

1-647689-2 ✓ ACTIVE



Economy Power

TE Internal #: 1-647689-2

PCB Mount Header, Vertical, Wire-to-Board, 12 Position, 3.96 mm [.156 in] Centerline, Partially Shrouded, Tin, Through Hole - Solder, Economy Power

[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

Dimensions

	1.87 in
Connector Width	8.6 mm[.339 in]
PCB Thickness (Recommended)	1.6 mm[.063 in]
Connector Height	10.9 mm[.429 in]

Other

EU RoHS Compliance	Compliant
EU ELV Compliance	Compliant

Product Type Features

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

Configuration Features



Connector Contact Load Condition	Fully Loaded
PCB Mount Orientation	Vertical
Number of Positions	12
Number of Rows	1

Electrical Characteristics

Operating Voltage	250 VDC
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Body Features

Connector Profile	Low
Primary Product Color	Natural

Contact Features

Contact Underplating Material	Nickel
Contact Underplating Material Thickness	1 μm [39.37 μin]
PCB Contact Termination Area Plating Material Finish	Matte
Contact Mating Area Plating Material Thickness	3 μm [118.11 μin]
Mating Square Post Dimension	1.14 mm[.045 in]
PCB Contact Termination Area Plating Material Thickness	3 μm [118.11 μin]
Contact Shape & Form	Square
Contact Layout	Inline
Contact Mating Area Length	7.8 mm[.307 in]
Contact Base Material	Brass
PCB Contact Termination Area Plating Material	Tin
Contact Mating Area Plating Material Finish	Matte
Contact Mating Area Plating Material	Tin
Contact Type	Pin
Contact Current Rating (Max)	8 A

Termination Features

Termination Post & Tail Length	3.7 mm[.146 in]
Square Termination Post & Tail Dimension	1.14 mm[.045 in]
Termination Method to PCB	Through Hole - Solder

Mechanical Attachment

Panel Mount Feature	Without
Mating Retention Type	Latch



Mating Retention	With
Mating Alignment Type	Polarization
PCB Mount Retention	Without
PCB Mount Alignment	Without
Connector Mounting Type	Board Mount
Mating Alignment	With

Housing Features

Housing Material	Nylon
Centerline (Pitch)	3.96 mm [.156 in]

Usage Conditions

Operating Temperature Range	-25 – 105 °C [-13 – 221 °F]
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Operation/Application

Circuit Application	Power
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Industry Standards

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	500
Packaging Method	Package

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 # 1-2132782-2
12 pos. EP II breakaway retain



TE Part # 1-2377130-2
EP II plug housing, 12P, NON-GWT



TE Part # 1-1744416-2
12 POS EP II HSG, GLOW WIRE



TE Part # 1-2421885-2
EP II PLUG HOUSING, 12P, RED, NON-GWT



TE Part # 1-2421886-2
EP II PLUG HOUSING, 12P, GREY, NON-GWT



TE Part # 3-2421885-2
EP II PLUG HOUSING, 12P, BLUE, NON-GWT



TE Part # 3-2421886-2
EP II PLUG HOUSING, 12P, ORANGE, NON-GWT



TE Part # 4-1744057-5
3.96 EP HDR ASSY 5P W/PEGS,YEL



TE Part # 5-2421885-2
EP II PLUG HOUSING, 12P, GREEN, NON-GWT



TE Part # 5-2421886-2
EP II PLUG HOUSING, 12P, BLACK, NON-GWT



TE Part # 7-2421885-2
EP II PLUG HOUSING, 12P, YELLOW, NON-GWT

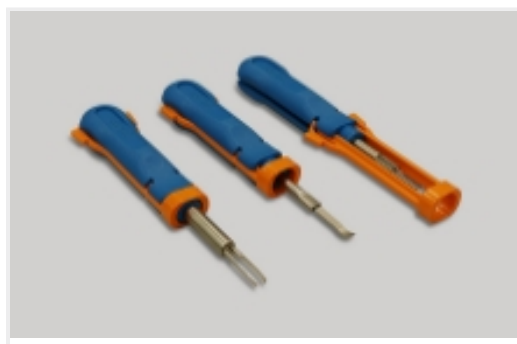
Also in the Series | **Economy Power**



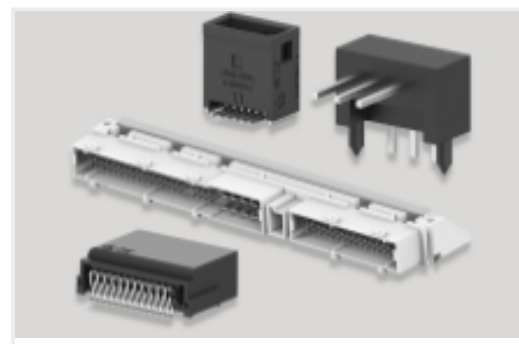
Connector Contacts(15)



Connector Hardware(2)



Insertion & Extraction Tools(1)



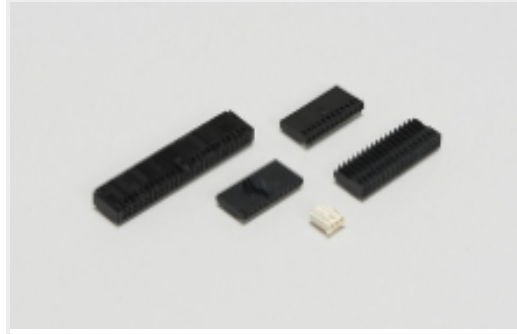
PCB Headers & Receptacles(402)



Rectangular Connector Housings(1)



Rectangular Power Connectors(57)

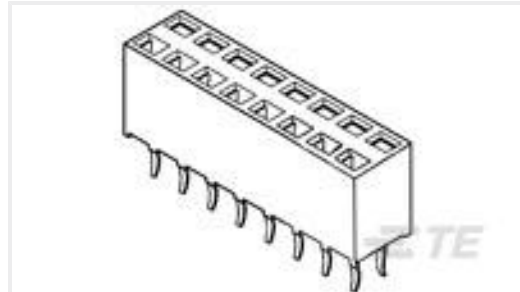


Wire-to-Board Connector Assemblies & Housings(141)

Customers Also Bought



TE Part #5-1462037-9
IM43GR=IM RELAY 100mW 5V BIS



TE Part #215307-3
2X3P HV100 REC CON. TE, 7.0MM



TE Part #42214-2
250 FASTON TAB TPBR



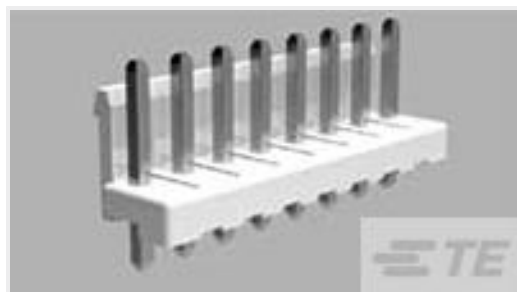
TE Part #1-2132781-2
12P EP-II HOUSING, NATURAL



TE Part #292227-2
1.5 MINI CT SGL H SMT W BOSS 2



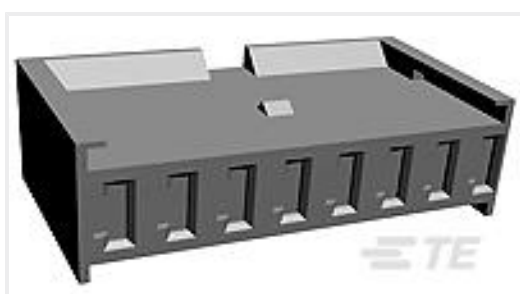
TE Part #1-2132781-0
10P EP-II HOUSING, NATURAL



TE Part #1-1318300-0
3.96 EP HDR ASSY 10P NAT/TUBE



TE Part #1623195-1
CRG0805 1% 330R



TE Part #280593
AMP MODU MOD I RECEPT HSG



TE Part #710027-1
XCT 35-6

Documents



CAD Files

3D PDF

3D

Customer View Model

[ENG_CVM_CVM_1-647689-2_A.2d_dxf.zip](#)

English

Customer View Model

[ENG_CVM_CVM_1-647689-2_A.3d_igs.zip](#)

English

Customer View Model

[ENG_CVM_CVM_1-647689-2_A.3d_stp.zip](#)

English

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

Datasheets & Catalog Pages

[1-1773885-9 Economy Power Connectors](#)

English

Product Specifications

[Application Specification](#)

Japanese

[Application Specification](#)

English

Agency Approvals

[VDE Certificate](#)

English