

2896458

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DIN rail bus connector, color: black, nominal current: 3 A (Total current of 25 A max.), rated voltage (III/2): 30 V, number of positions: 16, product range: BC 53,6..., pitch: 2.54 mm, mounting: DIN rail mounting, locking: without

Your advantages

- Space-saving installation under the housing in the DIN rail
- Fast module-to-module communication without additional wiring effort
- One DIN rail connector for each overall width

Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2896458       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 10 pc         |
| Sales key                            | AC10          |
| Product key                          | ACHBBA        |
| GTIN                                 | 4046356103176 |
| Weight per piece (including packing) | 16.4 g        |
| Weight per piece (excluding packing) | 15.53 g       |
| Customs tariff number                | 85366990      |
| Country of origin                    | DE            |

# HBUS 53,6-16P-1S BK - DIN rail bus connector



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## Technical data

### Product properties

|                     |                        |
|---------------------|------------------------|
| Product type        | DIN rail bus connector |
| Product family      | BC 53,6..              |
| Number of positions | 16                     |
| Pitch               | 2.54 mm                |

### Electrical properties

#### Properties

|                             |                                  |
|-----------------------------|----------------------------------|
| Nominal current $I_N$       | 3 A (Total current of 25 A max.) |
| Contact resistance          | 23.9 mΩ                          |
| Rated voltage (III/3)       | 30 V                             |
| Rated surge voltage (III/3) | 0.8 kV                           |
| Rated voltage (III/2)       | 30 V                             |
| Rated surge voltage (III/2) | 0.8 kV                           |
| Rated voltage (II/2)        | 100 V                            |
| Rated surge voltage (II/2)  | 0.8 kV                           |

### Connection data

|                      |                                  |
|----------------------|----------------------------------|
| Maximum load current | 3 A (maximum total current 23 A) |
|----------------------|----------------------------------|

### Material specifications

#### Material data - contact

|                         |                        |
|-------------------------|------------------------|
| Contact material        | Cu alloy               |
| Surface characteristics | Completely gold-plated |

#### Material data - housing

|                                        |              |
|----------------------------------------|--------------|
| Color (Housing)                        | black (9005) |
| Insulating material                    | PA           |
| Insulating material group              | I            |
| CTI according to IEC 60112             | 600          |
| Flammability rating according to UL 94 | V0           |

#### material specifications - connector

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

### Dimensions

|            |         |
|------------|---------|
| Pitch      | 2.54 mm |
| Width [w]  | 53.6 mm |
| Height [h] | 13.6 mm |
| Length [l] | 37.1 mm |

### Mounting

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|               |                   |
|---------------|-------------------|
| Mounting type | DIN rail mounting |
|---------------|-------------------|

## Mechanical tests

### 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 ... 58.1 Hz)       |
| Acceleration           | 20 m/s <sup>2</sup>               |
| Test duration per axis | 2.5 h                             |
| Test directions        | X-, Y- and Z-axis (pos. and neg.) |

### Durability test

|                                        |                       |
|----------------------------------------|-----------------------|
| Specification                          | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level | 0.91 kV               |
| Contact resistance R <sub>1</sub>      | 23.9 mΩ               |
| Contact resistance R <sub>2</sub>      | 24 mΩ                 |
| Insertion/withdrawal cycles            | 25                    |

### Climatic test

|                                   |                                                                           |
|-----------------------------------|---------------------------------------------------------------------------|
| Specification                     | DIN 50018:2013-05                                                         |
| Corrosive stress                  | 0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle |
| Thermal stress                    | 100 °C/168 h                                                              |
| Power-frequency withstand voltage | 0.55 kV                                                                   |

### Glow-wire test

|                  |                        |
|------------------|------------------------|
| Specification    | IEC 60695-2-10:2013-04 |
| Temperature      | 850 °C                 |
| Time of exposure | 30 s                   |

### Shocks

|                 |                                   |
|-----------------|-----------------------------------|
| Specification   | IEC 60068-2-27:2008-02            |
| Pulse shape     | Semi-sinusoidal                   |
| Acceleration    | 150 m/s <sup>2</sup>              |
| Shock duration  | 11 ms                             |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |

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## 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)   | 80 %                                                |
| Ambient temperature (assembly)          | -5 °C ... 100 °C                                    |

## Electrical tests

### Air clearances and creepage distances |

|                                                        |                     |
|--------------------------------------------------------|---------------------|
| Specification                                          | IEC 60664-1:2007-04 |
| Insulating material group                              | I                   |
| Rated insulation voltage (III/3)                       | 30 V                |
| Rated surge voltage (III/3)                            | 0.8 kV              |
| minimum clearance value - non-homogenous field (III/3) | 0.8 mm              |
| minimum creepage distance (III/3)                      | 1.3 mm              |
| Rated insulation voltage (III/2)                       | 30 V                |
| Rated surge voltage (III/2)                            | 0.8 kV              |
| minimum clearance value - non-homogenous field (III/2) | 0.2 mm              |
| minimum creepage distance (III/2)                      | 0.53 mm             |
| Rated insulation voltage (II/2)                        | 100 V               |
| Rated surge voltage (II/2)                             | 0.8 kV              |
| minimum clearance value - non-homogenous field (II/2)  | 0.2 mm              |
| minimum creepage distance (II/2)                       | 0.71 mm             |

## Packaging specifications

|                      |        |
|----------------------|--------|
| Outer packaging type | Carton |
|----------------------|--------|

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2896458>

|                                                                                                                                                        |                       |                       |                   |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| <div> <b>cULus Recognized</b><br/>Approval ID: E118976-20090923</div> |                       |                       |                   |                             |
|                                                                                                                                                        | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| keine                                                                                                                                                  |                       |                       |                   |                             |
|                                                                                                                                                        | 30 V                  | 2 A                   | -                 | -                           |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27460202 |
| ECLASS-15.0 | 27460202 |

### ETIM

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

### UNSPSC

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

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## Environmental product compliance

### EU RoHS

|                                         |                    |
|-----------------------------------------|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|-----------------------------------------|--------------------|

### China RoHS

|                                        |                                          |
|----------------------------------------|------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|                                        | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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