

SB-8ESSA8A9L33S - Coupler connector



1623345

<https://www.phoenixcontact.com/us/products/1623345>

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M40, Coupler connector, series: SB, straight long, shielded: yes, for standard and SPEEDCON interlock, No. of pos.: 8+4+PE, Direction of rotation: Standard, contact connection type: Socket, Crimp connection, cable diameter range: 14 mm ... 20.5 mm, coding: Signal, coding 1, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244873

Your advantages

- All housing can be fitted with pin or socket contacts
- A total of eight contacts are available for signal transmission
- Mechanical coding reliably prevents incorrect connections
- 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	1623345
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	AB33
Product key	ABRCEG
Catalog page	Page 127 (C-2-2019)
GTIN	4055626195056
Weight per piece (including packing)	477.6 g
Weight per piece (excluding packing)	477.6 g
Customs tariff number	85366990
Country of origin	DE

SB-8ESSA8A9L33S - Coupler connector



1623345

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Technical data

Notes

Order information:	Crimp contacts, 8 x Ø 1 mm, 5 x Ø 3.6 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. • 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 • 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 • Observe the corresponding technical data. You will find information: - o On the product - o On the packing label - o In the supplied documentation - o Online at phoenixcontact.com/products under the product • 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. • Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory section of the product at phoenixcontact.com/products • 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

SB-8ESSA8A9L33S - Coupler connector



1623345

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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)

Connector

Connection 1

Head design

Socket

Insulating body

Protection against electric shock

IEC 61984

Coding

Signal, coding 1

Connection method

Crimp connection

Contact switching type

Socket

Application

Hybrid

Number of positions

13

Direction of rotation

Standard

Connection profile

8+4+PE

Contact diameter **Power contacts**

3.6 mm

Litz wire cross-section **Power contacts** min.

1 mm²

Litz wire cross-section **Power contacts** max.

16 mm²

Rated current **Power contacts**

70 A

Note

for max. connection cross section

Rated voltage

630 V AC

Rated surge voltage

6 kV

Overvoltage category

III

Degree of pollution

3

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 mm²

Litz wire cross-section **Signal contacts** max.

1.5 mm²

Nominal current per signal contact

8 A

Note

for max. connection cross section

Rated surge voltage

6 kV

Rated voltage (III/3) signal contact

500 V

Contact diameter Data contacts

1 mm

SB-8ESSA8A9L33S - Coupler connector



1623345

<https://www.phoenixcontact.com/us/products/1623345>

Litz wire cross-section Data contacts min.	0.06 mm ²
Litz wire cross-section Data contacts max.	1.5 mm ²
Rated current per data contact at 25°C	8 A
Note	for max. connection cross section
Rated surge voltage	1.5 kV
Installation height	2000 m

Housing

Housing material	Turned parts: copper zinc alloy (CuZn), die-cast parts: zinc (GD-Zn)
Type of locking	for standard and SPEEDCON interlock
Pg screw connection	none
Degree of protection (plugged in)	IP68/IP69K
Thread type	M40

Seal

External cable diameter	14 mm ... 20.5 mm
Seal material	FKM

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-40 °C ... 115 °C (see derating curve)
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SB-8ESSA8A9L33S - Coupler connector

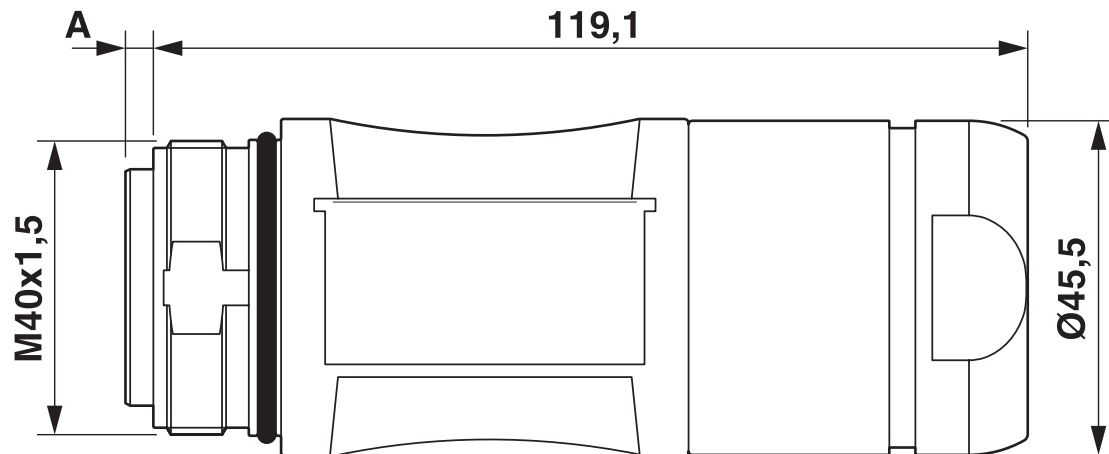


1623345

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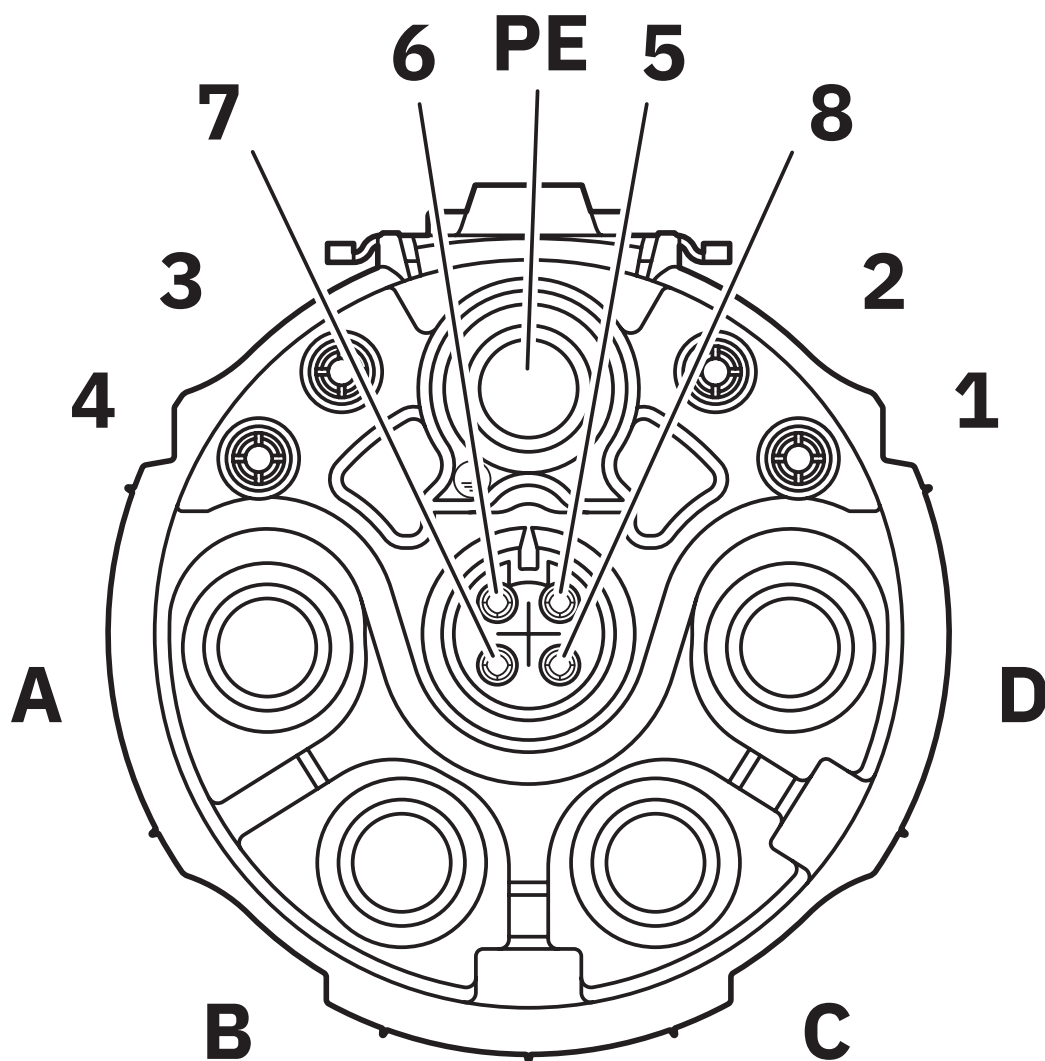
Drawings

Dimensional drawing



Pin version: dimension A = 3.8 mm, socket version: dimension A = 0.15 mm

Schematic diagram



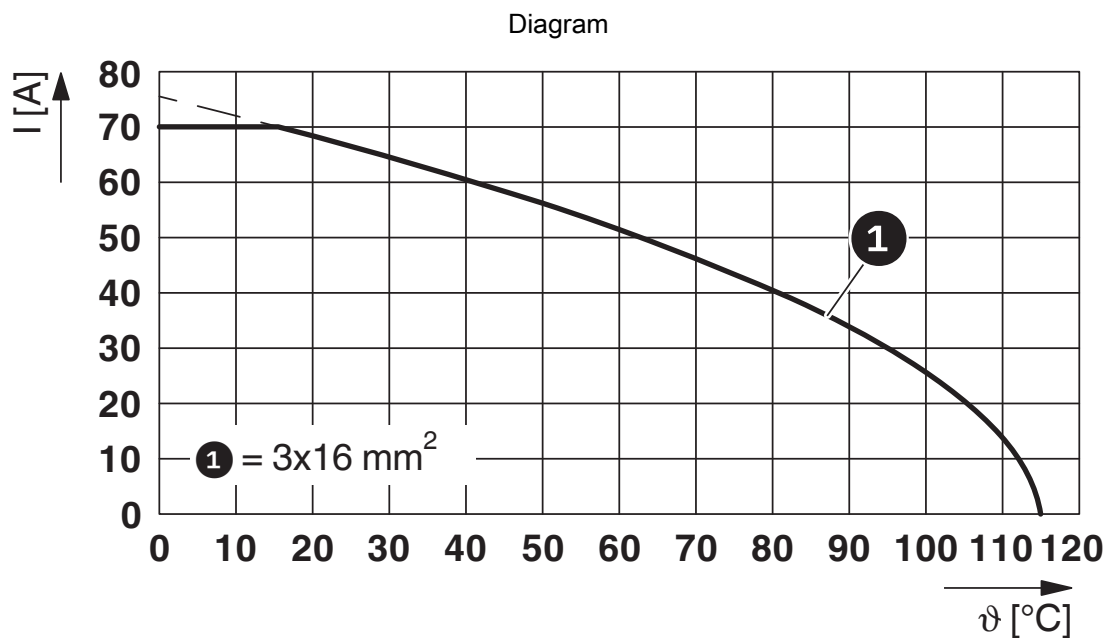
Pin assignment of socket signal, coding 1

SB-8ESSA8A9L33S - Coupler connector



1623345

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I = current strength, ϑ = ambient temperature, power contacts A–C: 3x up to 70 A, signal contacts: 4x 2 A constant, data contacts: no load

SB-8ESSA8A9L33S - Coupler connector



1623345

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1623345>

cUL Recognized Approval ID: E153698-20190718				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Power	600 V	24 A	6 - 16	-
Signal	500 V	4 A	1,5 - 1,5	-
Data	50 V	1 A	0,34 - 0,34	-

UL Recognized Approval ID: E153698-20190718				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Power	600 V	32 A	6 - 16	-
Signal	500 V	4 A	1,5 - 1,5	-
Data	50 V	1 A	0,34 - 0,34	-

cULus Recognized				
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SB-8ESSA8A9L33S - Coupler connector



1623345

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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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SB-8ESSA8A9L33S - Coupler connector



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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(b), 6(b)-II

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	51e68915-aff1-4331-a845-0f223c681ad8

SB-8ESSA8A9L33S - Coupler connector



1623345

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Accessories

SB-Z0001 - Metal protective cap

1623827

<https://www.phoenixcontact.com/us/products/1623827>



Metal protective cap, Screw locking mechanism, M40, degree of protection: IP67/68/69K, series: SM, SB, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244989

ST-10KS010 - Crimp contact

1618239

<https://www.phoenixcontact.com/us/products/1618239>



Crimp contact, Socket, turned, Single contact, contact diameter: 1 mm, crimp range: 0.06 mm² ... 0.25 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1243216

SB-8ESSA8A9L33S - Coupler connector

1623345

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ST-10KS035 - Crimp contact

1618464

<https://www.phoenixcontact.com/us/products/1618464>



Crimp contact, Socket, turned, contact diameter: 1 mm, crimp range: 0.25 mm² .. 1 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1243216

PROT-M40-PW-OT-IP20 - Plastic protective cap

1577212

<https://www.phoenixcontact.com/us/products/1577212>



Plastic protective cap, M40, degree of protection: IP20, series: SM, SB

SB-8ESSA8A9L33S - Coupler connector



1623345

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SB-10KS001 - Crimp contact

1623603

<https://www.phoenixcontact.com/us/products/1623603>



Crimp contact, Socket, turned, contact diameter: 1 mm, crimp range: 0.06 mm² .. 0.25 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244919

SB-10KS002 - Crimp contact

1623604

<https://www.phoenixcontact.com/us/products/1623604>



Crimp contact, Socket, turned, contact diameter: 1 mm, crimp range: 0.34 mm² .. 0.5 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244919

SB-8ESSA8A9L33S - Coupler connector

1623345

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SB-10KS003 - Crimp contact

1623605

<https://www.phoenixcontact.com/us/products/1623605>



Crimp contact, Socket, turned, contact diameter: 1 mm, crimp range: 0.5 mm² ... 1 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244919

SB-10KS004 - Crimp contact

1623606

<https://www.phoenixcontact.com/us/products/1623606>



Crimp contact, Socket, turned, contact diameter: 1 mm, crimp range: 1 mm² ... 1.5 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244920

SB-8ESSA8A9L33S - Coupler connector



1623345

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SB-36KS002 - Crimp contact

1623378

<https://www.phoenixcontact.com/us/products/1623378>



Crimp contact, Socket, turned, contact diameter: 3.6 mm, crimp range: 2.5 mm² .. 4 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244890

SB-36KS003 - Crimp contact

1623379

<https://www.phoenixcontact.com/us/products/1623379>



Crimp contact, Socket, turned, Single contact, contact diameter: 3.6 mm, crimp range: 4 mm² ... 6 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244890

SB-8ESSA8A9L33S - Coupler connector



1623345

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SB-36KS004 - Crimp contact

1623380

<https://www.phoenixcontact.com/us/products/1623380>



Crimp contact, Socket, turned, Single contact, contact diameter: 3.6 mm, crimp range: 10 mm² ... 10 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244891

SB-36KS005 - Crimp contact

1623381

<https://www.phoenixcontact.com/us/products/1623381>



Crimp contact, Socket, turned, Single contact, contact diameter: 3.6 mm, crimp range: 16 mm² ... 16 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244892

SB-8ESSA8A9L33S - Coupler connector

1623345

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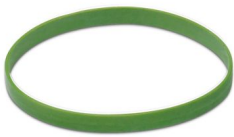


SM-Z0025 - Color coding

1620558

<https://www.phoenixcontact.com/us/products/1620558>

Color coding, color: green



SM-Z0026 - Color coding

1620559

<https://www.phoenixcontact.com/us/products/1620559>

Color coding, color: orange



SB-8ESSA8A9L33S - Coupler connector

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SM-Z0027 - Color coding

1620560

<https://www.phoenixcontact.com/us/products/1620560>

Color coding, color: black



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