

Cable connector - SB-8EP8A8L33S - 1623696

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Cable connector, SB, straight long, shielded: yes, SPEEDCON locking, M40, No. of pos.: 8+4+PE, type of contact: Pin, Crimp connection, cable diameter range: 14 mm ... 20.5 mm, coding:Signal, coding 2

Your advantages

- ✓ All housing can be fitted with pin or socket contacts
- ✓ A total of eight contacts are available for signal transmission
- ✓ Reduced connection time with SPEEDCON fast locking system
- ✓ Mechanical coding reliably prevents incorrect connections
- ✓ Safe use in the field, thanks to high degree of protection
- ✓ Consistent EMC protection for reliable connection solutions in the industrial environment

Key Commercial Data

| | |
|----------------------|---------------|
| Packing unit | 1 pc |
| GTIN | |
| GTIN | 4055626194370 |
| Custom tariff number | 85366990 |
| Country of origin | Germany |

Technical data

Temperature range

| | |
|-------------------|--|
| Temperature range | -40 °C ... 115 °C (see derating curve) |
|-------------------|--|

Standards and Regulations

| | |
|-------------|--|
| 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. |
|-------------|--|

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Technical data

Standards and Regulations

| | |
|--|---|
| | <ul style="list-style-type: none"> • 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. |
| | <ul style="list-style-type: none"> • 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. |
| | <ul style="list-style-type: none"> • The products are suitable for applications in plant, controller, and electrical device engineering. |
| | <ul style="list-style-type: none"> • When operating the connectors in outdoor applications, they must be separately protected against environmental influences. |
| | <ul style="list-style-type: none"> • Assembled products may not be manipulated or improperly opened. |
| | <ul style="list-style-type: none"> • 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 phoenixcontact.com/products). |
| | <ul style="list-style-type: none"> • When using the product in direct connection with third-party manufacturers, the user is responsible. |
| | <ul style="list-style-type: none"> • For operating voltages > 50 V AC, conductive connector housings must be grounded |
| | <ul style="list-style-type: none"> • 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 |
| | <ul style="list-style-type: none"> • Observe the corresponding technical data. You will find information: <ul style="list-style-type: none"> o On the product o On the packing label o In the supplied documentation o Online at phoenixcontact.com/products under the product |
| | <ul style="list-style-type: none"> • Only use tools recommended by Phoenix Contact |
| | <ul style="list-style-type: none"> • The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product. |
| | <ul style="list-style-type: none"> • 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 phoenixcontact.com/products |
| | <ul style="list-style-type: none"> • Operate the connector only when it is fully plugged in and interlocked. |
| | <ul style="list-style-type: none"> • Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards. |
| | <ul style="list-style-type: none"> • Observe the minimum bending radius of the cable. Lay the cable without twisting it. |
| | <ul style="list-style-type: none"> • The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12). |

Data of the insulating body

| | |
|---------------------------|------------------|
| Coding | Signal, coding 2 |
| Contact connection method | Crimp connection |

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Technical data

Data of the insulating body

| | |
|---|-----------------------------------|
| Type of contacts | Pin |
| Application | Hybrid |
| Number of positions | 13 |
| Direction of rotation | Standard |
| Contact diameter of power contacts | 3.6 mm |
| Litz wire cross section of power contacts min. | 1 mm ² |
| Litz wire cross section of power contacts max. | 16 mm ² |
| Rated current for power contacts | 70 A |
| Note | for max. connection cross section |
| Rated voltage | 630 V AC |
| Rated surge voltage | 6 kV |
| Overvoltage category | III |
| Degree of pollution | 3 |
| Rated voltage (II/3) power contact | 850 V DC |
| Rated voltage (III/3) power contact | 630 V AC |
| Contact diameter of signal contacts | 1 mm |
| Litz wire cross section of signal contacts min. | 0.06 mm ² |
| Litz wire cross section of signal contacts max. | 1.5 mm ² |
| Nominal current per signal contact | 8 A |
| Note | for max. connection cross section |
| Rated surge voltage | 6 kV |
| Rated voltage (III/3) signal contact | 500 V |
| Contact diameter, data contacts | 1 mm |
| Litz wire cross section, data contacts, min. | 0.06 mm ² |
| Litz wire cross section, data contacts, max. | 1.5 mm ² |
| Rated current of each data contact at 25°C | 8 A |
| Note | for max. connection cross section |
| Rated voltage of data contact | 50 V |
| Material | 1.5 kV |
| Installation height | 2000 m |

Housing data

| | |
|--|--|
| Housing material | Turned parts: copper zinc alloy (CuZn), die-cast parts: zinc (GD-Zn) |
| Type of locking | SPEEDCON locking |
| Degree of protection (when plugged in) | IP68/IP69K |
| Thread type | M40 |

Cable seal data

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Technical data

Cable seal data

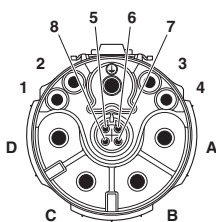
| | |
|------------------|-------------------|
| Cable diameter | 14 mm ... 20.5 mm |
| Sealing material | FKM |

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" |

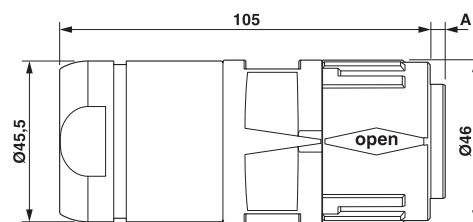
Drawings

Schematic diagram



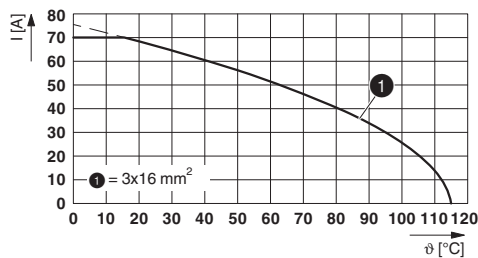
Pin assignment of pin signal, coding 2

Dimensional drawing



Pin version: dimension A = 4.05 mm, socket version: dimension A = 0.4 mm

Diagram



I = current strength, ϑ = ambient temperature, power contacts A–C: 3x up to 70 A, signal contacts: 4x 2 A constant, data contacts: no load

Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27440102 |
| eCl@ss 11.0 | 27440102 |
| eCl@ss 4.0 | 27260700 |
| eCl@ss 4.1 | 27260700 |

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| | |
|------------|----------|
| eCl@ss 5.0 | 27260700 |
| eCl@ss 5.1 | 27260700 |
| eCl@ss 6.0 | 27260700 |
| eCl@ss 7.0 | 27440102 |
| eCl@ss 9.0 | 27440102 |

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

| | | |
|-----|--|---------|
| EAC | | B.01687 |
|-----|--|---------|

Accessories

Accessories

Crimp contact

Crimp contact - ST-10KP010 - 1618255



Crimp contact, turned, Single contact, contact diameter: 1 mm, crimp range: 0.06 mm² ... 0.25 mm²

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Accessories

Crimp contact - ST-10KP035 - 1618458



Crimp contact, turned, contact diameter: 1 mm, crimp range: 0.25 mm² ... 1 mm²

Crimp contact - SB-10KP001 - 1623607



Crimp contact, turned, contact diameter: 1 mm, crimp range: 0.06 mm² ... 0.25 mm²

Crimp contact - SB-10KP002 - 1623611



Crimp contact, turned, contact diameter: 1 mm, crimp range: 0.34 mm² ... 0.5 mm²

Crimp contact - SB-10KP003 - 1623612



Crimp contact, turned, Single contact, contact diameter: 1 mm, crimp range: 0.5 mm² ... 1 mm²

Crimp contact - SB-10KP004 - 1623613



Crimp contact, turned, Single contact, contact diameter: 1 mm, crimp range: 1 mm² ... 1.5 mm²

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Accessories

Crimp contact - SB-36KP002 - 1623383



Crimp contact, turned, contact diameter: 3.6 mm, crimp range: 2.5 mm² ... 4 mm²

Crimp contact - SB-36KP003 - 1623384



Crimp contact, turned, Single contact, contact diameter: 3.6 mm, crimp range: 4 mm² ... 6 mm²

Crimp contact - SB-36KP004 - 1623385



Crimp contact, turned, Single contact, contact diameter: 3.6 mm, crimp range: 10 mm² ... 10 mm²

Crimp contact - SB-36KP005 - 1623386



Crimp contact, turned, Single contact, contact diameter: 3.6 mm, crimp range: 16 mm² ... 16 mm²

Mounting material

Square mounting flange with O-ring - SM-Z0003 - 1607935



Square mounting flange with O-ring, Axial O-ring, 4x Ø4,2

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Accessories

Square mounting flange - SM-Z0004 - 1607937



Square mounting flange, 4x Ø4,2

Color-coding - SM-Z0025 - 1620558



Color-coding, color: green

Color-coding - SM-Z0026 - 1620559



Color-coding, color: orange

Color-coding - SM-Z0027 - 1620560



Color-coding, color: black

Protective cover

Protective cap - SM-Z0031 - 1624199



Plastic protection cap for connectors with M40 SPEEDCON knurled nut
