

SH-8ESS48A8LB4 - Cable connector



1622003

<https://www.phoenixcontact.com/us/products/1622003>

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M23, Cable connector, series: SH, straight long, shielded: yes, Screw locking mechanism, No. of pos.: 8+4+PE, contact connection type: Socket, Crimp connection, cable diameter range: 7.5 mm ... 9 mm, coding: N, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244505

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 optional SPEEDCON fast locking system
- 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	1622003
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	AB33
Product key	ABRCDA
Catalog page	Page 118 (C-2-2019)
GTIN	4055626011530
Weight per piece (including packing)	136.7 g
Weight per piece (excluding packing)	136.7 g
Customs tariff number	85366990
Country of origin	DE

Technical data

Notes

Safety note

<p>Safety note</p>	<p>WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.</p> <ul style="list-style-type: none"> • 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 • Ensure that the protective or functional ground has been properly connected. • 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 • 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. • 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).
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Product properties

Product type	Circular connector (cable-side)
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Connector

Connection 1

Head design	Socket
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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
Insulation body material	PA 6.6
Insertion/withdrawal cycles	100
Connection method	Crimp connection
Contact switching type	Socket
Application	Hybrid
Number of positions	13
Connection profile	8+4+PE
Contact diameter Power contacts	2 mm
Litz wire cross-section Power contacts min.	0.25 mm ²
Litz wire cross-section Power contacts max.	4 mm ²
Rated current Power contacts	30 A
Rated surge voltage	6 kV
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 mm ²
Litz wire cross-section 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
Installation height	2000 m

Housing

Notes on operation	Full occupation with 5 x 4 mm ² for cable and coupler connectors not possible.
Housing material	Turned parts: copper zinc alloy (CuZn), die-cast parts: zinc (GD-Zn)
Type of locking	Screw locking mechanism
Pg screw connection	none

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Degree of protection (plugged in)	IP67
	IP68
Thread type	M23

Seal

External cable diameter	7.5 mm ... 9 mm
Seal material	FKM

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-40 °C ... 115 °C (see derating curve)
Ambient temperature (storage/transport)	15 °C ... 25 °C
Permissible humidity (storage/transport)	50 % ... 65 %

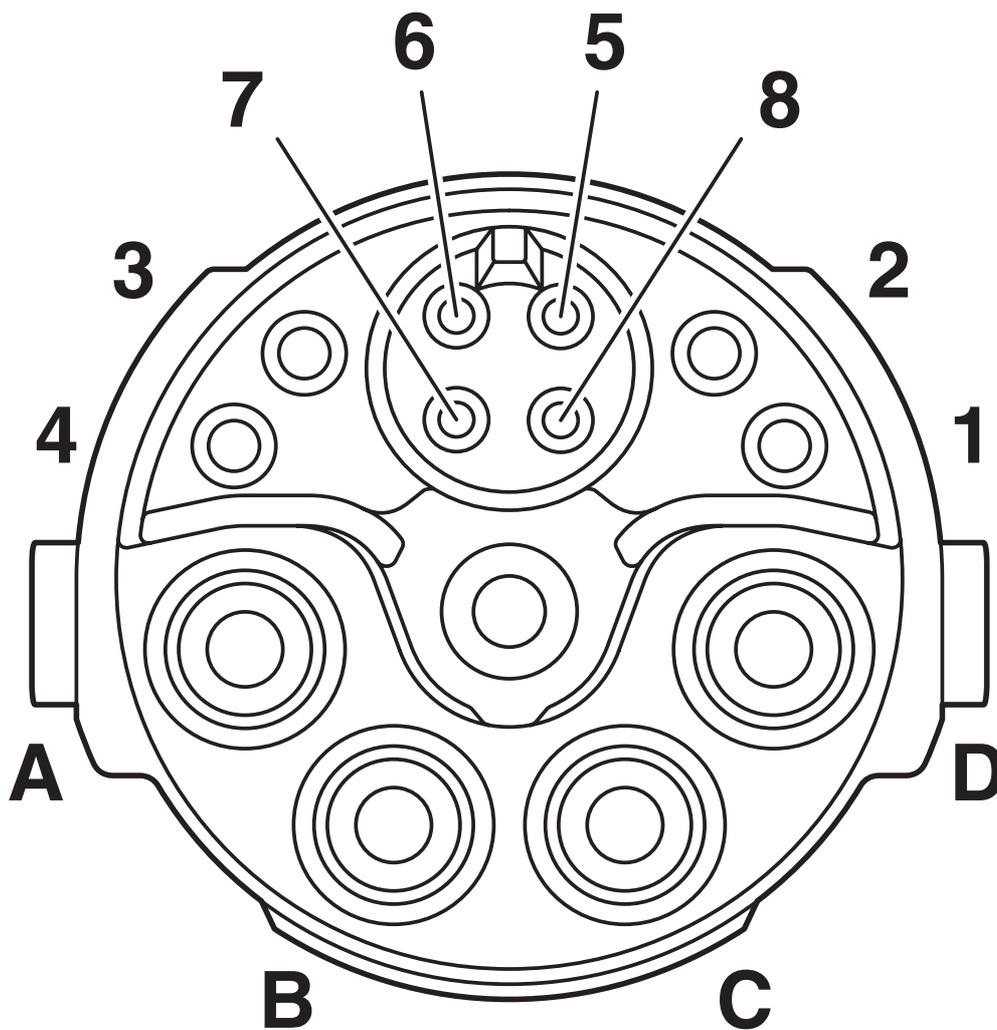
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Drawings

Schematic diagram



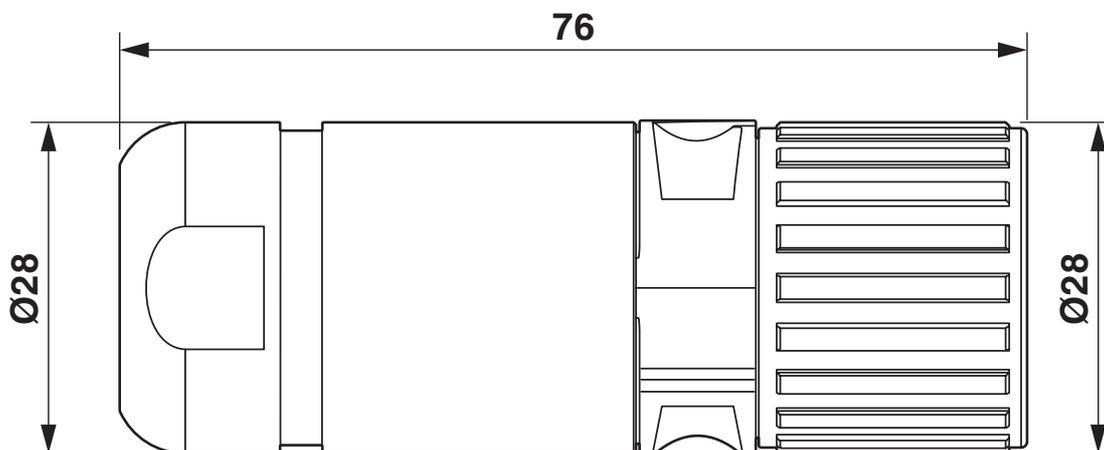
Socket pin assignment, signal

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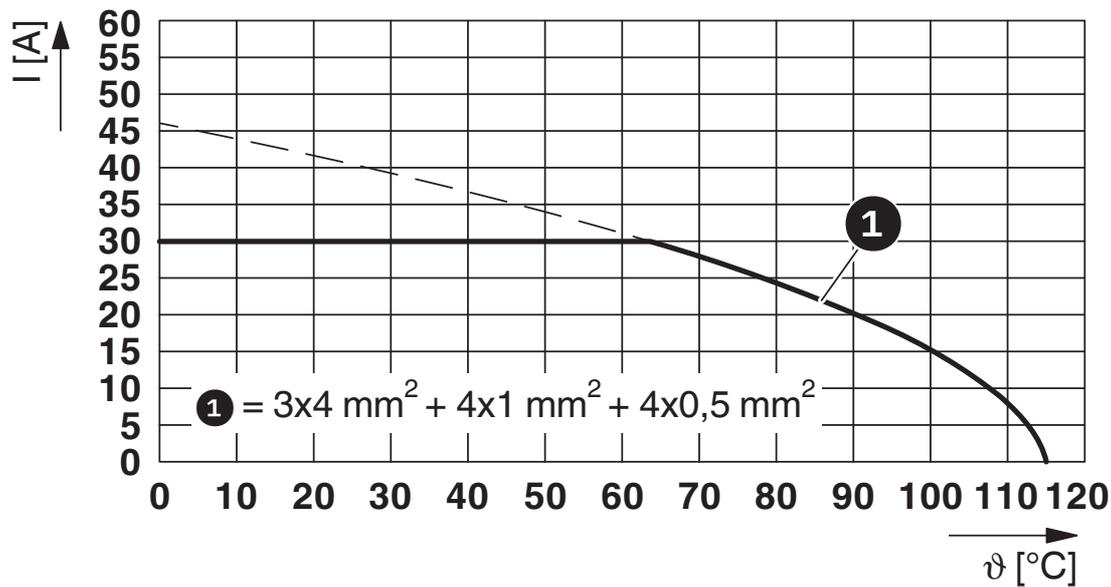
<https://www.phoenixcontact.com/us/products/1622003>

Dimensional drawing



Technical drawings can be found under Downloads

Diagram



I = current strength, ϑ = ambient temperature, power contacts A-C: 3 x up to 30 A, signal contacts: 4 x 2 A constant, data contacts: 4 x 1 A constant

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1622003>



cUL Recognized

Approval ID: E153698-20181206



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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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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)

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	e7e44ac6-d89f-4e7e-8144-5d84c48aba7c

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Accessories

SF-Z0068 - Square mounting flange

1620927

<https://www.phoenixcontact.com/us/products/1620927>



Square mounting flange, 4xM3, flange dimensions: 38 mm x 38 mm, series: SF, SH. Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244326

SF-Z0028 - Torque screwdriver

1607456

<https://www.phoenixcontact.com/us/products/1607456>



Torque screwdriver, series: RC, UC, SH, SF

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SH-Z0077 - Metal protective cap

1627226

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Metal protective cap, degree of protection: IP67, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1245449

SH-Z2300 - Metal protective cap

1622141

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Metal protective cap, degree of protection: IP67, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244542

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PROT-M23-PW-IT-IP20 - Plastic protective cap

1577207

<https://www.phoenixcontact.com/us/products/1577207>

Plastic protective cap, M23, degree of protection: IP20, series: SH, SF



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



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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

SF-20KS021 - Crimp contact

1621576

<https://www.phoenixcontact.com/us/products/1621576>



Crimp contact, Socket, turned, contact diameter: 2 mm, crimp range: 0.25 mm² .. 1 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244461

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SF-20KS022 - Crimp contact

1621577

<https://www.phoenixcontact.com/us/products/1621577>



Crimp contact, Socket, turned, contact diameter: 2 mm, crimp range: 1.5 mm² ... 2.5 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244461

SF-20KS023 - Crimp contact

1621578

<https://www.phoenixcontact.com/us/products/1621578>



Crimp contact, Socket, turned, contact diameter: 2 mm, crimp range: 2.5 mm² ... 4 mm², Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244462

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SF-Z0064 - Color coding

1620585

<https://www.phoenixcontact.com/us/products/1620585>

Color coding, color: green



SF-Z0065 - Color coding

1620586

<https://www.phoenixcontact.com/us/products/1620586>

Color coding, color: orange



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SF-Z0066 - Color coding

1620587

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Color coding, color: black



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