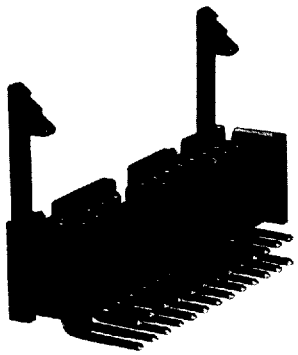
Low Profile Headers–Shrouded with Ejection Latches and .150 [3.81] End Dimension Double Row, .100 x .100 [2.54 x 2.54] Centers

.025 [0.64] Square Right-Angle Post



Material and Finish:

Housing—Black thermoplastic, 94V-0 rated

Contacts—Copper alloy, duplex plated .000030 [0.00076] gold on contact area, .000100-.000200 [0.00254-0.00508] tin-lead on solder area, with entire post underplated .000050 [0.00127] nickel

Related Product Data:

Electrical Characteristics—page 5

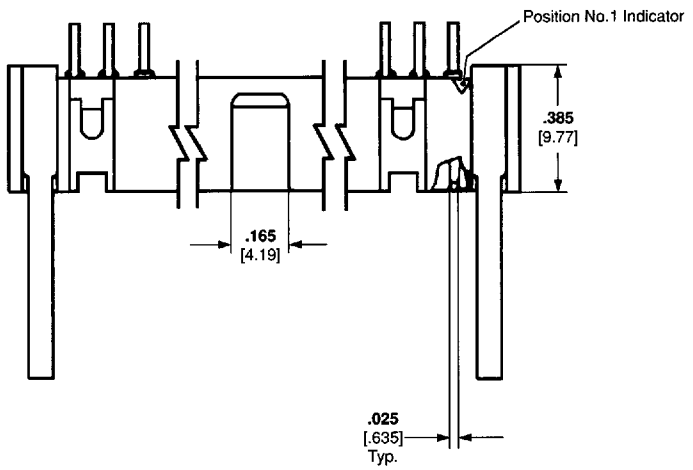
Mateable Connectors:
Pages 10 thru 15

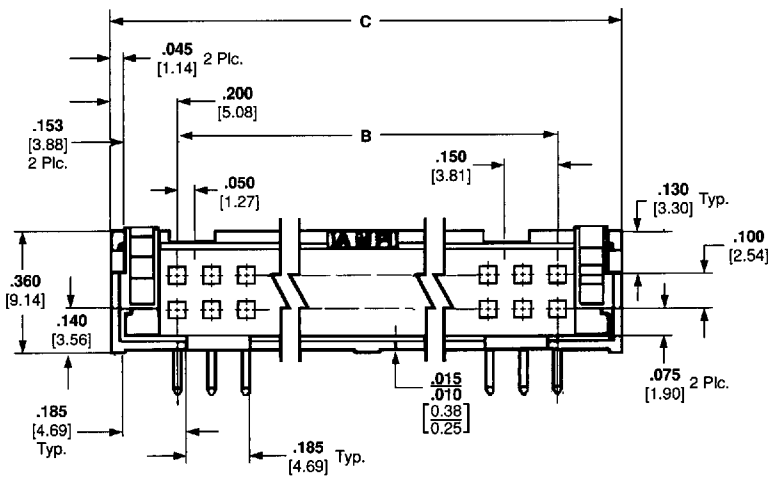
Flat Flexible Film Connectors—Catalog 82007

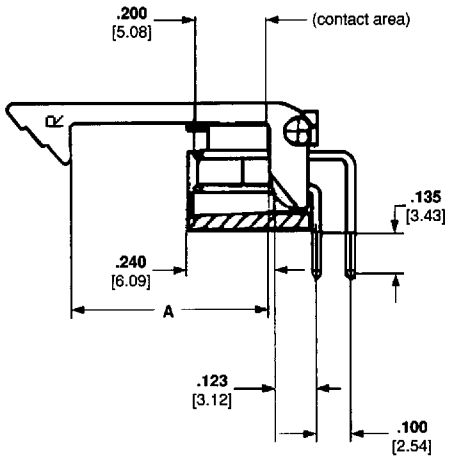
AMPMODU Wire-Applied Receptacles—Catalog 82187

AMPMODU MT Connectors with Ejection Covers—Catalog 82104

Accessories:
Snap-In Polarizer—page 22







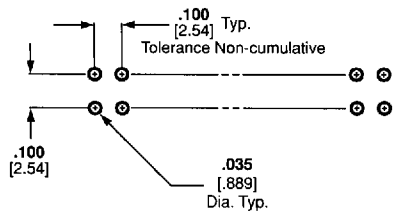
Low-Profile Headers

For drawings, technical data or samples, contact your AMP sales engineer or call the AMP Product Information Center: 1-800-522-6752.
Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.
Specifications subject to change. Consult AMP for latest specifications.

Low Profile Headers–Shrouded with Ejection Latches and .150 [3.81] End Dimension Double Row, .100 x .100 [2.54 x 2.54] Centers (Continued)

No. of Pos.	Dimensions B	Dimensions C	Latching Height (See Notes 1 & 2) A	Part No.
10	.400 10.16	.800	.585 [14.9]	104130-1
		20.32	.435 [11.0]	104315-1
14	.600 15.24	1.000	.585 [14.9]	104130-2
		25.40	.435 [11.0]	104315-2
16	.700 17.78	1.100	.585 [14.9]	104130-3
		27.94	.435 [11.0]	104315-3
20	.900 22.86	1.300	.585 [14.9]	104130-4
		33.02	.435 [11.0]	104315-4
26	1.200 30.48	1.600	.585 [14.9]	104130-5
		40.64	.435 [11.0]	104315-5
34	1.600 40.64	2.000	.585 [14.9]	104130-6
		50.80	.435 [11.0]	104315-6
40	1.900 48.26	2.300	.585 [14.9]	104130-7
		58.42	.435 [11.0]	104315-7
44	2.100 53.34	2.500	.585 [14.9]	—
		63.50	.435 [11.0]	104315-8
50	2.400 60.96	2.800	.585 [14.9]	104130-9
		71.12	.435 [11.0]	104315-9
60	2.900 73.66	3.300	.585 [14.9]	1-104130-0
		83.82	.435 [11.0]	1-104315-0

1. .585 [14.9] latching height to be used when mating to a receptacle with strain relief.
2. .435 [11.0] latching height to be used when mating to a receptacle without strain relief.



Recommended Hole Layout for Manual Insertion

Electrical Characteristics and Introduction

Electrical Characteristics

Contact Current Rating–1 ampere (continuous)

Operating Temperature–-55°C to +105°C

Dielectric Withstanding Voltage–
Receptacles (all)–1000 Volts, RMS
Card Edge Connectors–1000 Volts, RMS
DIP Plugs–300 Volts, RMS
Paddle Board Connectors–500 Volts, RMS
Pin Connectors–500 Volts, RMS
Ejection Style Pin Headers (all)–1000 Volts, RMS
Ribbon Cable–2000 Volts, RMS

No. of Positions	Cable Centerlines	PCB Area	Mating Height
20	**.050** 1.27	**0.47 in.²** 303 mm²	**0.565** 14.35
	.039 1.00	**0.134 in.²** 86.64 mm²	**0.390** 9.91
	.025 0.64	**0.213 in.²** 137 mm²	**0.584** 14.83
50	**.050** 1.27	**1.01 in.²** 645 mm²	**0.565** 14.25
	.039 1.00	**0.335 in.²** 216 mm²	**0.390** 9.91
	.025 0.64	**0.426 in.²** 275 mm²	**0.584** 14.83

Chart gives an example of a 20-position and a 50-position configuration showing the optimum pc board space and mating connector system height. These factors are of prime importance when you consided the premium placed on system space.

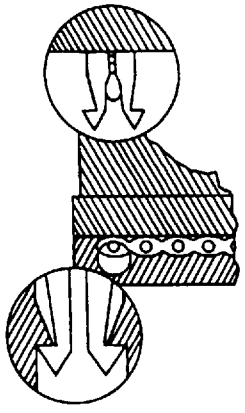
AMP-LATCH Connectors and Mass Termination

AMP-LATCH connectors use insulation displacement contacts (IDC), where each contact has a slotted-beam geometry to mass terminate the conductors. As a wire is pressed down into the slot, the beam tips pierce and displace the insulation. As the conductor is pressed farther into the slot, the contact provides sufficient conductor deformation to achieve a gastight interface.

The design of the contact supplies residual spring pressure to maintain a long term gastight connection. Since the connector **is** gastight, it will not corrode or otherwise degrade from normal environmental exposures.

Just as AMP-LATCH connectors help users derive the full benefits of ribbon cable, one-step application tooling allows them to realize the full productivity of mass termination. AMP offers a full range of die sets and tools, from hand tools to automatic cable assembly machines, to meet every production requirement.

Latching feature of AMP-LATCH Connectors



AMP-LATCH connectors have an additional feature not found in competitive connectors: Contact Latching. As the cable is terminated, a cover snaps down over the contacts.

Each contact individually latches to the cover. Where cable shearing occurs because of inappropriate handling AMP offers the following to protect the cable:

- Pull Tabs
- Strain Reliefs
- Ejection Latches (Mounted on the Headers and Pin Connectors)

In AMP-LATCH *connectors, the normal force (the amount of residual spring pressure the contact exerts against the conductor to maintain a gastight connection) is not supported by the plastic in the cover and is obtained solely by the contact design. The latching is* ***not*** *related to IDC normal force.*