

## Coupler connector - SB-8ESCD8A9L33S - 1623702

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Coupling connector, SB, straight long, shielded: yes, for standard and SPEEDCON interlock, M40, No. of pos.: 4+4+4+PE / 3+N+PE, type of contact: Socket, Crimp connection, cable diameter range: 14 mm ... 20.5 mm

### Your advantages

- ✓ Transmission of signals, data, and power in just a single connector
- ✓ CAT5 data interface for up to 100 Mbps
- ✓ 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                                 | <br>4 055626 195025 |
| GTIN                                 | 4055626195025   |
| Weight per Piece (excluding packing) | 480.000 g   |
| Custom tariff number                 | 85366990  |
| Country of origin                    | Germany   |

### Technical data

#### Temperature range

|                                 |                   |
|---------------------------------|-------------------|
| Ambient temperature (operation) | -40 °C ... 130 °C |
|---------------------------------|-------------------|

#### 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"> <li>• <b>WARNING:</b> Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.</li> </ul>  |
|  | <ul style="list-style-type: none"> <li>• <b>WARNING:</b> 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.</li> </ul> |
|  | <ul style="list-style-type: none"> <li>• The products are suitable for applications in plant, controller, and electrical device engineering.</li> </ul>   |
|  | <ul style="list-style-type: none"> <li>• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.</li> </ul>  |
|  | <ul style="list-style-type: none"> <li>• Assembled products may not be manipulated or improperly opened.</li> </ul>   |
|  | <ul style="list-style-type: none"> <li>• 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 <a href="http://phoenixcontact.com/products">phoenixcontact.com/products</a>).</li> </ul>   |
|  | <ul style="list-style-type: none"> <li>• When using the product in direct connection with third-party manufacturers, the user is responsible.</li> </ul>  |
|  | <ul style="list-style-type: none"> <li>• For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li> </ul>   |
|  | <ul style="list-style-type: none"> <li>• 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</li> </ul>   |
|  | <ul style="list-style-type: none"> <li>• Observe the corresponding technical data. You will find information:                             <ul style="list-style-type: none"> <li>o On the product</li> <li>o On the packing label</li> <li>o In the supplied documentation</li> <li>o Online at <a href="http://phoenixcontact.com/products">phoenixcontact.com/products</a> under the product</li> </ul> </li> </ul>   |
|  | <ul style="list-style-type: none"> <li>• Only use tools recommended by Phoenix Contact</li> </ul>   |
|  | <ul style="list-style-type: none"> <li>• The installation notes/Design In documents online on the download page at <a href="http://phoenixcontact.com/products">phoenixcontact.com/products</a> must be observed for this product.</li> </ul>   |
|  | <ul style="list-style-type: none"> <li>• 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 <a href="http://phoenixcontact.com/products">phoenixcontact.com/products</a></li> </ul>   |
|  | <ul style="list-style-type: none"> <li>• Operate the connector only when it is fully plugged in and interlocked.</li> </ul>   |
|  | <ul style="list-style-type: none"> <li>• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.</li> </ul>   |
|  | <ul style="list-style-type: none"> <li>• Observe the minimum bending radius of the cable. Lay the cable without twisting it.</li> </ul>   |
|  | <ul style="list-style-type: none"> <li>• 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).</li> </ul>  |

#### Data of the insulating body

|                                   |           |
|-----------------------------------|-----------|
| Protection against electric shock | IEC 61984 |
| Data rate                         | 100 Mbps  |

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### Technical data

#### Data of the insulating body

|   |                                   |
|---|-----------------------------------|
| Coding  | CAT5, coding 2                    |
| Contact connection method                       | Crimp connection                  |
| Type of contacts                                | Socket                            |
| 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 <sup>2</sup>                 |
| Litz wire cross section of power contacts max.  | 16 mm <sup>2</sup>                |
| Rated current for power contacts                | 70 A                              |
| Note  | for max. connection cross section |
| Rated voltage of power contact                  | 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 <sup>2</sup>              |
| Litz wire cross section of signal contacts max. | 1.5 mm <sup>2</sup>               |
| Nominal current per signal contact              | 8 A                               |
| Note  | for max. connection cross section |
| Rated surge voltage                             | 6 kV                              |
| Overvoltage category                            | III                               |
| Degree of pollution                             | 3                                 |
| Rated voltage (III/3) signal contact            | 500 V                             |
| Contact diameter, data contacts                 | 0.8 mm                            |
| Litz wire cross section, data contacts, min.    | 0.08 mm <sup>2</sup>              |
| Litz wire cross section, data contacts, max.    | 0.5 mm <sup>2</sup>               |
| Rated current of each data contact at 25°C      | 3.6 A                             |
| Note  | for max. connection cross section |
| Rated surge voltage                             | 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                        | for standard and SPEEDCON interlock                                  |
| Degree of protection (when plugged in) | IP68/IP69K   |

## Coupler connector - SB-8ESCD8A9L33S - 1623702

### Technical data

#### Housing data

|             |     |
|-------------|-----|
| Thread type | M40 |
|-------------|-----|

#### Cable seal data

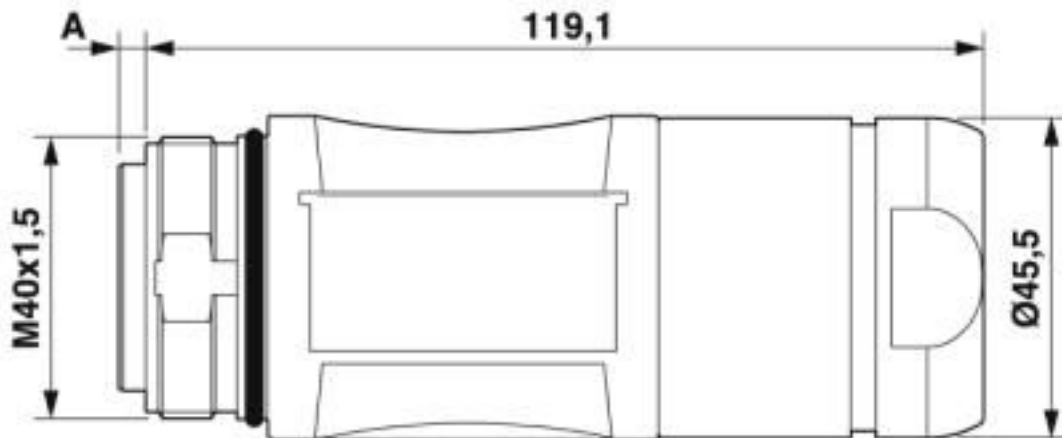
|                  |                   |
|------------------|-------------------|
| Cable diameter   | 14 mm ... 20.5 mm |
| Sealing material | FKM               |

#### 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

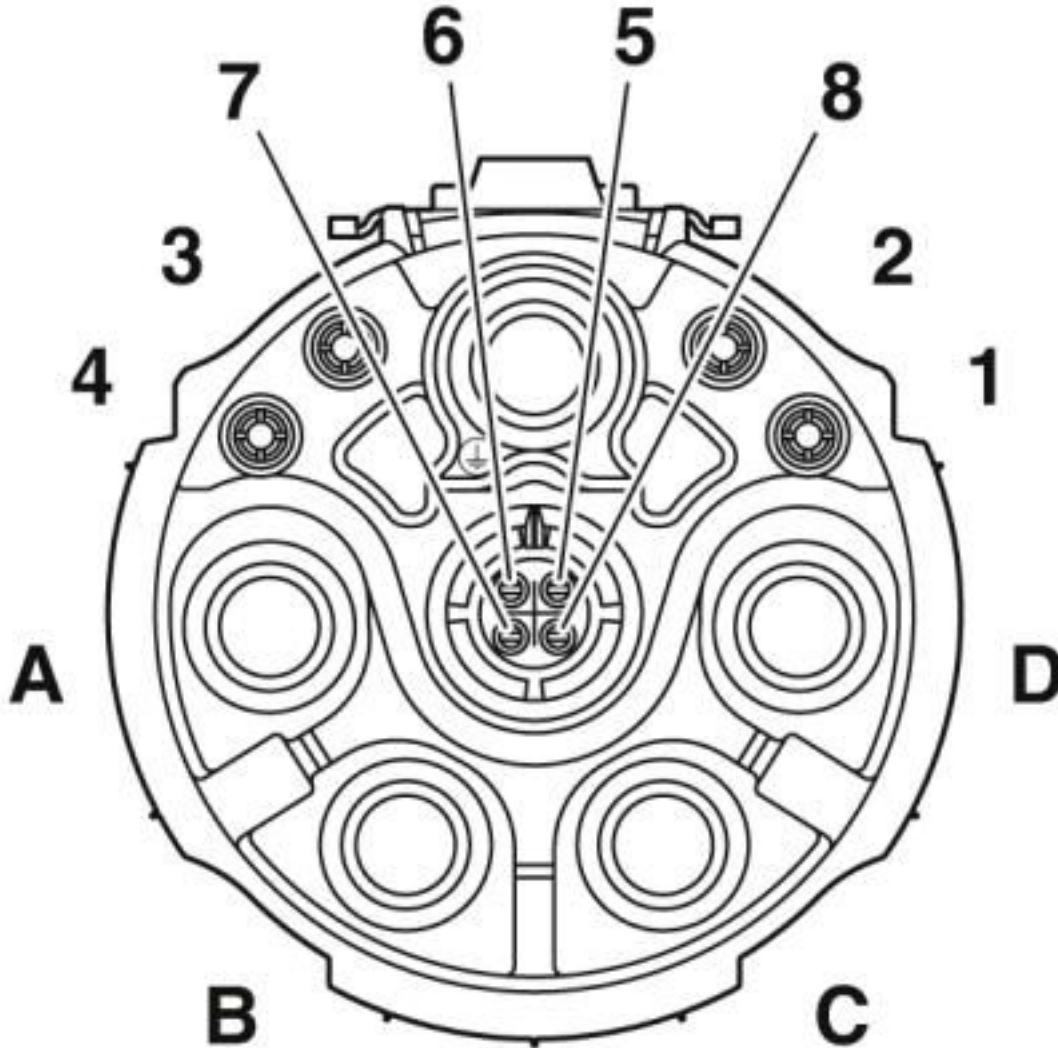
Dimensional drawing



Pin version: dimension A = 3.8 mm, socket version: dimension A = 0.15 mm

# Coupler connector - SB-8ESCD8A9L33S - 1623702

Schematic diagram



Pin assignment of socket CAT5, coding 2

## Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440102 |
| eCl@ss 4.0    | 27260700 |
| eCl@ss 4.1    | 27260700 |
| eCl@ss 5.0    | 27260700 |
| eCl@ss 5.1    | 27260700 |

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## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 6.0 | 27260700 |
| eCl@ss 7.0 | 27440102 |
| eCl@ss 8.0 | 27440102 |
| eCl@ss 9.0 | 27440102 |

## Approvals


### Approvals


#### Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

#### Ex Approvals

### Approval details

|                            |   |   |                  |
|----------------------------|---|---|------------------|
| UL Recognized              |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | 20170915-E468743 |
| Nominal voltage UN         |   | 600 V   |                  |
| Nominal current IN         |   | 50 A  |                  |
| mm <sup>2</sup> /AWG/kcmil |   | 6   |                  |

|                            |   |   |                  |
|----------------------------|---|---|------------------|
| cUL Recognized             |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | 20170915-E468743 |
| Nominal voltage UN         |   | 600 V   |                  |
| Nominal current IN         |   | 42 A  |                  |
| mm <sup>2</sup> /AWG/kcmil |   | 6   |                  |

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

## Coupler connector - SB-8ESCD8A9L33S - 1623702

### Approvals

cULus Recognized



### Accessories

#### Accessories

#### Cable by the meter

Hybrid cable - KC-88014448/1,00 - 1627298



Hybrid cable, length: 1 m, color of outer sheath: orange RAL 2003

Hybrid cable - KC-88014448/20,00 - 1627299



Hybrid cable, length: 20 m, color of outer sheath: orange RAL 2003

Hybrid cable - KC-88014450-01,00 - 1629279



Hybrid cable, length: 1 m, color of outer sheath: orange RAL 2003

Hybrid cable - KC-88014450-50,00 - 1629280



Hybrid cable, length: 50 m, color of outer sheath: orange RAL 2003

### Crimp contact

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### Accessories

Crimp contact - SF-08KS010 - 1621571



Crimp contact, turned, contact diameter: 0.8 mm, crimp range: 0.08 mm<sup>2</sup> ... 0.25 mm<sup>2</sup>

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Crimp contact - SF-08KS020 - 1621573



Crimp contact, turned, contact diameter: 0.8 mm, crimp range: 0.34 mm<sup>2</sup> ... 0.5 mm<sup>2</sup>

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Crimp contact - SB-10KS001 - 1623603



Crimp contact, turned, contact diameter: 1 mm, crimp range: 0.06 mm<sup>2</sup> ... 0.25 mm<sup>2</sup>

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Crimp contact - SB-10KS002 - 1623604



Crimp contact, turned, contact diameter: 1 mm, crimp range: 0.34 mm<sup>2</sup> ... 0.5 mm<sup>2</sup>

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Crimp contact - SB-10KS003 - 1623605



Crimp contact, turned, contact diameter: 1 mm, crimp range: 0.5 mm<sup>2</sup> ... 1 mm<sup>2</sup>

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## Coupler connector - SB-8ESCD8A9L33S - 1623702

### Accessories

Crimp contact - SB-10KS004 - 1623606



Crimp contact, turned, contact diameter: 1 mm, crimp range: 1 mm<sup>2</sup> ... 1.5 mm<sup>2</sup>

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Crimp contact - SB-36KS002 - 1623378



Crimp contact, turned, contact diameter: 3.6 mm, crimp range: 2.5 mm<sup>2</sup> ... 4 mm<sup>2</sup>

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Crimp contact - SB-36KS003 - 1623379



Crimp contact, turned, Single contact, contact diameter: 3.6 mm, crimp range: 4 mm<sup>2</sup> ... 6 mm<sup>2</sup>

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Crimp contact - SB-36KS004 - 1623380



Crimp contact, turned, Single contact, contact diameter: 3.6 mm, crimp range: 10 mm<sup>2</sup> ... 10 mm<sup>2</sup>

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Crimp contact - SB-36KS005 - 1623381



Crimp contact, turned, Single contact, contact diameter: 3.6 mm, crimp range: 16 mm<sup>2</sup> ... 16 mm<sup>2</sup>

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### Mounting material

## Coupler connector - SB-8ESCD8A9L33S - 1623702

### Accessories

Protective cap - SM-Z0001 - 1605866



Plastic protection cap for connectors with M40 external thread

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Color-coding - SM-Z0025 - 1620558



Color-coding, color: green

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Color-coding - SM-Z0026 - 1620559



Color-coding, color: orange

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Color-coding - SM-Z0027 - 1620560



Color-coding, color: black

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### Protective cover

Metal protective cap - SB-Z0001 - 1623827



Metal protection cap for M40 connectors with external thread

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