

1621997

https://www.phoenixcontact.com/us/products/1621997

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M23, Cable connector, series: SH, straight long, shielded: yes, Screw locking mechanism, No. of pos.: 4+4+4+PE / 3+N+PE, contact connection type: Socket, Crimp connection, cable diameter range: 7.5 mm ... 18 mm, this item is expected to be lead-free from Q1 2026 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

### 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 optional SPEEDCON fast locking system
- · 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	1621997
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB33
Product key	ABRCDA
GTIN	4055626011585
Weight per piece (including packing)	142.6 g
Weight per piece (excluding packing)	124.255 g
Customs tariff number	85366990
Country of origin	DE



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### Technical data

### Notes

Order information:	Crimp contacts, 4x Ø 0.8 mm, 4x Ø 1 mm, 5x Ø 2 mm, order
	separately
fety 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.
	<ul> <li>WARNING: Commission properly functioning products only.</li> <li>The products must be regularly inspected for damage.</li> <li>Decommission defective products immediately. Replace damaged products. Repairs are not possible.</li> </ul>
	<ul> <li>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.</li> </ul>
	<ul> <li>The products are suitable for applications in plant, controller, and electrical device engineering.</li> </ul>
	<ul> <li>When operating the connectors in outdoor applications, they must be separately protected against environmental influences.</li> </ul>
	<ul> <li>Assembled products may not be manipulated or improperly opened.</li> </ul>
	<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>
	<ul> <li>Ensure that the protective or functional ground has been properly connected.</li> </ul>
	<ul> <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>
	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>
	<ul> <li>Operate the connector only when it is fully plugged in and interlocked.</li> </ul>
	<ul> <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> <li>Observe the minimum bending radius of the cable. Lay the cable without twisting it.</li> </ul>
	• The connector warms up in permal exerction. Depending on the

• The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to



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	warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).
oduct properties	
Product type	Circular connector (cable-side)
Application	Hybrid
echanical properties	
Mechanical data	
Insertion/withdrawal cycles	100
nnector	
Connection 1	
Head design	Socket
nsulating body	
Note	Order information: Crimp contacts, 4x Ø 0.8 mm, 4x Ø 1 mm, 5x Ø 2 mm, order separately
Protection against electric shock	IEC 61984 and VDE 0623
Data rate	100 Mbps
Insertion/withdrawal cycles	100
Connection method	Crimp connection
Contact switching type	Socket
Application	Hybrid
Number of positions	13
Connection profile	4+4+4+PE / 3+N+PE
Number Contact (Power contacts)	5
Diameter Contact (Power contacts)	2 mm
Litz wire cross-section min. Contact (Power contacts)	0.25 mm²
Litz wire cross-section max. Contact (Power contacts)	4 mm²
Rated current Contact (Power contacts)	30 A (for max. connection cross section)
Rated voltage Contact (Power contacts)	630 V AC (Overvoltage category III/3)
	850 V DC (Overvoltage category II/3)
Rated surge voltage	6 kV
Overvoltage category	III
Degree of pollution	3
Number Contact (Signal contacts)	4
Diameter Contact (Signal contacts)	1 mm
Litz wire cross-section min. Contact (Signal contacts)	0.06 mm²
Litz wire cross-section max. Contact (Signal contacts)	1 mm²
Nominal current per signal contact	8 A (for max. connection cross section)
Rated voltage Contact (Signal contacts)	50 V AC/DC
Rated surge voltage	1.5 kV
Overvoltage category	III



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Degree of pollution	3
Number Contact (Data contacts)	4
Diameter Contact (Data contacts)	0.8 mm
Litz wire cross-section min. Contact (Data contacts)	0.08 mm²
Litz wire cross-section max. Contact (Data contacts)	0.5 mm²
Rated current per data contact at 25°C	3.6 A (for max. connection cross section)
Rated voltage Contact (Data contacts)	50 V AC/DC
Rated surge voltage	1.5 kV
Overvoltage category	II, III
Degree of pollution	3
Installation height	2000 m (4000 m at 300 V system voltage in accordance with DIN EN 606664-1)
pusing	
Notes on operation	Full occupation with 5 x 4 mm <sup>2</sup> for cable and coupler connectors not possible.
Thread type	M23
Type of locking	Screw locking mechanism
Pg screw connection	none
Housing material	Turned parts: copper zinc alloy (CuZn), die-cast parts: zinc (GD-Zn)
Material for screw connection	CuZn
Degree of protection (plugged in)	IP67
	IP68
eal	
External cable diameter	7.5 mm 18 mm

#### Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-40 °C 115 °C (see derating curve)
Ambient temperature (storage/transport)	15 °C 25 °C
Permissible humidity (storage/transport)	50 % 65 %

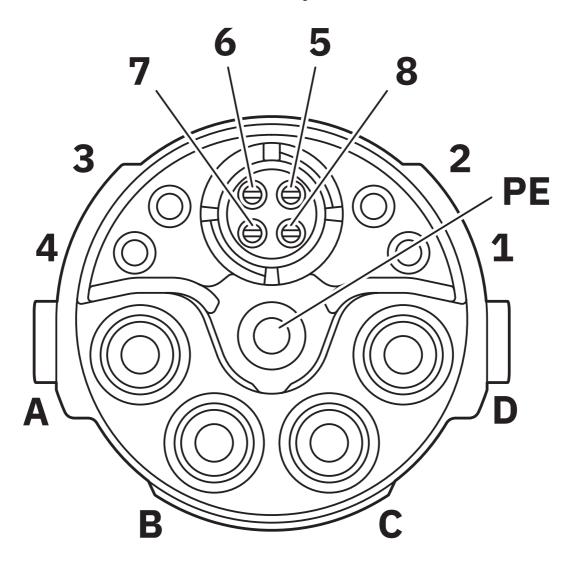


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## Drawings





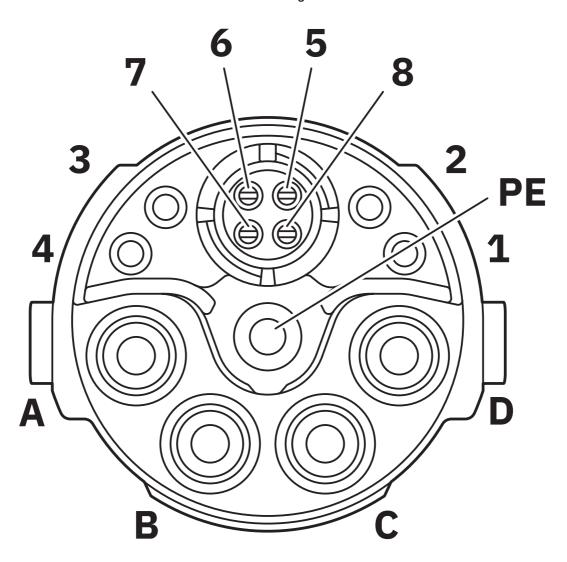
Socket pin assignment, CAT5



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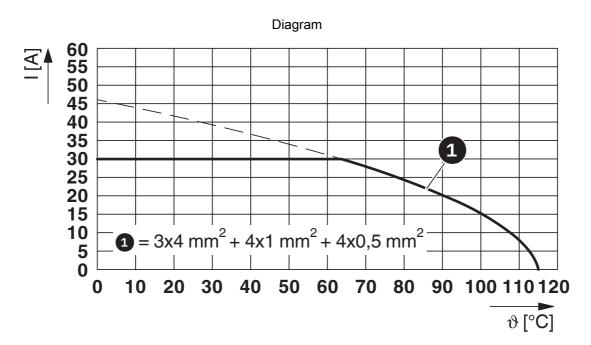


Socket pin assignment, CAT5



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I = current strength,  $\vartheta$  = ambient temperature, power contacts A-C: 3 x up to 30 A, signal contacts: 4 x 2 A constant, data contacts: 4 x 1 A constant



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## **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1621997

cUL Recognized Approval ID: E153698-20181206				
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
Power	600 V	21.4 A	12	-
Control	50 V	4 A	18	-

<b>SUL Recognized</b> Approval ID: E153698-2	Approval ID: E153698-20181206			
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
Power	600 V	24 A	12	-
Control	50 V	4 A	18	-



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## Classifications

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	ECLASS-13.0	27440116	
ΕΊ	⁻IM		
	ETIM 9.0	EC002635	
UI	NSPSC		
	UNSPSC 21.0	39121400	
	0N3F3C 21.0	39121400	



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## Environmental product compliance

#### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)
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	8329820c-aac3-4ac4-abf6-09878b306819

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