

1-770186-1 ✓ ACTIVE

MATE-N-LOK | Mini-Universal MATE-N-LOK

TE Internal #: 1-770186-1

Rectangular Power Connectors, Header, Receptacle, Wire-to-Board, 12 Position, 4.14 mm [.162 in] Centerline, Mini-Universal MATE-N-LOK

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Connectors > Power Connectors > Rectangular Power > Rectangular Power Connectors



Rectangular Power Connector Type: **Header**

Connector & Housing Type: **Receptacle**

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

Number of Positions: **12**

Centerline (Pitch): **4.14 mm [.162 in]**

## Features

### Product Type Features

Header Type	Fully Shrouded
Rectangular Power Connector Type	Header
Connector & Housing Type	Receptacle
Connector System	Wire-to-Board
Sealable	No
Connector & Contact Terminates To	Printed Circuit Board

### Configuration Features

Number of Positions	12
PCB Mount Orientation	Vertical
Number of Power Positions	12
Number of Signal Positions	0
Number of Rows	3

### Electrical Characteristics

Operating Voltage	600 VDC
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### Contact Features

Multiple Contact Types	Without
PCB Contact Termination Area Plating Material Thickness	3.81 $\mu\text{m}$ [150 $\mu\text{in}$ ]
Contact Layout	Matrix
Contact Mating Area Plating Material	Gold
Contact Current Rating (Max)	9.5 A
Contact Retention Within Housing	Without
Contact Type	Pin
PCB Contact Termination Area Plating Material	Tin
Contact Mating Area Plating Material Thickness	.76 $\mu\text{m}$ [30 $\mu\text{in}$ ]

### Termination Features

Termination Post & Tail Length	3.69 mm[.145 in]
Termination Method to Printed Circuit Board	Through Hole - Solder

### Mechanical Attachment

Strain Relief	Without
Mating Alignment Type	Chamfered Edges
Mating Retention	With
Mating Alignment	With
PCB Mount Alignment	Without
Panel Mount Feature	Without
PCB Mount Retention	With
PCB Mount Retention Type	Boardlock
Mating Retention Type	Locking Tab
Connector Mounting Type	Board Mount

### Housing Features

Centerline (Pitch)	4.14 mm[.162 in]
Housing Color	White
Housing Material	Nylon

### Dimensions

Compatible Insulation Diameter (Max)	3.2 mm[3.2 in]
Connector Height	13.49 mm
PCB Thickness (Recommended)	.06 mm[1.57 in]



Product Width	13.97 mm
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Product Length	18.11 mm
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Compatible Insulation Diameter Range	3.2 mm
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Row-to-Row Spacing	4.14 mm [.163 in]
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### Usage Conditions

Operating Temperature Range	-55 – 105 °C [-67 – 221 °F]
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### Operation/Application

Circuit Application	Power
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### Identification Marking

Circuit Identification Feature	With
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### Industry Standards

CSA Rating	Certified, LR 7189
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UL Rating	Recognized
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Agency/Standard	CSA, UL
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Approved Standards	UL E28476
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UL Flammability Rating	UL 94V-0
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Glow Wire Rating	Standard Part - Not Glow Wire
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### Packaging Features

Packaging Quantity	200
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Packaging Method	Bag
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### Product Compliance

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

EU RoHS Directive 2011/65/EU	Compliant
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EU ELV Directive 2000/53/EC	Compliant
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China RoHS 2 Directive MIIT Order No 32, 2016	No Restricted Materials Above Threshold
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EU REACH Regulation (EC) No. 1907/2006	Current ECHA Candidate List: JUNE 2023 (235) Candidate List Declared Against: JAN 2023 (233) Does not contain REACH SVHC
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Halogen Content	Low Halogen - Br, Cl, F, I < 900 ppm per homogenous material. Also BFR/CFR/PVC Free
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## Solder Process Capability

Wave solder capable to 265°C

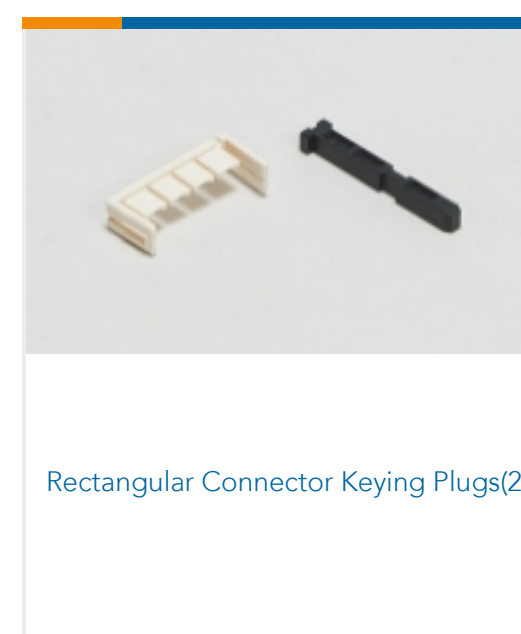
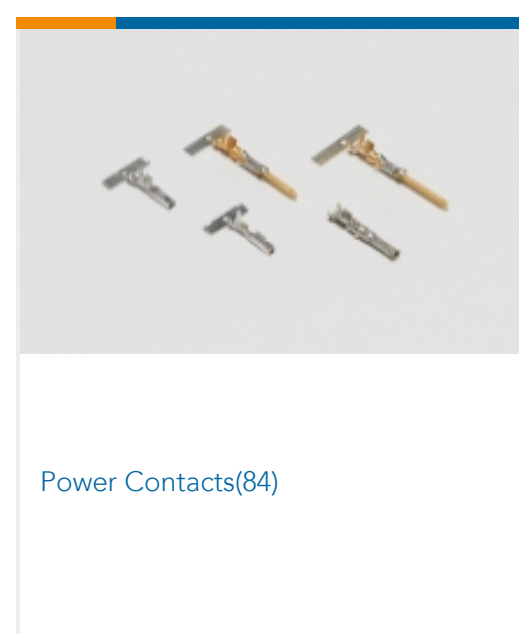
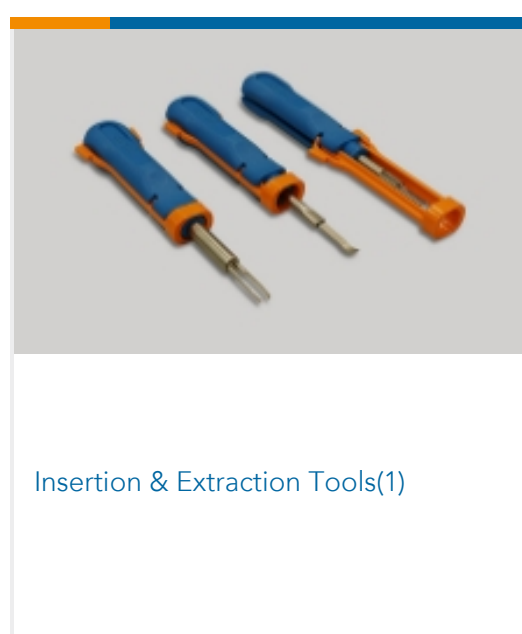
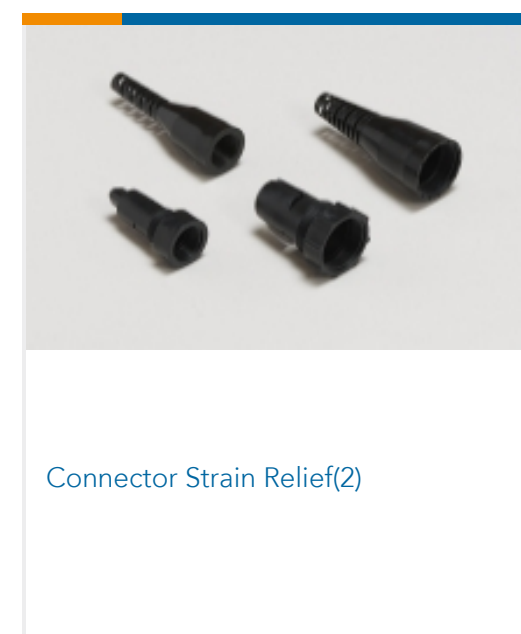
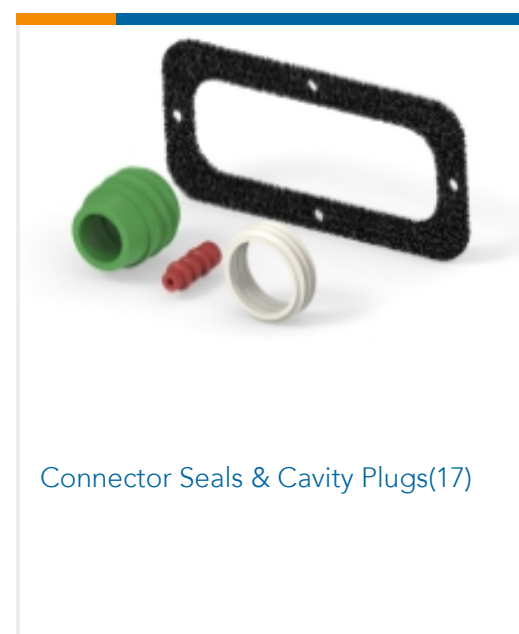
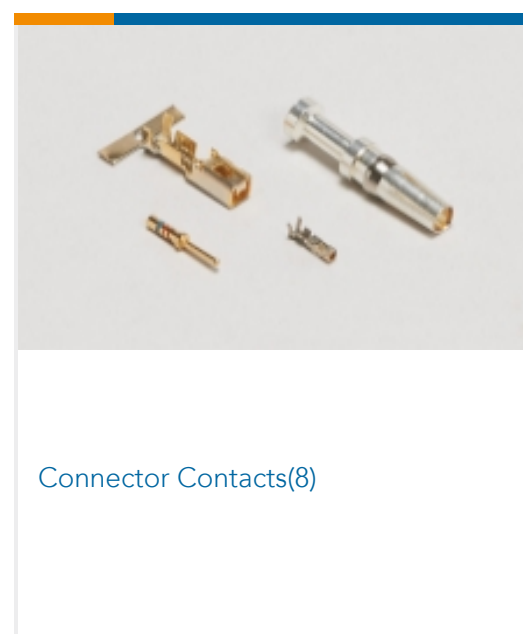
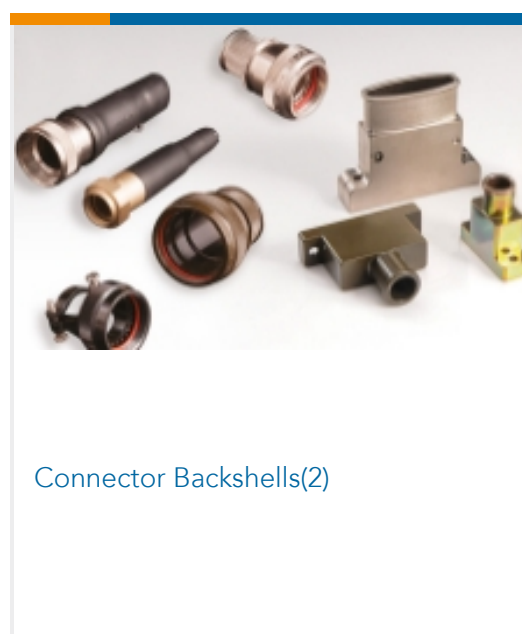
## Product Compliance Disclaimer

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



## Also in the Series | Mini-Universal MATE-N-LOK





Rectangular Connector Locking(2)



Rectangular Power Connectors(244)

## Customers Also Bought

TE Part #1-770968-1  
04P MINI UMNL R/A HDR ASSY LFTE Part #1-770170-1  
03P MINI UMNL ASSY VO SNAU LFTE Part #5-103669-2  
03 MTE HDR SRST LATCH W/HLDWNTE Part #6-2176087-2  
RP 1J 0.166W 301R 0.1% 25PPM 1K RLTE Part #A47971-000  
T1K-318064-10-9TE Part #5745820-2  
15 RCPT SP/MS CNUTTE Part #1986484-3  
Plug, 5.08mm, Gn, Ss & WE same side, 3pTE Part #4-641207-4  
14P MTA156 HDR ASSY FL RA LFTE Part #5650850-5  
ASSY,RCPT,EUROCARD,TYPE C,  
LEAD-FREE,32/

## Documents

### Product Drawings

12P MINI UMNL ASSY VO SNAU LF

English

### CAD Files

3D PDF

3D

Customer View Model

ENG\_CVM\_CVM\_1-770186-1\_N.2d\_dxf.zip



English

**Customer View Model**

[ENG\\_CVM\\_CVM\\_1-770186-1\\_N.3d\\_igs.zip](#)

English

**Customer View Model**

[ENG\\_CVM\\_CVM\\_1-770186-1\\_N.3d\\_stp.zip](#)

English

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

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**Datasheets & Catalog Pages**

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

English

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**Product Specifications**

[Application Specification](#)

English

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**Product Environmental Compliance**

[MD\\_1-770186-1\\_02262016929\\_dmtec](#)

English

[MD\\_1-770186-1\\_02262016929\\_dmtec](#)

English

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**Instruction Sheets**

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

English

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**Agency Approvals**

[UL](#)

English