SB-8ESSD8A9L33S - Coupler connector

1623705

https://www.phoenixcontact.com/us/products/1623705

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



The figure shows the product with assembled crimp contacts. Please order crimp contacts separately.

M40, Coupler connector, application: Hybrid, series: SB, straight long, shielded: yes, for standard and SPEEDCON interlock, No. of pos.: 8+4+PE, contact connection type: Socket, Crimp connection, cable diameter range: 14 mm ... 20.5 mm, coding: Signal, coding 2, this item is expected to be lead-free from Q3 2026 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

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	1623705
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	AB33
Product key	ABRCEG
GTIN	4055626195087
Weight per piece (including packing)	481.1 g
Weight per piece (excluding packing)	401.247 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

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 2
Connection method	Crimp connection
Contact switching type	Socket
Application	Hybrid
Number of positions	13
Connection profile	8+4+PE
Installation height	2000 m (4000 m at 300 V system voltage in accordance with DIN EN 606664-1)
Number (Contact group 1)	5
Contact diameter (Contact group 1)	3.6 mm
Litz wires Min. cross section (Contact group 1)	2.5 mm²
Litz wires Max. cross section (Contact group 1)	16 mm²
Rated current Contact (Contact group 1)	70 A (for max. connection cross section)
Rated voltage Contact (Contact group 1)	630 V AC (Overvoltage category III/3)
	850 V DC (Overvoltage category II/3)
Rated surge voltage	6 kV
Overvoltage category	III
Degree of pollution	3
Number (Contact group 2)	4
Contact diameter (Contact group 2)	0.8 mm
Litz wires Max. cross section (Contact group 2)	0.5 mm²
Rated current Contact (Contact group 2)	8 A (for max. connection cross section)
Rated voltage Contact (Contact group 2)	50 V AC/DC (Contact 5 ... 8)
Rated surge voltage	1.5 kV
Overvoltage category	II, III
Degree of pollution	3
Number (Contact group 3)	4
Contact diameter (Contact group 3)	1 mm
Litz wires Max. cross section (Contact group 3)	1.5 mm²
Rated current Contact (Contact group 3)	8 A (for max. connection cross section)

Rated voltage Contact (Contact group 3)	500 V AC/DC (Contact 1 ... 4)
Rated surge voltage	6 kV
Overvoltage category	III
Degree of pollution	3

Housing

Type	Coupling housing
Thread type	M40
Design	straight long
Type of locking	for standard and SPEEDCON interlock
Pg screw connection	none
Material (Housing)	CuZn (Rotating parts)
	GD-Zn (Die-cast parts)
Material (Screw connection)	CuZn
Degree of protection (plugged in)	IP68/IP69K

Seal

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

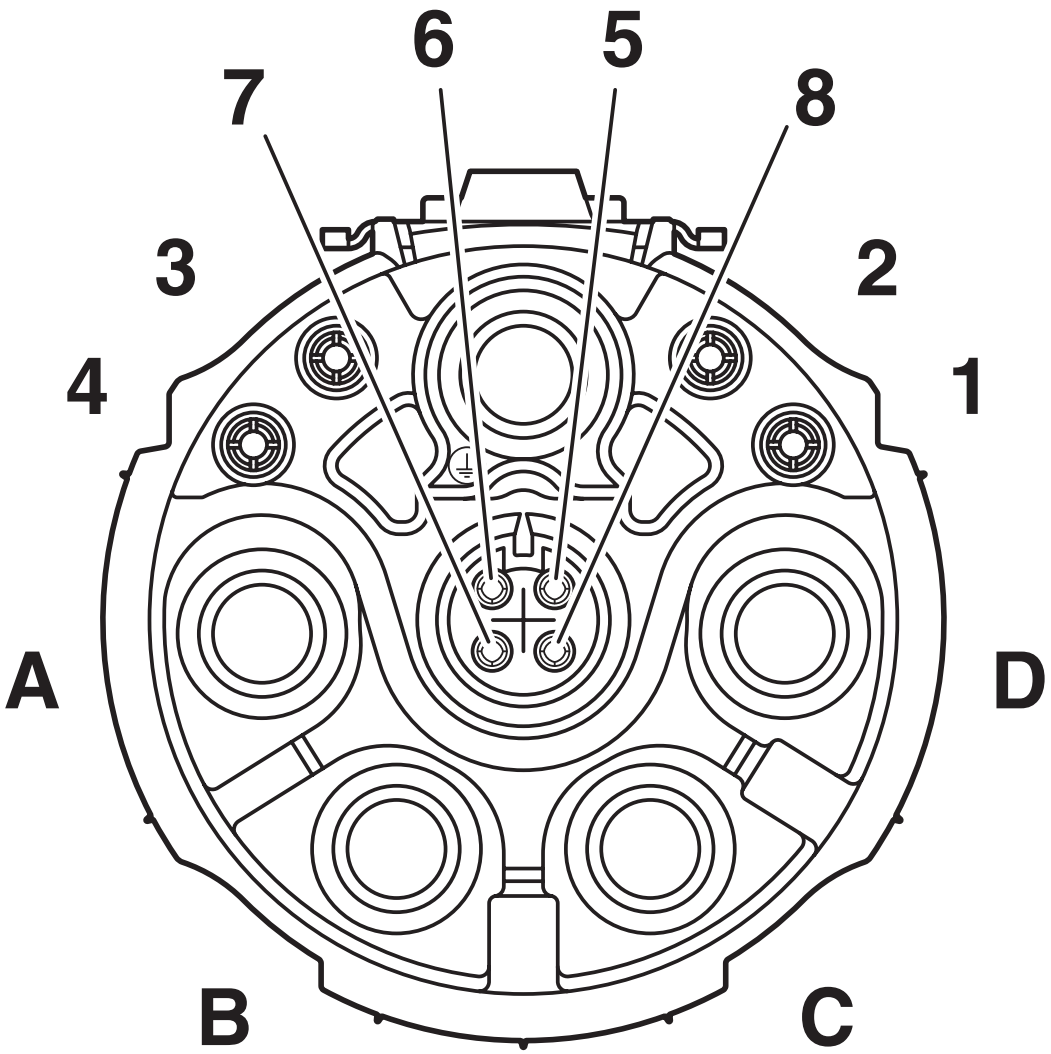
Environmental and real-life conditions

Ambient conditions

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

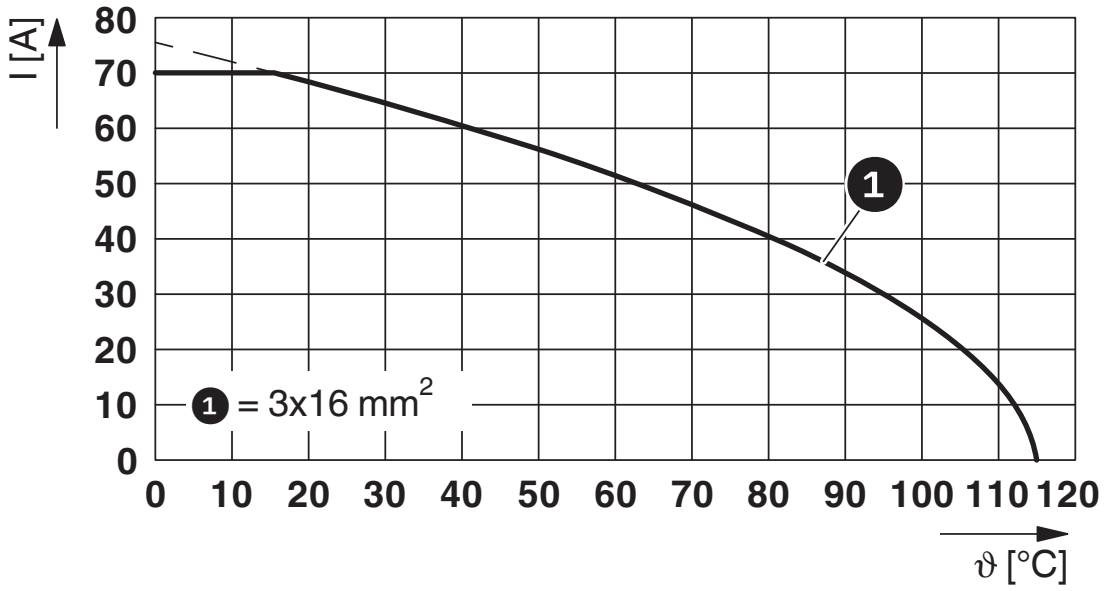
Drawings

Schematic diagram



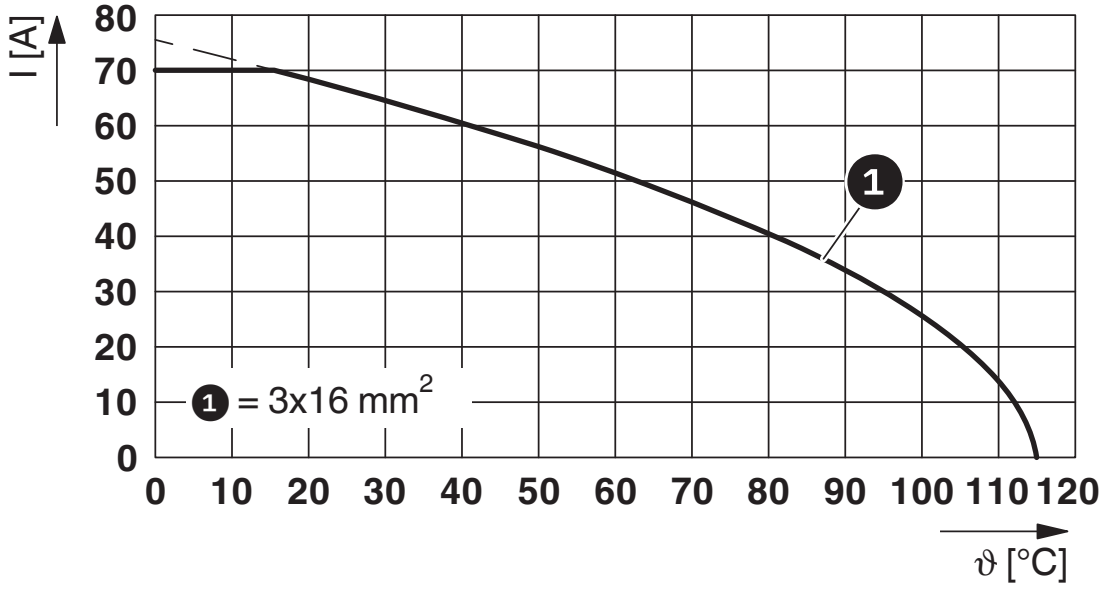
Pin assignment of socket signal, DC coding

Diagram

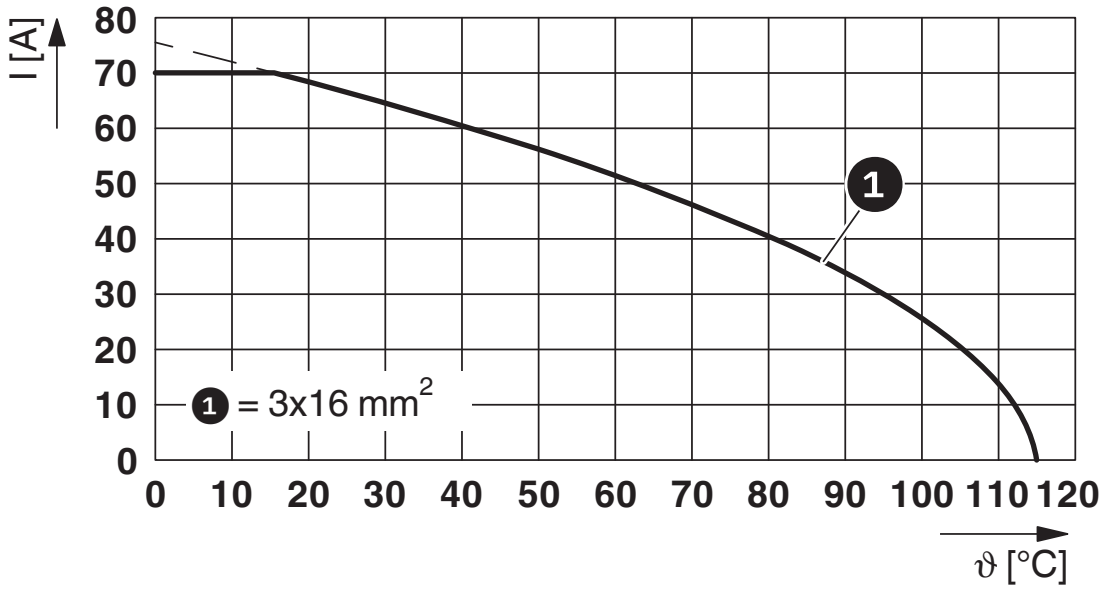


I = current strength, ϑ = ambient temperature, power contacts A–C: 3x up to 70 A, signal contacts: 4x 2 A constant, data contacts: no load

Diagram



Diagram


I [A]
80
70
60
50
40
30
20
10
0
1
1 = 3x16 mm²
0 10 20 30 40 50 60 70 80 90 100 110 120
ϑ [°C]

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1623705

cUL Recognized
Approval ID: E153698-20190718

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
Power	600 V	24 A	6	-
Signal	500 V	4 A	1,5	-
Data	50 V	1 A	0,34	-

UL Recognized
Approval ID: E153698-20190718

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
Power	600 V	32 A	6	-
Signal	500 V	4 A	1,5	-
Data	50 V	1 A	0,34	-

Classifications

ECLASS

ECLASS-13.0	27440116
ECLASS-15.0	27440116

ETIM

ETIM 10.0	EC002635

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(b)

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	3d0ee2ed-cde7-4eda-81db-033944cffad3

Phoenix Contact 2026 © - all rights reserved
https://www.phoenixcontact.com

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com