

# M23-12S1N8A80DU - Cable connector



1629212

<https://www.phoenixcontact.com/us/products/1629212>

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M23, Cable connector, series: M23 PRO, straight, shielded: yes, Screw locking mechanism, No. of pos.: 12, 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	1629212
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB30
Product key	ABRABA
Catalog page	Page 76 (C-2-2019)
GTIN	4055626618456
Weight per piece (including packing)	118.7 g
Weight per piece (excluding packing)	97.75 g
Customs tariff number	85366990
Country of origin	DE

## Technical data

### Notes

Order information:	Order 12 x 1 mm crimp contacts separately
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### Safety note

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

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warnings (e.g. DIN EN ISO 13732-1:2008-12).

## Product properties

Product type Circular connector (cable-side)

## Connector

### Connection 1

Head design Socket

### Insulating body

Note Order information: Order crimp contacts Ø 1 mm separately

Coding N

Insulation body material PA 6.6

Insertion/withdrawal cycles 100

Connection method Crimp connection

Contact switching type Socket

Application Signal

Number of positions 12

Direction of rotation Standard

Connection profile 12

Contact diameter **Signal contacts** 1 mm

Litz wire cross-section **Signal contacts** min. 0.08 mm<sup>2</sup>

Litz wire cross-section **Signal contacts** max. 1 mm<sup>2</sup>

Nominal current per signal contact 8 A

Note for max. connection cross section

Rated voltage Signal contact 150 V

Rated surge voltage 2.5 kV

Overvoltage category III

Degree of pollution 3

Installation height 2000 m

### Housing

Housing material GD-Zn

Type of locking Screw locking mechanism

Pg screw connection none

Degree of protection (plugged in) IP66 / IP68 (2m / 24h) / IP69K

Thread type M23

### 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)
Permanent temperature	125 °C (DIN EN 60512-9-2 / 1000 h)

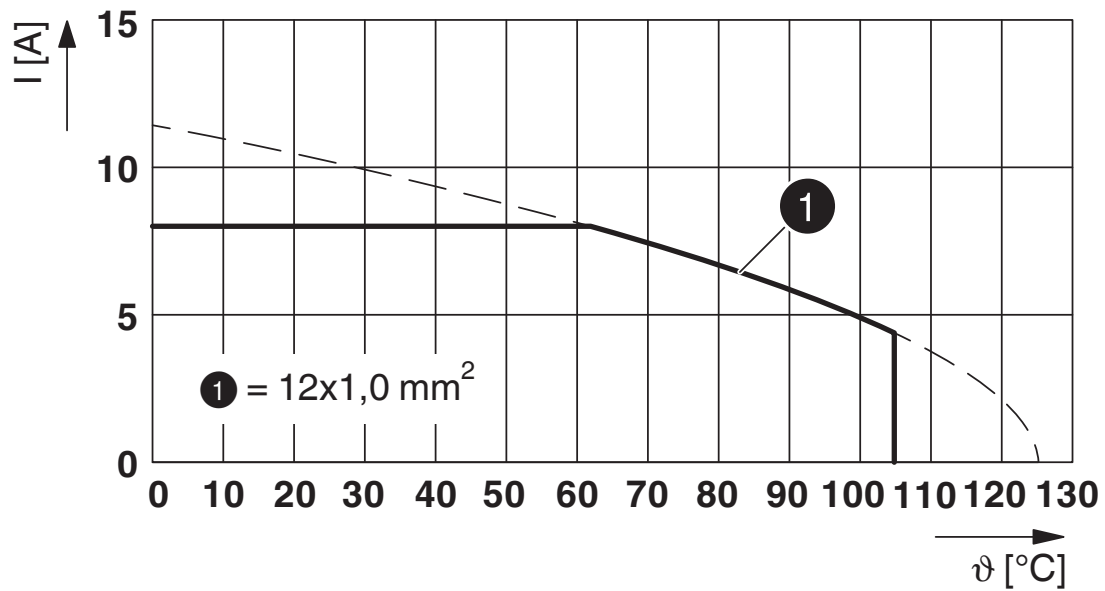
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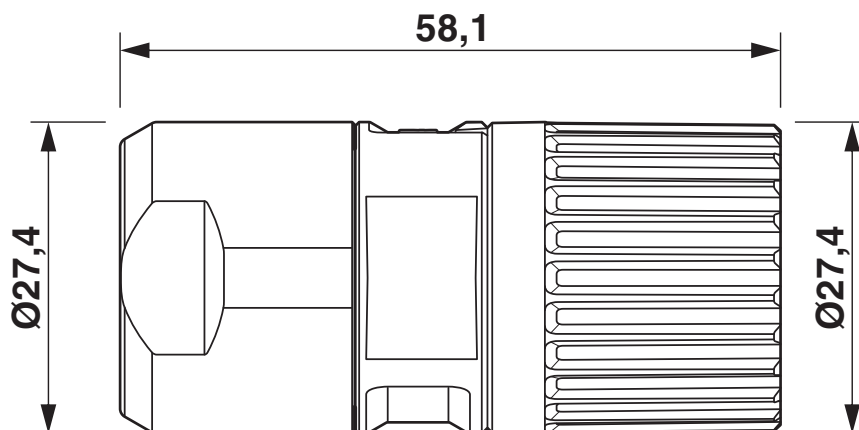
## Drawings

Diagram



$I$  = current strength,  $\vartheta$  = ambient temperature, 12x 8 A

Dimensional drawing



Technical drawings can be found under Downloads

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Schematic diagram



Connector pin assignment

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1629212>



**cUL Recognized**

Approval ID: E335019-20141210



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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, 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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## Accessories

### SF-Z0028 - Torque screwdriver

1607456

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

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



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### SF-Z0027 - Hook wrench

1607455

<https://www.phoenixcontact.com/us/products/1607455>

Hook wrench, series: RC, UC, RF, SF



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## RF-Z0007 - Special wrench

1614347

<https://www.phoenixcontact.com/us/products/1614347>

Special wrench, series: RF



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## RC-11S2000 - Crimp contact

1596772

<https://www.phoenixcontact.com/us/products/1596772>



Crimp contact, Socket, turned, Single contact, contact diameter: 1 mm, crimp range: 0.08 mm<sup>2</sup> ... 0.22 mm<sup>2</sup>, Contact release tool not necessary for the 12- and 17-pos. crimp versions of the M23-PRO series, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1241093

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## RC-12S2000 - Crimp contact

1599600

<https://www.phoenixcontact.com/us/products/1599600>



Crimp contact, Socket, turned, Single contact, contact diameter: 1 mm, crimp range: 0.14 mm<sup>2</sup> ... 0.56 mm<sup>2</sup>, Contact release tool not necessary for the 12- and 17-pos. crimp versions of the M23-PRO series, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1241093

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## RC-1KS2000 - Crimp contact

1602998

<https://www.phoenixcontact.com/us/products/1602998>



Crimp contact, Socket, turned, Single contact, contact diameter: 1 mm, crimp range: 0.5 mm<sup>2</sup> ... 1 mm<sup>2</sup>, Contact release tool not necessary for the 12- and 17-pos. crimp versions of the M23-PRO series, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1241572

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## RC-22S2000 - Crimp contact

1603327

<https://www.phoenixcontact.com/us/products/1603327>



Crimp contact, Socket, rolled, Single contact, contact diameter: 1 mm, crimp range: 0.22 mm<sup>2</sup> ... 0.56 mm<sup>2</sup>, Single contact, Item is lead-free in accordance with RoHS II without Exemption 6c (Pb < 0.1 %)

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## RC-21S2000 - Crimp contact

1603315

<https://www.phoenixcontact.com/us/products/1603315>



Crimp contact, Socket, rolled, Single contact, contact diameter: 1 mm, crimp range: 0.08 mm<sup>2</sup> ... 0.22 mm<sup>2</sup>, Single contact

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## RC-22S2300 - Crimp contact

1603330

<https://www.phoenixcontact.com/us/products/1603330>



Crimp contact, Socket, rolled, Taped product, number of pieces per reel: 500, contact diameter: 1 mm, crimp range: 0.22 mm<sup>2</sup> ... 0.56 mm<sup>2</sup>, Item is lead-free in accordance with RoHS II without Exemption 6c (Pb < 0.1 %)

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## RC-22S2400 - Crimp contact

1603332

<https://www.phoenixcontact.com/us/products/1603332>



Crimp contact, Socket, rolled, Taped product, number of pieces per reel: 10000, contact diameter: 1 mm, crimp range: 0.22 mm<sup>2</sup> ... 0.56 mm<sup>2</sup>, Item is lead-free in accordance with RoHS II without Exemption 6c (Pb < 0.1 %)

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## RC-21S2300 - Crimp contact

1603318

<https://www.phoenixcontact.com/us/products/1603318>



Crimp contact, Socket, rolled, Taped product, number of pieces per reel: 500, contact diameter: 1 mm, crimp range: 0.08 mm<sup>2</sup> ... 0.22 mm<sup>2</sup>

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## RC-21S2400 - Crimp contact

1616500

<https://www.phoenixcontact.com/us/products/1616500>



Crimp contact, Socket, rolled, Taped product, number of pieces per reel: 10000, contact diameter: 1 mm, crimp range: 0.08 mm<sup>2</sup> ... 0.22 mm<sup>2</sup>

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## PROT-M23PRO-SG-IT-IP20 - Plastic protective cap

1055744

<https://www.phoenixcontact.com/us/products/1055744>

Plastic protective cap, M23, degree of protection: IP20, series: M23 PRO Signal



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## PROT-M23PRO-SG-IT-IP67 - Plastic protective cap

1055745

<https://www.phoenixcontact.com/us/products/1055745>

Plastic protective cap, M23, degree of protection: IP67, series: M23 PRO Signal



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## UNIFOX-RT M23 12 - Contact removal tool

1247862

<https://www.phoenixcontact.com/us/products/1247862>

Removal tool for the M23 PRO series 12-position signal contact carrier



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