#### 1623683

https://www.phoenixcontact.com/be/products/1623683

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M40, Cable connector, series: SB, straight long, shielded: yes, SPEEDCON, No. of pos.: 4+4+4+PE / 3+N+PE, Direction of rotation: Standard, contact connection type: Socket, Crimp connection, cable diameter range: 9 mm ... 14 mm, coding: CAT5, coding 2, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244937

### Your advantages

- · Transmission of signals, data, and power in just a single connector
- · CAT5 data interface for up to 100 Mbps
- · 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

### Commercial data

Item number	1623683
Packing unit	1 рс
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	ABRCEB
Product key	ABRCEB
Catalog page	Page 126 (C-2-2019)
GTIN	4055626194011
Weight per piece (including packing)	22,22 g
Weight per piece (excluding packing)	22,22 g
Customs tariff number	85366990
Country of origin	DE

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## Technical data

Notes
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Order information:	Crimp contacts, $4 \times Ø 0.8$ mm, $4 \times Ø 1$ mm, $5 \times Ø 3.6$ mm, order separately
Safety note	
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 relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.
	• The products are suitable for applications in plant, controller, and electrical device engineering.
	<ul> <li>When operating the connectors in outdoor applications, they must be separately protected against environmental influences.</li> </ul>
	Assembled products may not be manipulated or improperly opened.
	<ul> <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 phoenixcontact.com/products).</li> </ul>
	<ul> <li>When using the product in direct connection with third-party manufacturers, the user is responsible.</li> </ul>
	<ul> <li>For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li> </ul>
	• 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
	Observe the corresponding technical data. You will find information: o On the product o On the packing label o In the supplied documentation o Online at phoenixcontact.com/products under the product
	Only use tools recommended by Phoenix Contact
	<ul> <li>The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product.</li> </ul>
	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> <li>Operate the connector only when it is fully plugged in and interlocked.</li> </ul>
	Ensure that when laying the cable, the tensile load on the



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connectors does not exceed the upper limit specified in the standards.

• Observe the minimum bending radius of the cable. Lay the cable without twisting it.

• 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).

#### Product properties

Product type	Circular connector (cable-side)		
Data management status			
Article revision	11		

#### Connector

Connection 1	
Head design	Socket
Insulating body	
Protection against electric shock	IEC 61984
Data rate	100 Mbps
Coding	CAT5, coding 2
Connection method	Crimp connection
Contact switching type	Socket
Application	Hybrid
Number of positions	13
Direction of rotation	Standard
Connection profile	4+4+4+PE / 3+N+PE
Contact diameter Power contacts	3.6 mm
Litz wire cross-section Power contacts min.	1 mm <sup>2</sup>
Litz wire cross-section Power contacts max.	16 mm <sup>2</sup>
Rated current 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 Signal contacts	1 mm
Litz wire cross-section Signal contacts min.	0.06 mm <sup>2</sup>
Litz wire cross-section Signal contacts max.	1.5 mm <sup>2</sup>
Nominal current per signal contact	8 A



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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 per 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

Housing material	Turned parts: copper zinc alloy (CuZn), die-cast parts: zinc (GD-Zn)
Type of locking	SPEEDCON
Pg screw connection	none
Degree of protection (plugged in)	IP68/IP69K
Thread type	M40

#### Seal

External cable diameter	9 mm 14 mm
Seal material	FKM

#### Environmental and real-life conditions

Ambient conditions		
Ambient temperature (operation)	-40 °C 115 °C (see derating curve)	

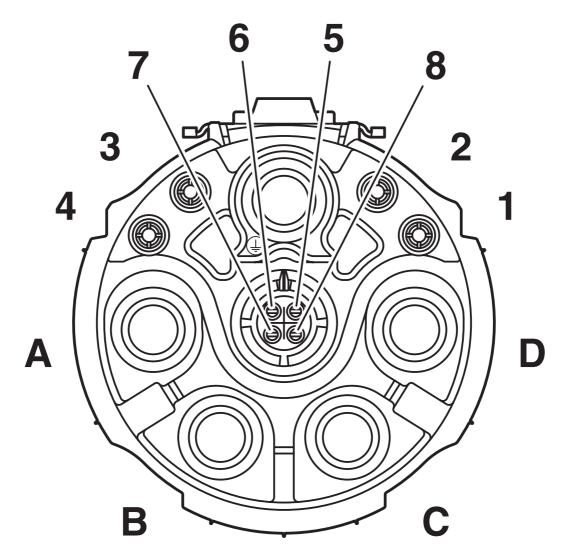
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## Drawings

Schematic diagram

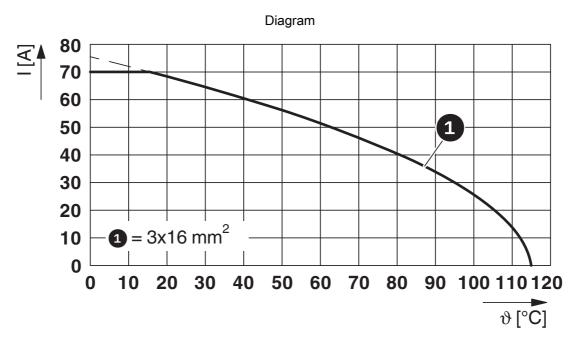


Pin assignment of socket CAT5, coding 2



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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



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## Approvals

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/be/products/1623683

Approval ID: E468743-20170914					
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>	
Power	600 V	42 A	- 6	-	
Signal	500 V	4 A	- 16	-	
Data	30 V	1 A	- 22	-	

SU UL Recognized Approval ID: E468743-20170914					
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>	
Power	600 V	50 A	- 6	-	
Signal	500 V	4 A	- 16	-	
Data	30 V	1 A	- 22	-	

Approval ID: E153698-2	Approval ID: E153698-20190718					
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section mm <sup>2</sup>		
Power	600 V	70 A	-	-		
Signal	500 V	4 A	-	-		
Data	50 V	1 A	-	-		

CUL Recognized Approval ID: E153698-2	Approval ID: E153698-20190718					
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>		
Power	600 V	28 A	-	-		
Signal	500 V	4 A	-	-		
Data	50 V	1 A	-	-		

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## Classifications

#### ECLASS

ECLASS-11.0	27440102
ECLASS-12.0	27440116
ECLASS-13.0	27440116

#### ETIM

	ETIM 9.0	EC002635		
UN	UNSPSC			
	UNSPSC 21.0	39121400		

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## Environmental product compliance

#### EU RoHS

Fulfills EU RoHS substance requirements	Yes	
Exemption	6(b), 6(b)-II	
China RoHS		
Environment friendly use period (EFUP)	EFUP-50	
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.	
EU REACH SVHC		
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)	
SCIP	24b9a2ee-4aba-40f9-887f-58ab30a29d30	

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Accessories

SF-08KS010 - Crimp contact

1621571 https://www.phoenixcontact.com/be/products/1621571



Crimp contact, Socket, turned, contact diameter: 0.8 mm, crimp range: 0.08 mm<sup>2</sup>  $\ldots$  0.25 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244455

#### SF-08KS020 - Crimp contact

1621573 https://www.phoenixcontact.com/be/products/1621573



Crimp contact, Socket, turned, contact diameter: 0.8 mm, crimp range: 0.34 mm<sup>2</sup> ... 0.5 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244457

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

#### 1627298

https://www.phoenixcontact.com/be/products/1627298



Hybrid cable, cable length: 1 m, shielded: yes, color of outer sheath: orange RAL 2003  $\,$ 

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

1627299 https://www.phoenixcontact.com/be/products/1627299



Hybrid cable, cable length: 20 m, shielded: yes, color of outer sheath: orange RAL 2003  $\,$ 

#### 1623683

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

#### 1629279

https://www.phoenixcontact.com/be/products/1629279



Hybrid cable, cable length: 1 m, shielded: yes, color of outer sheath: orange RAL 2003  $\,$ 

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

1629280 https://www.phoenixcontact.com/be/products/1629280



Hybrid cable, cable length: 50 m, shielded: yes, color of outer sheath: orange RAL 2003  $\,$ 



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SM-Z0003 - Square mounting flange with O-ring

1607935

https://www.phoenixcontact.com/be/products/1607935



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

#### SM-Z0004 - Square mounting flange

1607937 https://www.phoenixcontact.com/be/products/1607937



Square mounting flange, 4x Ø4,2, series: SM

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## **PHŒNIX** CONTACT

#### PROT-M40-PW-IT-IP20 - Plastic protective cap

#### 1577213

https://www.phoenixcontact.com/be/products/1577213



Plastic protective cap, M40, degree of protection: IP20, series: SM, SB

#### SB-10KS001 - Crimp contact

1623603 https://www.phoenixcontact.com/be/products/1623603



Crimp contact, Socket, turned, contact diameter: 1 mm, crimp range: 0.06 mm<sup>2</sup> ...  $0.25 \text{ mm}^2$ , Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244919

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SB-10KS002 - Crimp contact

1623604

https://www.phoenixcontact.com/be/products/1623604



Crimp contact, Socket, turned, contact diameter: 1 mm, crimp range: 0.34 mm<sup>2</sup> .. . 0.5 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244919

#### SB-10KS003 - Crimp contact

1623605 https://www.phoenixcontact.com/be/products/1623605



Crimp contact, Socket, turned, contact diameter: 1 mm, crimp range:  $0.5 \text{ mm}^2 \dots$  1 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244919

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https://www.phoenixcontact.com/be/products/1623683



SB-10KS004 - Crimp contact

1623606

https://www.phoenixcontact.com/be/products/1623606



Crimp contact, Socket, turned, contact diameter: 1 mm, crimp range: 1 mm<sup>2</sup> ... 1. 5 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244920

#### SB-36KS002 - Crimp contact

1623378 https://www.phoenixcontact.com/be/products/1623378



Crimp contact, Socket, turned, contact diameter: 3.6 mm, crimp range: 2.5 mm<sup>2</sup> . .. 4 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244890

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SB-36KS003 - Crimp contact

1623379

https://www.phoenixcontact.com/be/products/1623379



Crimp contact, Socket, turned, Single contact, contact diameter: 3.6 mm, crimp range: 4 mm<sup>2</sup> ... 6 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244890

#### SB-36KS004 - Crimp contact

1623380 https://www.phoenixcontact.com/be/products/1623380



Crimp contact, Socket, turned, Single contact, contact diameter: 3.6 mm, crimp range: 10 mm<sup>2</sup> ... 10 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244891

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https://www.phoenixcontact.com/be/products/1623683



SB-36KS005 - Crimp contact

1623381

https://www.phoenixcontact.com/be/products/1623381



Crimp contact, Socket, turned, Single contact, contact diameter: 3.6 mm, crimp range: 16 mm<sup>2</sup> ... 16 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244892

#### SM-Z0025 - Color coding

1620558 https://www.phoenixcontact.com/be/products/1620558

Color coding, color: green



#### 1623683

https://www.phoenixcontact.com/be/products/1623683



SM-Z0026 - Color coding

1620559 https://www.phoenixcontact.com/be/products/1620559

Color coding, color: orange



#### SM-Z0027 - Color coding

1620560 https://www.phoenixcontact.com/be/products/1620560

Color coding, color: black



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