

# ST-7EP1N8A9003S - Coupler connector

1607741

<https://www.phoenixcontact.com/us/products/1607741>



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Coupler connector, straight, for standard and SPEEDCON interlock, M17, number of positions: 7+PE, contact connection type: Pin, shielded: yes, degree of protection: IP67, cable diameter range: 5 mm ... 8 mm, number of positions: 8, connection method: Crimp connection, series: ST, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1242358

## 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	1607741
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB32
Product key	ABRBEG
Catalog page	Page 137 (C-2-2019)
GTIN	4046356274418
Weight per piece (including packing)	62.8 g
Weight per piece (excluding packing)	62.8 g
Customs tariff number	85366990
Country of origin	DE

## Technical data

### Notes

Order information:	Order crimp contacts Ø 1 mm separately
<b>Safety note</b>	
Safety note	<p><b>WARNING:</b> 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"><li>• <b>WARNING:</b> Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.</li><li>• <b>WARNING:</b> 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><li>• The products are suitable for applications in plant, controller, and electrical device engineering.</li><li>• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.</li><li>• Assembled products may not be manipulated or improperly opened.</li><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 <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a>).</li><li>• When using the product in direct connection with third-party manufacturers, the user is responsible.</li><li>• For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li><li>• Ensure that the protective or functional ground has been properly connected.</li><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><li>• Only use tools recommended by Phoenix Contact</li><li>• The installation notes/Design In documents online on the download page at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> must be observed for this product.</li><li>• Operate the connector only when it is fully plugged in and interlocked.</li><li>• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.</li><li>• Observe the minimum bending radius of the cable. Lay the cable without twisting it.</li><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</li></ul>

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

## Product properties

Product type	Circular connector (cable-side)
Series	ST
Application	Power
Number of positions	8
Connection profile	7+PE
Shielded	yes
Coding	N
Thread type	M17

## Data management status

Article revision	12
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## Material specifications

Seal material	FPM
Housing material	Metal
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

## Connection data

Conductor connection	
Connection method	Crimp connection

## Electrical properties

Contact	
Contact diameter	1 mm
Max. current	14 A
Nominal voltage U <sub>N</sub>	630 V
Overshoot category	III
Degree of pollution	3
Rated surge voltage	6 kV

## Contact

Contact diameter	1 mm
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## Connector

Type	straight
Direction of rotation	Standard

## Cable/line

External cable diameter	5 mm ... 8 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	2000 m
Permissible humidity (storage/transport)	50 % ... 65 %

# ST-7EP1N8A9003S - Coupler connector

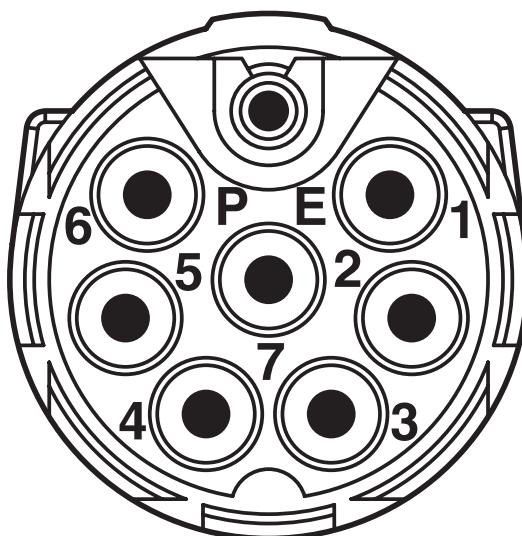
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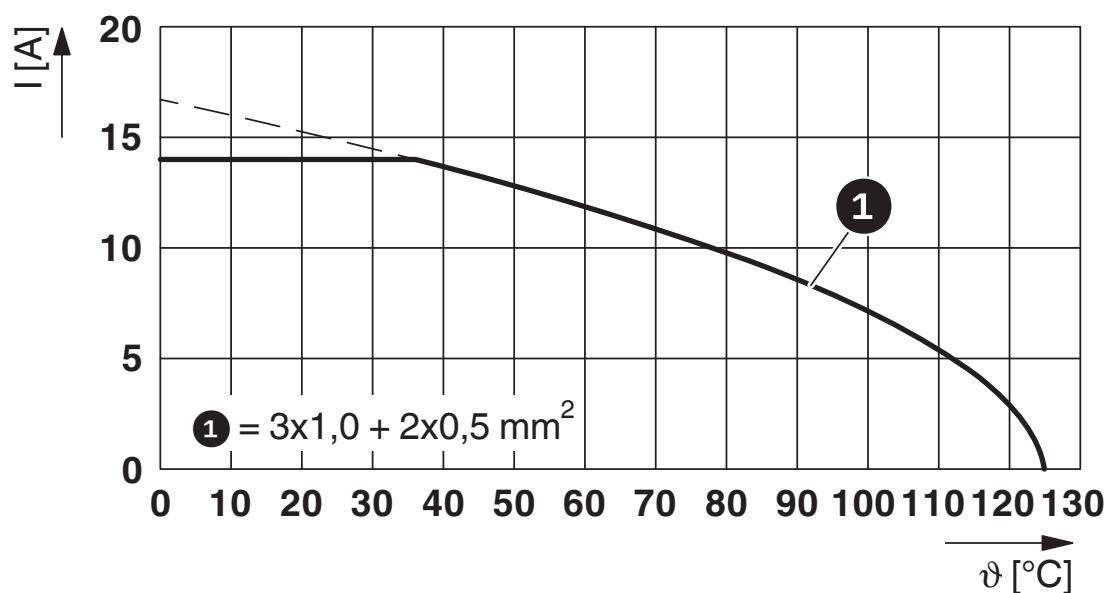
## Drawings

Schematic diagram



## Connector pin assignment

Diagram



I = current strength, θ = ambient temperature, 3x 14 A + 2x 2 A constant

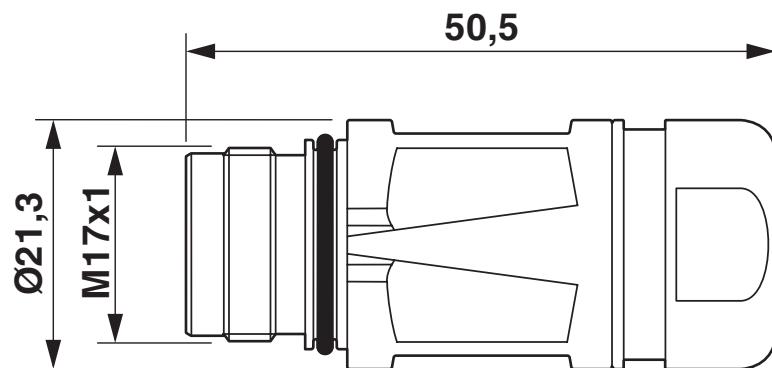
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Dimensional drawing



Technical drawings can be found under Downloads

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## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1607741>

<b>UL Recognized</b> Approval ID: E153698-20140124				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
Power	600 V	5 A	-	-
Signal	600 V	4 A	-	-

<b>cUL Recognized</b> Approval ID: E153698-20140124				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
Power	600 V	5 A	-	-
Signal	600 V	4 A	-	-

<b>cUL Recognized</b> Approval ID: E335019-20111129				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
Power	600 V	5 A	-	-
Signal	600 V	4 A	-	-

<b>UL Recognized</b> Approval ID: E335019-20111129				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
Power	600 V	5 A	-	-
Signal	600 V	4 A	-	-

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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

### 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	74425746-32b8-464d-9d04-c3f9ae11309b

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## Accessories

### ST-10KP010 - Crimp contact

1618255

<https://www.phoenixcontact.com/us/products/1618255>

Crimp contact, Pin, turned, Single contact, contact diameter: 1 mm, crimp range: 0.06 mm<sup>2</sup> ... 0.25 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1243215



### ST-10KP035 - Crimp contact

1618458

<https://www.phoenixcontact.com/us/products/1618458>

Crimp contact, Pin, turned, contact diameter: 1 mm, crimp range: 0.25 mm<sup>2</sup> ... 1 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1243215



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## ST-Z0016 - Color coding

1617993

<https://www.phoenixcontact.com/us/products/1617993>

Color coding, color: green



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## ST-Z0017 - Color coding

1618049

<https://www.phoenixcontact.com/us/products/1618049>

Color coding, color: orange



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## ST-Z0018 - Color coding

1618050

<https://www.phoenixcontact.com/us/products/1618050>

Color coding, color: black



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## ST-Z0002 - Square mounting flange with O-ring

1607771

<https://www.phoenixcontact.com/us/products/1607771>

Square mounting flange with O-ring, Axial O-ring, 4x Ø2,7, series: ST



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## ST-Z0003 - Square mounting flange with O-ring

1607772

<https://www.phoenixcontact.com/us/products/1607772>

Square mounting flange with O-ring, Axial O-ring, 4xM3, series: ST



## ST-Z0004 - Square mounting flange

1607773

<https://www.phoenixcontact.com/us/products/1607773>

Square mounting flange, 4x Ø2,7, series: ST



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## ST-Z0005 - Square mounting flange

1607775

<https://www.phoenixcontact.com/us/products/1607775>

Square mounting flange, 4xM3, series: ST



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## ST-Z0014 - Metal protective cap

1616069

<https://www.phoenixcontact.com/us/products/1616069>

Metal protective cap, M17, degree of protection: IP67, series: ST, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1243010



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## ST-Z0013 - Metal protective cap

1616068

<https://www.phoenixcontact.com/us/products/1616068>

Metal protective cap, M17, degree of protection: IP67, series: ST, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1243009



## PROT-M17PRO-OT-IP20 - Plastic protective cap

1055708

<https://www.phoenixcontact.com/us/products/1055708>

Plastic protective cap, M17, degree of protection: IP20, series: M17 PRO



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