

# HBUS 161,6-16P-1S BK - DIN rail bus connectors



2278555

<https://www.phoenixcontact.com/us/products/2278555>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



DIN rail 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 161,6.., 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                          | 2278555             |
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Sales key                            | AC10                |
| Product key                          | ACHBBA              |
| Catalog page                         | Page 702 (C-1-2013) |
| GTIN                                 | 4046356299442       |
| Weight per piece (including packing) | 42.32 g             |
| Weight per piece (excluding packing) | 39.8 g              |
| Customs tariff number                | 85366990            |
| Country of origin                    | DE                  |

# HBUS 161,6-16P-1S BK - DIN rail bus connectors



2278555

<https://www.phoenixcontact.com/us/products/2278555>

## Technical data

### Product properties

|                     |                    |
|---------------------|--------------------|
| Product type        | DIN rail connector |
| Product family      | BC 161,6..         |
| Number of positions | 16                 |
| Pitch               | 2.54 mm            |

### Data management status

|                  |    |
|------------------|----|
| Article revision | 02 |
|------------------|----|

### Electrical 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]  | 161.6 mm |
| Height [h] | 13.6 mm  |
| Length [l] | 37.1 mm  |

# HBUS 161,6-16P-1S BK - DIN rail bus connectors



2278555

<https://www.phoenixcontact.com/us/products/2278555>

## Mounting

|               |                   |
|---------------|-------------------|
| 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                  |

# HBUS 161,6-16P-1S BK - DIN rail bus connectors



2278555

<https://www.phoenixcontact.com/us/products/2278555>

|                 |                                   |
|-----------------|-----------------------------------|
| Test directions | X-, Y- and Z-axis (pos. and neg.) |
|-----------------|-----------------------------------|

## 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 |
|----------------------|--------|

# HBUS 161,6-16P-1S BK - DIN rail bus connectors




2278555

<https://www.phoenixcontact.com/us/products/2278555>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2278555>

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

# HBUS 161,6-16P-1S BK - DIN rail bus connectors



2278555

<https://www.phoenixcontact.com/us/products/2278555>

## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

# HBUS 161,6-16P-1S BK - DIN rail bus connectors



2278555

<https://www.phoenixcontact.com/us/products/2278555>

## 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%               |

Phoenix Contact 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)