SH-8ESS48A8LB4S - Cable connector

1621525

https://www.phoenixcontact.com/us/products/1621525

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M23, Cable connector, series: SH, straight long, shielded: yes, SPEEDCON, 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.: 1244421

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	1621525
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	AB33
Product key	ABRCDB
Catalog page	Page 118 (C-2-2019)
GTIN	4046356936484
Weight per piece (including packing)	126.6 g
Weight per piece (excluding packing)	111.11 g
Customs tariff number	85366990
Country of origin	DE

Technical data

Notes

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
	• 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)

Connector

Connection 1

Head design	Socket

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 mm²
Litz wire cross-section Power contacts max.	4 mm²
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 mm²
Litz wire cross-section Signal contacts max.	1 mm²
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	The suitability for assembly must be checked when fully assigned with maximum wire cross sections.
Housing material	Metal
Type of locking	SPEEDCON
Pg screw connection	none
	IP67

Degree of protection (plugged in)	IP68
	IP69K
Thread type	M23

Seal

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

Environmental and real-life conditions

Ambient conditions

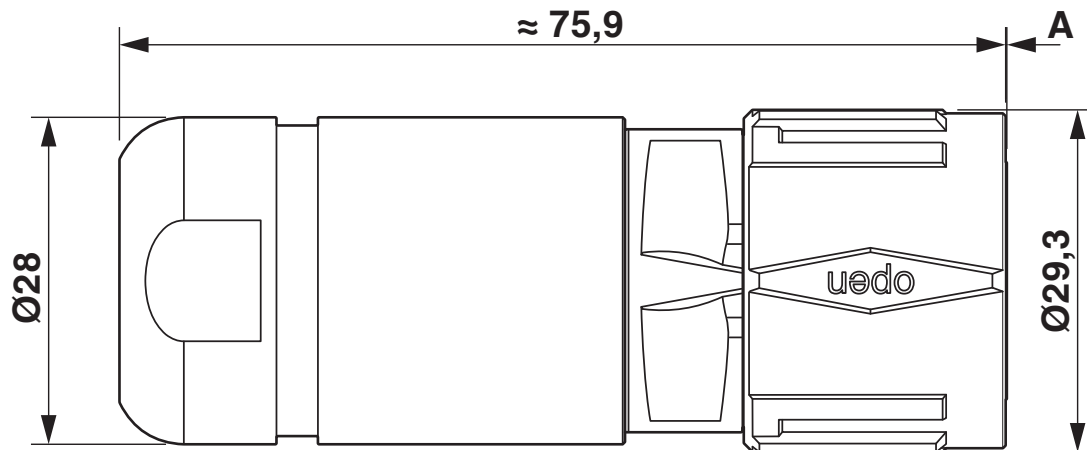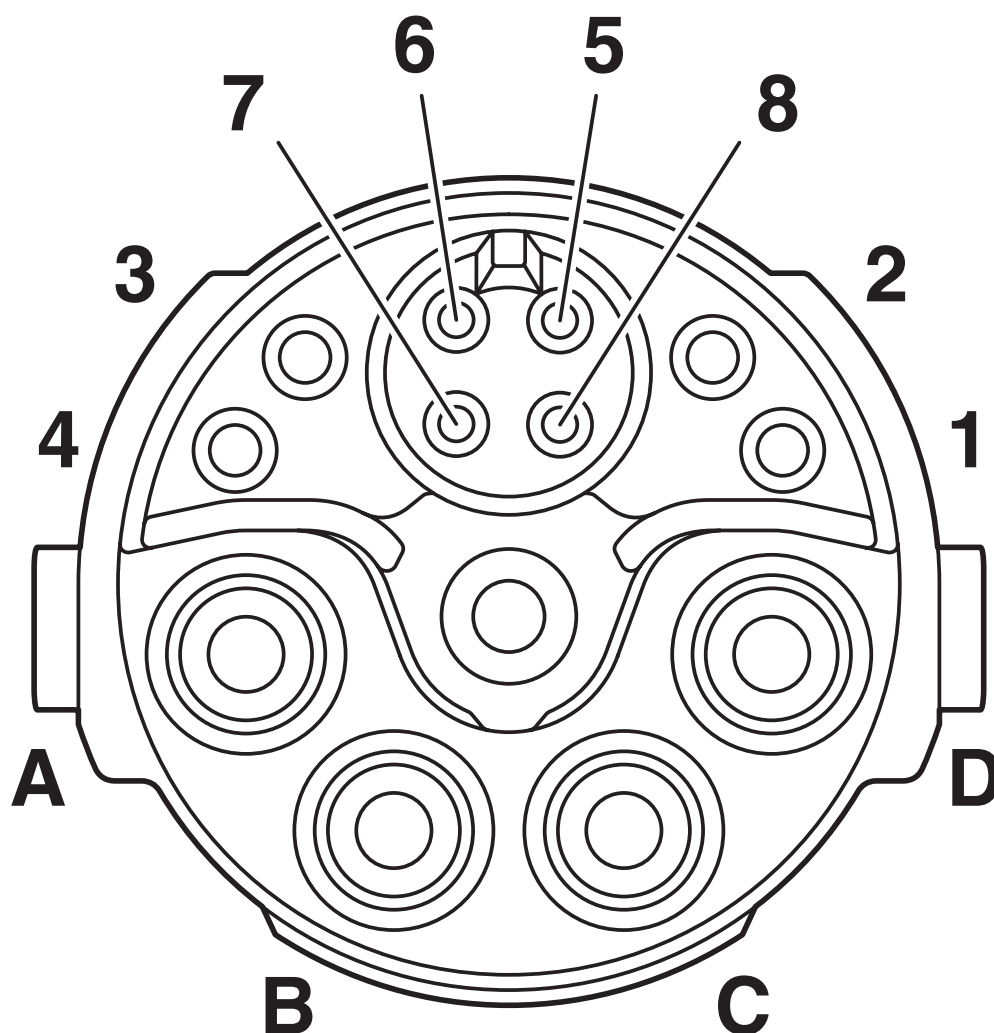| Ambient temperature (operation)	-40 °C ... 115 °C (see derating curve)
Ambient temperature (storage/transport)	15 °C ... 25 °C
Permissible humidity (storage/transport)	50 % ... 65 %

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Drawings

Dimensional drawing

Pin version: dimension A = 0.2 mm, socket version: dimension A = 0 mm

Schematic diagram

Socket pin assignment, signal

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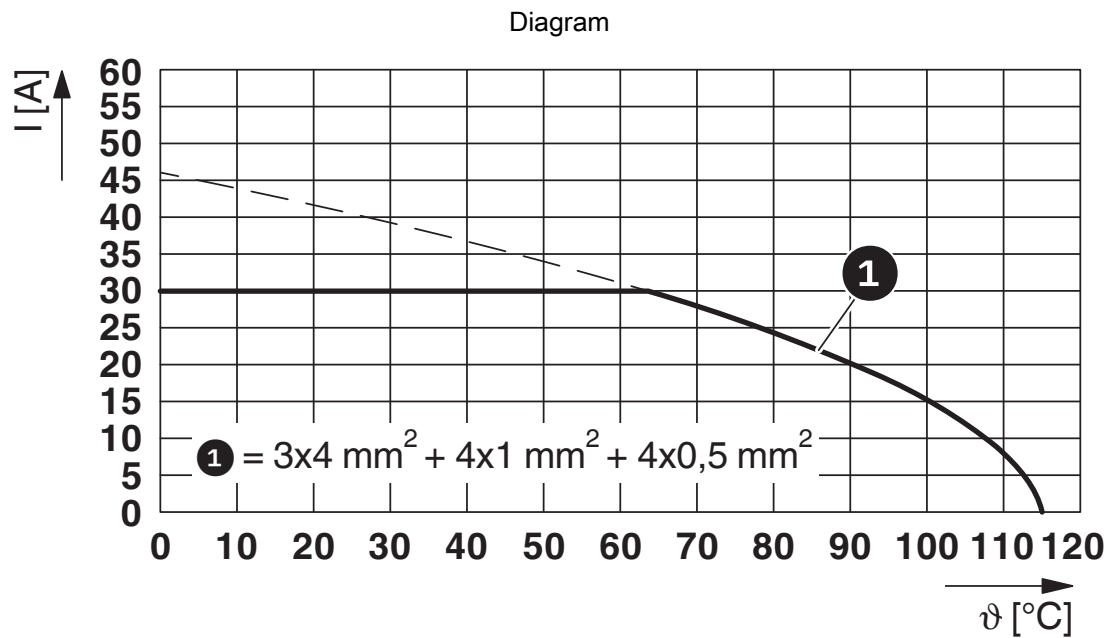
I = current strength, ϑ = ambient temperature, power contacts A-C: 3 x up to 30 A, signal contacts: 4 x 2 A constant, data contacts: 4 x 1 A constant

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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1621525

cUL Recognized
Approval ID: E153698-20181206

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cULus Recognized

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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(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	55e455cb-957d-4c0d-a50e-d9d63b67c775

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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

https://www.phoenixcontact.com/us/products/1627226

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

https://www.phoenixcontact.com/us/products/1622141

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 mm^2 ... 0.25 mm^2, 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 mm^2 .. . 1 mm^2, 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 mm^2 .. . 1 mm^2, 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 mm^2 ... 2.5 mm^2, 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 mm^2 ... 4 mm^2, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244462
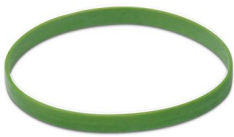
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SF-Z0064 - Color coding

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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https://www.phoenixcontact.com/us/products/1621525

SF-Z0066 - Color coding

1620587

https://www.phoenixcontact.com/us/products/1620587

Color coding, color: black

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