



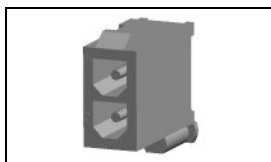
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**1-770166-1 Product Details**

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**1-770166-1**

TE Internal Number: 1-770166-1

**Active**

[View 3D PDF](#)

**.163" Centerline, 600 V, 9.5 A max.**

Always EU RoHS/ELV Compliant (Statement of Compliance)

**Product Highlights:**

- Mini-Universal MATE-N-LOK Product Line, Mini-Universal MATE-N-LOK 2 Product Line
- Wire-to-Board
- Applies To Printed Circuit Board
- Connector
- Glow Wire Rating = Standard Part - Not Glow Wire

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Documentation & Additional Information	
<p><b>Product Drawings:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">HEADER ASSEMBLY, 2 CKT, MINI UNIVERSAL MATE-N-LOK (PDF, English)</a></li> </ul> <p><b>Catalog Pages/Data Sheets:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">1-1773458-0_MINI_UNIVERSAL_MATE_N_LOK_CONNECTOR_SYST... (PDF, English)</a></li> <li>• <a href="#">SOFT_SHELL_PIN_AND_SOCKET_CONNECTORS_CATALOG (PDF, English)</a></li> </ul> <p><b>Product Specifications:</b></p> <ul style="list-style-type: none"> <li>• None Available</li> </ul> <p><b>Application Specifications:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Mini-Universal MATE-N-LOK Connectors (PDF, English)</a></li> </ul> <p><b>Instruction Sheets:</b></p> <ul style="list-style-type: none"> <li>• None Available</li> </ul> <p><b>CAD Files:</b> (<a href="#">CAD Format &amp; Compression Information</a>)</p> <ul style="list-style-type: none"> <li>• <a href="#">2D Drawing (DXF, Version L)</a></li> <li>• <a href="#">3D Model (IGES, Version L)</a></li> <li>• <a href="#">3D Model (STEP, Version L)</a></li> </ul>	<p><b>Additional Information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Product Line Information</a></li> </ul> <p><b>Related Products:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Tooling</a></li> <li>• <a href="#">Mating Products (2)</a></li> </ul>

[List all Documents](#)

Product Features (Please use the Product Drawing for all design activity)	
<p><b>Product Type Features:</b></p> <ul style="list-style-type: none"> <li>• Product Line = Mini-Universal MATE-N-LOK, Mini-Universal MATE-N-LOK 2</li> <li>• Product Type = Connector</li> <li>• Connector Type = Header</li> <li>• Termination Method to Wire/Cable = Solder</li> <li>• PCB Mounting Orientation = Vertical</li> <li>• PCB Mount Retention = With</li> <li>• Sealed = No</li> <li>• Termination Method to PC Board = Through Hole - Solder</li> <li>• PCB Mount Retention Type = Boardlock(s)</li> <li>• PCB Mount Alignment = Without</li> <li>• Strain Relief = Without</li> <li>• UL File Number = E28476</li> <li>• CSA File Number = LR 7189</li> </ul> <p><b>Mechanical Attachment:</b></p> <ul style="list-style-type: none"> <li>• Contact Retention = Without</li> <li>• Mating Retention Type = Locking Tab</li> <li>• Panel Mount Retention = Without</li> </ul> <p><b>Electrical Characteristics:</b></p> <ul style="list-style-type: none"> <li>• Contact - Rated Current (A) = 9.5</li> <li>• Operating Voltage Reference = AC/DC</li> <li>• Operating Voltage (VAC) = 600</li> <li>• Operating Voltage (VDC) = 600</li> </ul> <p><b>Termination Features:</b></p> <ul style="list-style-type: none"> <li>• Tail Length (mm [in]) = 3.68 [0.145]</li> </ul>	<p><b>Housing Features:</b></p> <ul style="list-style-type: none"> <li>• Connector Style = Plug</li> <li>• Housing Material = Nylon</li> <li>• Housing Color = White</li> <li>• Mating Alignment = With</li> <li>• Mating Alignment Type = Chamfered Edges</li> <li>• Centerline (mm [in]) = 4.14 [0.163]</li> <li>• UL Flammability Rating = UL 94V-0</li> </ul> <p><b>Configuration Features:</b></p> <ul style="list-style-type: none"> <li>• Number of Rows = 1</li> <li>• Number of Positions = 2</li> </ul> <p><b>Industry Standards:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">RoHS/ELV Compliance</a> = RoHS compliant, ELV compliant</li> <li>• <a href="#">Lead Free Solder Processes</a> = Wave solder capable to 260°C, Wave solder capable to 240°C, Wave solder capable to 265°C</li> <li>• RoHS/ELV Compliance History = Always was RoHS compliant</li> <li>• VDE Tested = Yes</li> <li>• Agency/Standard = CSA, UL</li> <li>• UL Rating = Recognized</li> <li>• CSA Rating = Certified</li> </ul> <p><b>Environmental:</b></p> <ul style="list-style-type: none"> <li>• Operating Temperature (°C [°F]) = -20 - +105 [-4 - +221]</li> </ul> <p><b>Conditions for Usage:</b></p> <ul style="list-style-type: none"> <li>• Applies To = Printed Circuit Board</li> <li>• Glow Wire Rating = Standard Part - Not Glow Wire</li> </ul>

**Dimensions:**

- PCB Thickness, Recommended (mm [in]) = 1.57 [0.062]

**Body Features:**

- Used With = Plug Housing
- Mating Retention = With
- Underplate Material Thickness ( $\mu\text{m}$  [ $\mu\text{in}$ ]) = 1.27 [50.000]
- Assembly Integration Feature = Without

**Contact Features:**

- Contact Type = Pin
- Contact Layout = In-Line
- Contact Diameter (mm [in]) = 1.00 [0.0394]
- Contact Base Material = Brass
- Contact Plating, Mating Area, Material = Gold
- Contact Plating, Mating Area, Thickness ( $\mu\text{m}$  [ $\mu\text{in}$ ]) = 0.76 [29.92]
- Tail Plating Material = Matte Tin
- [Solder Process Drain Hole](#) = With
- Shunts/Shorting Bars = Without
- Multiple Contact Types = Without
- Tail Plating Thickness ( $\mu\text{m}$  [ $\mu\text{in}$ ]) = 3.81 [150]
- Underplate Material = Nickel

**Operation/Application:**

- Application Use = Wire-to-Board

**Packaging Features:**

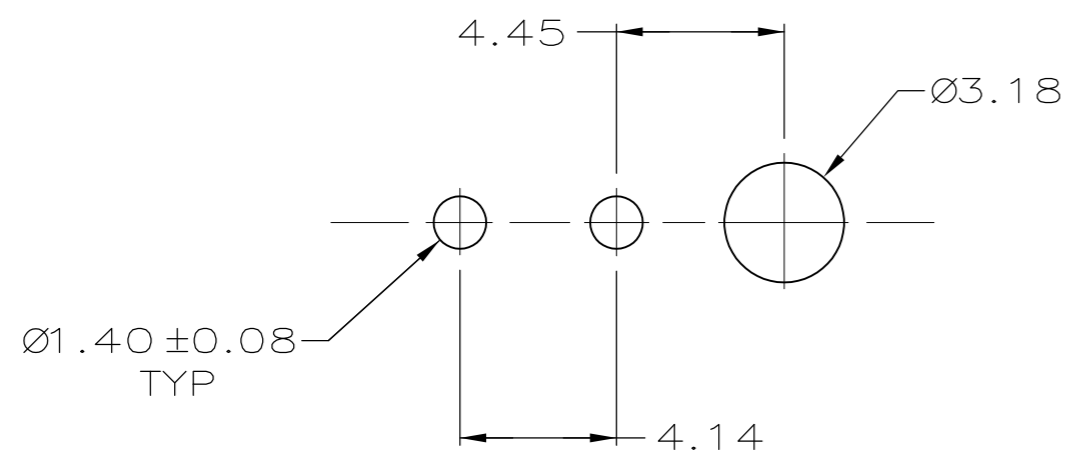
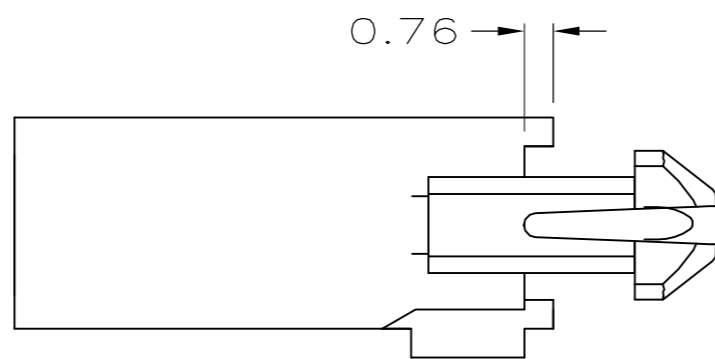
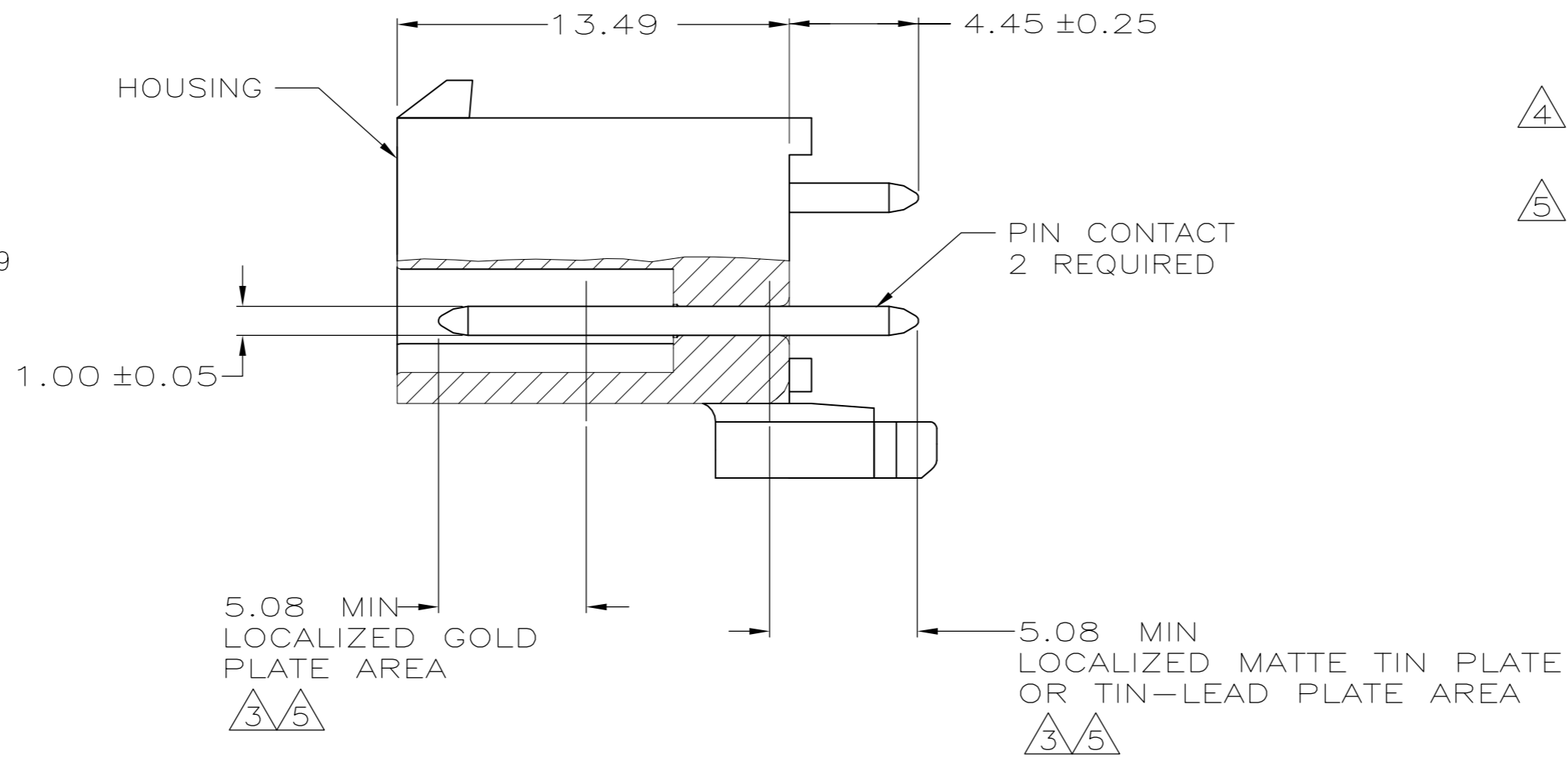
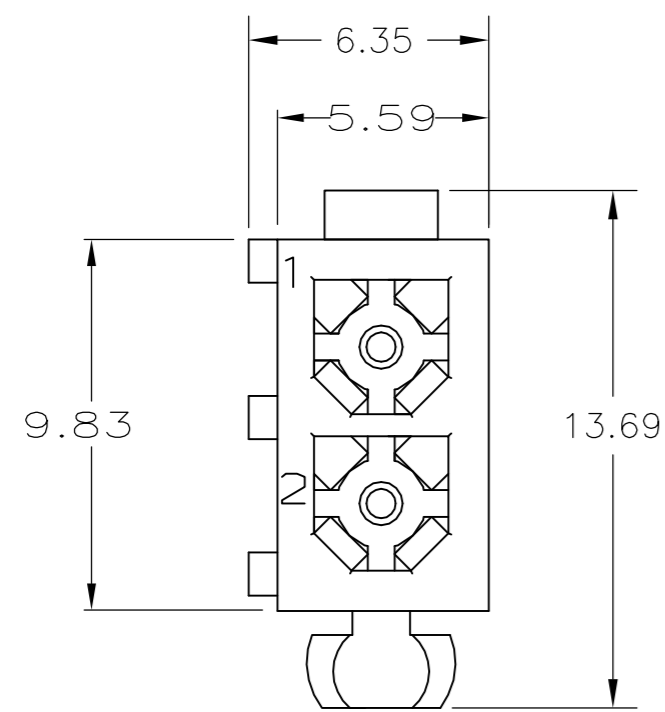
- Packaging Method = Bag
- Packaging Quantity = 200

**Other:**

- Brand = AMP

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LOC	DIST	REVISIONS					
		P	LTR	DESCRIPTION	DATE	DWN	APVD
CM	0	L1		REVISED PER ECO-11-004587	11MAR11	RK	HMR



RECOMMENDED LAYOUT FOR 1.57 THICK BOARD  
 TOLERANCES NON-ACCUMULATIVE

- PINS TO COMPLY WITH AMP SOLDERABILITY SPEC. 109-11-3.
- 0.00381 MIN MATTE TIN LEAD PLATE OVER 0.00127 MIN NICKEL.
- 0.00076 MIN GOLD PLATE IN THE LOCALIZED PLATE AREA, 0.00381 MATTE TIN LEAD IN THE LOCALIZED PLATE AREA, BOTH OVER 0.00127 MIN NICKEL.
- 0.00381 MIN MATTE TIN PLATE OVER 0.00127 MIN NICKEL.
- 0.00076 MIN GOLD PLATE IN THE LOCALIZED PLATE AREA, 0.00381 MATTE TIN IN THE LOCALIZED PLATE AREA, BOTH OVER 0.00127 MIN NICKEL.

BRASS, GOLD	5	NYLON, UL94V-0	WHITE	1-770166-1
BRASS, TIN	4	NYLON, UL94V-0	WHITE	1-770166-0
BRASS, GOLD	3	NYLON, UL94V-0	WHITE	770166-2
BRASS, TIN-LEAD	2	NYLON, UL94V-0	WHITE	770166-1
MATERIAL	FINISH	MATERIAL	COLOR	PART NO.
PIN		HOUSING		

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN S CARPENTER 08JUN05	TE Connectivity	
DIMENSIONS: INCHES		CHK R JONES 28JUL2003	NAME	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD R JONES 28JUL2003	PRODUCT SPEC	
0 PLC ± -		APPLICATION SPEC		
1 PLC ± -		WEIGHT		
2 PLC ± 0.13		SIZE		
3 PLC ± -		CAGE CODE		
4 PLC ± -		DRAWING NO		
ANGLES ± -		RESTRICTED TO		
FINISH		SCALE		
MATERIAL		SHEET		
		REV		
		CUSTOMER DRAWING		