

## Device connector, front mounting - SB-8ESSA8AA700S - 1623366

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Device connector for front wall, SB, angled rotatable, shielded: yes, for standard and SPEEDCON interlock, M40, type of contact: Socket, Crimp connection, Axial O-ring, 4x Ø4,2

### Your advantages

- ✓ Easy connection, thanks to infinitely adjustable cable outlet direction up to 310°
- ✓ All housing can be fitted with pin or socket contacts
- ✓ A total of eight contacts are available for signal transmission
- ✓ 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 194882 |
| GTIN                 | 4055626194882   |
| 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

|                           |                  |
|---------------------------|------------------|
| Contact connection method | Crimp connection |
| Type of contacts          | Socket           |

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### Technical data

#### Data of the insulating body

|   |                      |
|---|----------------------|
| 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.  | 10 mm <sup>2</sup>   |
| Rated current for power contacts                | 70 A                 |
| Rated voltage of power contact                  | 630 V AC<br>850 V DC |
| Rated surge voltage                             | 6 kV                 |
| Overvoltage category                            | III                  |
| Degree of pollution                             | 3                    |
| 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                  |
| Rated voltage of signal contact                 | 500 V                |
| Rated surge voltage                             | 1.5 kV               |
| Overvoltage category                            | III                  |
| Degree of pollution                             | 3                    |
| Contact diameter, data contacts                 | 1 mm                 |
| Litz wire cross section, data contacts, min.    | 0.06 mm <sup>2</sup> |
| Litz wire cross section, data contacts, max.    | 1.5 mm <sup>2</sup>  |
| Rated current of each data contact at 25°C      | 8 A                  |
| Rated voltage of data contact                   | 50 V                 |
| Rated surge voltage                             | 1.5 kV               |

#### 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   |
| Thread type                            | M40  |

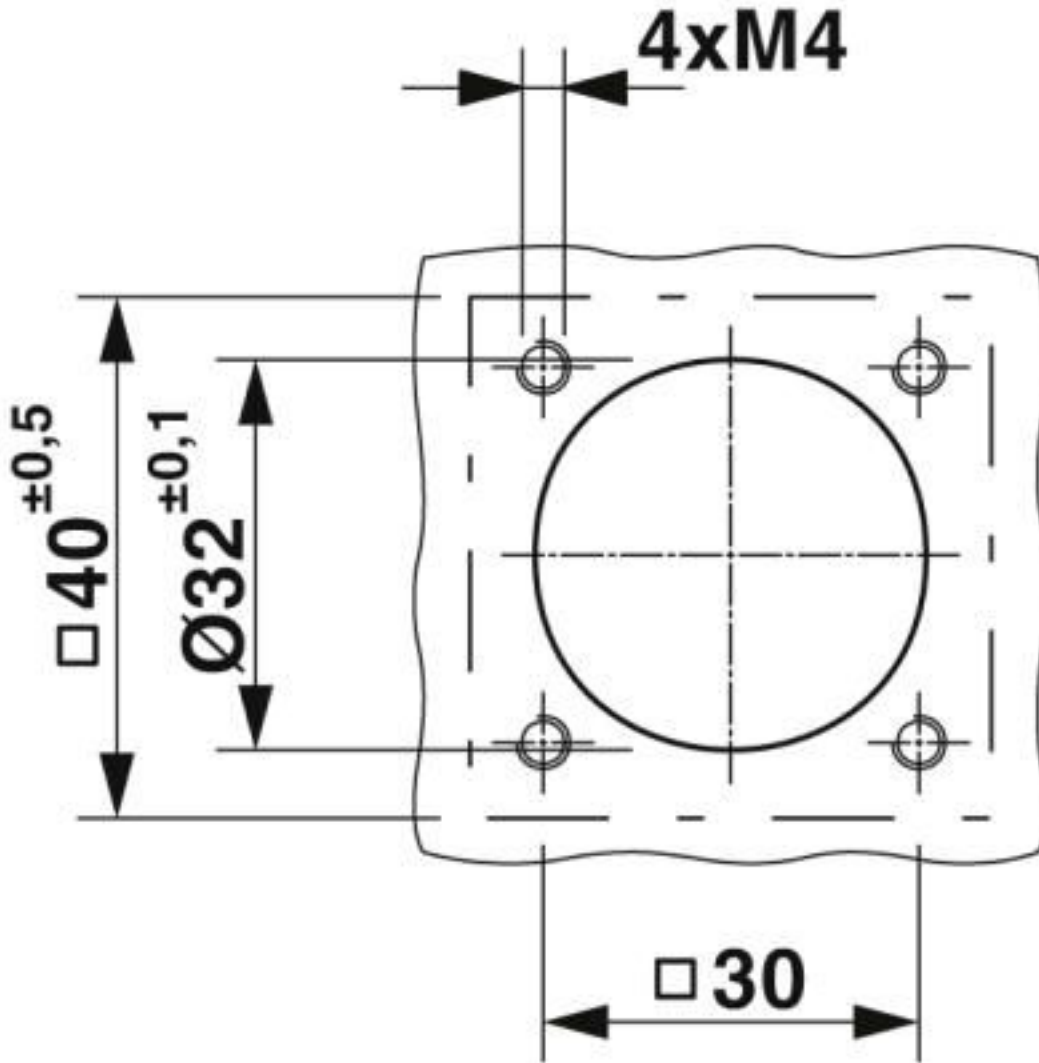
#### Environmental Product Compliance

|            |   |
|------------|---|
| 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" |

# Device connector, front mounting - SB-8ESSA8AA700S - 1623366

## Drawings

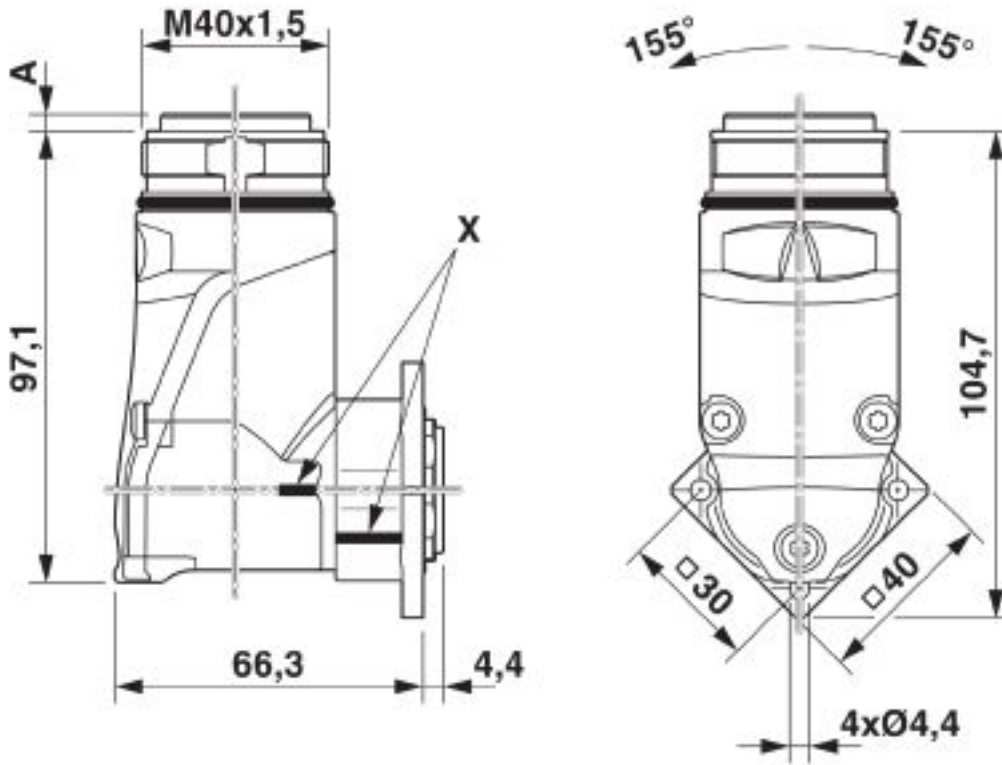
Dimensional drawing



Installation dimensions

# Device connector, front mounting - SB-8ESSA8AA700S - 1623366

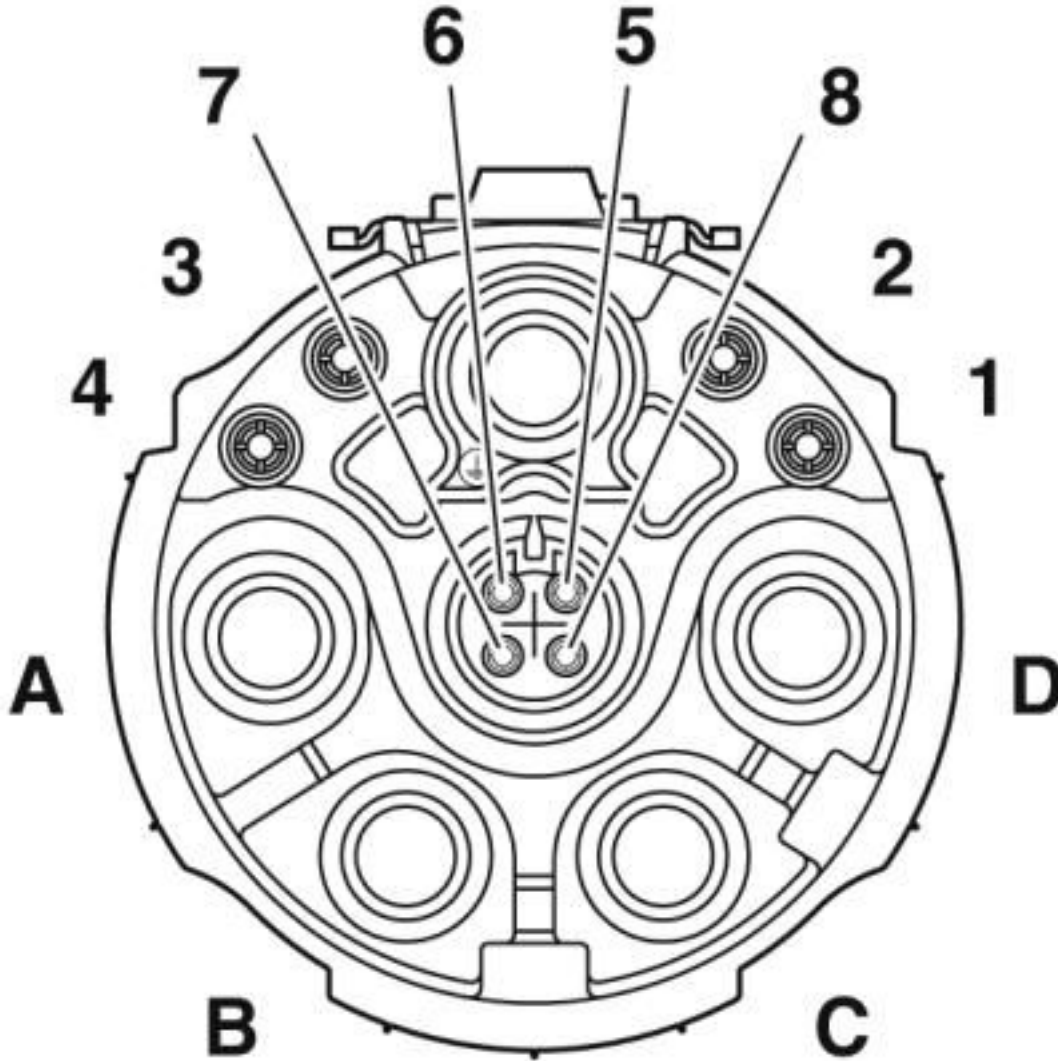
Dimensional drawing



Pin version: dimension A = 3.7 mm, socket version: dimension A = 0.05 mm, X = reference position for angle of rotation

# Device connector, front mounting - SB-8ESSA8AA700S - 1623366

Schematic diagram



Pin assignment of socket signal, coding 1

## 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

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Approvals

EAC

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Ex Approvals

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#### Approval details

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

### Accessories

#### Accessories

##### Crimp contact

Crimp contact - ST-10KS010 - 1618239



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

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## Device connector, front mounting - SB-8ESSA8AA700S - 1623366

### Accessories

Crimp contact - ST-10KS035 - 1618464



Crimp contact, turned, contact diameter: 1 mm, crimp range: 0.25 mm<sup>2</sup> ... 1 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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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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## Device connector, front mounting - SB-8ESSA8AA700S - 1623366

### Accessories

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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### Mounting material

Protective cap - SM-Z0001 - 1605866



Plastic protection cap for connectors with M40 external thread

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Color-coding - SM-Z0028 - 1620627



Color-coding, color: green

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## Device connector, front mounting - SB-8ESSA8AA700S - 1623366

### Accessories

Color-coding - SM-Z0029 - 1620628



Color-coding, color: orange

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Color-coding - SM-Z0030 - 1620629



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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Metal protective cap - SB-Z0002 - 1623828



Metal protection cap with steel wire for M40 connectors with external thread

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