

SF-7EP1N8A90A1 - Coupler connector



1605568

<https://www.phoenixcontact.com/us/products/1605568>

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Coupler connector, straight short, for standard and SPEEDCON interlock, M23, number of positions: 4+3+PE, contact connection type: Pin, shielded: yes, degree of protection: IP67, cable diameter range: 7.5 mm ... 9 mm, Compatible with mating connectors with SPEEDCON or M23 standard knurled nuts, number of positions: 8, connection method: Crimp connection, series: SF, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1241925

Your advantages

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

Commercial data

Item number	1605568
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	AB32
Product key	ABRBFG
Catalog page	Page 155 (C-2-2019)
GTIN	4046356253642
Weight per piece (including packing)	96.9 g
Weight per piece (excluding packing)	53.19 g
Customs tariff number	85366990
Country of origin	DE

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Technical data

Notes

General	Order crimp contacts 4 x Ø 1 mm, 4 x Ø 2 mm separately
Safety note	
Safety note	<p>WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.</p> <ul style="list-style-type: none">• 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

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1605568

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warnings (e.g. DIN EN ISO 13732-1:2008-12).

Product properties

Product type	Circular connector (cable-side)
Number of positions	8
Connection profile	4+3+PE
Application	Power
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
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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

Contact diameter	1 mm
Max. current	9 A
Nominal voltage U_N	250 V
Overvoltage category	III
Degree of pollution	3
Rated surge voltage	4 kV

Connector

Type	straight short
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Cable/line

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1605568

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External cable diameter	7.5 mm ... 9 mm
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Environmental and real-life conditions

Ambient conditions

Degree of protection	IP67
Ambient temperature (operation)	-40 °C ... 125 °C
Ambient temperature (storage/transport)	15 °C ... 25 °C
Altitude	3000 m
Permissible humidity (storage/transport)	50 % ... 65 %

SF-7EP1N8A90A1 - Coupler connector

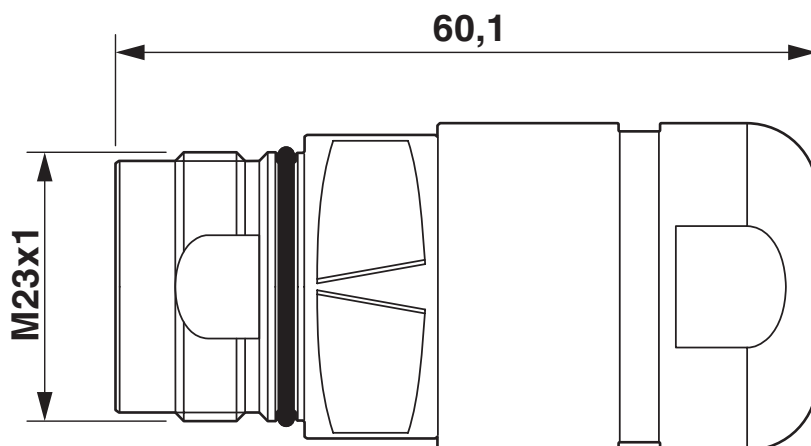
1605568

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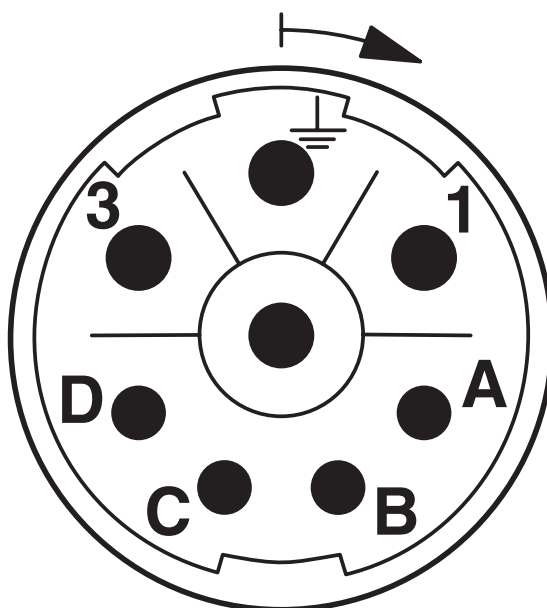
Drawings

Dimensional drawing



Dimensional drawing

Schematic diagram



Connector pin assignment

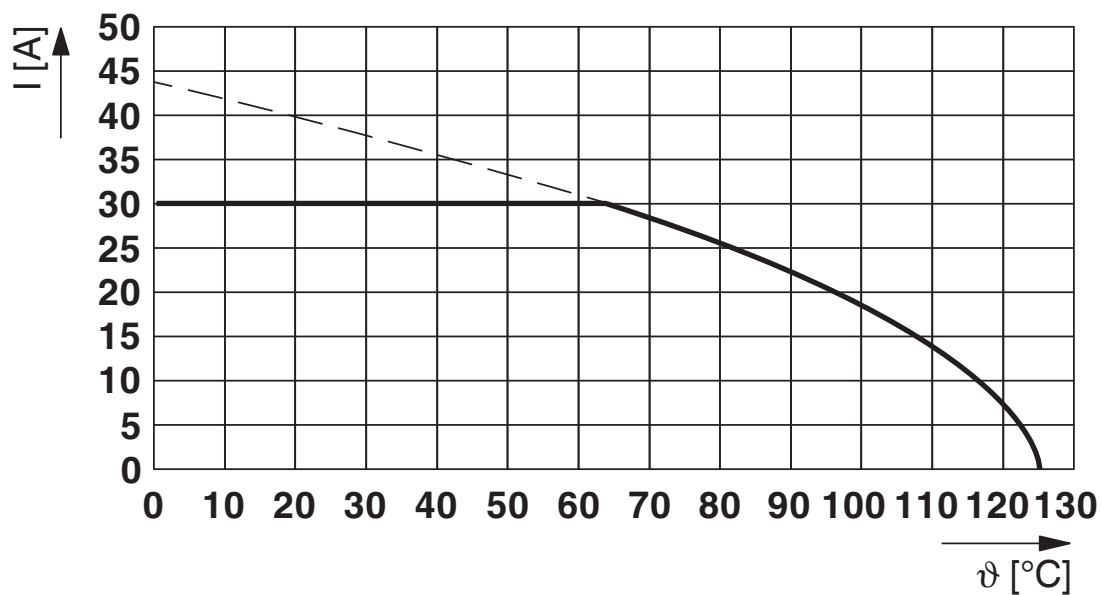
SF-7EP1N8A90A1 - Coupler connector



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Diagram



I = current strength, T = ambient temperature

SF-7EP1N8A90A1 - Coupler connector





1605568

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1605568>

 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	-

cULus Recognized				
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Classifications

ECLASS

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

ETIM

ETIM 9.0	EC002635
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UNSPSC

UNSPSC 21.0	39121400
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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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