

## Contact insert - VC-TFS 2 - 1852846

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Contact insert, Contact insert, housing material: PA, number of positions: 2, nom. voltage: 400, rated current: 20 A, Connection method: Screw connection, Type of contact: Socket. Connectors may only be connected/disconnected when under no load.

### Your advantages

- ✓ Compact design
- ✓ Proven COMBICON technology
- ✓ Universal connection
- ✓ Can be keyed to prevent incorrect connection



### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 50 pc                                                                                                   |
| GTIN         | <br>4 017918 127145 |
| GTIN         | 4017918127145                                                                                           |

### Technical data

#### General

|                                                     |                                                                   |
|-----------------------------------------------------|-------------------------------------------------------------------|
| Note                                                | Connectors may only be connected/disconnected when under no load. |
| Connection technology                               | Screw connection                                                  |
| Connection method                                   | Screw connection                                                  |
| Tightening torque                                   | 0.5 Nm ... 0.6 Nm                                                 |
| Degree of pollution                                 | 3                                                                 |
| Number of positions                                 | 2                                                                 |
| Insertion/withdrawal cycles                         | ≥ 100                                                             |
| 2 conductors with same cross section, solid min.    | 0.2 mm <sup>2</sup>                                               |
| 2 conductors with same cross section, solid max.    | 2.5 mm <sup>2</sup>                                               |
| 2 conductors with same cross section, stranded min. | 0.2 mm <sup>2</sup>                                               |
| 2 conductors with same cross section, stranded max. | 2.5 mm <sup>2</sup>                                               |
| Conductor cross section                             | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>                         |

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## Technical data

### General

|                                         |           |
|-----------------------------------------|-----------|
| Connection cross section AWG            | 24 ... 12 |
| Stripping length of the individual wire | 10 mm     |

### Ambient conditions

|                                 |                   |
|---------------------------------|-------------------|
| Ambient temperature (operation) | -40 °C ... 100 °C |
|---------------------------------|-------------------|

### Material data

|                          |            |
|--------------------------|------------|
| Housing material         | PA         |
| Contact material         | CuZn       |
| Contact surface material | Tin-plated |
| Contact carrier material | PA         |

### Electrical characteristics

|                       |       |
|-----------------------|-------|
| Rated voltage (III/3) | 400 V |
| Rated surge voltage   | 6 kV  |
|                       | 6 kV  |
| Rated current         | 20 A  |
|                       | 20 A  |

### Standards and Regulations

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connection in acc. with standard       | CUL                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Flammability rating according to UL 94 | V0                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Safety note                            | WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.                                                                                                                                                                                                                                                                                 |
|                                        | • WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.                                                                                                                                                                                                                    |
|                                        | • WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product. |
|                                        | • The products are suitable for applications in plant, controller, and electrical device engineering.                                                                                                                                                                                                                                                                                                                              |
|                                        | • When operating the connectors in outdoor applications, they must be separately protected against environmental influences.                                                                                                                                                                                                                                                                                                       |
|                                        | • Assembled products may not be manipulated or improperly opened.                                                                                                                                                                                                                                                                                                                                                                  |
|                                        | • Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> ).                                                                                                                                                                                      |
|                                        | • When using the product in direct connection with third-party manufacturers, the user is responsible.                                                                                                                                                                                                                                                                                                                             |
|                                        | • For operating voltages > 50 V AC, conductive connector housings must be grounded                                                                                                                                                                                                                                                                                                                                                 |
|                                        | • Ensure that the protective or functional ground has been properly connected.                                                                                                                                                                                                                                                                                                                                                     |

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### Technical data

#### Standards and Regulations

|  |                                                                                                                                                                                                                                                                                                                                                                                                |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <ul style="list-style-type: none"> <li>• VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector</li> </ul>                                                                                                                                                                                                      |
|  | <ul style="list-style-type: none"> <li>• Observe the corresponding technical data. You will find information: <ul style="list-style-type: none"> <li>o On the product</li> <li>o On the packing label</li> <li>o In the supplied documentation</li> <li>o Online at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> under the product</li> </ul> </li> </ul> |
|  | <ul style="list-style-type: none"> <li>• Only use tools recommended by Phoenix Contact</li> </ul>                                                                                                                                                                                                                                                                                              |
|  | <ul style="list-style-type: none"> <li>• The installation notes/Design In documents online on the download page at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> must be observed for this product.</li> </ul>                                                                                                                                             |
|  | <ul style="list-style-type: none"> <li>• Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory section of the product at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a></li> </ul>                                                                                                 |
|  | <ul style="list-style-type: none"> <li>• Operate the connector only when it is fully plugged in.</li> </ul>                                                                                                                                                                                                                                                                                    |
|  | <ul style="list-style-type: none"> <li>• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.</li> </ul>                                                                                                                                                                                                          |
|  | <ul style="list-style-type: none"> <li>• Observe the minimum bending radius of the cable. Lay the cable without twisting it.</li> </ul>                                                                                                                                                                                                                                                        |

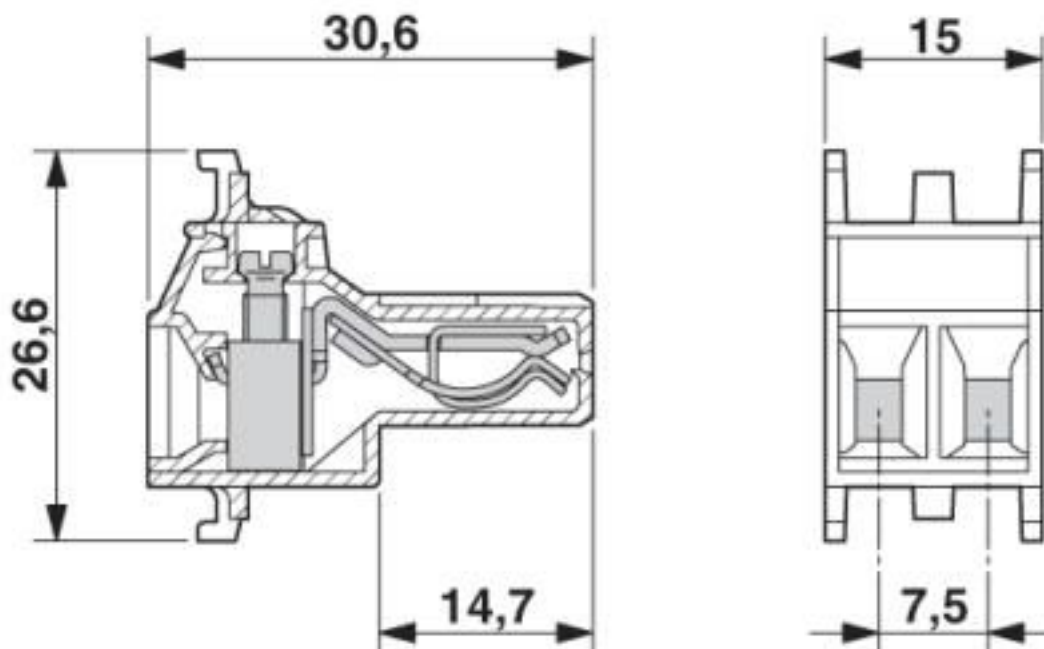
#### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                      |
| China RoHS | Environmentally Friendly Use Period = 50 years                                                      |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

### Drawings

## Contact insert - VC-TFS 2 - 1852846

Dimensional drawing



### Classifications

#### eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440205 |
| eCl@ss 4.0    | 27140800 |
| eCl@ss 4.1    | 27140800 |
| eCl@ss 5.0    | 27371200 |
| eCl@ss 5.1    | 27261200 |
| eCl@ss 6.0    | 27261200 |
| eCl@ss 7.0    | 27440205 |
| eCl@ss 8.0    | 27440205 |
| eCl@ss 9.0    | 27440205 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000437 |
| ETIM 3.0 | EC000437 |
| ETIM 4.0 | EC000437 |
| ETIM 5.0 | EC000438 |
| ETIM 6.0 | EC000438 |
| ETIM 7.0 | EC000438 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 31261501 |
| UNSPSC 7.0901 | 31261501 |

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### Classifications

#### UNSPSC

|              |          |
|--------------|----------|
| UNSPSC 11    | 31261501 |
| UNSPSC 12.01 | 31261501 |
| UNSPSC 13.2  | 39121522 |
| UNSPSC 18.0  | 39121522 |
| UNSPSC 19.0  | 39121522 |
| UNSPSC 20.0  | 39121522 |
| UNSPSC 21.0  | 39121522 |

### Approvals

#### Approvals

#### Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

#### Ex Approvals

#### Approval details

|                    |                                                                                     |                                                                                                                                                       |               |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| UL Recognized      |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 118976 |
| Nominal voltage UN | 600 V                                                                               |                                                                                                                                                       |               |
| Nominal current IN | 20 A                                                                                |                                                                                                                                                       |               |
| mm²/AWG/kcmil      | 30-10                                                                               |                                                                                                                                                       |               |

|                    |                                                                                     |                                                                                                                                                       |               |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| cUL Recognized     |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 118976 |
| Nominal voltage UN | 600 V                                                                               |                                                                                                                                                       |               |
| Nominal current IN | 20 A                                                                                |                                                                                                                                                       |               |
| mm²/AWG/kcmil      | 30-10                                                                               |                                                                                                                                                       |               |

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

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### Approvals

cULus Recognized



### Accessories

Accessories

Coding element

Coding profile - CP-HCC 4 - 1600027



Coding profile, number of positions: 1, pitch: 0 mm, color: red

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PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>