

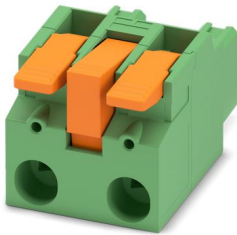
LPC 16 HC/ 2-STL2-10,16 - PCB connector



1716824

<https://www.phoenixcontact.com/us/products/1716824>

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PCB connector, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Socket, number of rows: 1, number of positions: 2, product range: LPC 16 HC/..-STL, pitch: 10.16 mm, connection method: Lever Push-in connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16 advanced, locking: Snap-in locking, mounting: Self-locking flange, type of packaging: packed in cardboard

Your advantages

- Tool-free lever principle enables time-saving connection and release of conductors with/without ferrules
- Clear lever positions provide reliable feedback on opened or closed clamping spaces
- Increased touch protection in accordance with IEC/UL 61800-5-1
- Time-saving push-in connection when lever is closed
- Intuitive locking mechanism prevents accidental disconnection
- Defined contact force ensures that contact remains stable over the long term

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1716824 |
| Packing unit | 1 pc |
| Minimum order quantity | 25 pc |
| Sales key | AA05 |
| Product key | AAEBAE |
| GTIN | 4055626677293 |
| Weight per piece (including packing) | 49.936 g |
| Weight per piece (excluding packing) | 49.2 g |
| Customs tariff number | 85366990 |
| Country of origin | PL |

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Technical data

Product properties

| | |
|---------------------|------------------------|
| Product line | COMBICON Connectors XL |
| Product type | PCB connector |
| Product family | LPC 16 HC/..-STL |
| Number of positions | 2 |
| Pitch | 10.16 mm |
| Number of rows | 1 |
| Mounting flange | Self-locking flange |

Electrical properties

| | |
|-----------------------------|------------------|
| Nominal current I_N | 76 A |
| Nominal voltage U_N | 1000 V |
| Degree of pollution | 3 |
| Contact resistance | 0.235 m Ω |
| Rated voltage (III/3) | 1000 V |
| Rated surge voltage (III/3) | 8 kV |
| Rated voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |
| Rated voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 6 kV |

Connection data

Connection technology

| | |
|-------------------------|-------------------------|
| Connector system | COMBICON PC 16 advanced |
| Nominal cross section | 16 mm ² |
| Contact connection type | Socket |

Interlock

| | |
|-----------------|---------------------|
| Locking type | Snap-in locking |
| Mounting flange | Self-locking flange |

Conductor connection

| | |
|---|---|
| Connection method | Lever Push-in connection |
| Conductor/PCB connection direction | 0 ° |
| Conductor cross section rigid | 0.75 mm ² ... 16 mm ² |
| Conductor cross section flexible | 0.75 mm ² ... 16 mm ² |
| Conductor cross section AWG | 18 ... 4 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.75 mm ² ... 16 mm ² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.75 mm ² ... 16 mm ² |
| Cylindrical gauge a x b / diameter | - / 5.4 mm |
| Stripping length | 18 mm |

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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 | hot-dip tin-plated |
| Metal surface terminal point (top layer) | Tin (10 - 16 µm Sn) |
| Metal surface contact area (top layer) | Tin (10 - 16 µm Sn) |

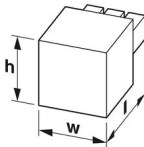
Material data - housing

| | |
|--|--------------|
| Color (Housing) | green (6021) |
| Insulating material | PA |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V0 |

Material data – actuating element

| | |
|--|---------------|
| Color (Actuating element) | orange (2003) |
| Insulating material | PA GF |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V0 |

Dimensions

| | |
|---------------------|--|
| Dimensional drawing |  |
| Pitch | 10.16 mm |
| Width [w] | 33.68 mm |
| Height [h] | 32.2 mm |
| Length [l] | 56.3 mm |

Notes

| | |
|--------------------|--|
| Notes on operation | In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load. |
|--------------------|--|

Mechanical tests

Conductor connection

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

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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 | 0.75 mm ² / solid / > 30 N |
| | 0.75 mm ² / flexible / > 30 N |
| | 16 mm ² / solid / > 100 N |
| | 16 mm ² / flexible / > 100 N |

Insertion and withdrawal forces

| | |
|-------------------------------------|-------------|
| Result | Test passed |
| No. of cycles | 25 |
| Insertion strength per pos. approx. | 8 N |
| Withdraw strength per pos. approx. | 6 N |

Resistance of inscriptions

| | |
|---------------|------------------------|
| Specification | IEC 60068-2-70:1995-12 |
| Result | 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 |

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 | 0.15 mm (10 Hz ... 60.1 Hz) |
| Sweep speed | 20 m/s ² (60.1 Hz ... 150 Hz) |
| Test duration per axis | 2.5 h |

Durability test

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| | |
|--|-----------------------|
| Specification | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level | 9.8 kV |
| Contact resistance R ₁ | 0.235 mΩ |
| Contact resistance R ₂ | 0.212 mΩ |
| Insertion/withdrawal cycles | 25 |
| Insulation resistance, neighboring positions | > 5 MΩ |

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 | 4.26 kV |

Ambient conditions

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

Electrical tests

Thermal test | Test group C

| | |
|----------------------------|-----------------------|
| Specification | IEC 60512-5-1:2002-02 |
| Tested number of positions | 6 |

Insulation resistance

| | |
|--|-----------------------|
| Specification | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | > 5 MΩ |

Temperature cycles

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

Air clearances and creepage distances | 1. Insulation coordination

| | |
|--|-------------------|
| Specification | IEC 61984:2008-10 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 1000 V |
| Rated surge voltage (III/3) | 8 kV |
| minimum clearance value - non-homogenous field (III/3) | 8 mm |
| minimum creepage distance (III/3) | 12.5 mm |
| Rated insulation voltage (III/2) | 1000 V |
| Rated surge voltage (III/2) | 8 kV |
| minimum clearance value - non-homogenous field (III/2) | 8 mm |
| minimum creepage distance (III/2) | 8 mm |
| Rated insulation voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 6 kV |

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| | |
|---|--------|
| minimum clearance value - non-homogenous field (II/2) | 5.5 mm |
| minimum creepage distance (II/2) | 5.5 mm |

Air clearances and creepage distances | 2. Insulation coordination

| | |
|--|---------------------|
| Specification | IEC 60664-1:2020-05 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 1000 V AC/DC |
| Rated surge voltage (III/3) | 8 kV |
| minimum clearance value - non-homogenous field (III/3) | 8 mm |
| minimum creepage distance (III/3) | 12.5 mm |
| Rated insulation voltage (III/2) | 1500 V DC |
| Rated surge voltage (III/2) | 10 kV |
| minimum clearance value - non-homogenous field (III/2) | 11 mm |
| minimum creepage distance (III/2) | 11 mm |
| Rated insulation voltage (II/2) | 1500 V DC |
| Rated surge voltage (II/2) | 8 kV |
| minimum clearance value - non-homogenous field (II/2) | 8 mm |
| minimum creepage distance (II/2) | 8 mm |

Packaging specifications

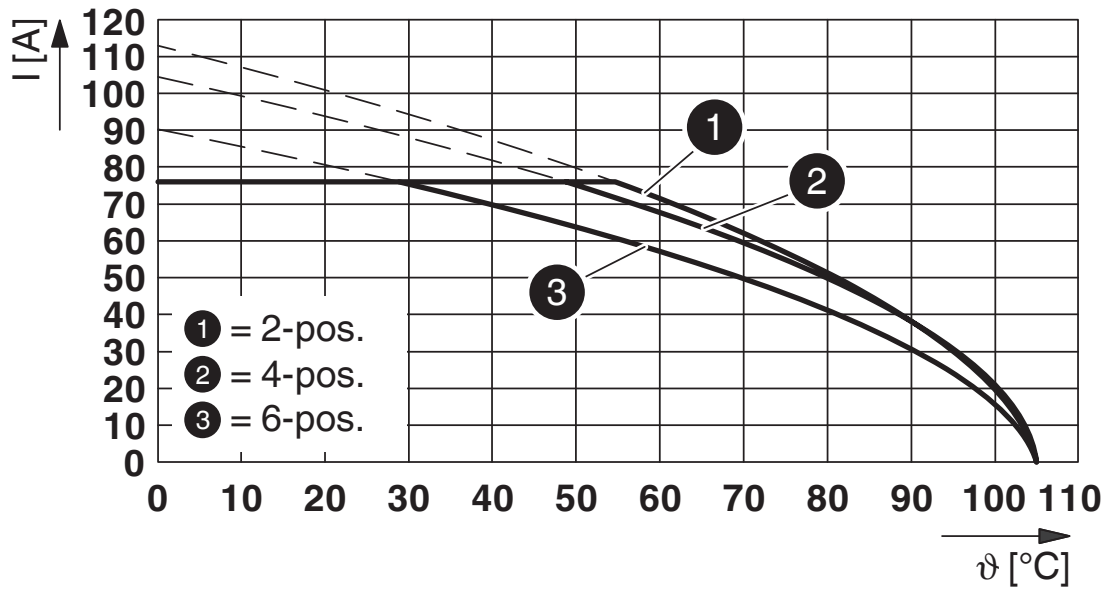
| | |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

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Drawings

Diagram



Type: LPC 16 HC/...-ST(L...)-10,16 with PC 16 HC/...-G(L...)-10,16

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1716824>

|  cULus Recognized Approval ID: E60425-20040202 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| Use group B | | | | |
| Alternative 1 | 600 V | 66 A | 18 - 4 | - |
| Alternative 2 | 600 V | 48 A | 18 - 8 | - |
| Use group C | | | | |
| Alternative 1 | 600 V | 66 A | 18 - 4 | - |
| Alternative 2 | 600 V | 48 A | 18 - 8 | - |

|  VDE Zeichengenehmigung Approval ID: 40057494 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| | 1000 V | 76 A | - | 0.75 - 16 |

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27460202 |
| ECLASS-12.0 | 27460202 |
| ECLASS-13.0 | 27460202 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC002638 |
|----------|----------|

UNSPSC

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

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Accessories

CP-PC RD - Coding profile

1701967

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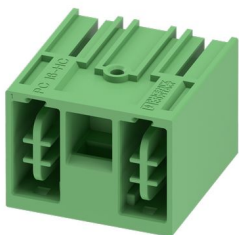
Coding profile, for plugging into the coding ribs of the plug at a later date, insulating material, color: Red



PC 16 HC/ 2-GL2-10,16 - PCB header

1716857

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PCB headers, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Tin, contact connection type: Pin, number of rows: 1, number of positions: 2, product range: PC 16 HC/...-GL2, pitch: 10.16 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4 mm, number of solder pins per potential: 4, plug-in system: COMBICON PC 16 advanced, Pin connector pattern alignment: Standard, locking: Snap-in locking, mounting: Self-locking flange, type of packaging: packed in cardboard

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