

# Device connector, front mounting - SB-8EPCA8AA700S - 1623368

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Device connector for front wall, SB, angled rotatable, shielded: yes, for standard and SPEEDCON interlock, M40, No. of pos.: 4+4+4+PE, type of contact: Pin, Crimp connection, Axial O-ring, 4x Ø4,2

## Your advantages

- ✓ Easy connection, thanks to infinitely adjustable cable outlet direction up to 310°
- ✓ 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	
GTIN	4055626194929

## Technical data

### Temperature range

Ambient temperature	-40 °C ... 130 °C
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### 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.
	• 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.
	• 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

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## Technical data

### Standards and Regulations

	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"> <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="https://www.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>On the product</li> <li>On the packing label</li> <li>In the supplied documentation</li> <li>Online at <a href="https://www.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="https://www.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="https://www.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

Coding	CAT5, coding 1
Contact connection method	Crimp connection
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 <sup>2</sup>
Litz wire cross section of power contacts max.	10 mm <sup>2</sup>
Rated current for power contacts	70 A

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### Technical data

#### Data of the insulating body

Rated voltage of power contact	630 V AC
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	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
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

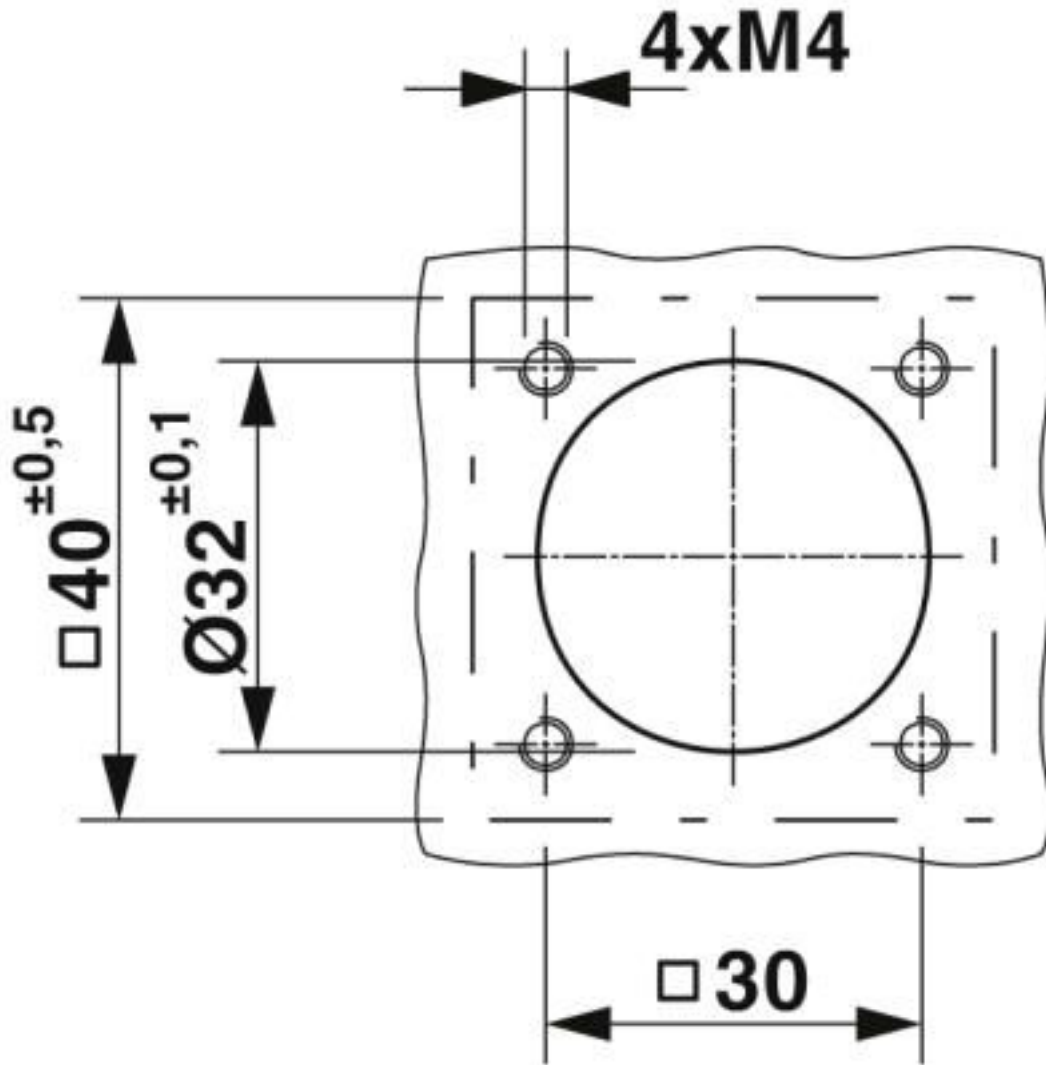
#### Environmental Product Compliance

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"

### Drawings

# Device connector, front mounting - SB-8EPCA8AA700S - 1623368

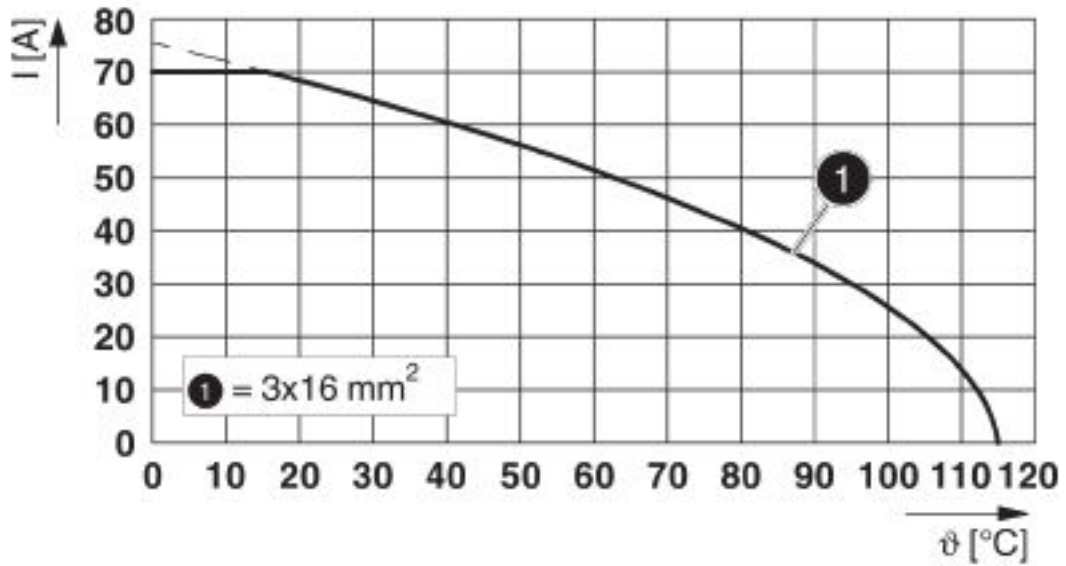
Dimensional drawing



Installation dimensions

## Device connector, front mounting - SB-8EPCA8AA700S - 1623368

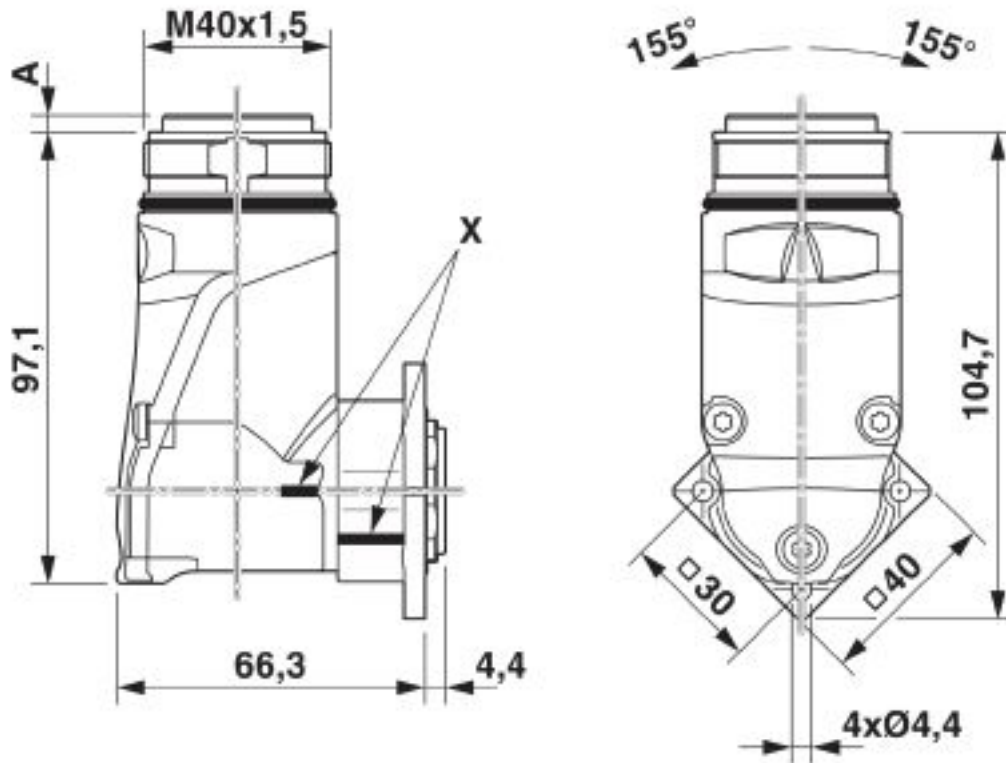
Diagram



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

# Device connector, front mounting - SB-8EPCA8AA700S - 1623368

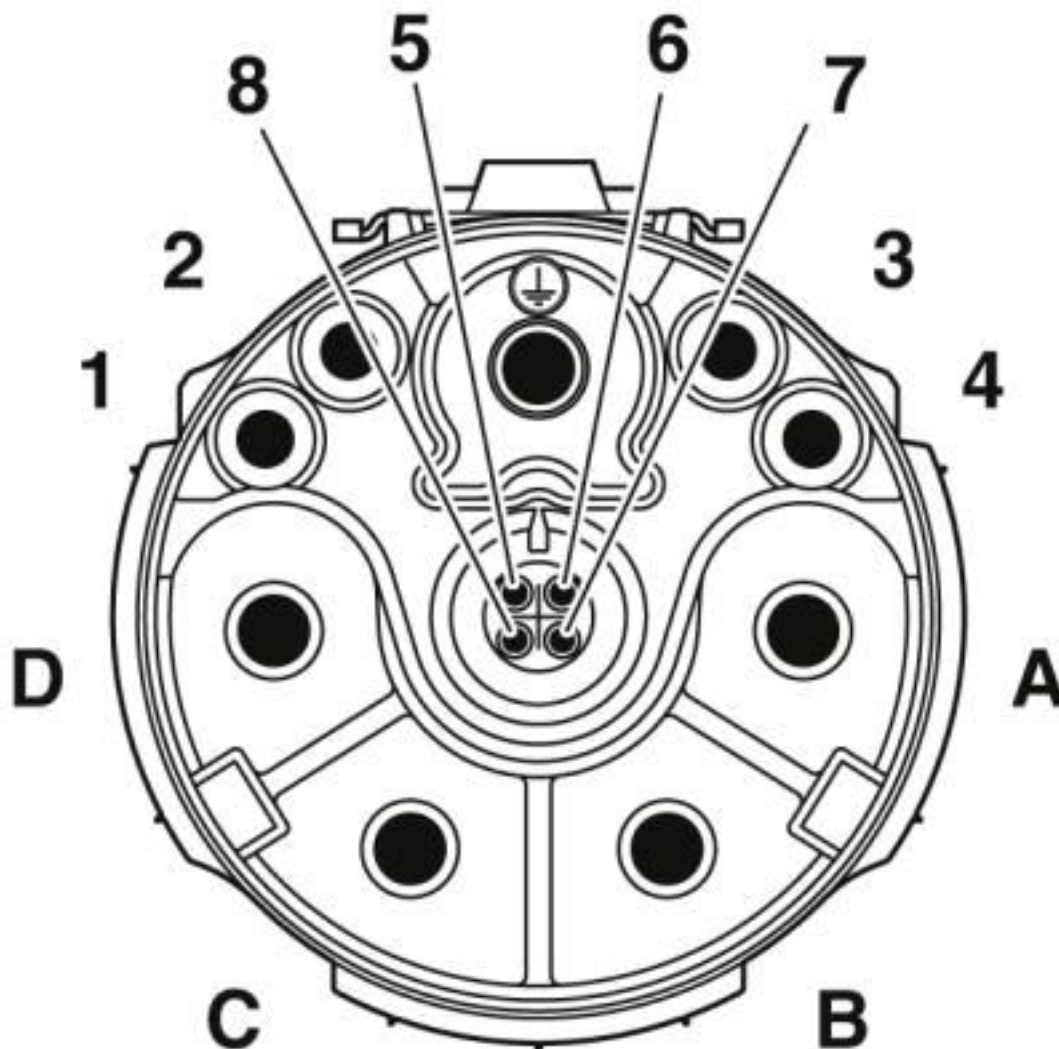
Dimensional drawing



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

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Schematic diagram



Pin assignment of pin CAT5, 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
eCl@ss 6.0	27260700
eCl@ss 7.0	27440102
eCl@ss 8.0	27440102
eCl@ss 9.0	27440102

# Device connector, front mounting - SB-8EPCA8AA700S - 1623368

## Approvals


### Approvals

#### Approvals

cULus Recognized / EAC

#### Ex Approvals

### Approval details

cULus 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	35 A
mm <sup>2</sup> /AWG/kcmil	8

EAC 	B.01687
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## Accessories

### Accessories

#### Circular connectors (device side)

Metal protective cap - SB-Z0002 - 1623828



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

### Crimp contact

Crimp contact - SF-08KP010 - 1621574



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



## Device connector, front mounting - SB-8EPCA8AA700S - 1623368

### Accessories

Crimp contact - SF-08KP020 - 1621575



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-10KP001 - 1623607



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-10KP002 - 1623611



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-10KP003 - 1623612



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

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Crimp contact - SB-10KP004 - 1623613



Crimp contact, turned, Single contact, 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-8EPCA8AA700S - 1623368

### Accessories

Crimp contact - SB-36KP002 - 1623383



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-36KP003 - 1623384



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-36KP004 - 1623385



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-8EPCA8AA700S - 1623368

### 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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