

Coupler connector - SH-8ESS48A9LB1S - 1621548

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Coupling connector, SH, straight long, shielded: yes, for standard and SPEEDCON interlock, M23, No. of pos.: 8+4+PE, type of contact: Socket, Crimp connection, cable diameter range: 15 mm ... 18 mm

Your advantages

- ✓ All housing can be fitted with pin or socket contacts
- ✓ A total of eight contacts are available for signal transmission
- ✓ Safe use in the field, thanks to high degree of protection
- ✓ Consistent EMC protection for reliable connection solutions in the industrial environment



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 pc |
| GTIN |  4 046356 936965 |
| GTIN | 4046356936965 |

Technical data

Temperature range

| | |
|---------------------|-------------------|
| Ambient temperature | -40 °C ... 130 °C |
|---------------------|-------------------|

Standards and Regulations

| | |
|-------------|--|
| 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. |

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Standards and Regulations

| | |
|--|--|
| | <ul style="list-style-type: none"> The products are suitable for applications in plant, controller, and electrical device engineering. |
| | <ul style="list-style-type: none"> When operating the connectors in outdoor applications, they must be separately protected against environmental influences. |
| | <ul style="list-style-type: none"> Assembled products may not be manipulated or improperly opened. |
| | <ul style="list-style-type: none"> 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). |
| | <ul style="list-style-type: none"> When using the product in direct connection with third-party manufacturers, the user is responsible. |
| | <ul style="list-style-type: none"> For operating voltages > 50 V AC, conductive connector housings must be grounded |
| | <ul style="list-style-type: none"> Ensure that the protective or functional ground has been properly connected. |
| | <ul style="list-style-type: none"> 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 |
| | <ul style="list-style-type: none"> Only use tools recommended by Phoenix Contact |
| | <ul style="list-style-type: none"> The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product. |
| | <ul style="list-style-type: none"> Operate the connector only when it is fully plugged in and interlocked. |
| | <ul style="list-style-type: none"> Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards. |
| | <ul style="list-style-type: none"> Observe the minimum bending radius of the cable. Lay the cable without twisting it. |
| | <ul style="list-style-type: none"> 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). |

Data of the insulating body

| | |
|--|---|
| Note | Order information: Crimp contacts, 8 x Ø 1 mm, 5 x Ø 2 mm, order separately |
| Protection against electric shock | IEC 61984 and VDE 0623 |
| Coding | N |
| Insulator material | PA 6.6 |
| Insertion/withdrawal cycles mechanical | 100 |
| Contact connection method | Crimp connection |
| Type of contacts | Socket |
| Application | Hybrid |
| Number of positions | 13 |
| Contact diameter of power contacts | 2 mm |
| Litz wire cross section of power contacts min. | 0.25 mm ² |
| Litz wire cross section of power contacts max. | 4 mm ² |
| Rated current for power contacts | 30 A |
| Rated surge voltage | 6 kV |
| Rated voltage (II/3) power contact | 850 V DC |

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Technical data

Data of the insulating body

| | |
|---|-----------------------------------|
| Rated voltage (III/3) power contact | 630 V AC |
| Contact diameter of signal contacts | 1 mm |
| Litz wire cross section of signal contacts min. | 0.06 mm ² |
| Litz wire cross section of signal contacts max. | 1 mm ² |
| Nominal current per signal contact | 8 A |
| Note | for max. connection cross section |
| Rated surge voltage | 1.5 kV |
| Rated voltage (III/3) signal contact | 50 V |
| Note | for max. connection cross section |
| Installation height | 2000 m |

Housing data

| | |
|--|--|
| Note | The suitability for assembly must be checked when fully assigned with maximum wire cross sections. |
| Housing material | Turned parts: copper zinc alloy (CuZn), die-cast parts: zinc (GD-Zn) |
| Type of locking | for standard and SPEEDCON interlock |
| Degree of protection (when plugged in) | IP67 |
| | IP68 |
| Thread type | M23 |

Cable seal data

| | |
|----------------|-----------------|
| Cable diameter | 15 mm ... 18 mm |
|----------------|-----------------|

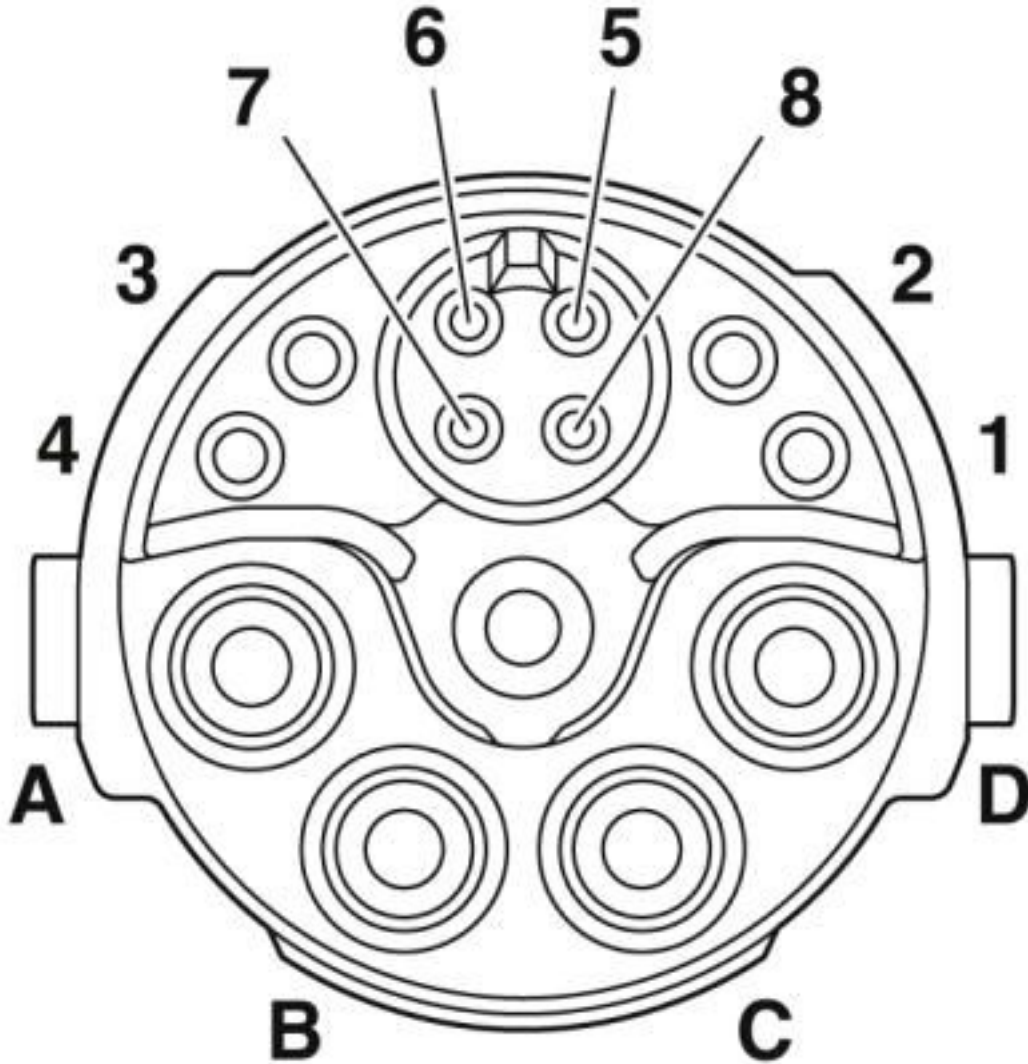
Environmental Product Compliance

| | |
|------------|---|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings

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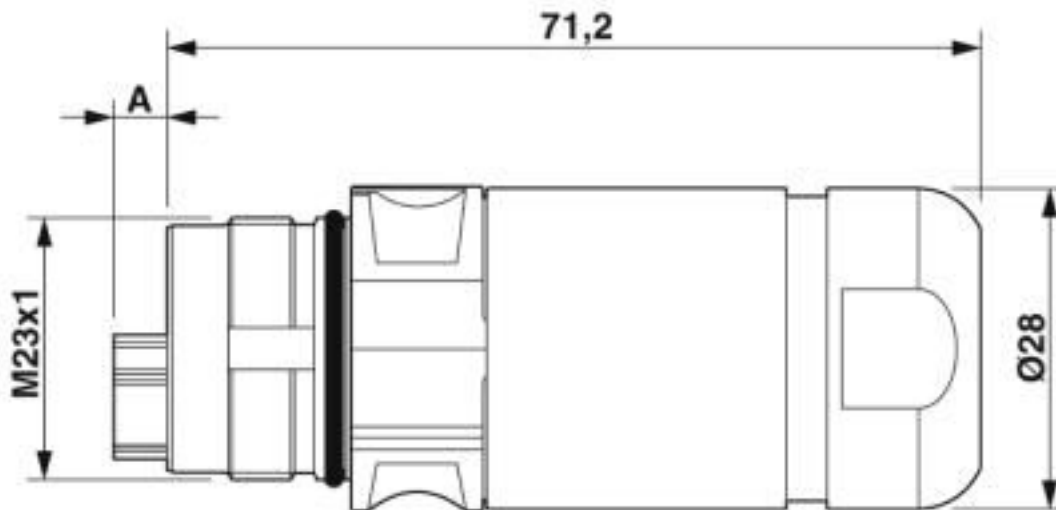
Schematic diagram



Socket pin assignment, signal

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Dimensional drawing



Pin version: dimension A = 4.7 mm, socket version: dimension A = 0 mm

Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27440102 |
| eCl@ss 4.0 | 27260700 |
| eCl@ss 4.1 | 27260700 |
| eCl@ss 5.0 | 27260700 |
| eCl@ss 5.1 | 27260700 |
| eCl@ss 6.0 | 27260700 |
| eCl@ss 7.0 | 27440102 |
| eCl@ss 8.0 | 27440102 |
| eCl@ss 9.0 | 27440102 |

ETIM

| | |
|----------|----------|
| ETIM 4.0 | EC002635 |
| ETIM 5.0 | EC002635 |
| ETIM 6.0 | EC002061 |

UNSPSC

| | |
|-------------|----------|
| UNSPSC 13.2 | 39121413 |
| UNSPSC 18.0 | 39121413 |
| UNSPSC 19.0 | 39121413 |
| UNSPSC 20.0 | 39121413 |
| UNSPSC 21.0 | 39121413 |

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Approvals

Approvals

Approvals

EAC / UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

Approval details

| | | |
|-----|--|---------|
| EAC | | B.01687 |
|-----|--|---------|

| | | |
|----------------------------|--|--|
| UL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E153698-20181206 |
| Nominal voltage UN | | 600 V |
| Nominal current IN | | 24 A |
| mm ² /AWG/kcmil | | 12 |

| | | |
|----------------------------|--|--|
| cUL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E153698-20181206 |
| Nominal voltage UN | | 600 V |
| Nominal current IN | | 24 A |
| mm ² /AWG/kcmil | | 12 |

| | |
|------------------|--|
| cULus Recognized | |
|------------------|--|

Accessories

Accessories

Crimp contact

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Accessories

Crimp contact - ST-10KS010 - 1618239



Crimp contact, turned, Single contact, contact diameter: 1 mm, crimp range: 0.06 mm² ... 0.25 mm²

Crimp contact - ST-10KS035 - 1618464



Crimp contact, turned, contact diameter: 1 mm, crimp range: 0.25 mm² ... 1 mm²

Crimp contact - SF-20KS021 - 1621576



Crimp contact, turned, contact diameter: 2 mm, crimp range: 0.25 mm² ... 1 mm²

Crimp contact - SF-20KS022 - 1621577



Crimp contact, turned, contact diameter: 2 mm, crimp range: 1.5 mm² ... 2.5 mm²

Crimp contact - SF-20KS023 - 1621578



Crimp contact, turned, contact diameter: 2 mm, crimp range: 2.5 mm² ... 4 mm²

Mounting material

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Accessories

Square mounting flange - SF-Z0068 - 1620927



Square mounting flange, 4xM3, flange dimensions: 38 mm x 38 mm

Color-coding - SF-Z0064 - 1620585



Color-coding, color: green

Color-coding - SF-Z0065 - 1620586



Color-coding, color: orange

Color-coding - SF-Z0066 - 1620587



Color-coding, color: black

Protective cover

Protective cap - SH-Z2304 - 1622137



Plastic protection cap for M23 hybrid connectors with external thread

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Accessories

Metal protective cap - SH-Z2303 - 1622138



Metal protection cap for M23 hybrid connectors with external thread

Metal protective cap - SH-Z2302 - 1622139



Metal protection cap with steel wire, for M23 hybrid connectors with external thread

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