# TBUS8-25,0-PPPPPPSS-7035 - DIN rail bus connector

2202895

https://www.phoenixcontact.com/us/products/2202895

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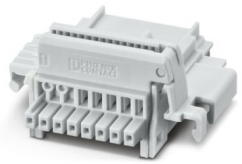


DIN rail bus connector, color: light gray, nominal current: 6 A, 4 A (parallel contacts) (Serial contacts), rated voltage (III/2): 32 V, number of positions: 8, product range: TBUS8-25.., pitch: 2. 54 mm, mounting: DIN rail mounting, locking: without, mounting method: without, type of packaging: packed in cardboard, Item with gold-plated contacts, bus connectors for connecting with electronics housings, 6 parallel contacts/2 serial contacts

## Your advantages

- Space-saving installation under the housing in the DIN rail
- Contact design enables electronics modules to be easily snapped on
- Power supply and communication without additional wiring
- Parallel and serial contacts for efficient signal and data transmission
- Fast module-to-module communication without additional wiring effort
- Efficient connection between the individual housings of the ICS and ME-IO series

## Commercial data

| | |
|---|---|
| Item number | 2202895 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | AC09 |
| Product key | ACHAGA |
| GTIN | 4055626382180 |
| Weight per piece (including packing) | 7.11 g |
| Weight per piece (excluding packing) | 5.73 g |
| Customs tariff number | 85366990 |
| Country of origin | PL |

# Technical data

## Notes

| | |
|---|---|
| Recommendation | Material of contact pads for bus connector, galvanic gold (hard gold) |

## Product properties

| | |
|---|---|
| Product type | DIN rail bus connector |
| Product family | TBUS8-25.. |
| Number of positions | 8 |
| Pitch | 2.54 mm |

## Electrical properties

Properties

| | |
|---|---|
| Nominal current $I_N$ | 6 A (parallel contacts) |
| Nominal voltage $U_N$ | 32 V |
| Contact resistance | 3.7 mΩ |
| Rated voltage (III/2) | 32 V |
| Rated surge voltage (III/2) | 1.5 kV |
| Rated voltage (II/2) | 32 V |
| Rated surge voltage (II/2) | 1.5 kV |

## Material specifications

Material data - contact

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

Material data - housing

| | |
|---|---|
| Color (Housing) | light gray (7035) |
| 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] | 29.3 mm |
| Height [h] | 37.15 mm |
| Length [l] | 16.3 mm |

## Mounting

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

## Mechanical tests

Insertion and withdrawal forces

| | |
|---|---|
| Result | Test passed |
| No. of cycles | 25 |
| Insertion strength per pos. approx. | 2.8 N |
| Withdraw strength per pos. approx. | 2.5 N |

Contact holder in insert

| | |
|---|---|
| Specification | IEC 60512-15-1:2008-05 |
| Contact holder in insert<br>Requirements >20 N | 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

Durability test

| | |
|---|---|
| Specification | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level | 1.75 kV |
| Contact resistance $R_1$ | 3.7 mΩ |
| Contact resistance $R_2$ | 3.85 mΩ |
| Insertion/withdrawal cycles | 25 |

Climatic test

| | |
|---|---|
| Specification | DIN 50018:2013-05 |
| Corrosive stress | 0.2 $dm^3$ $SO_2$ on 300 $dm^3$/40 °C/1 cycle |
| Thermal stress | 100 °C/168 h |
| Power-frequency withstand voltage | 0.84 kV |

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 | 2g (58.1 Hz ... 150 Hz) |

| | |
|---|---|
| Test duration per axis | 2.5 h |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |

Shocks

| | |
|---|---|
| Specification | IEC 60068-2-27:2008-02 |
| Pulse shape | Semi-sinusoidal |
| Acceleration | 15g |
| Shock duration | 11 ms |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |

Glow-wire test

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

Ambient conditions

| | |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 55 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 105 °C (dependent on the derating curve) |

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) | 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 | 8 |

Air clearances and creepage distances |

| | |
|---|---|
| Specification | IEC 60664-1:2007-04 |
| Insulating material group | I |
| Rated insulation voltage (III/2) | 32 V |
| Rated surge voltage (III/2) | 1.5 kV |
| minimum clearance value - non-homogenous field (III/2) | 0.5 mm |
| minimum creepage distance (III/2) | 0.53 mm |
| Rated insulation voltage (II/2) | 32 V |
| Rated surge voltage (II/2) | 1.5 kV |
| minimum clearance value - non-homogenous field (II/2) | 0.5 mm |
| minimum creepage distance (II/2) | 0.53 mm |

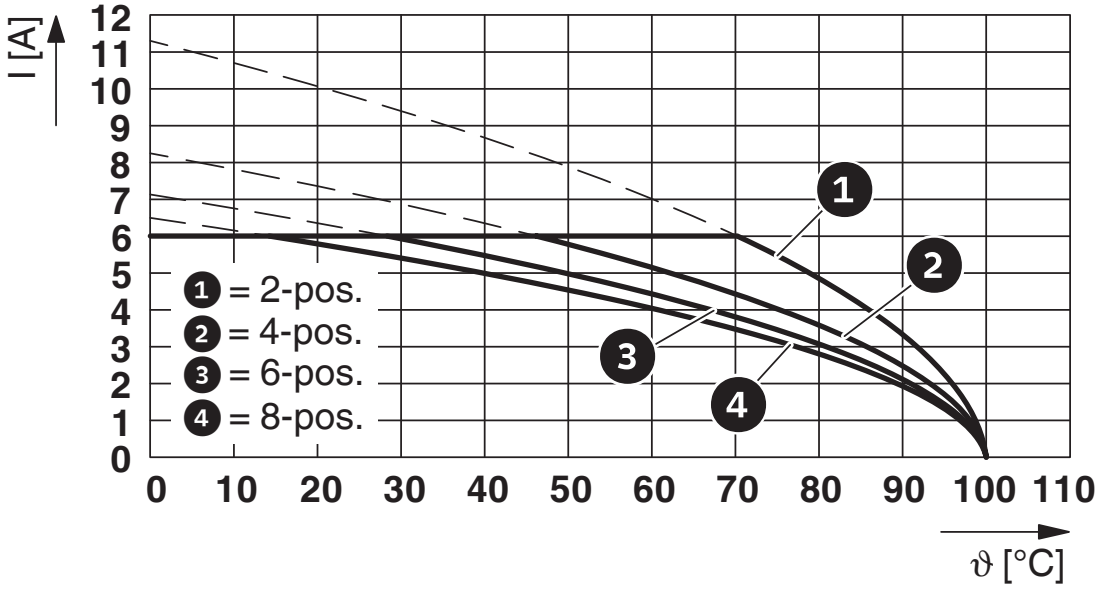
## Packaging specifications

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

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

## Drawings

Diagram




Type: TBUS8-20,0(25,0)-...

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2202895

**cUL Recognized**
Approval ID: E118976-20151204

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| Power | 29.9 V | 4 A | - | - |
| Signal | 29.9 V | 4 A | - | - |

**UL Recognized**
Approval ID: E118976-20151204

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| Power | 29.9 V | 6 A | - | - |
| Signal | 29.9 V | 4 A | - | - |

**VDE approval of drawings**
Approval ID: 40050612

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| Power | 32 V | 6 A | - | - |
| Signal | 32 V | 4 A | - | - |

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27460201 |
| ECLASS-15.0 | 27460201 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC002637 |

### UNSPSC

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

## 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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