Coupler connector - SF-5EP1N8A90DU

1605499

https://www.phoenixcontact.com/sk/products/1605499

Coupler connector, straight short, for standard and SPEEDCON interlock, M23, number of positions: 5+PE, type of contact: Pin, shielded: yes, degree of protection: IP67, cable diameter range: 7.5 mm ... 14 mm, Compatible with mating connectors with SPEEDCON or M23 standard knurled nuts, number of positions: 6, connection method: Crimp connection, series: SF, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1241897

Your advantages

- Consistent EMC protection for reliable connection solutions in the industrial environment
- Crimping connection: vibration- and temperature-resistant assembly
- Flexible use: reliably connect cable diameters of 7.5 mm ... 14 mm

Commercial Data

Item number	1605499
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	ABR
Product Key	ABRCBC
Catalog Page	Page 155 (C-2-2019)
GTIN	4046356182140
Weight per Piece (including packing)	109 g
Weight per Piece (excluding packing)	98 g
Customs tariff number	85366990
Country of origin	DE

Technical Data

Notes

Order information:	Order crimp contacts 6 x Ø 2 mm 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.
	• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.
	• Assembled products may not be manipulated or improperly opened.
	• 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).
	• When using the product in direct connection with third-party manufacturers, the user is responsible.
	• For operating voltages > 50 V AC, conductive connector housings must be grounded
	• Ensure that the protective or functional ground has been properly connected.
	• 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
	• Only use tools recommended by Phoenix Contact
	• The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product.
	• Operate the connector only when it is fully plugged in and interlocked.
	• Ensure that when laying the cable, the tensile load on the 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)
Number of positions	6
Connection profile	5+PE
Application	Power
Locking type	for standard and SPEEDCON interlock
Series	SF
Shielded	yes
Coding	N
Thread type	M23

Material specifications

Seal material	FPM
Housing material	Turned parts: copper zinc alloy (CuZn), die-cast parts: zinc (GD-Zn)
Insulator material	PA 6.6
Gasket and O-ring material	FPM
Housing material	Metal

Connection data

Conductor connection

Connection method	Crimp connection

Electrical properties

Contact

Contact diameter	2 mm
Max. current	30 A
Nominal voltage U_N	630 V
Overvoltage category	III
Degree of pollution	3
Rated surge voltage	6 kV

Contact

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Overvoltage category	III
Degree of pollution	3
Rated surge voltage	6 kV

Connector

Type	straight short

Cable / line

External cable diameter	7.5 mm ... 14 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP67
Ambient temperature (operation)	-40 °C ... 125 °C
Altitude	3000 m

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Drawings

Dimensional drawing

60,1

M23x1
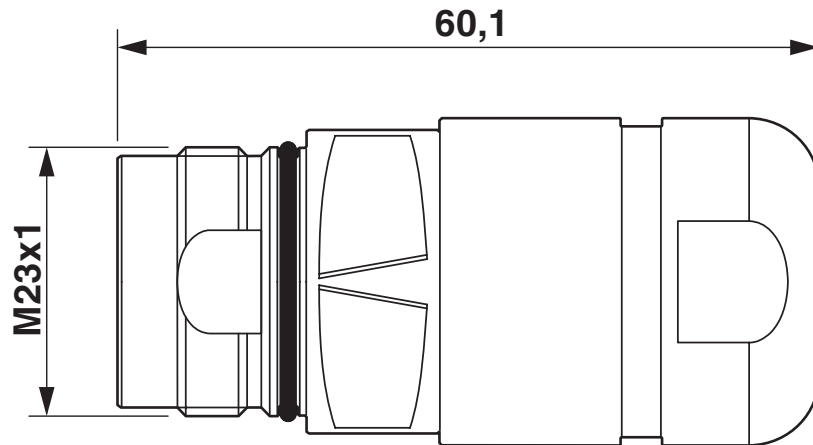
Dimensional drawing

Diagram

I [A]

$\textbf{1} = 6 \times 2,5 \text{ mm}^2$

ϑ [°C]
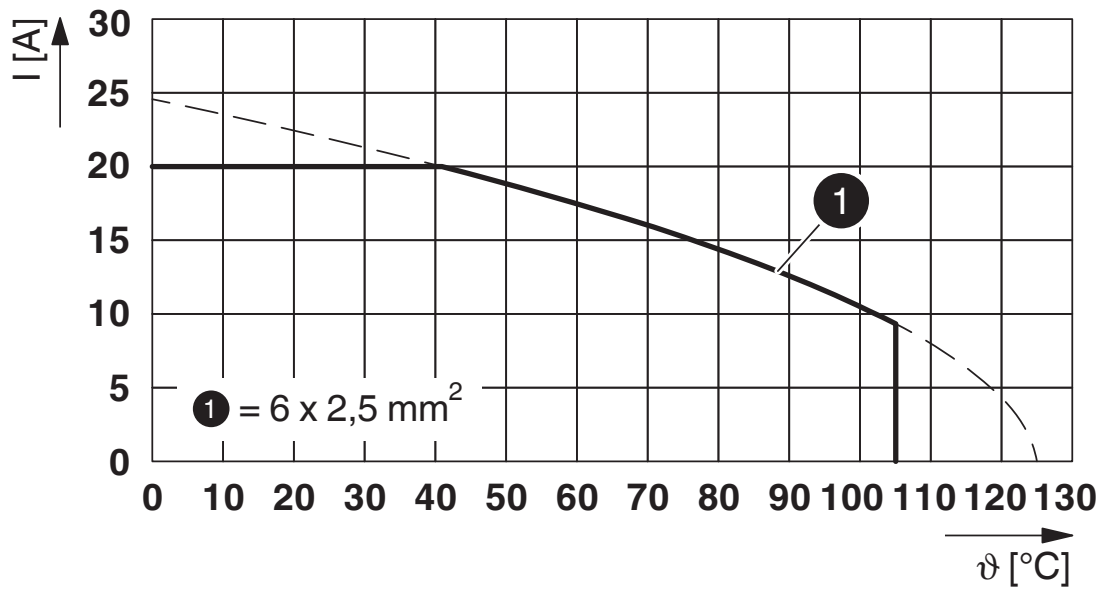
I = current strength, ϑ = ambient temperature, 6x 20 A

Dimensional drawing

60,1

M23x1
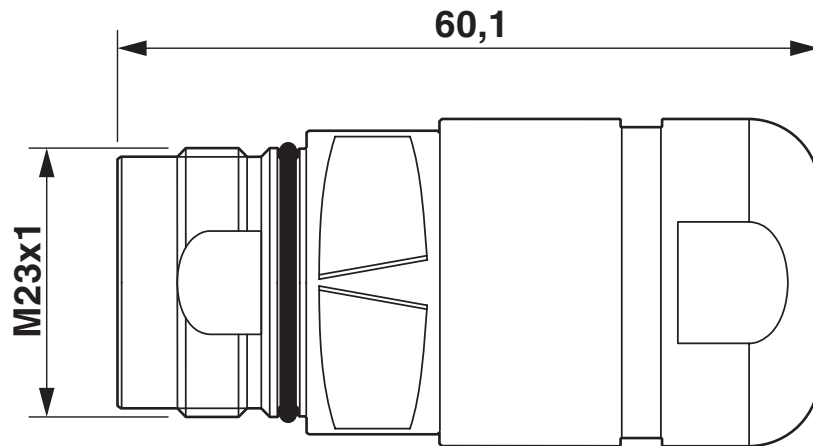
Schematic diagram
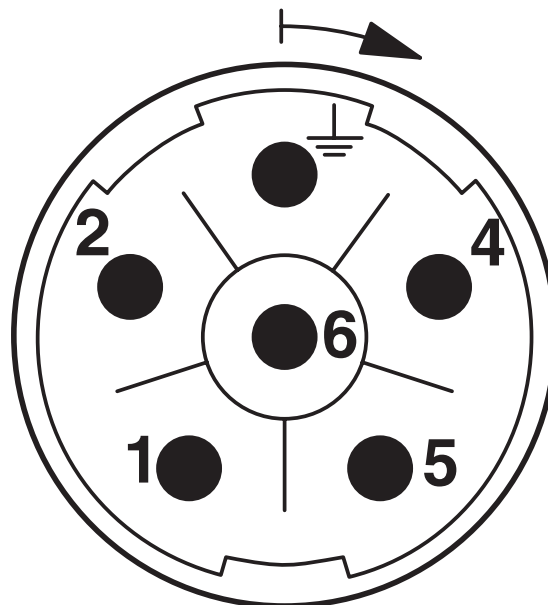
Connector pin assignment

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https://www.phoenixcontact.com/sk/products/1605499

Approvals

cUL Recognized
Approval ID: E153698-20041116

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	600 V	18 A	- 12	-

UL Recognized
Approval ID: E153698-20041116

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	600 V	27 A	- 12	-

EAC
Approval ID: B.01687

cULus Recognized

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Classifications

ECLASS

ECLASS-9.0	27440102
ECLASS-10.0.1	27440102
ECLASS-11.0	27440102

ETIM

ETIM 8.0	EC002635

UNSPSC

UNSPSC 21.0	39121400

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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Accessories

Crimp contact

Crimp contact - SF-7RP2000 - 1605646

https://www.phoenixcontact.com/sk/products/1605646

Crimp contact, turned, Single contact, contact diameter: 2 mm, crimp range: 0.14 mm^2 ... 0.25 mm^2 item no.: 1241951

Crimp contact

Crimp contact - SF-7PP2000 - 1605634

https://www.phoenixcontact.com/sk/products/1605634

Crimp contact, turned, Single contact, contact diameter: 2 mm, crimp range: 0.25 mm^2 ... 1 mm^2 item no.: 1241951

Crimp contact

Crimp contact - SF-20KP004 - 1607376

https://www.phoenixcontact.com/sk/products/1607376

Crimp contact, turned, contact diameter: 2 mm, crimp range: 0.75 mm^2 ... 1.5 mm^2 item no.: 1241953

Crimp contact

Crimp contact - SF-7QP2000 - 1605639

https://www.phoenixcontact.com/sk/products/1605639

Crimp contact, turned, Single contact, contact diameter: 2 mm, crimp range: 1 mm^2 ... 2.5 mm^2 item no.: 1241953

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Protective cap

Protective cap - SF-Z0019 - 1607449

https://www.phoenixcontact.com/sk/products/1607449

Plastic protection cap, with eye, IP40 for connectors with M23 external thread, RF, SF series

Protective cap

Protective cap - RC-Z2059 - 1604225

https://www.phoenixcontact.com/sk/products/1604225

Plastic protection cap for connectors with M23 external thread

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Protective cap

Protective cap - RC-Z2469 - 1611797

https://www.phoenixcontact.com/sk/products/1611797

Plastic protection cap, antistatic, for RF, SF, CA, RC series connectors, with M23 external thread

Metal protective cap

Metal protective cap - SC-Z2319 - 1605456

https://www.phoenixcontact.com/sk/products/1605456

Metal protection cap for power connectors with M23 external thread

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Metal protective cap

Metal protective cap - SC-Z2320 - 1605457

https://www.phoenixcontact.com/sk/products/1605457

Metal protection cap with steel wire for power connectors with M23 external thread

Color-coding

Color-coding - SF-Z0064 - 1620585

https://www.phoenixcontact.com/sk/products/1620585

Color-coding, color: green

Color-coding

Color-coding - SF-Z0065 - 1620586

https://www.phoenixcontact.com/sk/products/1620586

Color-coding, color: orange

Color-coding

Color-coding - SF-Z0066 - 1620587

https://www.phoenixcontact.com/sk/products/1620587

Color-coding, color: black

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Square mounting flange

Square mounting flange - SF-Z0068 - 1620927

https://www.phoenixcontact.com/sk/products/1620927

Square mounting flange, 4xM3, flange dimensions: 38 mm x 38 mm, series: SF,
Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%)
item no.: 1244326