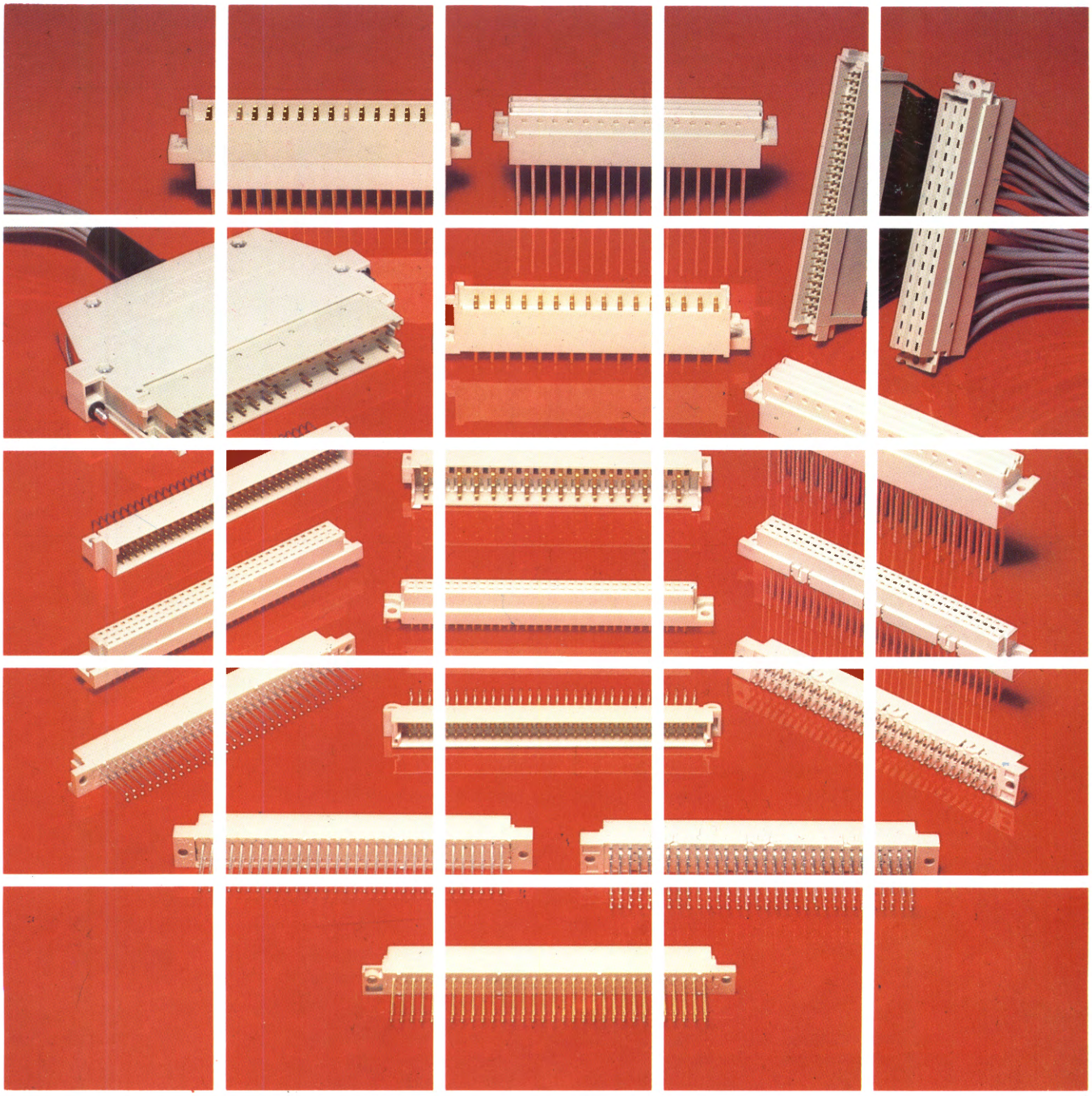
AMP

Two-piece Printed Circuit Board Connectors as per DIN 41612 and IEC 130

Part Number Matrix for connectors with regular contact arrangements

Data Sheet
82-6100
Issued 05-82



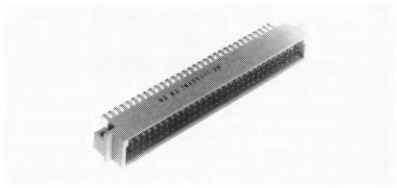
Standard Connectors

Dimensions in millimetres.
Customer drawings are available on request.

TYPE C

Number of Positions	96	64	64	48	32	32	32	32
Loaded Rows	a+b+c	a+c	a+b	a+b+c	a+c	a+b	a	c
Pitch x Row Dist.	2,54x2,54	2,54x5,08	2,54x2,54	5,08x2,54	5,08x5,08	5,08x2,54	2,54	2,54
Loaded Cavity No.				2,4,6 . .32	2,4,6 . .32	1,3,5 . .31		

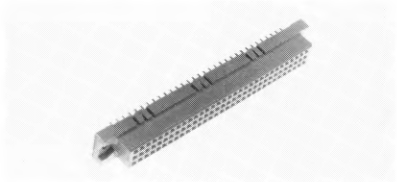
Male Connectors with right-angle solder posts



1-164354-4 1-164032-4 1-164614-4 1-164642-4 1-164339-4 1-164685-4 1-164278-4 1-164427-4

Posts for hole dia. 0,8 nom. and 1,0 nom.
Post length for board thkn. 1,6 nom.

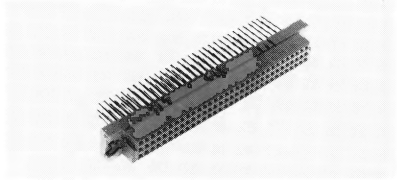
Female Connectors with straight solder posts



166584-4 166583-4 166712-4 166578-4 166582-4 166713-4 166714-4 166715-4

0,64 sq. posts for hole dia. 1,0 nom.
Post length 2,5 for board thkn. 1,6 nom.

Female Connectors with wrap-type posts



166579-4 166580-4 166706-4 166707-4 166708-4 166709-4 166710-4 166711-4

0,64 sq. posts, length 13,0

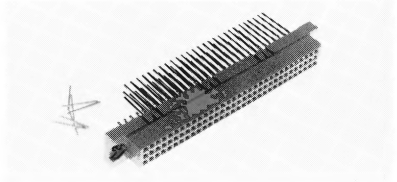
Female Connectors

with ACTION PIN posts to press fit 0,91-1,09 dia. plated-through hole

TYPE C

Number of Positions	96	64	64	48	32	32	32	32
Loaded Rows	a+b+c	a+c	a+b	a+b+c	a+c	a+b	a	c
Pitch x Row Dist.	2,54x2,54	2,54x5,08	2,54x2,54	5,08x2,54	5,08x5,08	5,08x2,54	2,54	2,54
Loaded Cavity No.				2,4,6 . .32	2,4,6 . .32	1,3,5 . .31		

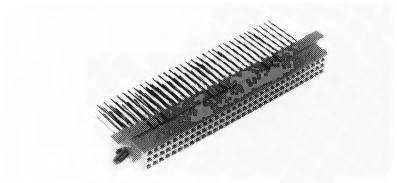
Female Connectors with straight pc board mount posts



166621-4 166618-4 166700-4 166701-4 166702-4 166703-4 166704-4 166705-4

Post length incl. ACTION PIN area 4,0 for board thkn. **min. 1,6 nom.;**
(loaded with prenotched breakoff post, entire length 17,0)

Female Connectors with wrap-type posts



166384-4 166593-4 166682-4 166683-4 166684-4 166685-4 166686-4 166687-4

Post length 17,0 incl. ACTION PIN area 4,0 for board thkn. **min. 2,4 nom.,**
wrap section 0,64 sq. post length 13,0

Materials:
Housings – 94V-0 rated glass-filled polyester, grey as per RAL 7032
Male Contacts – Brass; Female Contacts – Phosphor Bronze
Finish – selective 0,8 µm gold in contact area, posts 2,5 µm tin lead, entire contact 1,25 µm nickel undercoating

Part number suffix reference for other selective plating options
–1: 1,25 µm gold in contact area as per DIN 41612
–7: 2,0 µm gold in contact area

Label with numerical legend for Female Standard Connectors with 0,64 sq. wrap-type posts:
Part No. **826102-1** (row a+c)
Part No. **826192-1** (row a+b+c)

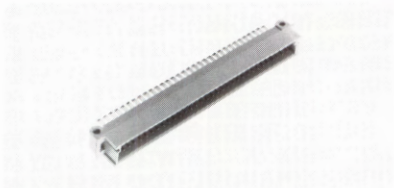
Standard Connectors

Dimensions in millimetres.
Customer drawings are available on request.

TYPE B

Number of Positions	64	32	32	
Loaded Rows	a+b	a+b	a	
Pitch x Row Distance	2,54x2,54	5,08x2,54	2,54	
Loaded Cavity No.		2,4,6 . .32		Remarks

Male Connectors with right-angle solder posts



2-164674-4 **2-164763-4** **2-164718-4**

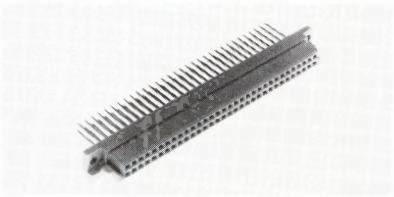
Posts for hole dia. 0,8 nom. and 1,0 nom.
Post length for board thkn. 1,6 nom.

Female Connectors with straight solder posts

2-164707-4 (3 mm)	**2-164894-4** (3 mm)		0,64 sq. posts, length 13,0
2-164710-4 (4 mm)	**2-164765-4** (4 mm)	**2-164719-4** (4 mm)	(Post length): 3 mm for board thkn. 1,6 4 mm for board thkn. 2,4

0,64 sq. posts for hole dia. 1,0 nom.

Female Connectors with wrap-type posts



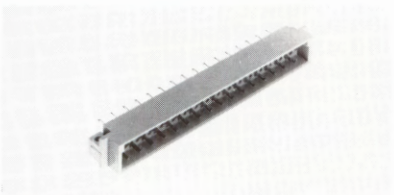
2-164673-4 **2-164764-4** **2-164766-4**

For connectors with Mini TERMI-POINT posts refer to cat. 82-4100

Materials:
Housings – Male Connectors: thermoplastic glass-filled polyester, grey as per RAL 7032
Female Connectors: glass-filled polycarbonate, grey as per RAL 7032
Male Contacts – Brass; Female Contacts – Phosphor Bronze
Finish: selective 0,8 µm gold in contact area, posts 2,5 µm tin lead, entire contact 1,25 µm nickel undercoating
Part number suffix reference for other selective plating options
–1: 1,25 µm gold in contact area as per DIN 41612 –7: 2,0 µm gold in contact area

TYPE D

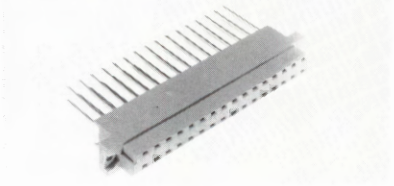
Male Connectors with right-angle solder posts



Part No. **2-164732-4**

Loaded Rows a+c
5,08x5,08 center spacing
Posts for hole dia. 0,8 nom. and 1,0 nom.
Post length for board thkn. 1,6 nom.

Female Connectors with TERMI-POINT posts



Part No. **2-164779-4**
with Standard TERMI-POINT posts 0,8x1,6, length 22,0

Part No. **2-164780-4**
with Maxi TERMI-POINT posts 0,8x2,4, length 22,0

Loaded Rows a+c
5,08x5,08 center spacing

Materials:
Housings – Male and Female: glass-filled polycarbonate, grey as per RAL 7032
Male Contacts – Brass; Female Contacts – Phosphor Bronze
Finish – 0,8 µm gold over 1,25 µm nickel in the contact area,
solderposts 2,5 µm tin lead, TERMI-POINT posts goldflash
Part number suffix reference for other selective plating options
–1: 1,25 µm gold in contact area as per DIN 41612

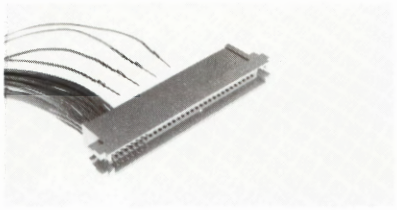
Connector Housings and Crimp Snap-In Contacts

Housing and Contacts to be purchased separately.
Dimensions in millimetres.

TYPE C

Wire Size mm2	Ins. Dia. mm	Part Numbers Strip	Loose Piece

Male Connector Housing and Pin Contacts



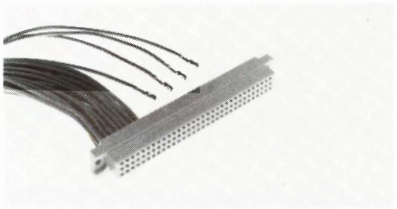
96 Position Housing Part No. 166467-1
(mates with Type C Female Connectors)
Crimp Snap-In Pin Contacts

0,12-0,40	1,6 max.	**166678-1**	**166679-1**

Handtool Part No. **90340-1;**
Extraction Tool Part No. **166645-1**
(Instruction Sheet IS-7831)

Materials:
Housings – 94V-0 rated glass-filled polyester, grey as per RAL 7032
Contacts – Phosphor Bronze
Finish – selective 0,8 µm gold in contact area, 1,0 µm tin lead in barrel area, entire contact 0,8 µm nickel undercoating

Female Connector Housing and Receptacle Contacts



96 Position Housing Part No. 925486-1
(mates with Type C Male Connectors)
Crimp Snap-In Tandem Spring Receptacle Contacts

0,05-0,14	1,2 max.	**166720-2**	**166721-1**
0,20-0,56	1,4 max.	**166500-2**	**166722-1**

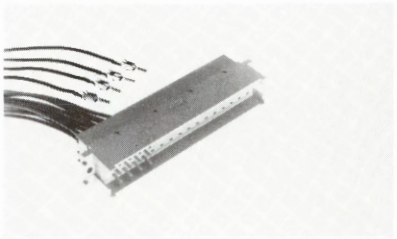
Handtool Part No. **654188-1;**
Extraction Tool Part No. **91065-1**
(Instruction Sheet IS-7481)

Materials:
Housings – 94V-0 rated glass-filled polycarbonate, grey as per RAL 7032
Contacts – Phosphor Bronze
Finish – selective 0,8 µm gold in contact area, 1,0 µm tin lead in barrel area, entire contact 0,8 µm nickel undercoating

TYPE F

Wire Size mm2	Ins. Dia. mm	Part Numbers Strip	Loose Piece

Male Connector Housing and Wire Crimp Contacts



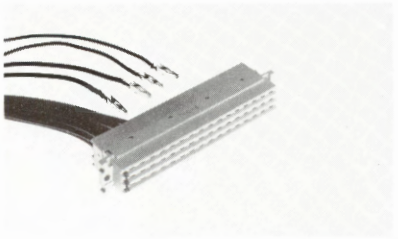
48 Position Housing Part No. 166570-1
(mates with Type F Female Connectors)
Crimp Snap-In Male Contacts

0,05-0,14	0,3-0,7	**166477-2**	**166634-1**
0,20-0,50	1,1-1,8	**166478-2**	**166635-1**
0,75-1,50	2,0-2,5	**166479-2**	**166636-1**

Handtool Part No. **825589-0;**
Extraction Tool Part No. **166644-1**

Materials:
Housings – 94V-0 rated glass-filled polyester, grey as per RAL 7032
Contacts – Brass
Finish – selective 1,25 µm gold over 1,25 µm nickel in contact area, remainder 1,25 µm nickel

Female Connector Housing and Wire Crimp Contacts



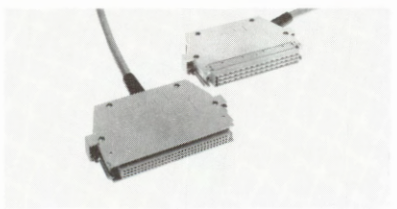
48 Position Housing Part No. 166569-1
(mates with Type F Male Connectors)
Crimp Snap-In Female Contacts

0,05-0,14	0,3-0,7	**166459-2**	**166631-1**
0,20-0,50	1,1-1,8	**166460-2**	**166632-1**
0,75-1,50	2,0-2,5	**166461-2**	**166633-1**

Handtool Part No. **825589-0;**
Extraction Tool Part No. **166644-1**

Materials:
Housings – 94V-0 rated glass-filled polyester, grey as per RAL 7032
Contacts – Phosphor Bronze
Finish – selective 1,25 µm gold over 1,25 µm nickel in contact area, remainder 1,25 µm nickel

Two-Piece Cable Clamp Assemblies Straight/45° Exit



For Type C Female Connectors Kit Part No. **826196-1**

For Type F Female Connectors Kit Part No. **826198-1**

Material:
94V-0 rated glass-filled polyester, grey as per RAL 7032
Kit parts packed unassembled. Kit part numbers include Cable Boot Part number **826199-5;** which also may be purchased separately.
Connectors shown for reference only.

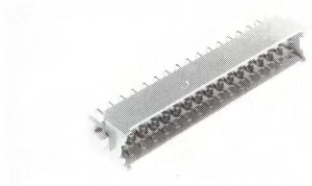
Standard Connectors

Dimensions in millimetres.
Customer drawings are available on request.

TYPE F

Number of Positions	48	32	32
Loaded Rows	z+b+d	z+b	z+d
Pitch x Row Dist.	5,08x5,08	5,08x5,08	5,08x10,16

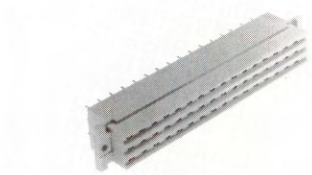
Male Connectors with right-angle solder posts



2-164045-4*	2-164043-4	2-164306-4**

Posts for hole dia. 1,0 nom.
and board thkn. 1,6 nom.

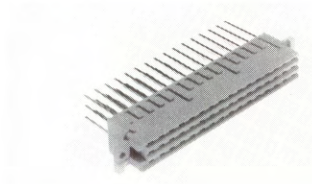
Female Connectors with straight solder posts



2-164754-4	2-164755-4	2-164756-4

Post size 0,6x0,9
for hole dia. 1,2 nom.
and board thkn. 2,4 nom.

Female Connectors with wrap-type posts



166717-4	166718-4	166719-4

1,0 sq. posts, length 22,0

* Pitch x Row Dist. 5,08x2,54
** Pitch x Row Dist. 5,08x5,08

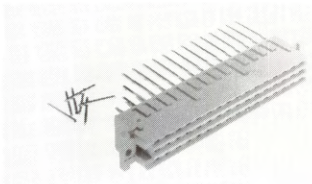
Female Connectors

with ACTION PIN posts to press fit 0,91-1,09 dia. plated-through hole

TYPE F

Number of Positions	48	32	32
Loaded Rows	z+b+d	z+b	z+d
Pitch x Row Dist.	5,08x5,08	5,08x5,08	5,08x10,16

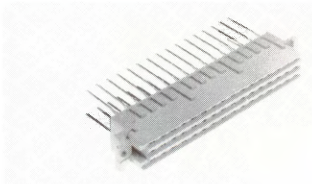
Female Connectors with straight pc board mount posts



166648-4	166649-4	166728-4

Post length incl. ACTION PIN
area 6,0 for board thkn.
min. 2,4 nom.; (loaded with
prenotched breakoff post,
entire length 22,0)

Female Connectors with wrap-type posts



166555-4	166594-4	166727-4

Post length 22,0 incl. ACTION PIN
area 6,0 for board thkn.
min. 2,4 nom., wrap section
1,0 sq. post, entire length 16,0

Also available other connector configurations and accessories:

- Type B Male and Female Connectors (see page 5)
- Type D Male and Female Connectors (see page 5)
- Type F Male Connectors with leading protective ground contacts
- Type F Interface Male Connectors, rack mount and pc board mount
- Type B, C, D and F Female Connectors with TERMI-POINT posts
- Type B and Type C Connectors with irregular contact arrangements
- Military qualified Connectors according to GRF Mil. Spec. VG 95324
- Keying Systems
- Guide Brackets for front panel or back panel mounting

For part numbers and specifications please consult AMP cat. 82-4100.

Plated-through Hole Specification for ACTION PIN Connectors:

	Type C Post Size 0,64 mm sq.	Type F Post Size 1,0 mm sq.
Hole Dia. after drilling	1,15±0,025	1,75±0,025
Cu layer	0,025 to 0,075	
Sn/Pb layer	0,004 to 0,010	
Hole Dia. after plating	0,94 to 1,09	1,54 to 1,69
Finished Hole Dia. after Sn/Pb reflow	0,91 to 1,09	1,51 to 1,69

Hardness of copper layer: max. 150 Knoop
Tolerance of center distances: ± 0,05 mm, **not cumulative**

Materials:
Housings – 94V-0 rated glass-filled polyester, grey as per RAL 7032
(Part numbers with prefix [2–] polycarbonate)
Male Contacts – Brass; Female Contacts – Phosphor Bronze
Finish – selective 0,8 µm gold in contact area, posts 2,5 µm tin lead, entire contact 1,25 µm nickel undercoating

Part number suffix reference for other selective plating options
–1: 1,25 µm gold in contact area as per DIN 41612
–7: 2,0 µm gold in contact area

Label with numerical legend for Female Standard Connectors with 1,0 sq. wrap-type posts:
Part number **826059-1** (row d+b+z)

AMP companies in:

ARGENTINA
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1651 Villa San Andres, Buenos Aires
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and 755-27-06
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Telex: 53034

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