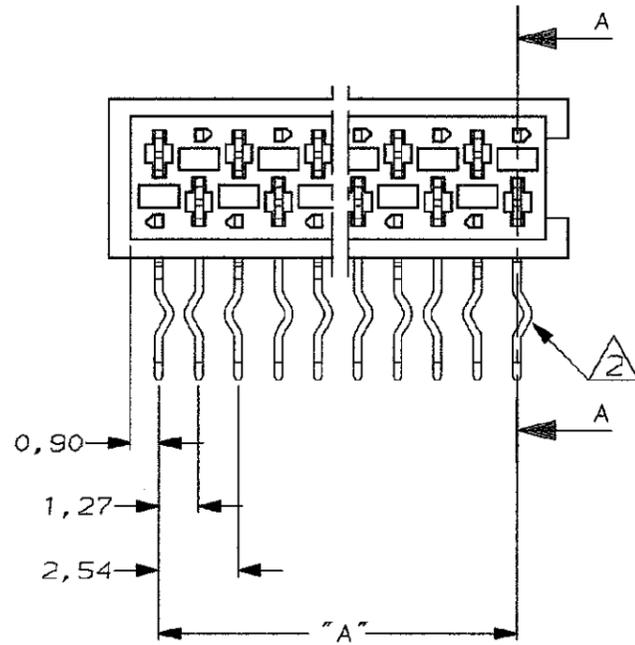
DESCRIPTION	MATERIAL	ITEM
FEMALE CONTACT	PHBR. PLATING: TIN-LEAD 93-7	2
HOUSING	GLASS FILLED POLYESTER (RED)	1

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-					THIS DRAWING IS UNPUBLISHED		RELEASED FOR PUBLICATION	
-					AMP		AMP HOLLAND B.V. s-Hertogenbosch, The Netherlands.	
R	EH-1337-97	D.K.	MVD	25 NOV 97	NAME			
P	EH-0702-97	D.K.	M.G.	01 JUL 97	Micro-MaTch FEM. ON BOARD CONNECTOR			
LTR.	REVISION RECORD	DR.	CHK.	DATE				

DR.:	D. KESSLER	CHK.:	01 JUL 97	APP.:	-	DWG. No.	C-215079	REV. LTR.	R	SHEET	1 OF 1	A3
DATE:	-	DATE:	-	DATE:	-							

NOTES:

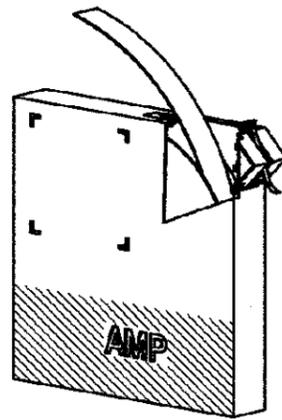
- ① THIS AREA IS RESERVED FOR CONTACTS
- ② DIRECTION OF KINK OPTIONAL.



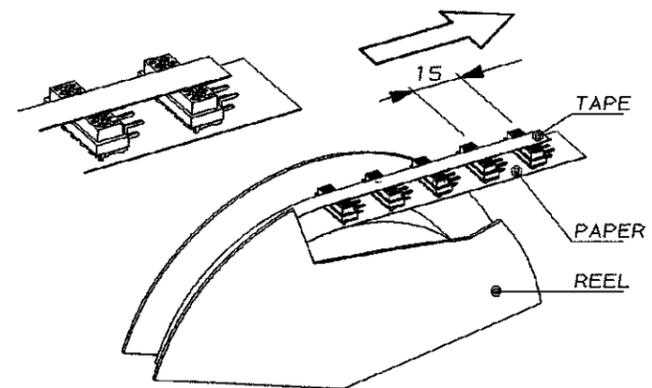
DO NOT SCALE METRIC
DIMENSIONS IN mm



PARTNUMBERS BOX PACKAGING	PARTNUMBERS REEL PACKAGING	NUMBER OF POSITIONS	"A"	"B"
7-215460-4	0-215460-4	4	3,81	7,1
7-215460-6	0-215460-6	6	6,35	9,7
7-215460-8	0-215460-8	8	8,89	12,2
8-215460-0	1-215460-0	10	11,43	14,7
8-215460-2	1-215460-2	12	13,97	17,3
8-215460-4	1-215460-4	14	16,51	19,8
8-215460-6	1-215460-6	16	19,05	22,4
8-215460-8	1-215460-8	18	21,59	24,9
9-215460-0	2-215460-0	20	24,13	27,4



BOX PACKAGING
250 CONNECTORS PER BOX
FOR ALL PARTNUMBERS.

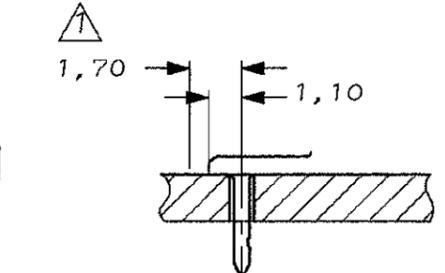
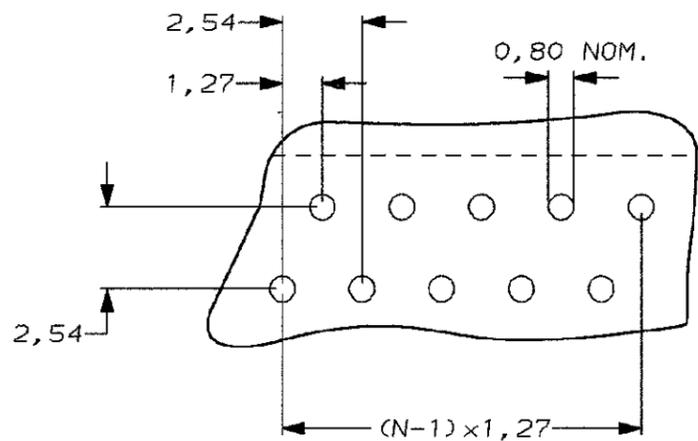


REEL PACKAGING
DEREELING DIRECTION AND CONNECTOR POSITION
2500 CONNECTORS PER REEL FOR ALL PARTNUMBERS

DESCRIPTION	MATERIAL	ITEM
FEMALE CONTACT	PhBr. PLATING; TIN-LEAD	3
FEMALE CONTACT	PhBr. PLATING; TIN-LEAD	2
HOUSING	GLASS FILLED POLYESTER (RED)	1

LTR. REVISION RECORD				DR. CHK. DATE		CUSTOMER DRAWING		FOR REFERENCE ONLY WILL NOT BE UPDATED	
R	EH-1337-97	D.K.	Mvd	25	NOV	97	© COPYRIGHT 19- BY AMP-HOLLAND B.V. ALL INTERNATIONAL RIGHTS RESERVED. AMP PRODUCTS MAY BE COVERED BY U.S. AND FOREIGN AND/OR PATENTS PENDING. THIS DRAWING IS UNPUBLISHED RELEASED FOR PUBLICATION		
P	EH-0770-97	D.K.	M.G.	14	JUL	97			
N	EH-0615-97	D.K.	M.G.	12	JUN	97			
M	EH-0587-95	Hvd	Hvd	12.05.95					
L	EH-0211-94	DK	HvdS	31-03-94					
NAME						AMP AMP-HOLLAND B.V. 's-Hertogenbosch, The Netherlands.			
						Micro-MaTch FEMALE ON BOARD			
						SIDE ENTRY POLARIZED			

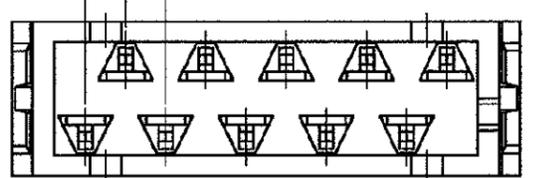
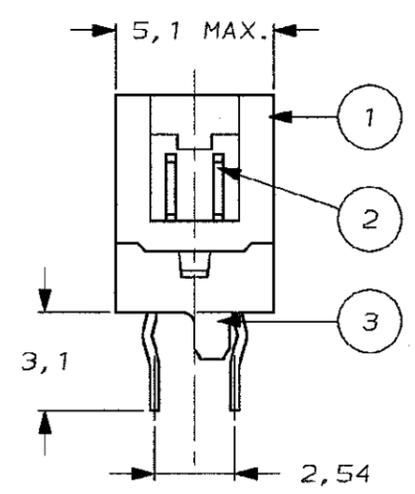
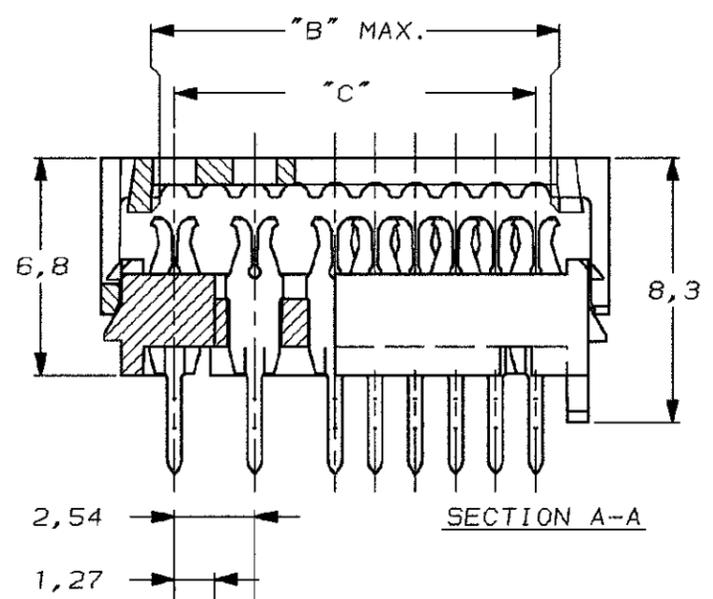
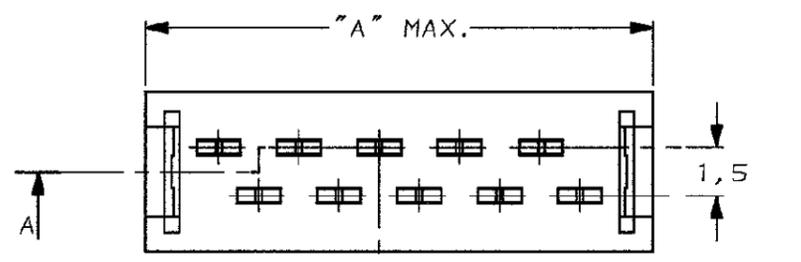
DR.: P. V. TONGEREN	CHK.: H. KOKKEN	APP.: L.V. SOEST	DWG. No.	REV. LTR.	SHEET	
DATE: 11-03-92	DATE: 11-03-92	DATE: -	215460	R	1 OF 1	A3



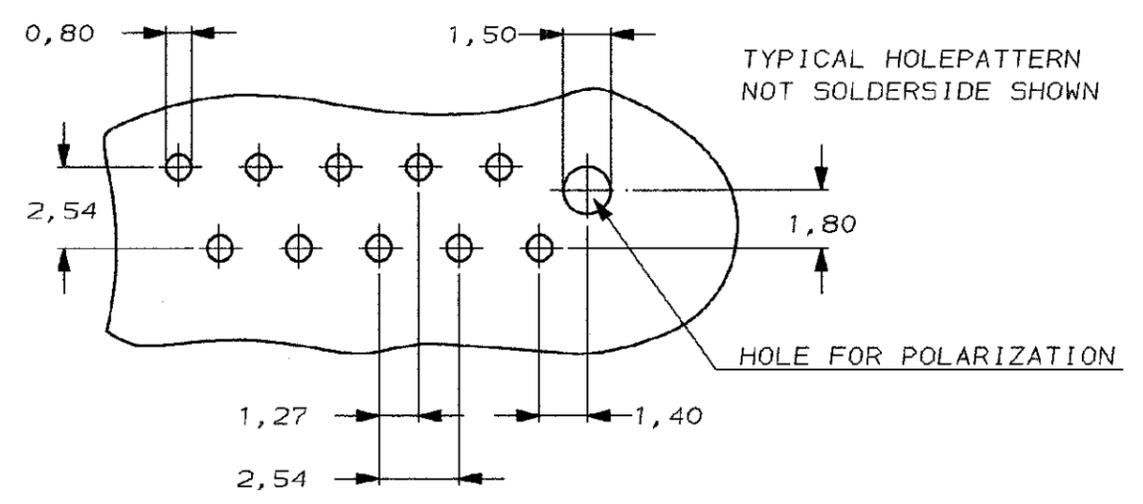
RECOMMENDED PCB-HOLE LAY-OUT
NOT SOLDERSIDE SHOWN

DO NOT SCALE
DIMENSIONS IN mm

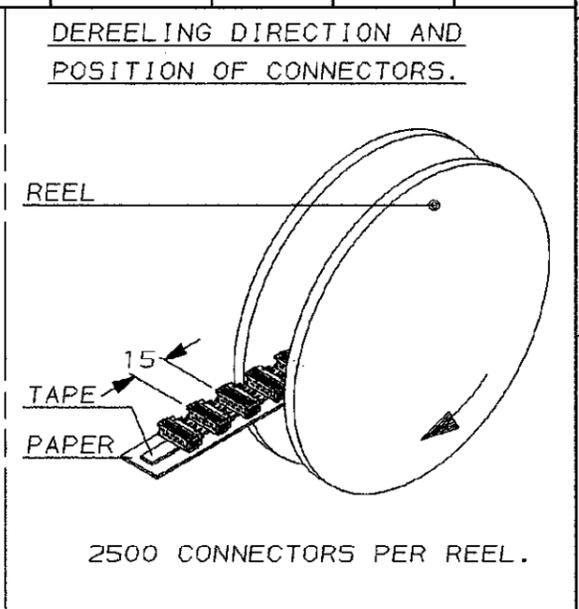
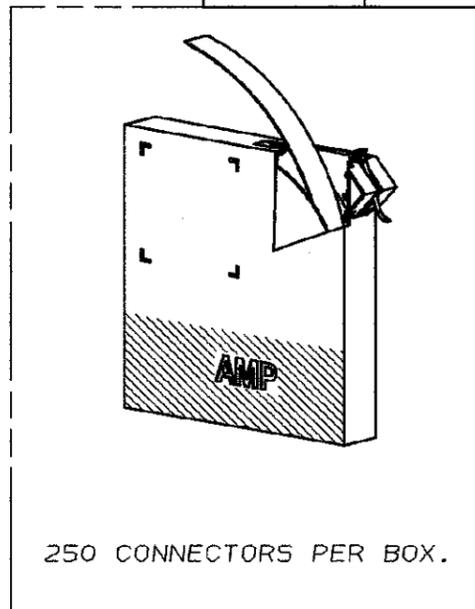
METRIC



NOTE
1. 10 POSITIONS AS SHOWN



PARTNUMBER	PARTNUMBER	NUMBER OF POSITIONS	DIMENSION		
			"A" MAX.	"B" MAX.	"C"
7-215570-4	0-215570-4	4	8,6	5,4	3,81
7-215570-6	0-215570-6	6	11,1	8,0	6,35
7-215570-8	0-215570-8	8	13,6	10,5	8,89
8-215570-0	1-215570-0	10	16,2	13,0	11,43
8-215570-2	1-215570-2	12	18,7	15,6	13,97
8-215570-4	1-215570-4	14	21,3	18,1	16,51
8-215570-6	1-215570-6	16	23,8	20,7	19,05
8-215570-8	1-215570-8	18	26,3	23,2	21,59
9-215570-0	2-215570-0	20	28,9	25,7	24,13



DESCRIPTION	MATERIAL	ITEM
MALE HOUSING	GLASS FILLED POLYESTER (RED)	3
MALE CONTACT	PH.BR. PLATING: TIN-LEAD 93-7	2
COVER	GLASS FILLED POLYESTER (RED)	1

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-				THIS DRAWING IS UNPUBLISHED RELEASED FOR PUBLICATION			
-				AMP		AMP HOLLAND B.V. s-Hertogenbosch, The Netherlands.	
-				NAME Micro-Match PADDLE BOARD CONNECTOR			
K	EH-0702-97	D.K.	M.G.	01 JUL 97			
LTR.	REVISION RECORD	DR.	CHK.	DATE			
DR.:	D. KESSLER	CHK.:	01 JUL 97	APP.:	-	DWG. No.	REV. LTR.
DATE:	-	DATE:	-	DATE:	-	C-215570	K
						SHEET	A3
						1 OF 1	