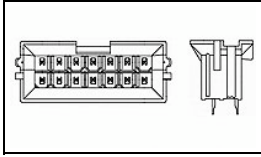


## 2-1586586-0 Product Details

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**2-1586586-0**

TE Internal Number: 2-1586586-0  
✔ Active

[View 3D PDF](#)

### VAL-U-LOK Series Connector System

✔ Always EU RoHS/ELV Compliant (Statement of Compliance)

#### Product Highlights:

- Wire-to-Board
- Applies To Printed Circuit Board
- Connector
- Glow Wire Rating = Standard Part - Not Glow Wire
- Header

[View all Features](#)

### Quick Links

- ▶ [Pricing & Availability](#)
- ▶ [Search for Tooling](#)
- ▶ [View Mating Products \(2\)](#)
- ▶ [Product Feature Selector](#)
- ▶ [Contact Us About This Product](#)

[Add to My Part List](#) [Request Sample](#) [Find Similar Products](#) [Buy Product](#)

### Documentation & Additional Information

#### Product Drawings:

- [VERTICAL HEADER ASSEMBLY - BLINDMATE WITHOUT DRAIN H...](#) (PDF, English)

#### Catalog Pages/Data Sheets:

- [SOFT\\_SHELL\\_PIN\\_AND\\_SOCKET\\_CONNECTORS\\_CATALOG](#) (PDF, English)

#### Product Specifications:

- [VAL-U-LOK Connectors](#) (PDF, English)

#### Application Specifications:

- [VAL-U-LOK Series Headers and Connectors](#) (PDF, English)

#### Instruction Sheets:

- None Available

#### CAD Files: (CAD Format & Compression Information)

- [2D Drawing](#) (DXF, Version A1)
- [3D Model](#) (IGES, Version A1)
- [3D Model](#) (STEP, Version A1)

[List all Documents](#)

#### Related Products:

- [Tooling](#)
- [Mating Products \(2\)](#)

### Product Features (Please use the Product Drawing for all design activity)

#### Product Type Features:

- Product Type = Connector
- Connector Type = Header
- PCB Mounting Orientation = Vertical
- PCB Mount Alignment = With
- PCB Mount Retention = With
- PCB Mount Retention Type = Boardlock(s)
- Sealed = No
- UL File Number = E28476
- CSA File Number = 208567

#### Mechanical Attachment:

- Mating Retention Type = Latching

#### Electrical Characteristics:

- Contact Current Rating, Max. (A) = 9
- Operating Voltage Reference = AC
- Operating Voltage (VAC) = 600

#### Termination Features:

- Wire/Cable Size (AWG) = 16 - 26
- Wire/Cable Size (mm<sup>2</sup>) = 0.12 - 1.4
- Termination Method to PC Board = Through Hole - Solder

#### Dimensions:

- PCB Thickness, Recommended (mm [in]) = 1.60 [0.063]
- Tail Length (mm [in]) = 3.5 [0.138]
- Length (X-Axis) (mm [in]) = 48.60 [1.913]
- Width (Z-Axis) (mm [in]) = 15.00 [0.5905]
- Profile Height (Y-Axis) (mm [in]) = 14.10 [0.555]

#### Body Features:

- Header Type = Shrouded
- Mating Retention = With
- Selectively Loaded = No

#### Housing Features:

- Connector Style = Plug
- Centerline (mm [in]) = 4.20 [0.165]
- Mating Alignment = With
- Mating Alignment Type = Keyed
- Housing Color = Natural
- UL Flammability Rating = UL 94V-2

#### Configuration Features:

- Number of Positions = 20
- Number of Rows = 2
- Tail Orientation = In-line
- Shrouded = Yes

#### Industry Standards:

- [RoHS/ELV Compliance](#) = RoHS compliant, ELV compliant
- [Lead Free Solder Processes](#) = Wave solder capable to 240°C, Wave solder capable to 260°C, Wave solder capable to 265°C
- [RoHS/ELV Compliance History](#) = Always was RoHS compliant
- Agency/Standard = UL, CSA
- UL Rating = Recognized

#### Identification Marking:

- Circuit Identification Feature = With

#### Environmental:

- Operating Temperature (°C [°F]) = -40 - +105 [-40 - +221]

#### Conditions for Usage:

- Applies To = Printed Circuit Board
- Glow Wire Rating = Standard Part - Not Glow Wire

#### Operation/Application:

- Application Use = Wire-to-Board
- Contact Transmits (Typical Application) = Signal (Data)
- Pick and Place Cover = Without

**Contact Features:**

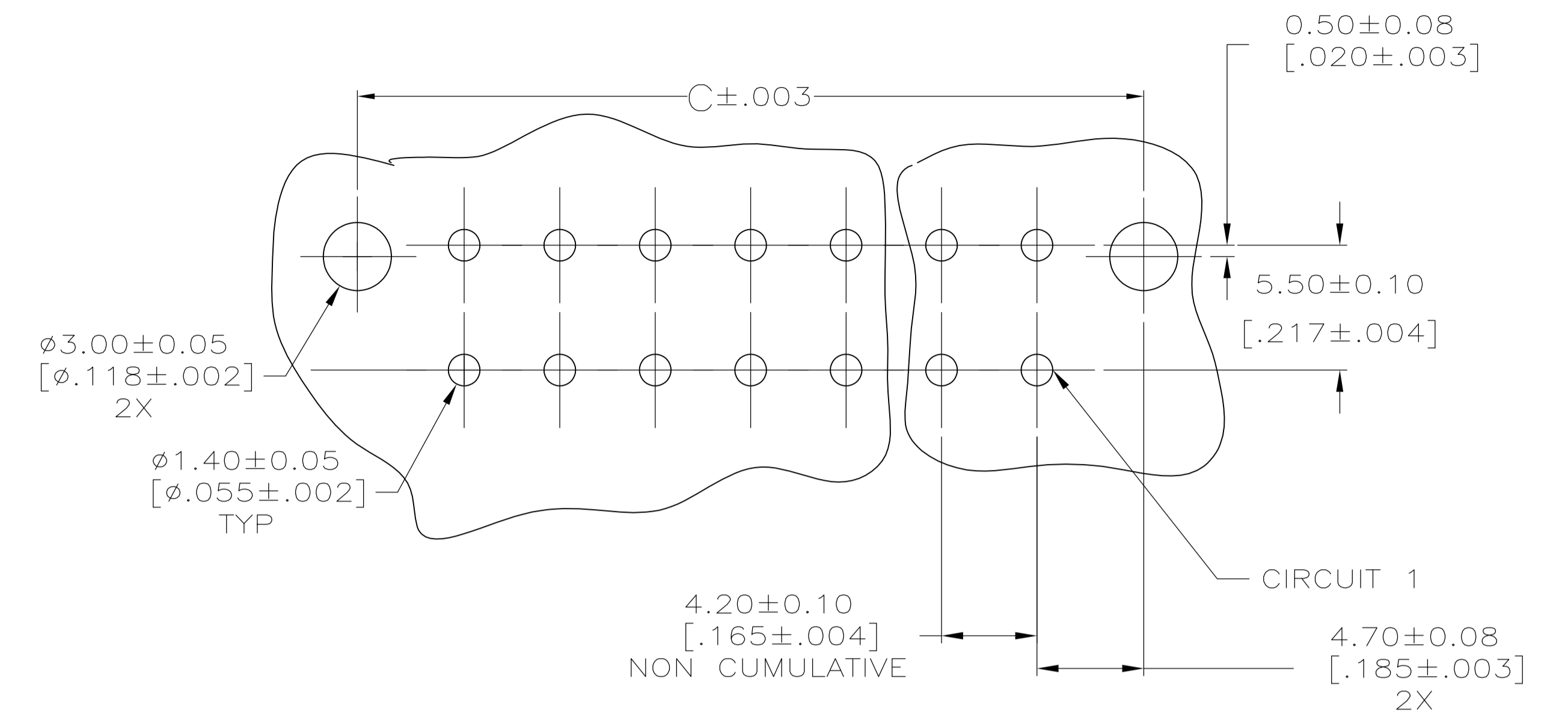
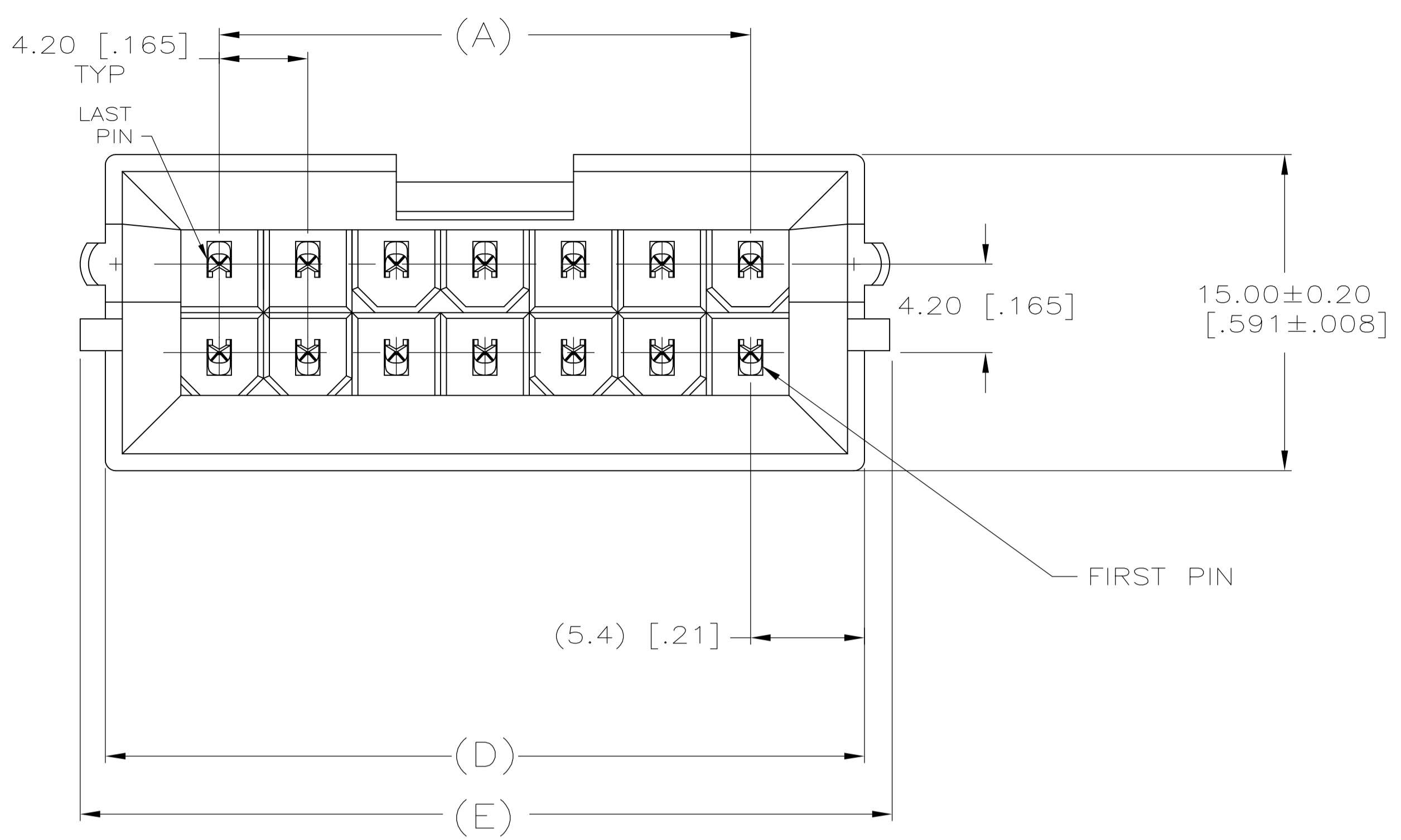
- Contact Type = Pin
- Contact Base Material = Brass
- Contact Plating, Mating Area, Material = Tin
- Contact Plating, Mating Area, Thickness ( $\mu\text{m}$  [ $\mu\text{in}$ ]) = 2.54 [100]
- Contact Plating, Termination Area, Material = Tin
- Contact Plating, Termination Area, Thickness ( $\mu\text{m}$  [ $\mu\text{in}$ ]) = 2.54 [100]
- Contact Design = Square Post

**Packaging Features:**

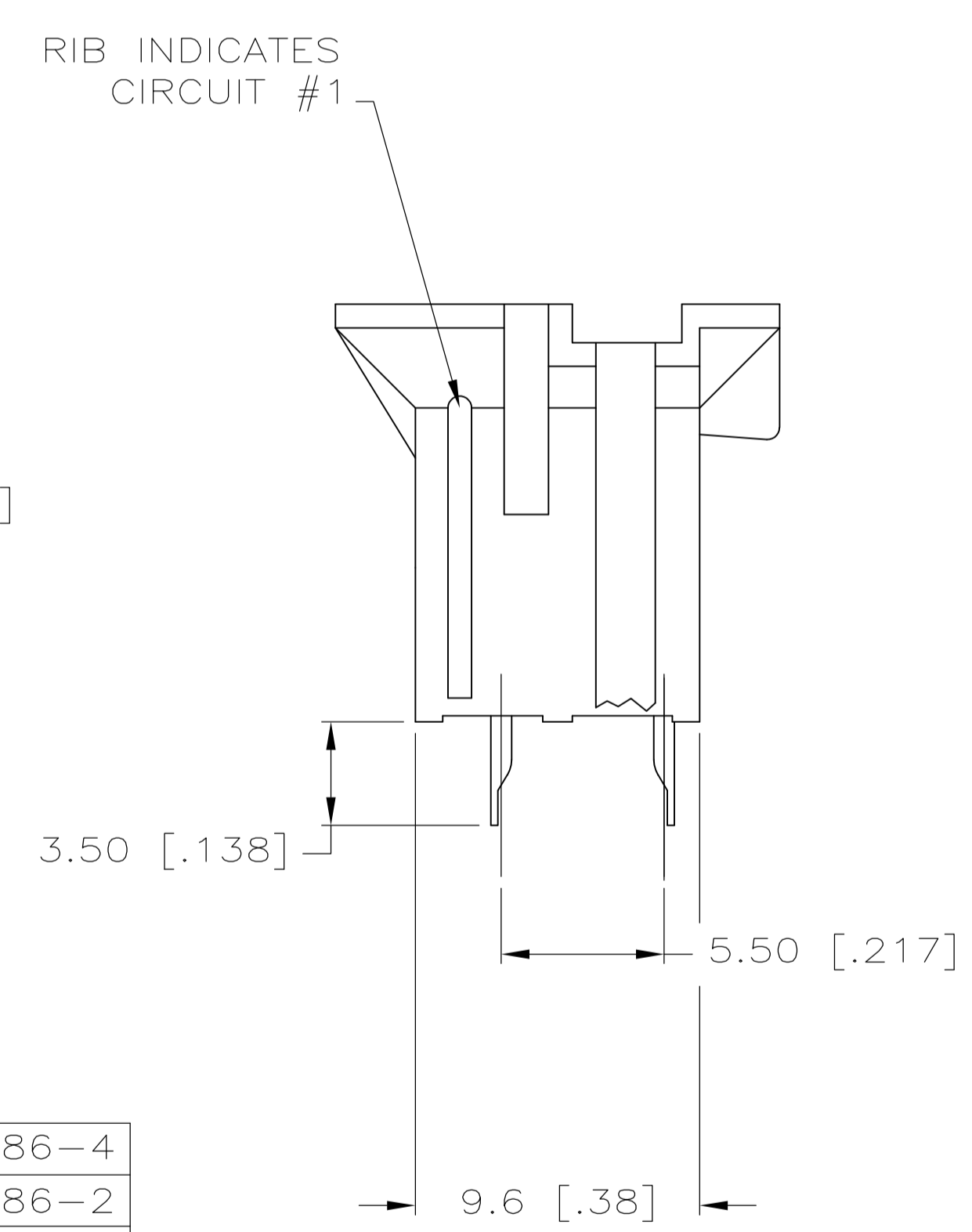
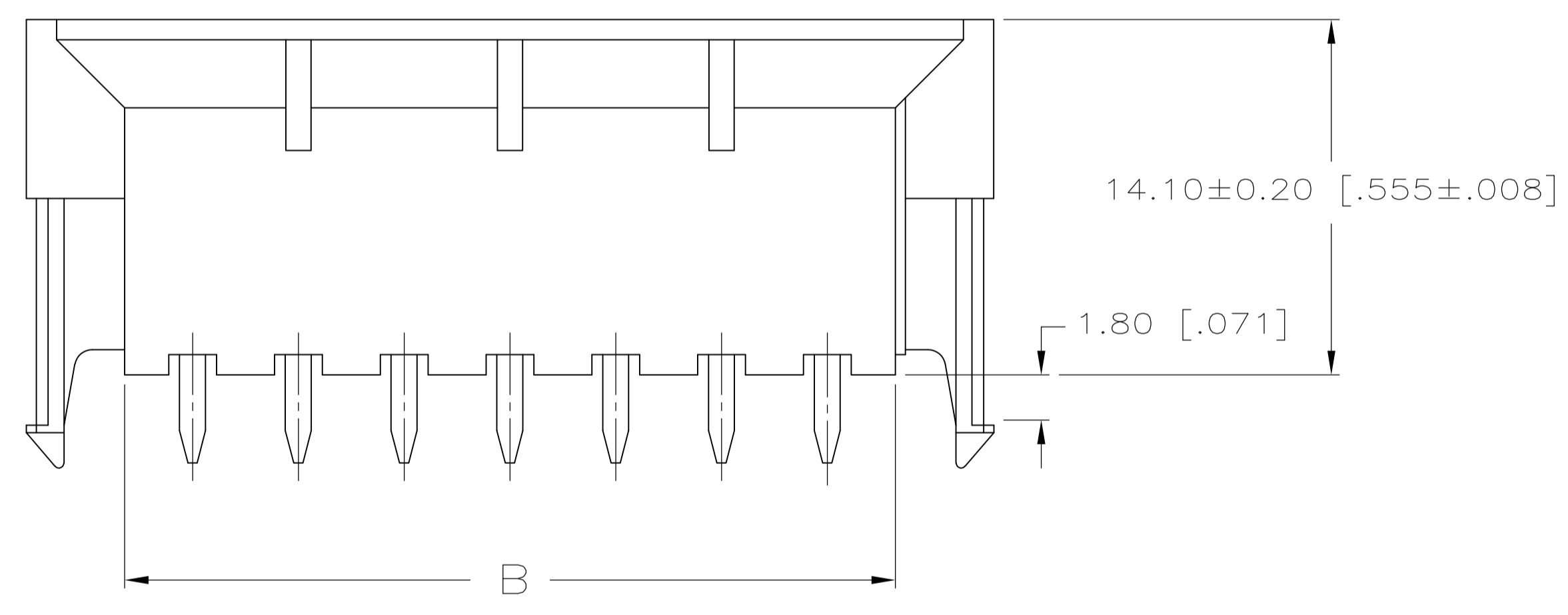
- Packaging Method = Tray

**Other:**

- Brand = AMP



RECOMMENDED HOLE LAYOUT FOR 1.78 [.070] MAXIMUM THICK PC BOARD.



- 1 MATERIAL: HOUSING-NYLON, UL94V-2 (COLOR-NATURAL, COLOR OF PARTS MAY VARY). CONTACTS-0.25 [.010] THICK BRASS ALLOY
- 2 CONTACT FINISH: 0.000100 [.0000039] MIN. MATTE TIN OVER 0.000050 [.0000020] MIN. NICKEL OVER ENTIRE CONTACT.
- 3 MATES WITH 4.2mm P.E. RECEPTACLE HOUSINGS.

|             |             |             |             |             |    |             |
|-------------|-------------|-------------|-------------|-------------|----|-------------|
| 59.4 [2.32] | 57.0 [2.24] | 55.6 [2.19] | 51.6 [2.03] | 46.2 [1.82] | 24 | 2-1586586-4 |
| 55.2 [2.17] | 52.0 [2.08] | 51.4 [2.02] | 47.4 [1.87] | 42.0 [1.65] | 22 | 2-1586586-2 |
| 51.0 [2.01] | 48.6 [1.91] | 47.2 [1.86] | 43.2 [1.70] | 37.8 [1.49] | 20 | 2-1586586-0 |
| 46.8 [1.84] | 44.4 [1.75] | 43.0 [1.69] | 39.0 [1.54] | 33.6 [1.32] | 18 | 1-1586586-8 |
| 42.6 [1.69] | 40.2 [1.58] | 38.8 [1.53] | 34.8 [1.37] | 29.4 [1.58] | 16 | 1-1586586-6 |
| 38.4 [1.51] | 36.0 [1.42] | 34.6 [1.36] | 30.6 [1.20] | 25.2 [0.99] | 14 | 1-1586586-4 |
| 34.2 [1.35] | 31.8 [1.25] | 30.4 [1.20] | 26.4 [1.04] | 21.0 [0.83] | 12 | 1-1586586-2 |
| 30.0 [1.18] | 27.6 [1.09] | 26.2 [1.03] | 22.2 [.87]  | 16.8 [0.66] | 10 | 1-1586586-0 |
| 25.8 [1.02] | 23.4 [.92]  | 22.0 [0.87] | 18.0 [.71]  | 12.6 [0.50] | 8  | 1586586-8   |
| 21.6 [.85]  | 19.2 [.76]  | 17.8 [0.70] | 13.8 [.54]  | 8.4 [0.33]  | 6  | 1586586-6   |
| 17.4 [.69]  | 15.0 [.59]  | 13.6 [0.54] | 9.6 [.38]   | 4.2 [0.17]  | 4  | 1586586-4   |
| 13.2 [.52]  | 10.8 [.43]  | 9.4 [.37]   | 5.4 [.21]   | —           | 2  | 1586586-2   |

|     |     |   |   |     |     |             |
|-----|-----|---|---|-----|-----|-------------|
| (E) | (D) | C | B | (A) | POS | PART NUMBER |
|-----|-----|---|---|-----|-----|-------------|

**METRIC**

|  |          |                           |   |
|--|----------|---------------------------|---|
| THIS DRAWING IS A CONTROLLED DOCUMENT. |          | DIN S. HOOVER 12-NOV-2004 | Tyco Electronics Corporation<br>Harrisburg, PA 17105-3608 |
| DIMENSIONS: mm [INCHES]                |          | CIK D. COLEY 12-NOV-2004  |   |
| TOLERANCES UNLESS OTHERWISE SPECIFIED: |          | APVD D. COLEY 12-NOV-2004 | NAME  |
| 0 PLC ±                                | 1 PLC ±  | 2 PLC ± 0.13 [.005]       | PRODUCT SPEC  |
| 3 PLC ±                                | 4 PLC ±  | ANGLES ± 0°30'            | APPLICATION SPEC  |
| MATERIAL 1                             | FINISH 2 | SIZE                      | CAGE CODE DRAWING NO                                      |
| WEIGHT                                 |          | A1                        | 00779 C=1586586   |
| CUSTOMER DRAWING                       |          | SCALE 5:1                 | SHEET 1 OF 1 REV A1                                       |