

Printed-circuit board connector - CCVA 2,5/ 2-G P20 THR - 1837022

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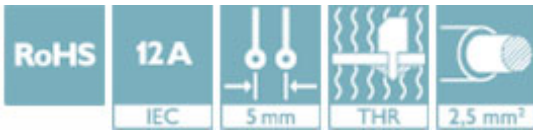
PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5 mm, color: black, contact surface: Tin, mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"




The figure shows a 10-position version of the product

Your advantages

- Designed for integration into the SMT soldering process
- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Closed contour for optimum stability of the plug-in connection



Key Commercial Data

| | |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 50 pc |
| GTIN |  4 055626 021416 |
| GTIN | 4055626021416 |

Technical data

Item properties

| | |
|---------------------------|---------------------|
| Brief article description | Feed-through header |
| Plug-in system | CLASSIC COMBICON |
| Type of contact | Male connector |
| Range of articles | CCVA 2,5/..-G |
| Pitch | 5 mm |
| Number of positions | 2 |
| Mounting type | THR soldering |
| Locking | without |
| Number of levels | 1 |
| Number of connections | 2 |
| Number of potentials | 2 |

Electrical parameters

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Technical data

Electrical parameters

| | |
|-----------------------------|-------|
| Rated current | 12 A |
| Rated voltage (III/2) | 320 V |
| Rated surge voltage (III/2) | 4 kV |

Material data - contact

| | |
|---------------------------------------------|-----------------------------------------------------------------------------------|
| Note | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201 |
| Contact material | Cu alloy |
| Surface characteristics | Tin-plated |
| Metal surface contact area (top layer) | Tin (3 - 5 µm Sn) |
| Metal surface contact area (middle layer) | Nickel (1.3 - 3 µm Ni), |
| Metal surface soldering area (top layer) | Tin (3 - 5 µm Sn) |
| Metal surface soldering area (middle layer) | Nickel (1.3 - 3 µm Ni) |

Material data - housing

| | |
|----------------------------------------|------|
| Insulating material | LCP |
| Insulating material group | IIIa |
| CTI according to IEC 60112 | 225 |
| Flammability rating according to UL 94 | V0 |

Dimensions for the product

| | |
|-----------------------------|----------|
| Length [l] | 8.57 mm |
| Width [w] | 12.8 mm |
| Height [h] | 14 mm |
| Pitch | 5 mm |
| Height (without solder pin) | 12 mm |
| Solder pin [P] | 2 mm |
| Pin dimensions | 1 x 1 mm |
| Dimension a | 5 mm |

Packaging information

| | |
|----------------------------|---------------------|
| Type of packaging | packed in cardboard |
| Pieces per package | 50 |
| Denomination packing units | Pcs. |

Ambient conditions

| | |
|-----------------------------------------|-----------------------------------------------------|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 100 °C (dependent on the derating curve) |

Termination and connection method

| | |
|------------------------------------------|---------------------|
| Test for conductor damage and slackening | IEC 60999-1:1999-11 |
| | Test passed |

Pull-out test

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Pull-out test

| | |
|----------------------------------------------------------|-----------------------------------------|
| Pull-out test | IEC 60999-1:1999-11 |
| | Test passed |
| Conductor cross section / conductor type / tensile force | 0.2 mm ² / solid / > 10 N |
| | 0.2 mm ² / flexible / > 10 N |
| | 2.5 mm ² / solid / > 50 N |
| | 2.5 mm ² / flexible / > 50 N |

Mechanical tests according to standard

| | |
|-------------------------------------|------------------------------------|
| Visual examination | Test passed IEC 60512-1-1:2002-02 |
| Dimensional test | Test passed IEC 60512-1-2:2002-02 |
| Resistance of marking | Test passed IEC 60068-2-70:1995-12 |
| Result | Test passed |
| Specification | IEC 60512-13-2:2006-02 |
| No. of cycles | 25 |
| Insertion strength per pos. approx. | 8 N |
| Withdraw strength per pos. approx. | 6 N |
| Polarization and coding | Test passed IEC 60512-13-5:2006-02 |
| Result | Test passed |
| Specification | IEC 60512-15-1:2008-05 |
| Test force per pos. | 20 N |

Air clearances and creepage distances

| | |
|-------------------------------------------------|--------|
| Rated insulation voltage (III/3) | 250 V |
| Rated insulation voltage (III/2) | 320 V |
| Rated insulation voltage (II/2) | 400 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated surge voltage (III/2) | 4 kV |
| Rated surge voltage (II/2) | 4 kV |
| Minimum clearance - inhomogeneous field (III/3) | 3 mm |
| Minimum clearance - inhomogeneous field (III/2) | 3 mm |
| Minimum clearance - inhomogeneous field (II/2) | 3 mm |
| Minimum creepage distance value (III/3) | 4 mm |
| Minimum creepage distance value (III/2) | 3.2 mm |
| Minimum creepage distance value (II/2) | 4 mm |

Mechanical tests (A)

| | |
|----------------------------------------------|-------------|
| Insertion strength per pos. approx. | 8 N |
| Withdraw strength per pos. approx. | 6 N |
| Polarization when inserted requirement >20 N | Test passed |
| Contact holder in insert requirements >20 N | Test passed |

Durability tests (B)

| | |
|---------------|-----------------------|
| Specification | IEC 60512-9-1:2010-03 |
|---------------|-----------------------|

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Technical data

Durability tests (B)

| | |
|----------------------------------------------|---------|
| Contact resistance R ₁ | 1.2 mΩ |
| Insertion/withdrawal cycles | 25 |
| Contact resistance R ₂ | 1.2 mΩ |
| Impulse withstand voltage at sea level | 4.8 kV |
| Power-frequency withstand voltage | 2.21 kV |
| Insulation resistance, neighboring positions | > 1 TΩ |

Climatic tests (D)

| | |
|----------------------------------------|---------------------------------------------------------------------------|
| Specification | ISO 6988:1985-02 |
| Cold stress | -40 °C/2 h |
| Thermal stress | 100 °C/168 h |
| Corrosive stress | 0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle |
| Impulse withstand voltage at sea level | 4.8 kV |
| Power-frequency withstand voltage | 2.21 kV |

Environmental and durability tests (E)

| | |
|---------------------------------------|-------------------------------------|
| Specification | IEC 61984:2008-10 |
| Result, degree of protection, IP code | Finger safety with IP20 test finger |

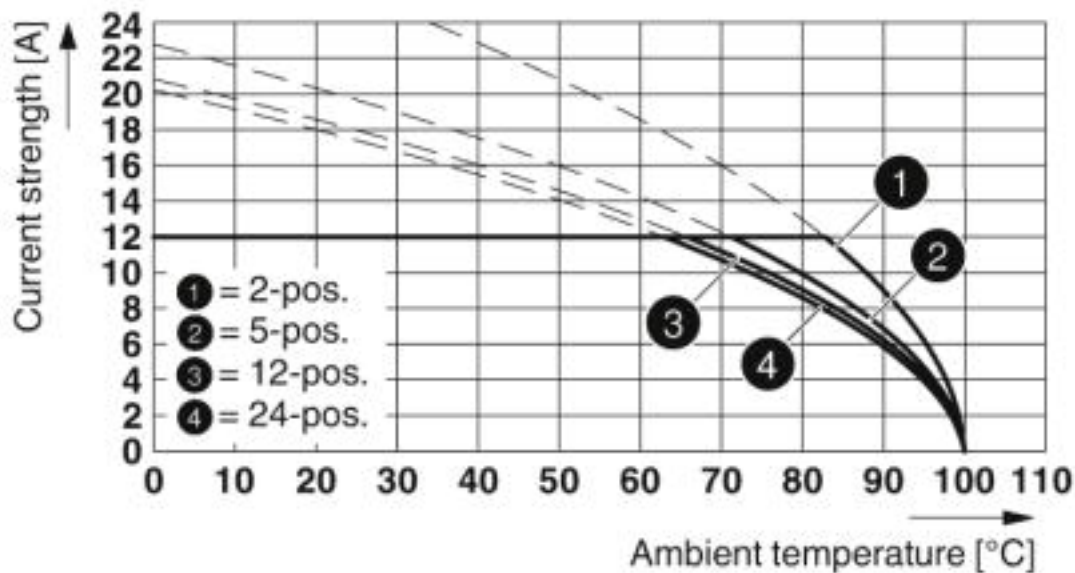
Environmental Product Compliance

| | |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

Drawings

Printed-circuit board connector - CCVA 2,5/ 2-G P20 THR - 1837022

Diagram



Type: MSTB 2,5/...-ST with CCVA 2,5/...-G P20 THR

Approvals

Approvals

Approvals

cULus Recognized / EAC

Ex Approvals

Approval details

| | | | |
|--------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| cULus Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | E60425-19931011 |
| | B | | D |
| Nominal voltage UN | 300 V | | 300 V |
| Nominal current IN | 16 A | | 10 A |

| | | |
|-----|--|---------|
| EAC | | B.01742 |
|-----|--|---------|

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