SB-8ESSA8A8L33S - Cable connector

1623330

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M40, Cable connector, series: SB, straight long, shielded: yes, SPEEDCON, 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.: 1244859

Your advantages

- All housing can be fitted with pin or socket contacts
- A total of eight contacts are available for signal transmission
- Reduced connection time with SPEEDCON fast locking system
- 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	1623330
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB33
Product key	ABRCEB
Catalog page	Page 126 (C-2-2019)
GTIN	4055626194059
Weight per piece (including packing)	460 g
Weight per piece (excluding packing)	451.4 g
Customs tariff number	85366990
Country of origin	DE

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

	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

Litz wire cross-section Data contacts min.	0.06 mm²
Litz wire cross-section Data contacts max.	1.5 mm²
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	SPEEDCON
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

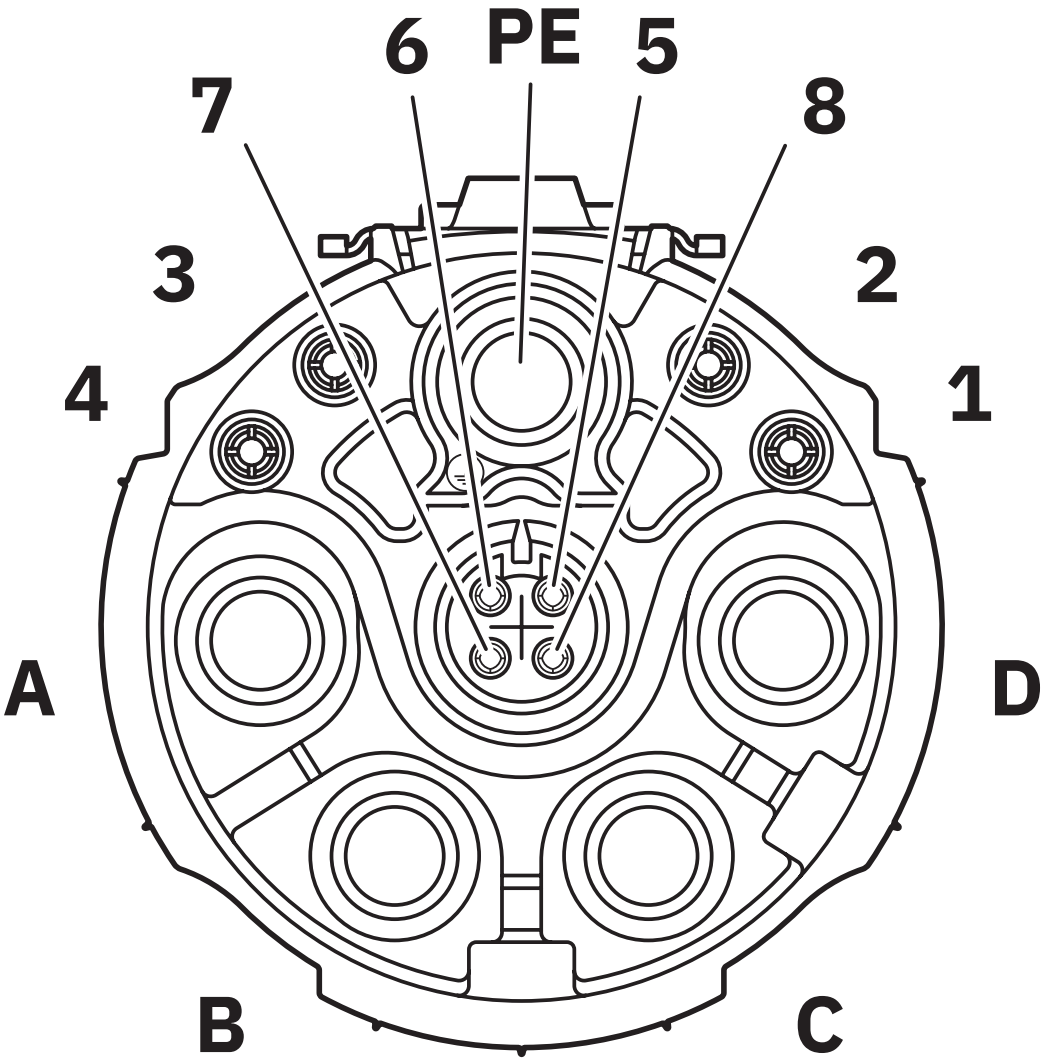
Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-40 °C ... 115 °C (see derating curve)

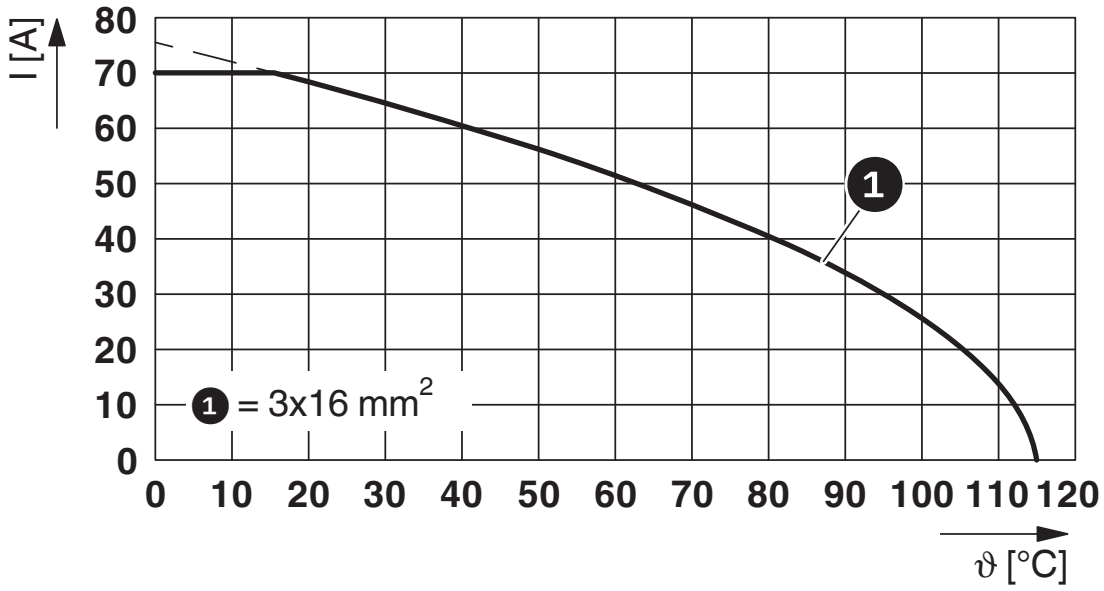
Drawings

Schematic diagram



Pin assignment of socket signal, coding 1

Diagram



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

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1623330

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

Classifications

ECLASS

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

ETIM

ETIM 9.0	EC002635

UNSPSC

UNSPSC 21.0	39121400

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	817dd2d8-3a60-4611-8dc6-801107373c46

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