

# .050" × .100" Tripolarized, Latch/Ejector Header

Right Angle, 4 Wall, 2 Rows of Solder Tails

810 Series



54

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Date Issued: May 28, 1997

TS-0253-23  
Sheet 1 of 3

## Physical

### Insulation

Material: High Temperature Plastic (LCP)  
Flammability: UL 94V-0  
Color: Ivory (Natural)  
Marking: 3M Logo, Part Number Identification and Orientation Triangle

### Contact

Material: Copper Alloy  
Plating  
Underplate: 100  $\mu$ " [ 2.54  $\mu$ m ] Nickel — QQ-N-290, Class 2  
Wiping Area: 30  $\mu$ " [ 0.76  $\mu$ m ] Gold — MIL-G-45204, Type II, Grade C  
Solder Tails: 100  $\mu$ " [ 2.54  $\mu$ m ] 90/10 Tin Lead

## Electrical

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

## Environmental

**Temperature Rating:**  $-55^\circ\text{C}$  to  $+105^\circ\text{C}$   
**Process Rating:**  $250^\circ\text{C}$  @ 90 seconds – LCP

UL File No.: E68080

### 3M Electronic Products Division

6801 River Place Blvd.  
Austin, TX 78726-9000

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**800-225-5373**

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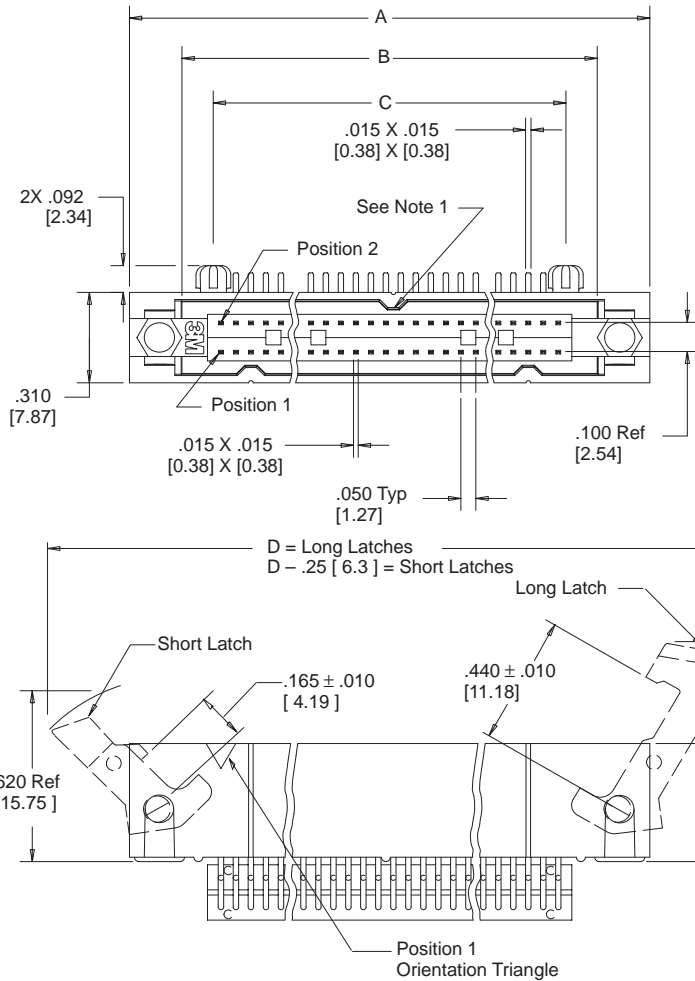
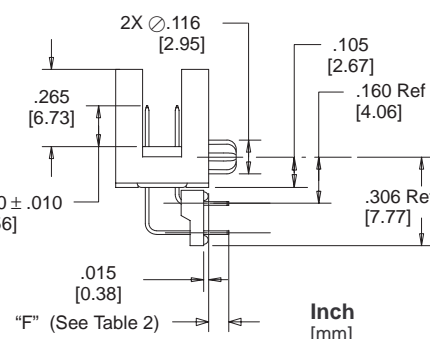


Table 1				
Contact Quantity	Dimensions			
	A	B	C	D Ref
020	1.060 [26.92]	.710 [18.03]	.500 [12.70]	1.92 [48.8]
026	1.210 [30.73]	.860 [21.84]	.850 [16.51]	2.07 [52.6]
036	1.460 [37.08]	1.110 [28.19]	.900 [22.86]	2.32 [58.9]
040	1.560 [39.62]	1.210 [30.73]	1.000 [25.40]	2.42 [61.5]
050	1.810 [45.97]	1.480 [37.08]	1.250 [31.75]	2.67 [67.8]
060	2.060 [52.32]	1.710 [43.43]	1.500 [38.10]	2.92 [74.2]
068	2.260 [57.04]	1.910 [48.51]	1.700 [43.18]	3.12 [79.2]
080	2.560 [65.02]	2.210 [56.13]	2.000 [50.80]	3.42 [86.9]
100	3.060 [77.72]	2.710 [68.83]	2.500 [63.50]	3.92 [99.6]

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]



Tolerance Unless Noted			
	.0	.00	.000
Inch	± .1	± .01	± .005

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

[ ] Dimensions for Reference only

### Ordering Information

**81XXX-5X0X03**

Contact Quantity (See Table 1)

Ejector/Latch System:

- 0 = None
- 2 = With Ejector Latches Packaged Separately (For Strain Relief and or Non-Strain Relief Socket Versions)
- 5 = With Short Ejector Latches Installed
- 6 = With Ejector Latches Installed

Contact Tail:

- 2 = Solder Tail for .062 [ 1.57 ] PC Board
- 3 = Solder Tail for .094 [ 2.39 ] PC Board
- 4 = Solder Tail for .125 [ .318 ] PC Board

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

TS-0253-23  
 Sheet 2 of 3

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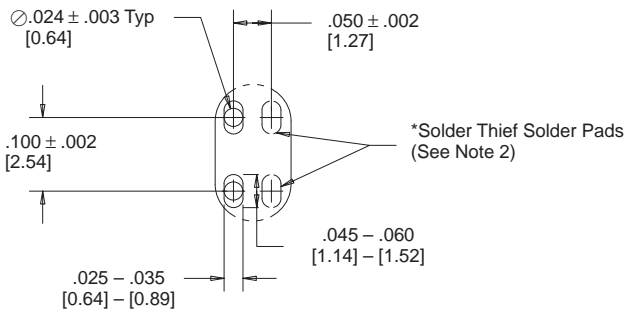
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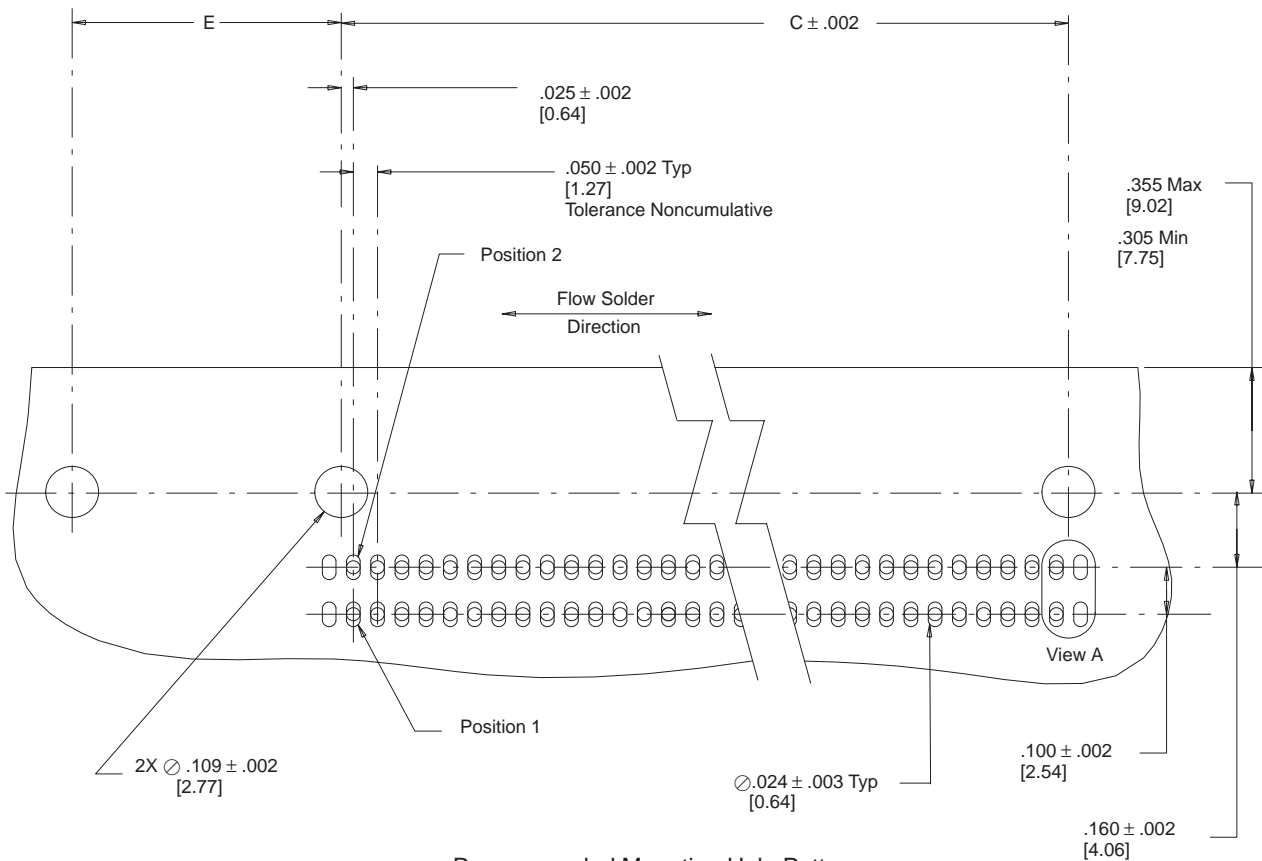
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Ejector Latches	Dimension E Min
None	.575 [14.61]
Long	1.010 [25.65]
Short	.885 [22.48]

\*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)

**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 Dummy or Solder Thief Solder 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 thieves are only required on the end of the rows which leave the solder bath last.
3. In order to facilitate flow soldering. It is recommended that ejector latches be installed after the soldering process.

TS-0253-23  
Sheet 3 of 3

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