

M23-09S1N8A80DU - Cable connector



1629220

<https://www.phoenixcontact.com/us/products/1629220>

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M23, Cable connector, series: M23 PRO, straight, shielded: yes, Screw locking mechanism, No. of pos.: 8+1, Direction of rotation: Standard, contact connection type: Socket, Crimp connection, cable diameter range: 3 mm ... 15 mm, coding: N, Item is lead-free in accordance with RoHS II without Exemption 6c (Pb < 0.1 %)

Your advantages

- Solutions with cross-manufacturer compatibility for standard and fast locking systems
- Reliable under the harshest conditions: cable connectors with vibration brake
- Modern, consistent design for highly convenient operation
- Easy, cost-effective cable assembly: uniform shielding of M17 to M40

Commercial data

Item number	1629220
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB30
Product key	ABRABA
GTIN	4055626618531
Weight per piece (including packing)	118.9 g
Weight per piece (excluding packing)	103.03 g
Customs tariff number	85366990
Country of origin	DE

M23-09S1N8A80DU - Cable connector



1629220

<https://www.phoenixcontact.com/us/products/1629220>

Technical data

Notes

Order information:	Order crimp contacts 8 x Ø 1 mm, 1 x Ø 2 mm separately
Notes on operation	Please observe the derating curve.

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.

Safety note	• 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

M23-09S1N8A80DU - Cable connector



1629220

<https://www.phoenixcontact.com/us/products/1629220>

warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).

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: Order crimp contacts 8 x Ø 1 mm, 1 x Ø 2 mm separately
Coding	N
Material (Insulating body)	PA 6.6
Insertion/withdrawal cycles	100
Connection method	Crimp connection
Contact switching type	Socket
Application	Signal
Number of positions	9
Direction of rotation	Standard
Connection profile	8+1
Installation height	2000 m
Number Contact (Contact group 1)	1
Diameter Contact (Contact group 1)	2 mm
Litz wire cross-section min. Contact (Contact group 1)	0.5 mm ²
Litz wire cross-section max. Contact (Contact group 1)	2.5 mm ²
Rated current Contact (Contact group 1)	20 A (for max. connection cross section)
Rated voltage Contact (Contact group 1)	300 V
Rated surge voltage	2.5 kV
Overvoltage category	II
Degree of pollution	3
Number Contact (Contact group 2)	8
Diameter Contact (Contact group 2)	1 mm
Litz wire cross-section min. Contact (Contact group 2)	0.08 mm ²
Litz wire cross-section max. Contact (Contact group 2)	1 mm ²
Rated current Contact (Contact group 2)	8 A (for max. connection cross section)
Rated voltage Contact (Contact group 2)	300 V
Rated surge voltage	2.5 kV
Overvoltage category	II
Degree of pollution	3

Housing

Type	Cable connector housing
Thread type	M23

M23-09S1N8A80DU - Cable connector



1629220

<https://www.phoenixcontact.com/us/products/1629220>

Design	straight
Type of locking	Screw locking mechanism
Pg screw connection	none
Housing material	GD-Zn
Degree of protection (plugged in)	IP66/IP68 (2 m / 24 h) IP69K

Seal

External cable diameter	3 mm ... 15 mm (Universal gasket)
Seal material	FKM

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (see to derating)
Permissible humidity (storage/transport)	50 % ... 65 %
Permanent temperature	125 °C (DIN EN 60512-9-2 / 1000 h)

M23-09S1N8A80DU - Cable connector



1629220

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Drawings

Dimensional drawing



Dimensional drawing, housing

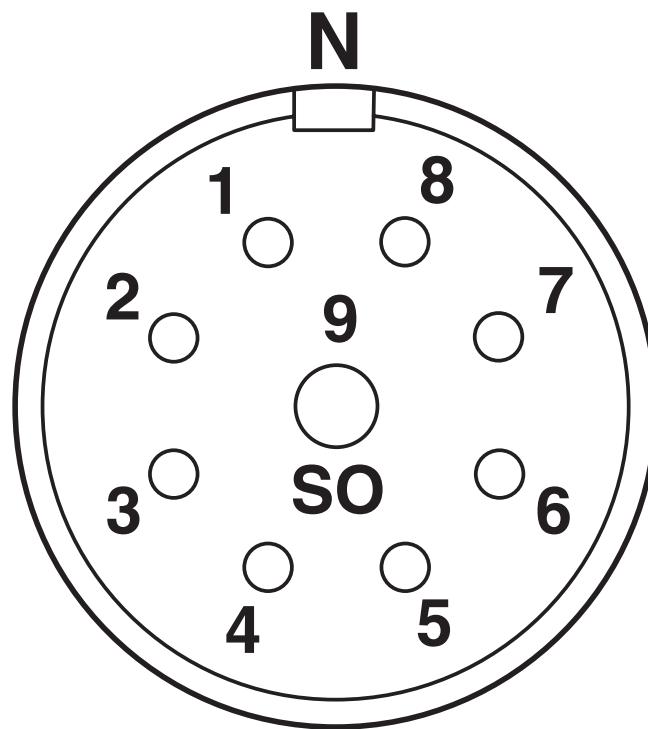
M23-09S1N8A80DU - Cable connector

1629220

<https://www.phoenixcontact.com/us/products/1629220>



Schematic diagram



Connector pin assignment

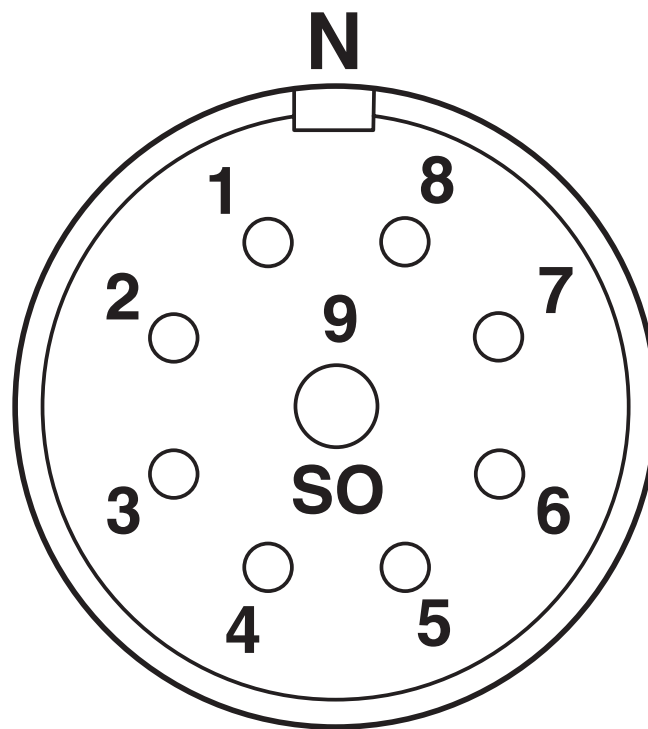
M23-09S1N8A80DU - Cable connector

1629220

<https://www.phoenixcontact.com/us/products/1629220>



Schematic diagram



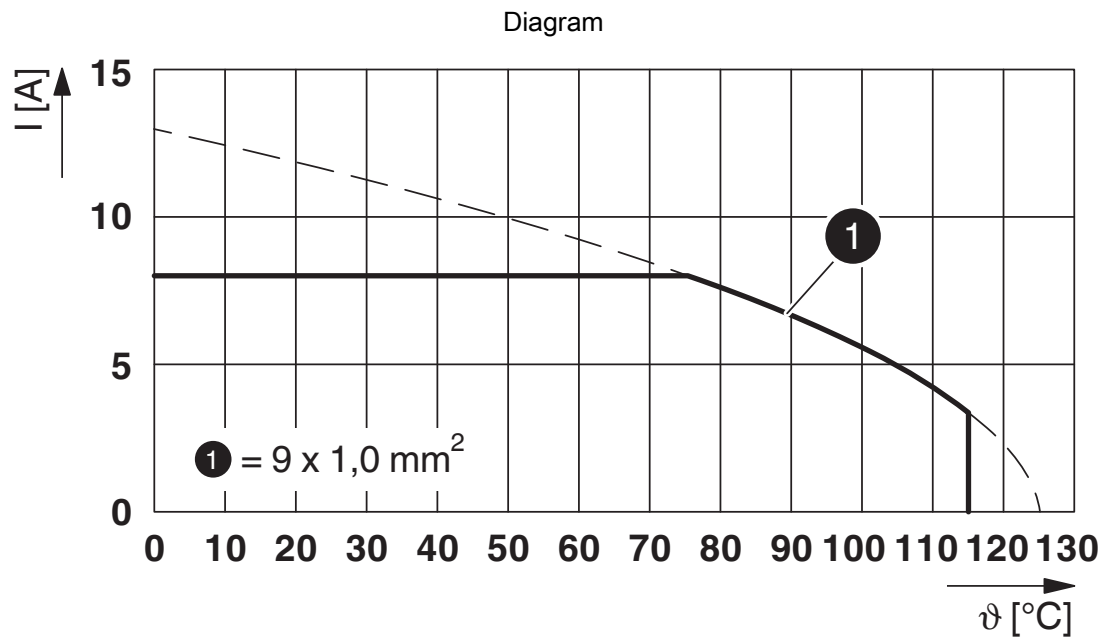
Connector pin assignment

M23-09S1N8A80DU - Cable connector



1629220

<https://www.phoenixcontact.com/us/products/1629220>



I = current strength, θ = ambient temperature, 9x 8 A

M23-09S1N8A80DU - Cable connector



1629220

<https://www.phoenixcontact.com/us/products/1629220>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1629220>



cUL Recognized

Approval ID: E335019-20141210



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Classifications

ECLASS

ECLASS-13.0	27440116
ECLASS-15.0	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, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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