# M23-09S1N8A90DUS - Coupler connector

1629124

https://www.phoenixcontact.com/us/products/1629124

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The figure shows the product with assembled crimp contacts. Please order crimp contacts separately.

## Your advantages

- Solutions with cross-manufacturer compatibility for standard and fast locking systems
- Modern, consistent design for highly convenient operation
- Easy, cost-effective cable assembly: uniform shielding of M17 to M40

## Commercial data

| | |
|---|---|
| Item number | 1629124 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB30 |
| Product key | ABRABG |
| GTIN | 4055626762715 |
| Weight per piece (including packing) | 105.8 g |
| Weight per piece (excluding packing) | 99.521 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |

## Technical data

### Notes

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|---|---|
| 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. |
| | • 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 |

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

## Product properties

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|---|---|
| Product type | Circular connector (cable-side) |
| Product family | M23 PRO |

## Connector

### 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 group 1) | 1 |
| Contact diameter (Contact group 1) | 2 mm |
| Litz wires Min. cross section (Contact group 1) | 0.5 mm² |
| Litz wires Max. cross section (Contact group 1) | 2.5 mm² |
| 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 group 2) | 8 |
| Contact diameter (Contact group 2) | 1 mm |
| Litz wires Max. cross section (Contact group 2) | 1 mm² |
| 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 | Coupling housing |
| Thread type | M23 |
| Design | straight |
| Type of locking | for standard and ONECLICK fast locking system |
| Pg screw connection | none |

| | |
|---|---|
| Material (Housing) | GD-Zn |
| Material (Seal) | FKM |
| Degree of protection (plugged in) | IP66/IP68 (2 m / 24 h) |

Seal

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

## Environmental and real-life conditions

Ambient conditions

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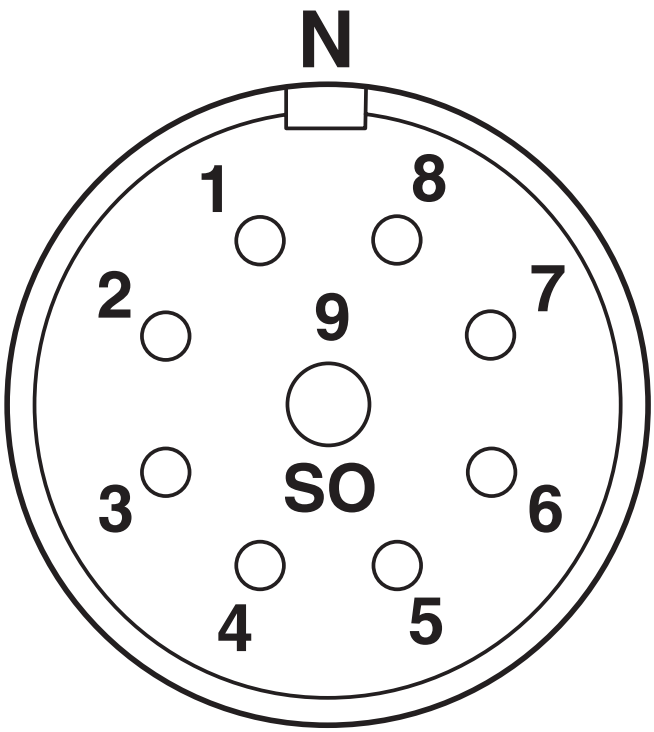
|---|---|
| Ambient temperature (operation) | -40 °C ... 105 °C (see to derating) |
| Altitude | 2000 m |
| Permanent temperature | 125 °C (DIN EN 60512-9-2 / 1000 h) |

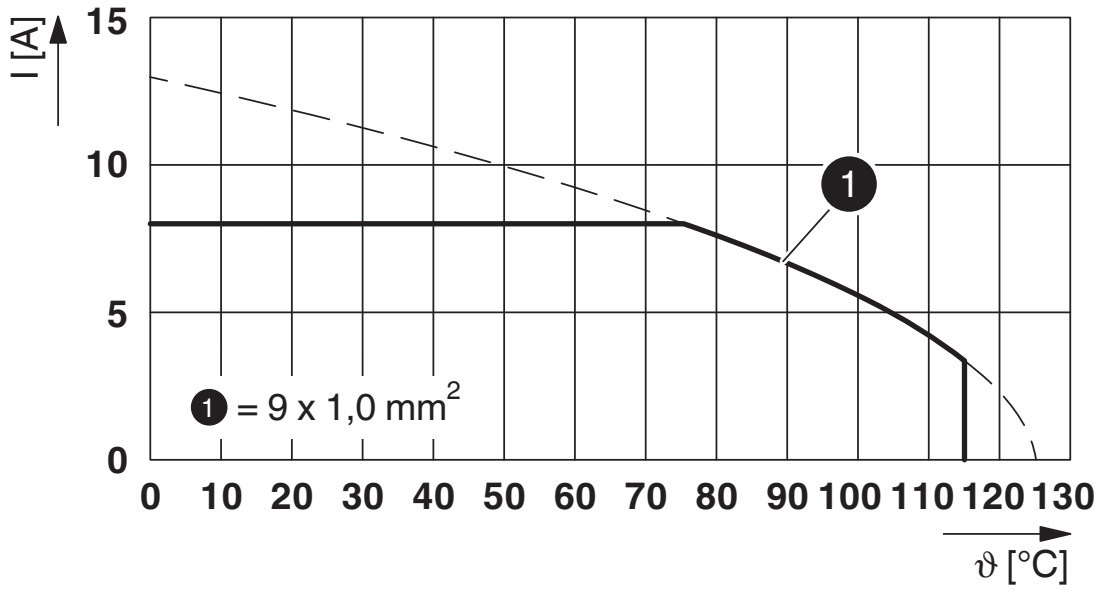
## Drawings

Schematic diagram




Connector pin assignment

Diagram




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

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1629124

**cUL Recognized**
Approval ID: E335019-20141210

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## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27440116 |
| ECLASS-15.0 | 27440116 |

### ETIM

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|---|---|
| ETIM 10.0 | EC002635 |

### UNSPSC

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|---|---|
| UNSPSC 21.0 | 39121400 |

## Environmental product compliance

EU RoHS

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|---|---|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |

China RoHS

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