

1096285

https://www.phoenixcontact.com/in/products/1096285

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M23, Device connector front mounting with knurled nut, series: SH, straight, shielded: yes, SPEEDCON, No. of pos.: 4+4+4+PE / 3+N+PE, Direction of rotation: Standard, contact connection type: Pin, Crimp connection, Axial O-ring, 4x Ø 3.2, flange dimensions: 26 mm x 26 mm, coding: N

#### Your advantages

- · Transmission of signals, data, and power in just a single connector
- · CAT5 data interface for up to 100 Mbps
- · 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	1096285
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	****
Product key	ABRCDN
GTIN	4063151029531
Weight per piece (including packing)	93.8 g
Weight per piece (excluding packing)	75.986 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
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.
	<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>
	Ensure that the protective or functional ground has been properly connected.
	<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>



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	<ul> <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>
ounting	
Mounting	4x Ø 3.2
roduct properties	
Product type	Circular connectors (device side)
Application	Hybrid
imensions	
Housing	
Flange dimensions	26 mm x 26 mm
laterial specifications	
Flammability rating according to UL 94	V0
Mechanical data Insertion/withdrawal cycles	100
onnector	
Туре	straight
Connection 1	
Head design	Pin
Insulating 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
Coding	N
Insulation body material	PA 6.6
Insertion/withdrawal cycles	100
Connection method	Crimp connection
Contact switching type	Pin
Application	Hybrid
Number of positions	13
Direction of rotation	Standard
0 " "	4+4+4+PE / 3+N+PE
Connection profile	7.7.1 L / 3.11.1 L



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Litz wire cross-section Power contacts min.	0.25 mm <sup>2</sup>
Litz wire cross-section Power contacts max.	4 mm²
Rated current Power contacts	30 A
Note	for max. connection cross section
Rated surge voltage	6 kV
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 mm²
Nominal current per signal contact	8 A
Note	for max. connection cross section
Rated surge voltage	1.5 kV
Rated voltage (III/3) signal contact	50 V
Contact diameter Data contacts	0.8 mm
Litz wire cross-section Data contacts min.	0.08 mm²
Litz wire cross-section Data contacts max.	0.5 mm²
Rated current per data contact at 25°C	3.6 A
Note	for max. connection cross section
Rated voltage Data contacts	50 V
Rated surge voltage	1.5 kV
Installation height	2000 m (4000 m at 300 V system voltage in accordance with DIN EN 606664-1)

#### Housing

Housing material	Turned parts: copper zinc alloy (CuZn), die-cast parts: zinc (GD-Zn)	
Flange dimensions	26 mm x 26 mm	
Type of locking	SPEEDCON	
Pg screw connection	none	
Degree of protection (plugged in)	IP67	
	IP68	
Thread type	M23	

#### Environmental and real-life conditions

#### Ambient conditions

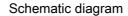
Ambient temperature (operation)	-40 °C 115 °C (see derating curve)
Ambient temperature (storage/transport)	15 °C 25 °C
Permissible humidity (storage/transport)	50 % 65 %

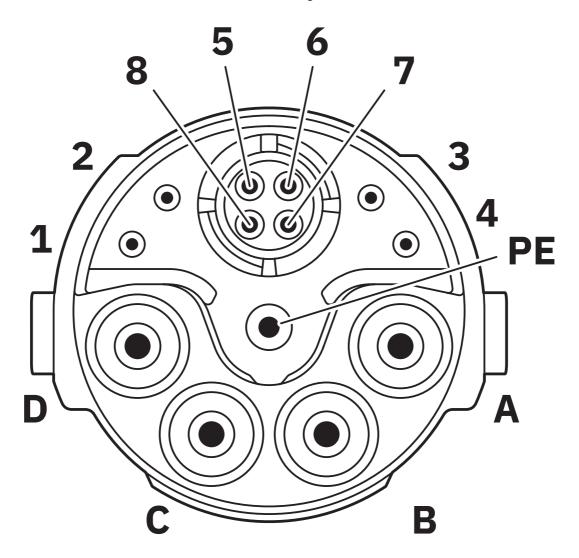


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### Drawings





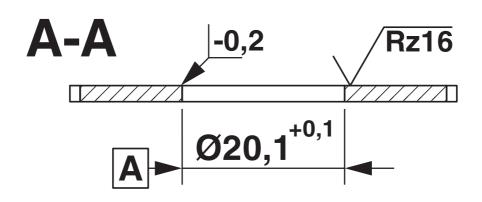
Pin assignment of pin, CAT5

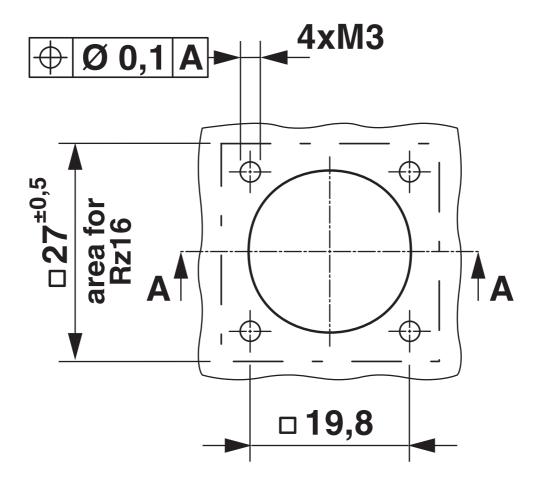


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#### Dimensional drawing



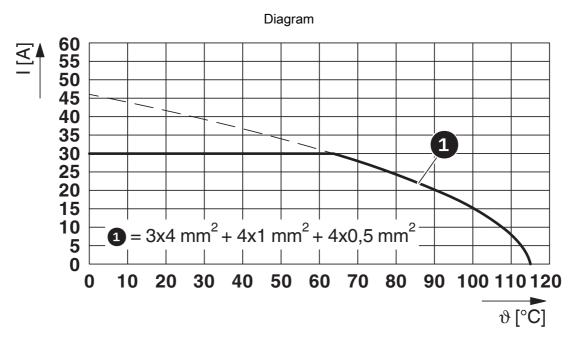


Installation dimensions



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I = current strength, ϑ = 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/in/products/1096285

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 - 12	-
Control		50 V	4 A	18 - 18	-

UL 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	24 A	12 - 12	-
Control	50 V	4 A	18 - 18	-

c <b>911</b> us	cULus Recognized Approval ID: E468743-20150928				
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
Power		600 V	16 A	-	-
Signal		50 V	4 A	-	-
Data		30 V	1 A	-	-

cULus Recognized



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#### Classifications

#### **ECLASS**

	202.00				
	ECLASS-11.0	27440109			
	ECLASS-12.0	27440109			
	ECLASS-13.0	27440109			
ΕΊ	ETIM				
	ETIM 9.0	EC003569			
UNSPSC					
	UNSPSC 21.0	39121400			



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### Environmental product compliance

EU RoHS					
Fulfills EU RoHS substance requirements	Yes, No exemptions				
China RoHS					
Environment friendly use period (EFUP)	EFUP-E				
	No hazardous substances above the limits				
EU REACH SVHC					
REACH candidate substance (CAS No.)	No substance above 0.1 wt%				



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#### Accessories

SH-Z0077 - Metal protective cap

1627226

https://www.phoenixcontact.com/in/products/1627226



Metal protective cap, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1245449

#### SH-Z2300 - Metal protective cap

1622141

https://www.phoenixcontact.com/in/products/1622141

Metal protective cap, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1~%) item no.: 1244542





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#### PROT-M23-PW-IT-IP20 - Plastic protective cap

1577207

https://www.phoenixcontact.com/in/products/1577207



Plastic protective cap, M23, series: SH, SF

#### SF-Z0028 - Torque screwdriver

1607456

https://www.phoenixcontact.com/in/products/1607456



Torque screwdriver, series: RC, UC, SH, SF



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#### M23 HYBRID\_CONTACT-SAMPLE-SET - Sample set

1623252

https://www.phoenixcontact.com/in/products/1623252



Sample set consisting of 4x Ø 1.0 mm, 4x Ø 0.8 mm, 5x Ø 2.0 mm socket and pin contacts for M23 hybrid connectors. Contacts included: 1621573, 1618464, 1621577, 1621575, 1618458, 1621580

#### ST-10KP010 - Crimp contact

1618255

https://www.phoenixcontact.com/in/products/1618255



Crimp contact, Pin, turned, Single contact, contact diameter: 1 mm, crimp range:  $0.06~\text{mm}^2$ ...  $0.25~\text{mm}^2$ , Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1~%) item no.: 1243215



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#### ST-10KP035 - Crimp contact

1618458

https://www.phoenixcontact.com/in/products/1618458



Crimp contact, Pin, turned, contact diameter: 1 mm, crimp range:  $0.25 \text{ mm}^2 \dots 1 \text{ mm}^2$ , Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1243215

#### SF-20KP021 - Crimp contact

1621579

https://www.phoenixcontact.com/in/products/1621579



Crimp contact, Pin, turned, contact diameter: 2 mm, crimp range:  $0.25~\text{mm}^2$  ... 1 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1~%) item no.: 1244464



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#### SF-20KP022 - Crimp contact

1621580

https://www.phoenixcontact.com/in/products/1621580



Crimp contact, Pin, turned, contact diameter: 2 mm, crimp range:  $1.5~\text{mm}^2$  ...  $2.5~\text{mm}^2$ , Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244464

#### SF-20KP023 - Crimp contact

1621581

https://www.phoenixcontact.com/in/products/1621581



Crimp contact, Pin, turned, contact diameter: 2 mm, crimp range:  $2.5 \text{ mm}^2 \dots 4 \text{ mm}^2$ , Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244465



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#### SF-08KP010 - Crimp contact

1621574

https://www.phoenixcontact.com/in/products/1621574



Crimp contact, Pin, turned, contact diameter: 0.8 mm, crimp range: 0.08 mm $^2$  ... 0.25 mm $^2$ , Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244458

#### SF-08KP020 - Crimp contact

1621575

https://www.phoenixcontact.com/in/products/1621575



Crimp contact, Pin, turned, contact diameter: 0.8 mm, crimp range:  $0.34~\text{mm}^2$  ...  $0.5~\text{mm}^2$ , Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244459



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RF-Z0017 - Color coding

1620624

https://www.phoenixcontact.com/in/products/1620624

Color coding, color: green



RF-Z0018 - Color coding

1620625

https://www.phoenixcontact.com/in/products/1620625

Color coding, color: orange





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RF-Z0019 - Color coding

1620626

https://www.phoenixcontact.com/in/products/1620626

Color coding, color: anthracite



SH-Z0005 - Contact insert

1008406

https://www.phoenixcontact.com/in/products/1008406



Contact carrier female for the data element (6-pos.) for M23 hybrid connectors



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SH-Z0006 - Contact insert

1008407

https://www.phoenixcontact.com/in/products/1008407



Insulating body pin for the data element (6-pos.) for M23 hybrid connectors

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