



AMP | AMP Miniature Rectangular

TE Internal #: 640502-4

Rectangular Power Connectors, Header, Receptacle, Wire-to-Board, 12 Position, 4.2 mm [.165 in] Centerline, AMP Miniature Rectangular

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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): **4.2 mm [.165 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 Columns	3
Number of Positions	12
PCB Mount Orientation	Vertical
Number of Power Positions	0
Number of Signal Positions	12
Number of Rows	4

**Electrical Characteristics**



Operating Voltage	250 VDC
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### Contact Features

Contact Layout	Inline
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Contact Current Rating (Max)	5 A
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Contact Retention Within Housing	With
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Contact Type	Pin
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PCB Contact Termination Area Plating Material	Tin-Lead
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Contact Mating Area Plating Material	Gold
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Contact Mating Area Plating Material Thickness	.76 $\mu$ m[30 $\mu$ in]
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### Termination Features

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

Mating Alignment Type	Polarization
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Mating Alignment	With
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PCB Mount Alignment	Without
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PCB Mount Retention	Without
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Connector Mounting Type	Board Mount
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Mating Retention	With
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Mating Retention Type	Positive Lock
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### Housing Features

Centerline (Pitch)	4.2 mm[.165 in]
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Housing Color	Black
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Housing Material	PA 66
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### Dimensions

Wire Size	.12 – .8 mm <sup>2</sup>
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Row-to-Row Spacing	4.19 mm[.165 in]
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PCB Thickness (Recommended)	3.05 mm[.12 in]
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Width	15.75 mm[.62 in]
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Height	13.46 mm[.53 in]
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Length	19.94 mm[.785 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 & Signal
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### Industry Standards

UL Flammability Rating	UL 94V-0
Glow Wire Rating	Standard Part - Not Glow Wire
Agency/Standard Number	E28476
Agency/Standard	CSA, UL
UL Rating	Recognized
CSA File Number	LR7189
VDE Tested	No

### Packaging Features

Packaging Method	Bag
Packaging Quantity	200

### Product Compliance

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

EU RoHS Directive 2011/65/EU	Not Compliant
EU ELV Directive 2000/53/EC	Not Compliant
China RoHS 2 Directive MIIT Order No 32, 2016	Restricted Materials Above Threshold
EU REACH Regulation (EC) No. 1907/2006	Current ECHA Candidate List: JUNE 2022 (224) Candidate List Declared Against: JAN 2020 (205) Does not contain REACH SVHC
Halogen Content	Not Low Halogen - contains Br or Cl > 900 ppm.
Solder Process Capability	Not lead free process capable

#### Product Compliance Disclaimer

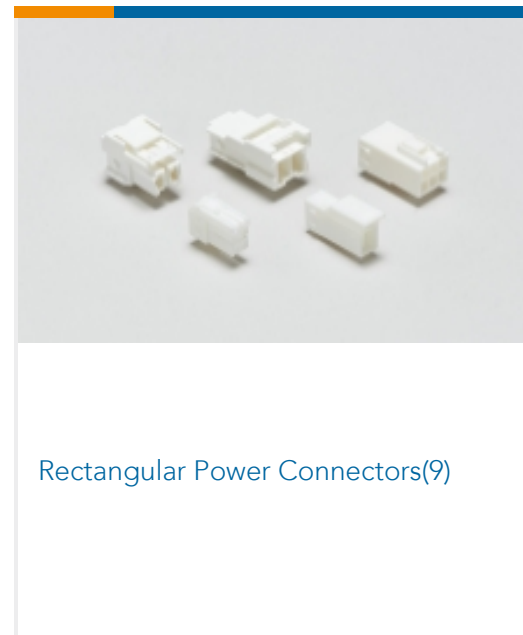
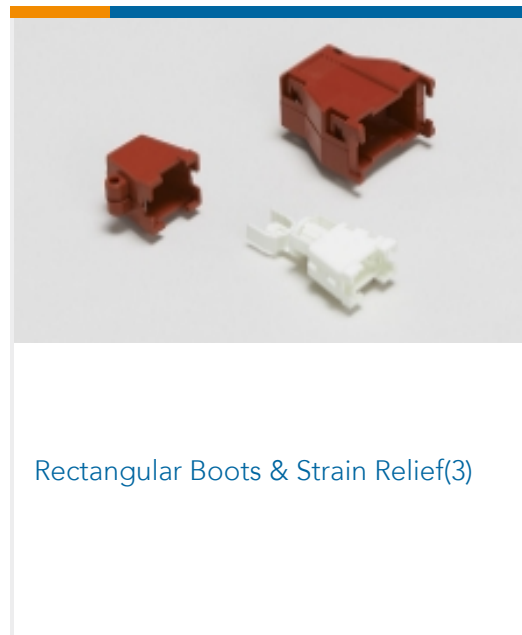
This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided. This information is subject to change. The part numbers that TE has identified as EU RoHS compliant have a maximum concentration of 0.1% by weight 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 | AMP Miniature Rectangular



## Documents

### Product Drawings

12P MR HDR ASSY V0

English

### CAD Files

3D PDF

3D

Customer View Model

[ENG\\_CVM\\_CVM\\_640502-4\\_AA.2d\\_dxf.zip](#)

English

Customer View Model

[ENG\\_CVM\\_CVM\\_640502-4\\_AA.3d\\_igs.zip](#)

English

Customer View Model

[ENG\\_CVM\\_CVM\\_640502-4\\_AA.3d\\_stp.zip](#)

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Customer View Model

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English

Customer View Model



[ENG\\_CVM\\_640502-4\\_S.3d\\_stp.zip](#)

English

**Customer View Model**

[ENG\\_CVM\\_640502-4\\_S.2d\\_dxf.zip](#)

English

**3D PDF**

English

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### Datasheets & Catalog Pages

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

English

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### Product Specifications

[AMP Miniature Rectangular \(MR\) Headers](#)

English

English

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### Agency Approvals

[Agency Approval Document](#)

English