



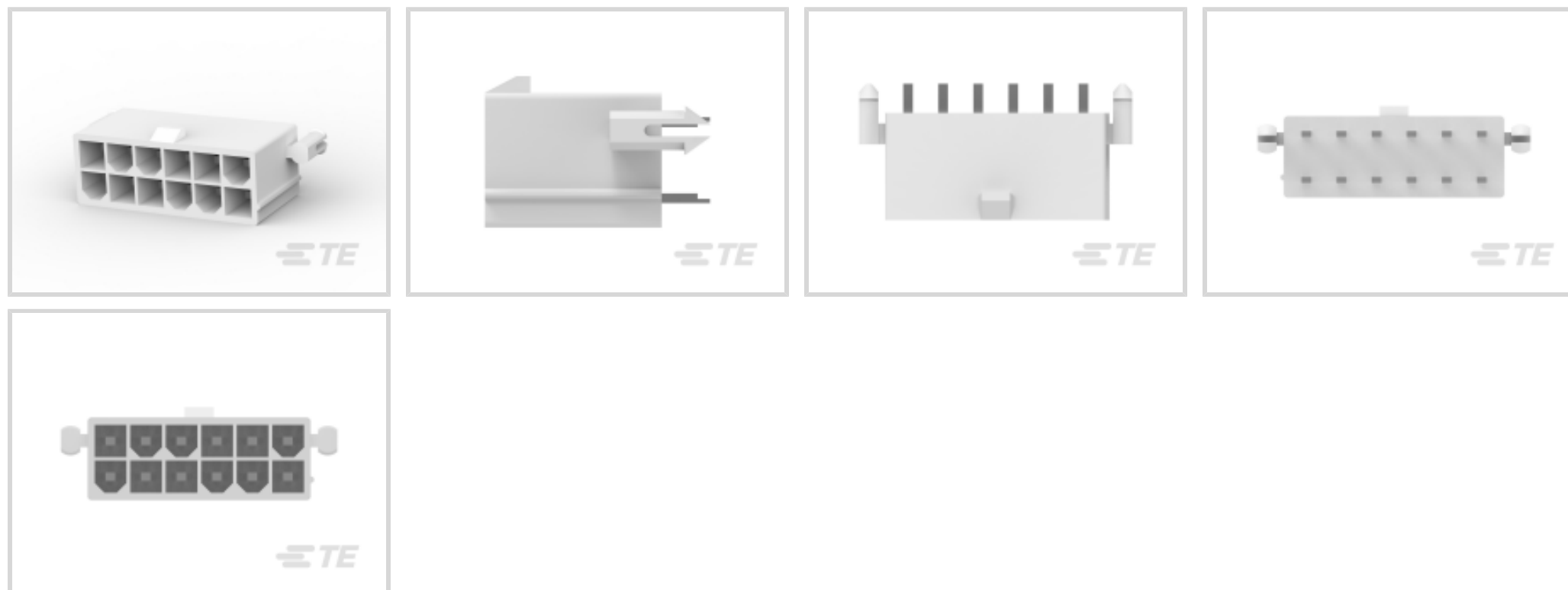
VAL-U-LOK

TE Internal #: 1-1586040-2

PCB Mount Header, Vertical, Wire-to-Board, 12 Position, 4.2 mm [165 in] Centerline, Fully Shrouded, Tin, Through Hole - Solder, Power, Natural, Tray

[View on TE.com >](#)

Connectors > PCB Connectors > PCB Headers & Receptacles



EU RoHS Compliance: **Compliant**

EU ELV Compliance: **Compliant**

PCB Connector Assembly Type: **PCB Mount Header**

PCB Mount Orientation: **Vertical**

Connector System: **Wire-to-Board**

**Features**

**Other**

EU RoHS Compliance	Compliant
EU ELV Compliance	Compliant

**Product Type Features**

Connector Shape	Rectangular
PCB Connector Assembly Type	PCB Mount Header
Connector System	Wire-to-Board
Header Type	Fully Shrouded
Sealable	No
Connector & Contact Terminates To	Printed Circuit Board

**Configuration Features**

Number of Loaded Positions	12
Number of Power Positions	12
PCB Mount Orientation	Vertical
Number of Positions	12



Number of Rows	2
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### Electrical Characteristics

Operating Voltage	600 VAC
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### Body Features

Primary Product Color	Natural
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### Contact Features

Contact Underplating Material	Nickel
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Contact Underplating Material Thickness	.381 $\mu\text{m}$ [15 $\mu\text{in}$ ]
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Contact Mating Area Plating Material Thickness	2.03 $\mu\text{m}$ [80 $\mu\text{in}$ ]
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PCB Contact Termination Area Plating Material Thickness	2.03 $\mu\text{m}$ [80 $\mu\text{in}$ ]
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Contact Layout	Matrix
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Contact Base Material	Brass Alloy
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PCB Contact Termination Area Plating Material	Tin
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Contact Mating Area Plating Material	Tin
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Contact Type	Tab
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Contact Current Rating (Max)	9 A
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### Termination Features

Termination Post & Tail Length	3.5 mm[.138 in]
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Termination Method to PCB	Through Hole - Solder
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### Mechanical Attachment

Mating Retention Type	Locking Tab
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Mating Retention	With
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Mating Alignment Type	Keyed
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PCB Mount Retention Type	Boardlock
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PCB Mount Retention	With
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PCB Mount Alignment	Without
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Connector Mounting Type	Board Mount
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Mating Alignment	With
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### Housing Features

Housing Material	Nylon
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Centerline (Pitch)	4.2 mm[.165 in]
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### Dimensions



Row-to-Row Spacing	4.2 mm [.165 in]
Connector Width	9.75 mm [.384 in]
PCB Thickness (Recommended)	1.78 mm [.07 in]
Connector Height	12.8 mm [.504 in]
Connector Length	26.4 mm [1.039 in]

### Usage Conditions

Operating Temperature (Max)	105 °C [221 °F]
Operating Temperature Range	-40 – 105 °C [-40 – 221 °F]

### Operation/Application

Circuit Application	Power
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### Industry Standards

Compatible With Agency/Standards Products	UL, CSA
UL Rating	Recognized
Compatible With Approved Standards Products	UL E28476
Glow Wire Rating	Standard Part - Not Glow Wire
UL Flammability Rating	UL 94V-0

### Packaging Features

Packaging Quantity	180
Packaging Method	Tray

### Product Compliance

[For compliance documentation, visit the product page on TE.com>](#)

EU RoHS Directive 2011/65/EU	Compliant
EU ELV Directive 2000/53/EC	Compliant
China RoHS 2 Directive MIIT Order No 32, 2016	No Restricted Materials Above Threshold
EU REACH Regulation (EC) No. 1907/2006	Current ECHA Candidate List: JUNE 2024 (241) Candidate List Declared Against: JUNE 2024 (241) Does not contain REACH SVHC
Halogen Content	Low Halogen - Br, Cl, F, I < 900 ppm per homogenous material. Also BFR/CFR/PVC Free
Solder Process Capability	Wave solder capable to 265°C

## Product Compliance Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided. This information is subject to change. The part numbers that TE has identified as EU RoHS compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, DBP, BBP, DEHP, DIBP, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). Finished electrical and electronic equipment products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked. Additionally, the part numbers that TE has identified as EU ELV compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, and mercury, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2000/53/EC (ELV). Regarding the REACH Regulation, the information TE provides on SVHC in articles for this part number is based on the latest European Chemicals Agency (ECHA) 'Guidance on requirements for substances in articles' posted at this URL: <https://echa.europa.eu/guidance-documents/guidance-on-reach>

## Compatible Parts



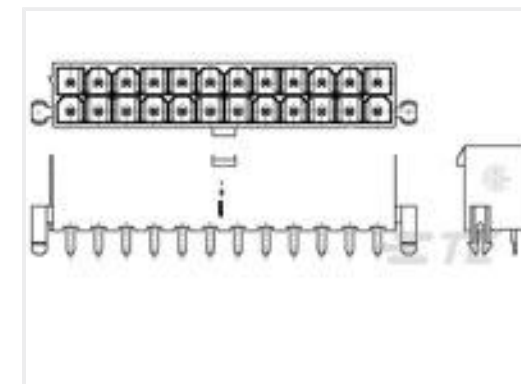
TE Part # 1-1586019-2  
12P RCPT VAL-U-LOK V0



TE Part # 1-1969613-2  
12P PM PLUG VAL-U-LOK V0

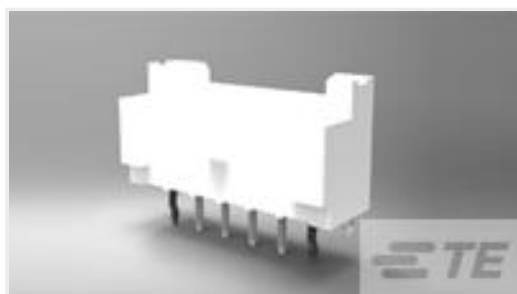


TE Part # 1-1969612-2  
12P FH PLUG VAL-U-LOK V0

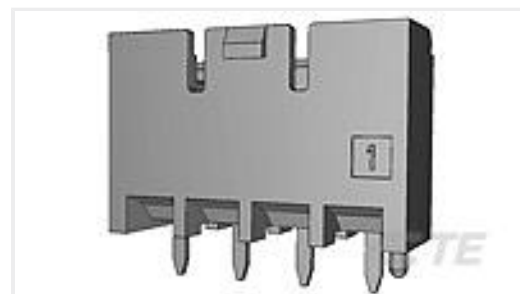


TE Part # 1-2029172-2  
12P VRT HDR VAL-U-LOK V2 W/ODH

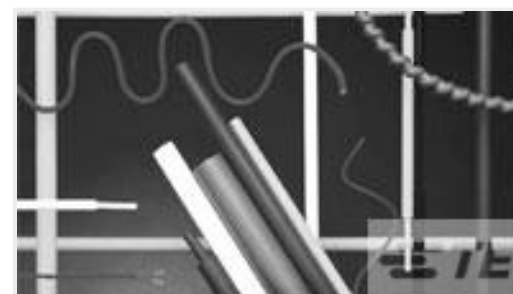
## Customers Also Bought



TE Part #2132415-6  
EP2.5 Shrouded HDR ASSY 6P VERT w/o boss



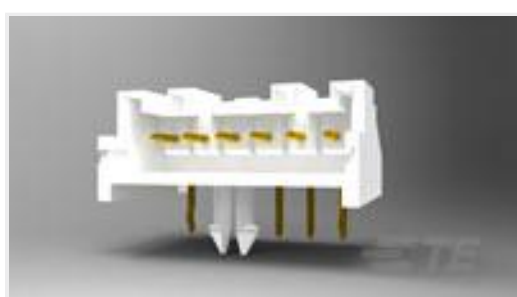
TE Part #1376385-1  
5mm B-T-W Conn. 6P HDR ASSEMBL



TE Part #5804464001  
CGPT-25.4/12.7-4-FSP



TE Part #1-1969582-0  
ASSY, HDR, VERT, NO-BOSS, DUAL ROW, EP2.5



TE Part #1744426-3  
Header Housing Assy, EP 2.5 RA, 3 Pos.



TE Part #1-1969582-2  
ASSY, HDR, VERT, NO-BOSS, DUAL ROW, EP2.5

## Documents

## Product Drawings

12P VAL-U-LOK VRT HDR W/P V0

English

## CAD Files



### 3D PDF

3D

#### Customer View Model

[ENG\\_CVM\\_CVM\\_1-1586040-2\\_B8.2d\\_dxf.zip](#)

English

#### Customer View Model

[ENG\\_CVM\\_CVM\\_1-1586040-2\\_B8.3d\\_igs.zip](#)

English

#### Customer View Model

[ENG\\_CVM\\_CVM\\_1-1586040-2\\_B8.3d\\_stp.zip](#)

English

By downloading the CAD file I accept and agree to the [Terms and Conditions](#) of use.

### Datasheets & Catalog Pages

[SOFT\\_SHELL\\_PIN\\_AND\\_SOCKET\\_CONNECTORS\\_CATALOG](#)

English

### Product Specifications

[Application Specification](#)

English

### Instruction Sheets

[Instruction Sheet \(U.S.\)](#)

English

### Agency Approvals

[UL Report](#)

English