

ICC25-H/4L5,0-7035 - PCB header



2203902

<https://www.phoenixcontact.com/de/produkte/2203902>

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PCB headers, nominal cross section: 2.5 mm², color: light grey, nominal current: 16 A, rated voltage (III/2): 320 V, type of contact: Male connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: ICC.-H/..L5,0, pitch: 5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, number of solder pins per potential: 1, Pin connector pattern alignment: Standard, locking: Snap-in locking, mounting: without, type of packaging: Box packaging, Product with pin output on left side

Your advantages

- Variable coding, for reliable protection against incorrect connection
- Designed for integration into the wave soldering process
- Easy and fast push-in mounting of assembled printed-circuit boards, thanks to stable guide rails
- Quick and easily coded when initially connecting the connector and header

Commercial Data

| | |
|--------------------------------------|------------------------|
| Item number | 2203902 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales Key | F1 - Elektronikgehäuse |
| Product Key | ACHAFB |
| GTIN | 4055626466071 |
| Weight per Piece (including packing) | 5,302 g |
| Weight per Piece (excluding packing) | 3,9 g |
| Customs tariff number | 85366930 |
| Country of origin | PL |

Technical Data

Product properties

| | |
|---------------------------|---------------------------------|
| Type | Header perpendicular to the PCB |
| Product type | PCB headers |
| Product family | ICC...H/..L5,0 |
| Number of positions | 4 |
| Pitch | 5 mm |
| Number of connections | 4 |
| Number of rows | 1 |
| Mounting flange | without |
| Number of potentials | 4 |
| Pin layout | Linear pinning |
| Solder pins per potential | 1 |

Electrical properties

| | |
|-----------------------------|-------|
| Nominal current I_N | 16 A |
| Nominal voltage U_N | 320 V |
| Degree of pollution | 3 |
| Rated voltage (III/3) | 250 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated voltage (III/2) | 320 V |
| Rated surge voltage (III/2) | 4 kV |
| Rated voltage (II/2) | 630 V |
| Rated surge voltage (II/2) | 4 kV |

Mounting

| | |
|---------------|----------------|
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |

Material specifications

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 terminal point (top layer) | Tin (2 - 4 μm Sn) |
| Metal surface terminal point (middle layer) | Nickel (1.3 - 3 μm Ni) |
| Metal surface contact area (top layer) | Tin (2 - 4 μm Sn) |
| Metal surface contact area (middle layer) | Nickel (1.3 - 3 μm Ni) |
| Metal surface soldering area (top layer) | Tin (2 - 4 μm Sn) |
| Metal surface soldering area (middle layer) | Nickel (1.3 - 3 μm Ni) |

Material data - housing

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| | |
|---|-------------------|
| Color (Housing) | light grey (7035) |
| Insulating material | PA |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V0 |
| Glow wire flammability index GWFI according to EN 60695-2-12 | 850 |
| Glow wire ignition temperature GWIT according to EN 60695-2-13 | 775 |
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C |

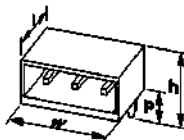
Material data – actuating element

| | |
|----------|----|
| Color () | () |
|----------|----|

Notes

| | |
|-----------------------|---|
| Assembly instruction: | Refer to the data sheet for the range in the download area. |
|-----------------------|---|

Dimensions

| | |
|-----------------------|--|
| Dimensional drawing |  |
| Pitch | 5 mm |
| Width [w] | 25 mm |
| Height [h] | 22.4 mm |
| Length [l] | 20.35 mm |
| Solder pin length [P] | 3.5 mm |

Mechanical tests

Test for conductor damage and slackening

| | |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result | Test passed |

Repeated connection and disconnection

| | |
|---------------|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Result | Test passed |

Pull-out test

| | |
|---|---|
| Specification | IEC 60999-1:1999-11 |
| Conductor cross section/conductor type/tractive force setpoint/actual value | 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 |

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Insertion and withdrawal forces

| | |
|-------------------------------------|-------------|
| Result | Test passed |
| No. of cycles | 25 |
| Insertion strength per pos. approx. | 13 N |
| Withdraw strength per pos. approx. | 8 N |

Contact holder in insert

| | |
|---|------------------------|
| Specification | IEC 60512-15-1:2008-05 |
| Contact holder in insert Requirements >20 N | Test passed |

Polarization and coding

| | |
|---------------|------------------------|
| Specification | IEC 60512-13-5:2006-02 |
| Result | Test passed |

Visual inspection

| | |
|---------------|-----------------------|
| Specification | IEC 60512-1-1:2002-02 |
| Result | Test passed |

Dimension check

| | |
|---------------|-----------------------|
| Specification | IEC 60512-1-2:2002-02 |
| Result | Test passed |

Electrical tests

Thermal test | Test group C

| | |
|----------------------------|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
| Tested number of positions | 4 |

Insulation resistance

| | |
|--|-----------------------|
| Specification | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | > 30 GΩ |

Air clearances and creepage distances |

| | |
|--|---------------------|
| Specification | IEC 60664-1:2007-04 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 250 V |
| Rated surge voltage (III/3) | 4 kV |
| minimum clearance value - non-homogenous field (III/3) | 3 mm |
| minimum creepage distance (III/3) | 3.2 mm |
| Rated insulation voltage (III/2) | 320 V |
| Rated surge voltage (III/2) | 4 kV |
| minimum clearance value - non-homogenous field (III/2) | 3 mm |
| minimum creepage distance (III/2) | 1.6 mm |
| Rated insulation voltage (II/2) | 630 V |
| Rated surge voltage (II/2) | 4 kV |

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| | |
|---|--------|
| minimum clearance value - non-homogenous field (II/2) | 3 mm |
| minimum creepage distance (II/2) | 3.2 mm |

Environmental and real-life conditions

Vibration test

| | |
|------------------------|-----------------------------|
| Specification | IEC 60068-2-6:2007-12 |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 Hz ... 60.1 Hz) |
| Sweep speed | 5g (60.1 Hz ... 150 Hz) |
| Test duration per axis | 2.5 h |

Durability test

| | |
|--|-----------------------|
| Specification | IEC 60512-9-1:2010-03 |
| Insulation resistance, neighboring positions | > 30 GΩ |

Climatic test

| | |
|-----------------------------------|---|
| Specification | ISO 6988:1985-02 |
| Corrosive stress | 0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle |
| Thermal stress | 105 °C/168 h |
| Power-frequency withstand voltage | 2.21 kV |

Ambient conditions

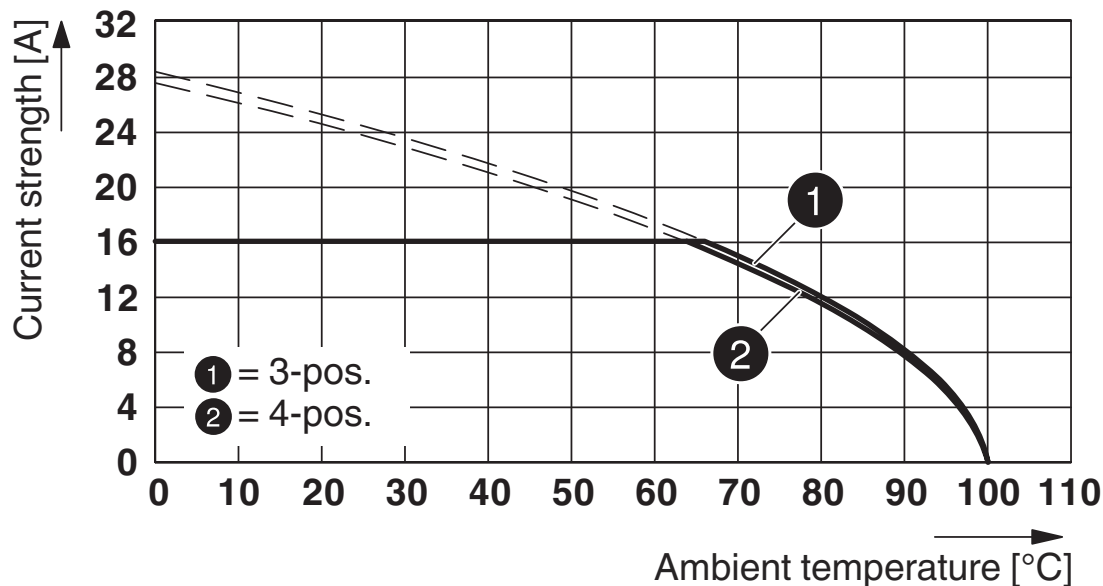
| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 105 °C (dependent on the derating curve) |
| Ambient temperature (storage/transport) | -40 °C ... 55 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

Packaging specifications

| | |
|----------------------|---------------|
| Type of packaging | Box packaging |
| Outer packaging type | Carton |

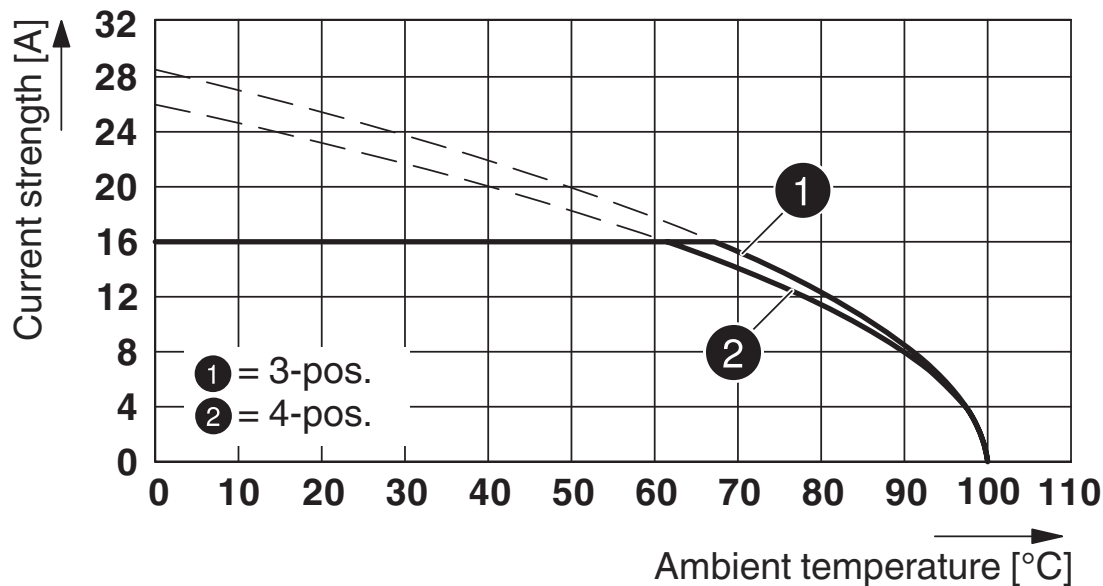
Drawings

Diagram



Type: MSTBT 2,5 HC/...-STF with ICC20(25)-H/...L(R)5,0-...

Diagram



Type: PSPT 2,5/...-ST ... with ICC20(25)-H/...L(R)5,0-...

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Approvals



EAC

Approval ID: B.01687



cULus Recognized

Approval ID: E60425-20181123

| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
|-------------|-----------------------|-----------------------|-------------------|-----------------------------|
| Use group B | | | | |
| | 300 V | 16 A | - | - |

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Classifications

ECLASS

| | |
|---------------|----------|
| ECLASS-9.0 | 27440402 |
| ECLASS-10.0.1 | 27440402 |
| ECLASS-11.0 | 27460201 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC002637 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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Environmental Product Compliance

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

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Accessories

PSPT 2,5/ 4-ST KMGY - Printed-circuit board connector

2202344

<https://www.phoenixcontact.com/de/produkte/2202344>



PCB connector, nominal cross section: 2.5 mm², color: light grey, nominal current: 16 A, rated voltage (III/2): 300 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: PSPT 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, locking: without, mounting: without, type of packaging: packed in cardboard, Color of the spring lever: orange

MSTBT 2,5 HC/ 4-STP GY7035 - Printed-circuit board connector

2200332

<https://www.phoenixcontact.com/de/produkte/2200332>



PCB connector, nominal cross section: 2.5 mm², color: light grey, nominal current: 16 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of rows: 1, number of positions: 4, product range: MSTBT 2,5 HC/..-STP, pitch: 5 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5 HC, locking: without, mounting: without

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PHOENIX CONTACT Deutschland GmbH

Flachsmarktstraße 8

D-32825 Blomberg

+49 52 35/3-1 20 00

info@phoenixcontact.de