

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



2278555

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

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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

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## 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
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### 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)
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### 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 ()	()
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### Dimensions

Pitch	2.54 mm
Width [w]	161.6 mm
Height [h]	13.6 mm
Length [l]	37.1 mm

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## Mounting

Mounting type	DIN rail mounting
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## 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

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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/2278555>

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

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## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC002638
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### 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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## Mandatory accessories

PSTD 0,65X0,65/9-2,54 - Pin strip

2200700

<https://www.phoenixcontact.com/us/products/2200700>



Pin strip, color: black, contact connection type: Pin, number of potentials: 18, number of rows: 2, number of positions: 18, number of connections: 18, product range: PSTD 0,65X0,65/...-V, pitch: 2.54 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.5 mm, locking: without, type of packaging: packed in cardboard

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## Accessories

HBUS-B SET BK - Protective cap

2278173

<https://www.phoenixcontact.com/us/products/2278173>



Set of 3 caps, for protecting unused DIN rail bus connectors, simply snap on to fit



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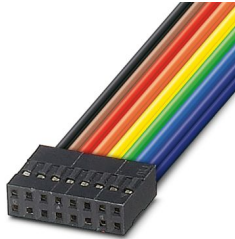
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## BL2-2,54/16-ST - Power plug

1281276

<https://www.phoenixcontact.com/us/products/1281276>



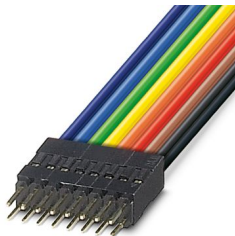
Power connector for DIN rail bus connector with 16 free cable ends with a cross section of  $0.25 \text{ mm}^2$ , 500 mm long, female contacts

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## SL2-2,54/16-ST - Power plug

1281275

<https://www.phoenixcontact.com/us/products/1281275>



Power connector for DIN rail bus connector with 16 free cable ends with a cross section of  $0.25 \text{ mm}^2$ , 500 mm long, male contacts

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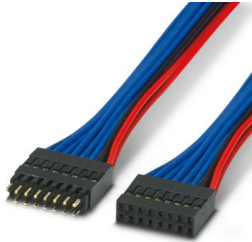
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## BSL-2,54/16-ST 40CM - Cable set

1281278

<https://www.phoenixcontact.com/us/products/1281278>



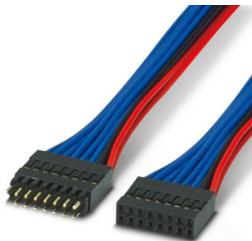
Cable bridge for cross-DIN-rail connection of the HBUS connector

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## BSL2-2,54/16-ST - Cable set

1281277

<https://www.phoenixcontact.com/us/products/1281277>



Cable bridge for cross-DIN-rail connection of the HBUS connector

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