



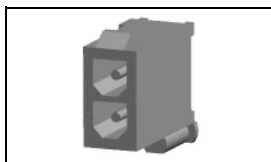
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1-770166-0 Product Details

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1-770166-0

TE Internal Number: 1-770166-0

Active

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

[List all Documents](#)

| Product Features (Please use the Product Drawing for all design activity) | |
|--|--|
| <p>Product Type Features:</p> <ul style="list-style-type: none"> • Product Line = Mini-Universal MATE-N-LOK, Mini-Universal MATE-N-LOK 2 • Product Type = Connector • Connector Type = Header • Termination Method to Wire/Cable = Solder • PCB Mounting Orientation = Vertical • PCB Mount Retention = With • Sealed = No • Termination Method to PC Board = Through Hole - Solder • PCB Mount Retention Type = Boardlock(s) • PCB Mount Alignment = Without • Strain Relief = Without • UL File Number = E28476 • CSA File Number = LR 7189 <p>Mechanical Attachment:</p> <ul style="list-style-type: none"> • Contact Retention = Without • Mating Retention Type = Locking Tab • Panel Mount Retention = Without <p>Electrical Characteristics:</p> <ul style="list-style-type: none"> • Contact - Rated Current (A) = 9.5 • Operating Voltage Reference = AC/DC • Operating Voltage (VAC) = 600 • Operating Voltage (VDC) = 600 <p>Termination Features:</p> <ul style="list-style-type: none"> • Tail Length (mm [in]) = 2.68 [0.105] | <p>Housing Features:</p> <ul style="list-style-type: none"> • Connector Style = Plug • Housing Material = Nylon • Housing Color = White • Mating Alignment = With • Mating Alignment Type = Chamfered Edges • Centerline (mm [in]) = 4.14 [0.163] • UL Flammability Rating = UL 94V-0 <p>Configuration Features:</p> <ul style="list-style-type: none"> • Number of Rows = 1 • Number of Positions = 2 <p>Industry Standards:</p> <ul style="list-style-type: none"> • RoHS/ELV Compliance = RoHS compliant, ELV compliant • Lead Free Solder Processes = Wave solder capable to 260°C, Wave solder capable to 240°C, Wave solder capable to 265°C • RoHS/ELV Compliance History = Always was RoHS compliant • VDE Tested = Yes • Agency/Standard = CSA, UL • UL Rating = Recognized • CSA Rating = Certified <p>Environmental:</p> <ul style="list-style-type: none"> • Operating Temperature (°C [°F]) = -20 - +85 [-4 - +185] <p>Conditions for Usage:</p> <ul style="list-style-type: none"> • Applies To = Printed Circuit Board • Glow Wire Rating = Standard Part - Not Glow Wire |

• Tail Length (mm [in]) = 3.08 [0.121]

Dimensions:

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

Body Features:

- Used With = Plug Housing
- Mating Retention = With
- Underplate Material Thickness (μm [μin]) = 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 = Matte Tin
- Contact Plating, Mating Area, Thickness (μm [μin]) = 3.81 [150]
- Tail Plating Material = Matte Tin
- Solder Process Drain Hole = With
- Shunts/Shorting Bars = Without
- Multiple Contact Types = Without
- Tail Plating Thickness (μm [μin]) = 3.81 [150]
- Underplate Material = Nickel

Operation/Application:

- Application Use = Wire-to-Board

Packaging Features:

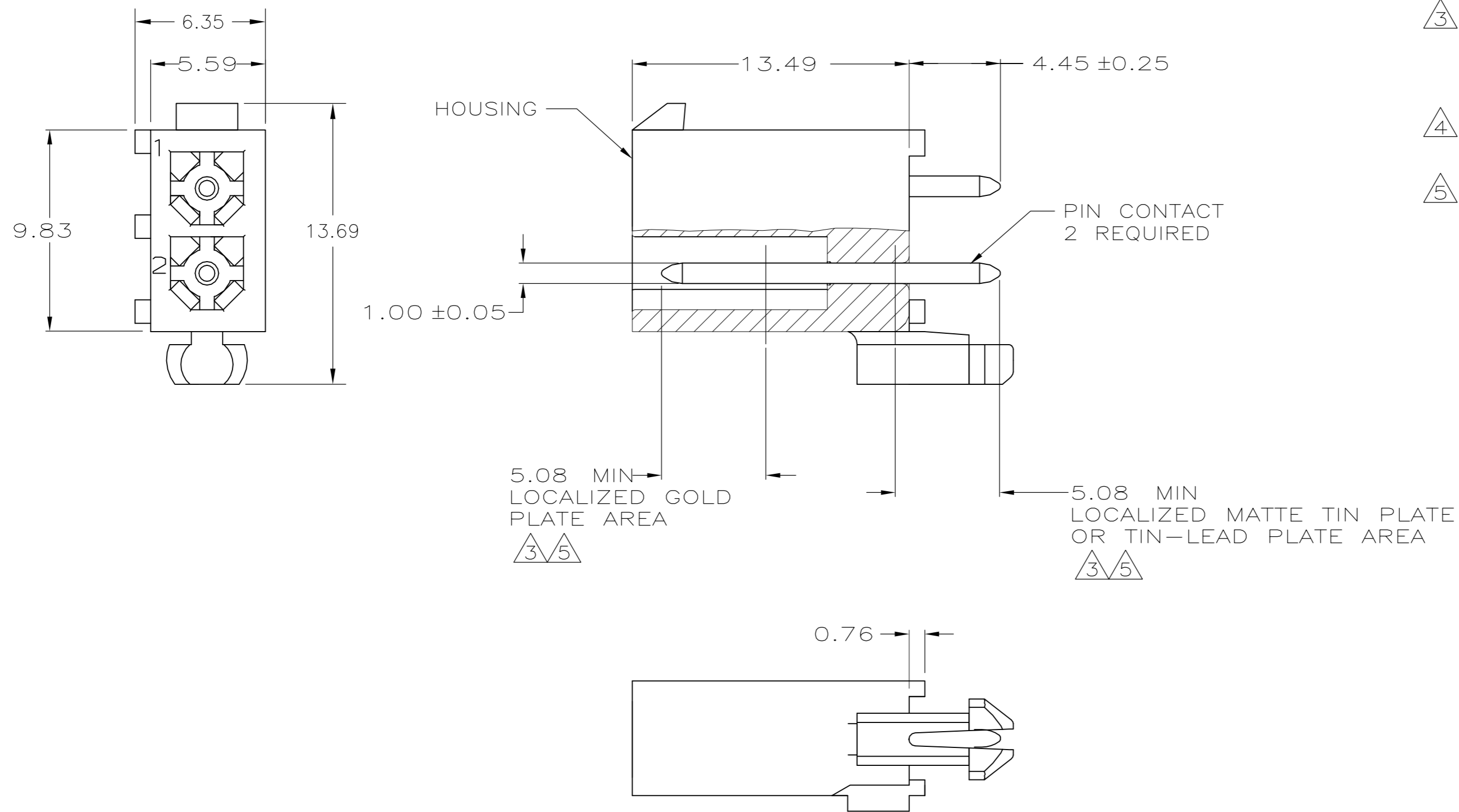
- Packaging Method = Bag
- Packaging Quantity = 200

Other:

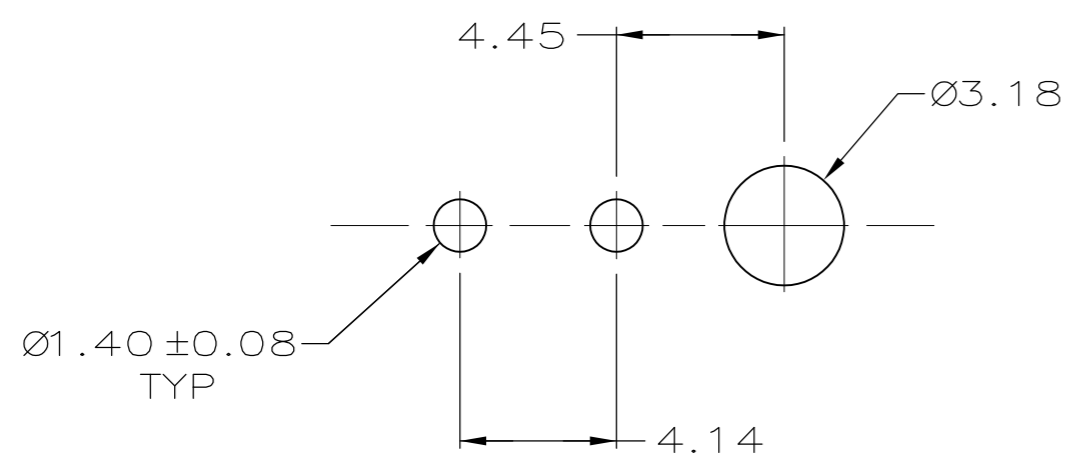
- Brand = AMP

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



- 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.



RECOMMENDED LAYOUT FOR 1.57 THICK BOARD
 TOLERANCES NON-ACCUMULATIVE

| 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 | 08JUN05 | | |
| DIMENSIONS: INCHES | | CHK | 28JUL2003 | | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED: | | APVD | 28JUL2003 | | |
| 0 PLC ± - 1 PLC ± - 2 PLC ± 0.13 3 PLC ± - 4 PLC ± - ANGLES ± - | | NAME | | | |
| MATERIAL | | PRODUCT SPEC | | HEADER ASSEMBLY, 2 CKT, MINI UNIVERSAL MATE-N-LOK | |
| FINISH | | APPLICATION SPEC | | SIZE | RESTRICTED TO |
| | | WEIGHT | | A2 00779 | |
| | | CUSTOMER DRAWING | | SCALE | REV |
| | | | | 5:1 | L1 |
| | | | | SHEET | |
| | | | | 1 of 1 | |