# SB-8ESSD8A9L34S - Coupler connector

1623706

https://www.phoenixcontact.com/us/products/1623706

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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: 20.5 mm ... 26.5 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 | 1623706 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | AB33 |
| Product key | ABRCEG |
| GTIN | 4055626195094 |
| Weight per piece (including packing) | 475.7 g |
| Weight per piece (excluding packing) | 395.857 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 | 20.5 mm ... 26.5 mm |
| Seal material | FKM |

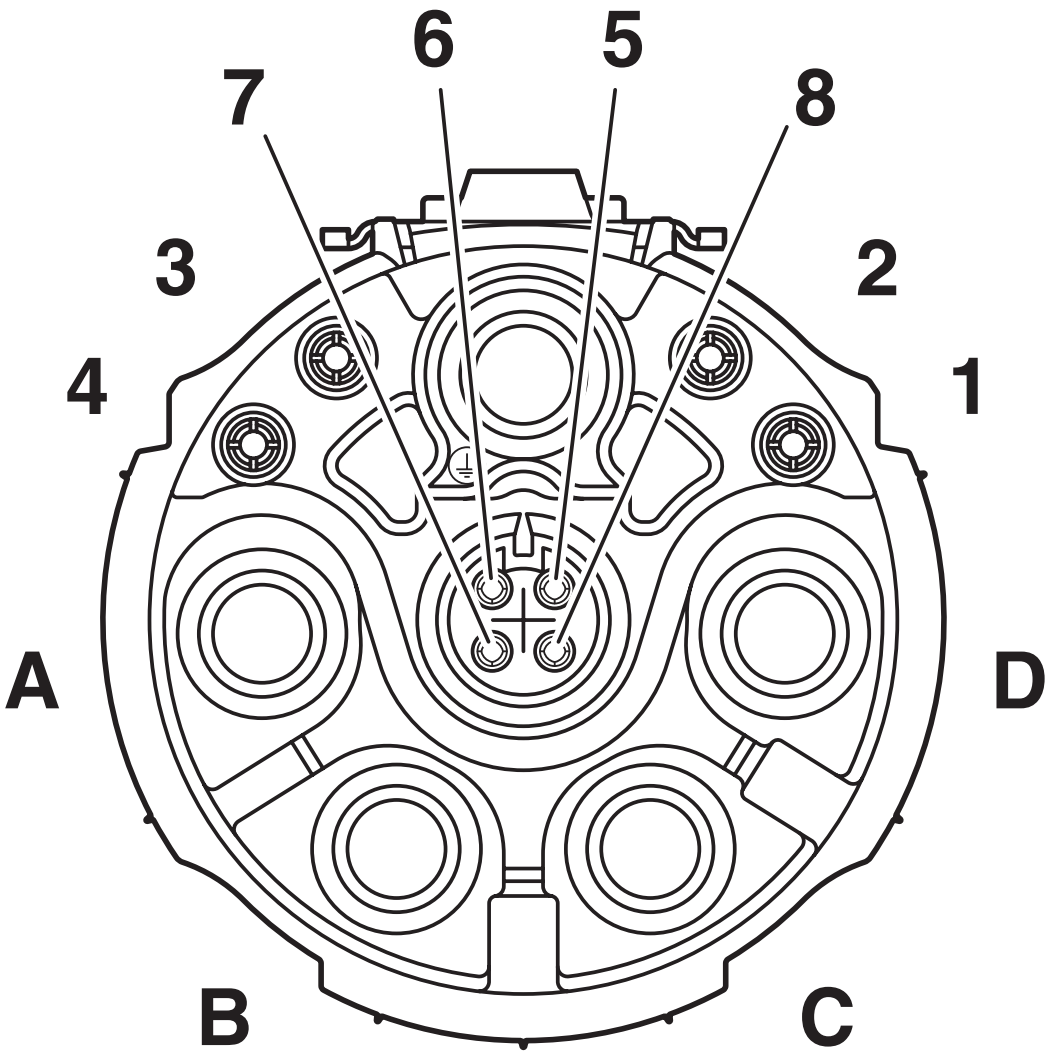
## Environmental and real-life conditions

Ambient conditions

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

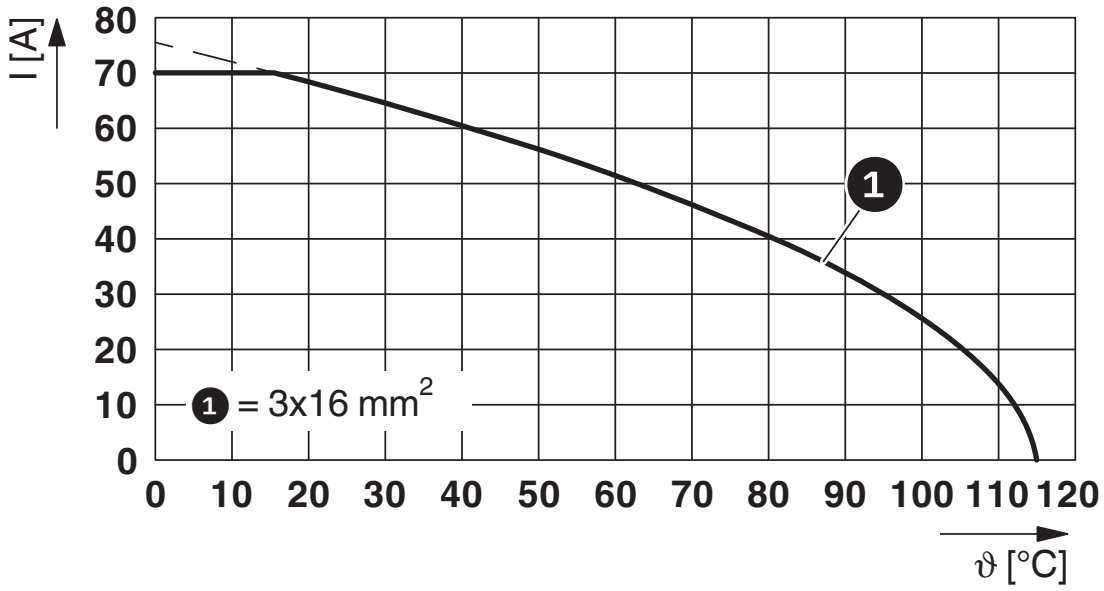
## Drawings

Schematic diagram



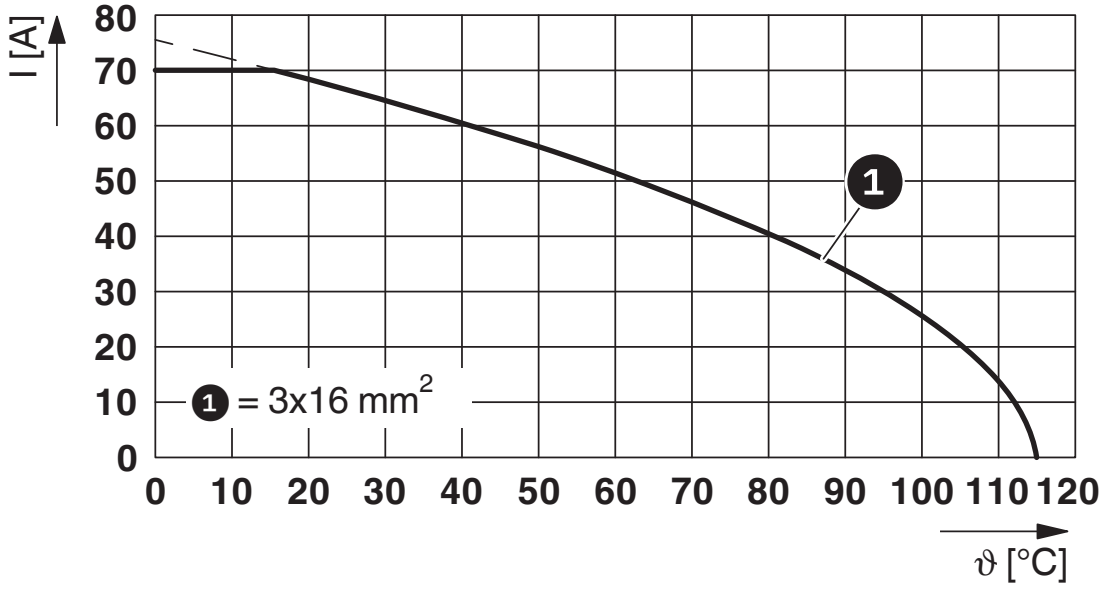

Pin assignment of socket signal, DC coding

Diagram

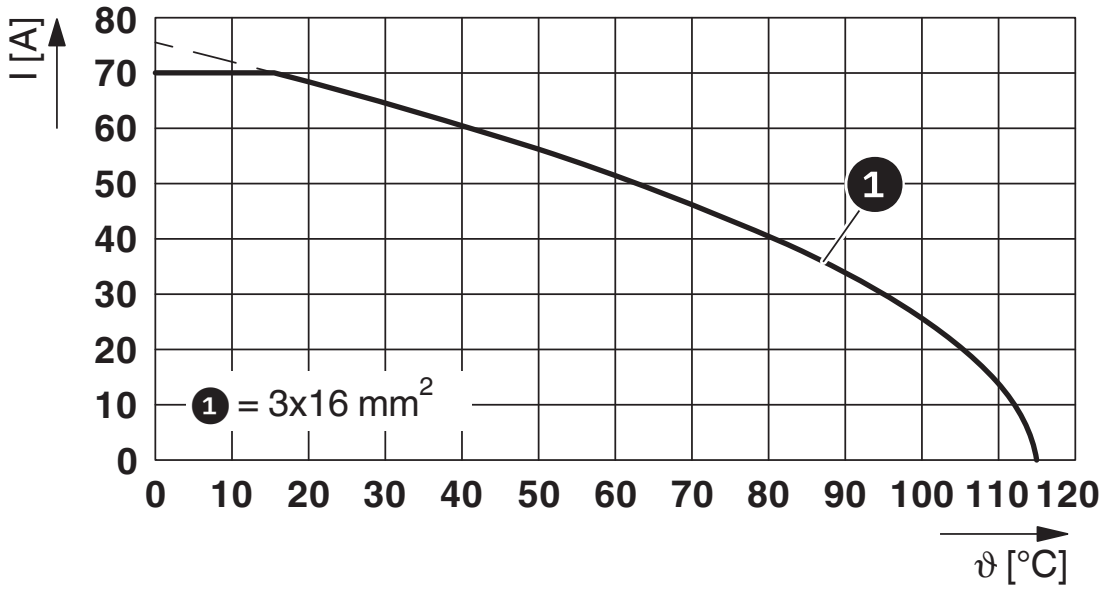



I = current strength, ϑ = ambient temperature, power contacts A–C: 3x up to 70 A, signal contacts: 4x 2 A constant, data contacts: no load

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/1623706

**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 | 6b16880a-eb6b-4f21-82fb-c03184797c53 |

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