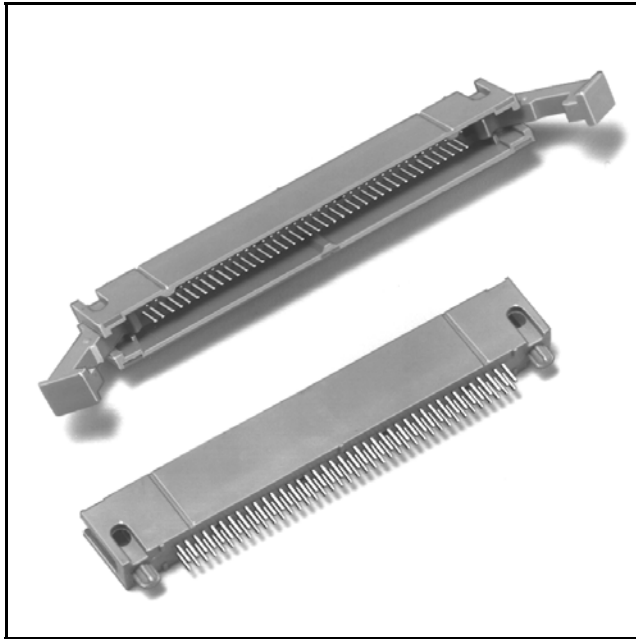


# 3M™ Pak 50 4-Wall, Tripolarized Header

.050" × .100" Latch/Ejector, Straight

810 Series



- Tripolarization to mating socket
- 50 mm × 100 mm halves the connector length
- Latch and eject for rugged high performance applications
- Two-row tail design saves board space
- High temperature plastic
- Four-wall shroud provides contact protection
- Contacts: 20, 26, 36, 40, 50, 60, 68, 80 and 100

**Consolidated with TS-0253**

Date Modified: May 26, 2005

TS-0261-32  
Sheet 1 of 3

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## Physical

### Insulation

Material: High Temperature Plastic (LCP)  
Flammability: UL 94V-0  
Color: Ivory (Natural) - LCP

### Contact

Material: Copper Alloy

### Plating

Underplating: 100 μ" [ 2.54 μm ] Nickel - QQ-N-290, Class 2  
Wiping Area: 30 μ" [ 0.76 μm ] Gold - MIL-G-45204, Type II, Grade C  
Solder Tails: 100 μ" [ 2.54 μm ] 90/10 Tin Lead

Marking: 3M Logo, Part Number and Orientation Triangle

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## Electrical

Current Rating: 0.5 A  
Insulation Resistance:  $> 1 \times 10^9 \Omega$  at 500 Vdc  
Withstanding Voltage: 500 Vrms at Sea Level

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## Environmental

Operating Temperature Rating: -55°C to +105°C  
Process Temperature Rating: 250°C Max, with 90 seconds above 230°C

UL File No.: E68080

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Table 1					
Contact Qty	Dimensions				
	A	B	C Short Ref	C Long Ref	D
020	1.060 [26.92]	.722 [18.34]	1.671 [42.44]	1.842 [46.77]	.860 [21.84]
026	1.210 [30.73]	.872 [22.15]	1.817 [46.15]	1.987 [50.47]	1.010 [25.65]
036	1.460 [37.08]	1.122 [28.50]	2.070 [52.58]	2.274 [57.76]	1.260 [32.00]
040	1.560 [39.62]	1.222 [31.04]	2.170 [55.12]	2.365 [60.07]	1.360 [34.54]
050	1.810 [45.97]	1.472 [37.39]	2.421 [61.49]	2.609 [66.27]	1.610 [40.89]
060	2.060 [52.32]	1.722 [43.74]	2.671 [67.84]	2.872 [72.95]	1.860 [47.24]
068	2.260 [57.40]	1.922 [48.82]	2.870 [72.90]	3.083 [78.31]	2.060 [52.32]
080	2.560 [65.02]	2.222 [56.44]	3.178 [80.72]	3.370 [85.60]	2.360 [59.94]
100	3.060 [77.72]	2.722 [69.14]	3.676 [93.37]	3.875 [98.43]	2.860 [72.64]

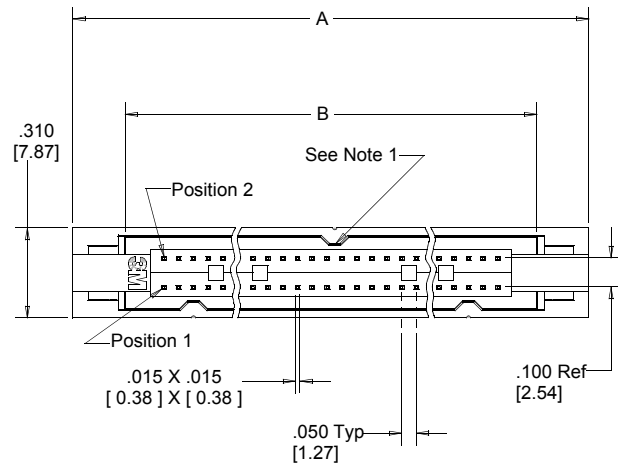
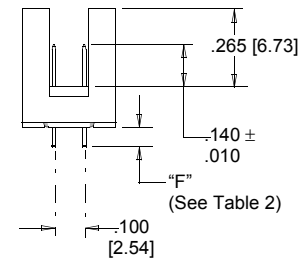
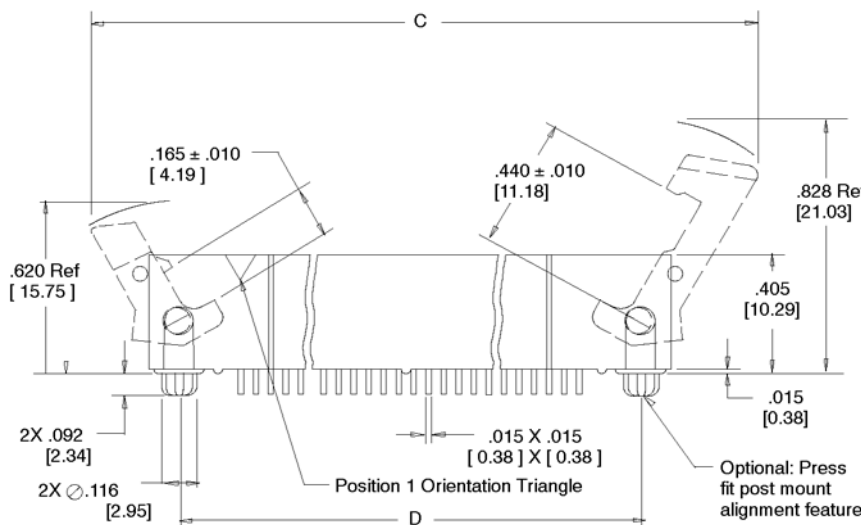


Table 2	
PCB Thickness	"F" Solder Tail Length ±.010
.062 [15.7]	.090 [2.29]
.094 [2.39]	.112 [2.79]
.125 [3.18]	.143 [3.63]



**Notes:**

1. This polarization bump does not exist on the 20 position header.
2. Recommended to be mated to the .050" x .100" 82XXX Series Socket.



## Ordering Information

**Header  
81XXX-6X0X0X**

Contact Quantity (See Table 1)  
Ejector/Latch System:  
0 = None  
5 = With Short Ejectors Installed  
6 = With Long Ejector latches Installed

Board Mounting Options:  
1 = None  
3 = Press fit posts both ends

Contact Tail: (See Table 2)  
2 = Solder Tail for .062 [1.57] PC Board  
3 = Solder Tail for .094 [2.39] PC Board  
4 = Solder Tail for .125 [3.18] PC Board

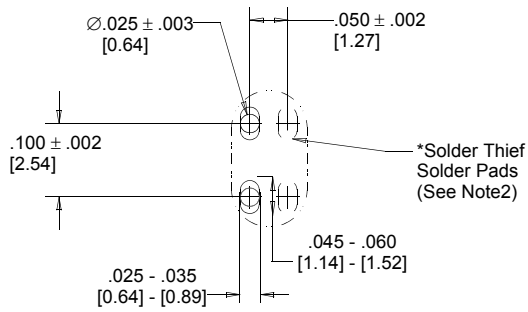
**Ejector / Latch**  
**3505-29** Ejector (Short)  
**3505-28** Ejector/latch (Long)

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# 3M™ Pak 50 4-Wall, Tripolarized Header

.050" × .100" Latch/Ejector, Straight

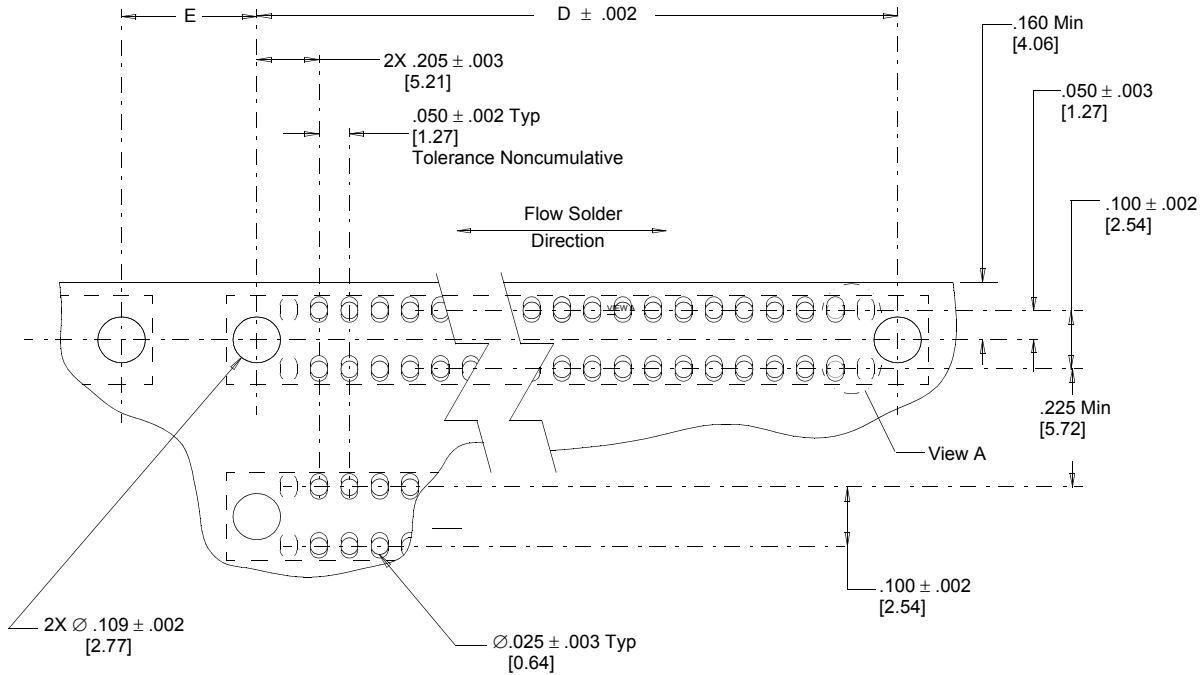
810 Series



Ejector/Latches	Dimension E (Min)
None	.215 [ 5.46 ]
Long	.650 [16.51]
Short	.525 [13.34]

\*Solder Thief Solder Pads required only on Solder side of PC Board.

**View A**



**Recommended Mounting Hole Pattern**

(Shown for mounting side of PC Board)

Inch			
[mm]			
Tolerance Unless Noted			
	.0	.00	.000
inch	±.1	±.01	±.005

[ ] Dimensions for Reference Only

**Notes:**

1. Recommended to process PC Boards through the solder bath such that the connector enters end first (two solder tails at a time). This will help prevent solder bridging.
2. A Solder Thief Solder Pad (Dummy Pad) at the end of each row is recommended on the bottom or solder side of the PC Board in order to help prevent solder bridging on the end solder tails. The Solder Thiefs are only required on the end of the rows which leave the solder bath last.

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Sheet 3 of 3

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