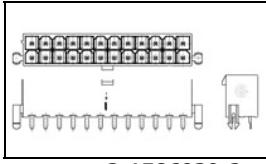


## 2-1586039-2 Product Details

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2-1586039-2

TE Internal Number: 2-1586039-2

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 WITH PEGS, WITH DRAIN HOLES VAL-U-LO...](#) (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 B)
- [3D Model](#) (IGES, Version B)
- [3D Model](#) (STEP, Version B)

[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]) = 47.40 [1.8661]
- Width (Z-Axis) (mm [in]) = 9.80 [0.386]
- Profile Height (Y-Axis) (mm [in]) = 12.80 [0.504]

#### Body Features:

- Header Type = Shrouded
- Mating Retention = With

#### 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 = 22
- 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)

- Selectively Loaded = No

**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

- Pick and Place Cover = Without

**Packaging Features:**

- Packaging Method = Tray

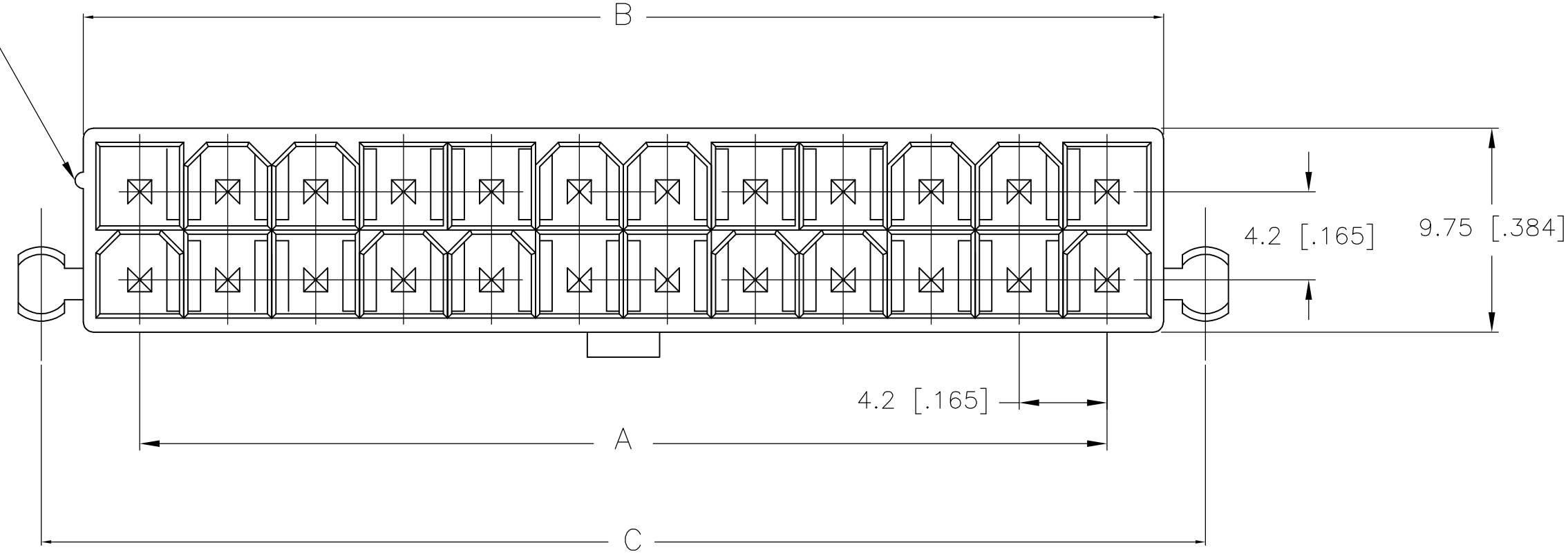
**Other:**

- Brand = AMP

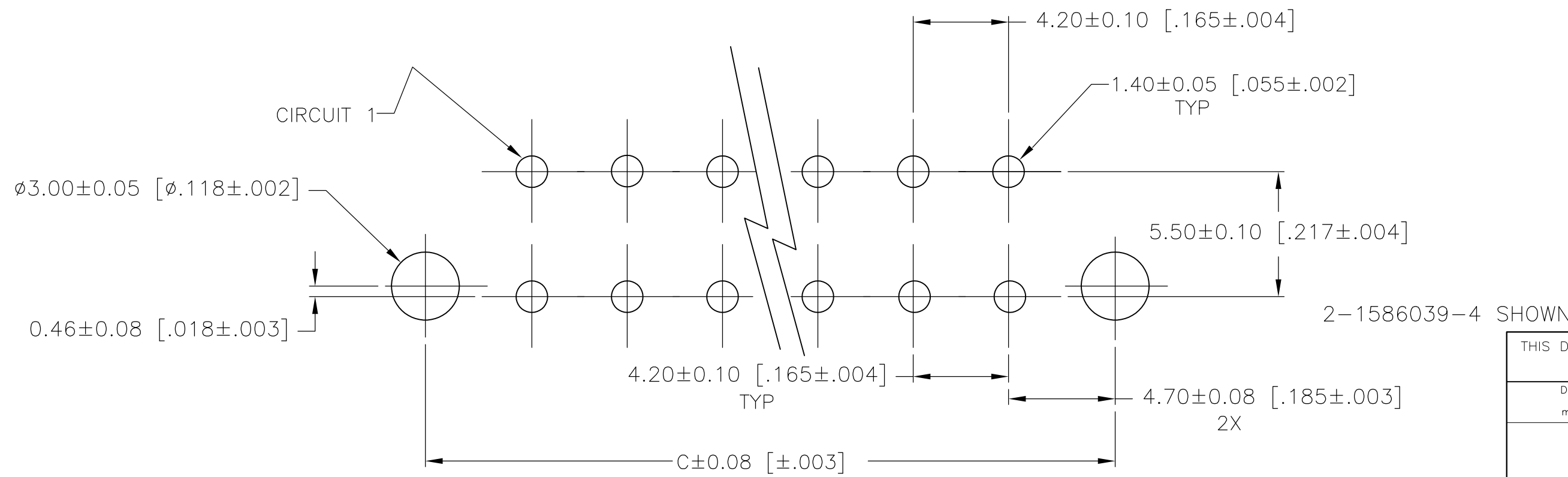
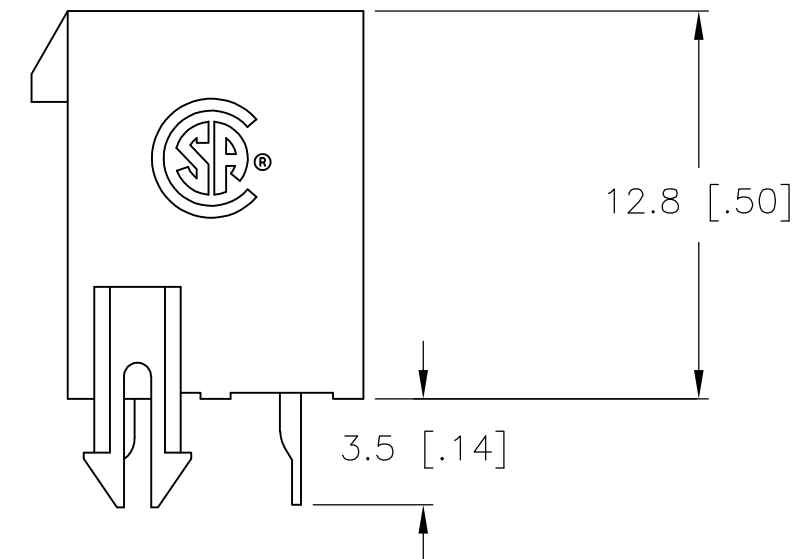
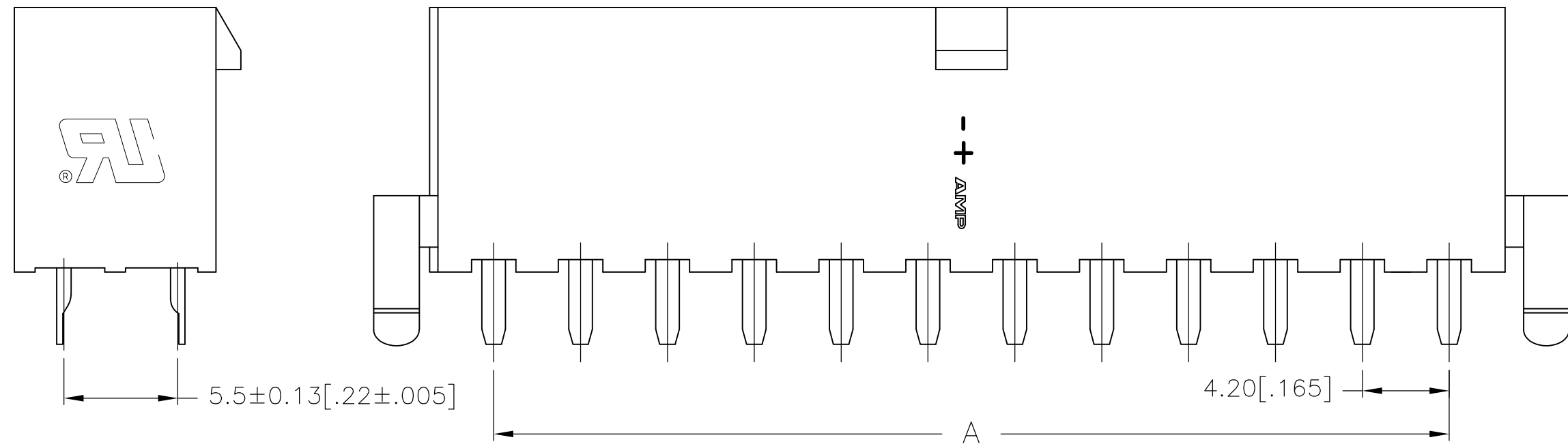
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LOC		DIST		REVISIONS				
P	LTR	DESCRIPTION			DATE	DWN	APVD	
CM	00	B3	REVISED PER ECO-11-017436			29AUG11	HMR	SM

POSITION 1  
IDENTIFICATION  
FEATURE



- 1 MATERIAL: HOUSING-NYLON, UL94V-2 (COLOR-NATURAL, COLOR OF PARTS MAY VARY) CONTACTS-0.25 [.010] THICK BRASS ALLOY.
- 2 CONTACT FINISH: 0.002032 [.000080] MIN MATTE TIN OVER 0.000381 [.000015] MIN NICKEL OVER ENTIRE CONTACT.
- 3 MATES WITH VAL-U-LOK(TM) RECEPTACLE HOUSINGS.



PCB LAYOUT: COMPONENT SIDE  
RECOMMENDED BOARD THICKNESS 1.78 [.070]

POS	A	B±0.25[.01]	C±0.38[.015]	PART NUMBER
24	46.2±0.25 [1.82±.01]	51.6 [2.03]	55.6 [2.19]	2-1586039-4
22	42.0±0.25 [1.65±.01]	47.4 [1.87]	51.4 [2.02]	2-1586039-2
20	37.8±0.25 [1.49±.01]	43.2 [1.70]	47.2 [1.86]	2-1586039-0
18	33.6±0.25 [1.32±.01]	39.0 [1.54]	43.0 [1.69]	1-1586039-8
16	29.4±0.25 [1.16±.01]	34.8 [1.37]	38.8 [1.53]	1-1586039-6
14	25.2±0.25 [.99±.01]	30.6 [1.21]	34.6 [1.36]	1-1586039-4
12	21.0±0.25 [.83±.01]	26.4 [1.04]	30.4 [1.20]	1-1586039-2
10	16.8±0.13 [.66±.005]	22.2 [.87]	26.2 [1.03]	1-1586039-0
8	12.6±0.13 [.50±.005]	18.0 [.71]	22.0 [.87]	1586039-8
6	8.4±0.13 [.33±.005]	13.8 [.54]	17.8 [.70]	1586039-6
4	4.2±0.13 [.17±.005]	9.6 [.38]	13.6 [.54]	1586039-4
2		5.4 [.21]	9.4 [.37]	1586039-2

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm [INCHES]	TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± 1 PLC ± 0.5 [.02] 2 PLC ± 0.25 [.010] 3 PLC ± - 4 PLC ± - ANGLES ± FINISH	DWN S. HOOVER 25-SEP-2002 CHK D. COLEY 25-SEP-2002 APVD D. COLEY 25-SEP-2002 PRODUCT SPEC APPLICATION SPEC	NAME TE Connectivity
MATERIAL	FINISH	WEIGHT	SIZE A2 CAGE CODE 00779 DRAWING NO. C=1586039 RESTRICTED TO -
CUSTOMER DRAWING		SCALE 10:1	SHEET 1 OF 1 REV B3