

# M23-09P1N8AW500S - Device connector front mounting



1629090

<https://www.phoenixcontact.com/us/products/1629090>

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M23, Device connector front mounting, series: M23 PRO Signal, straight, for standard and ONECLICK fast locking system, No. of pos.: 8+1, Direction of rotation: Standard, contact connection type: Pin, Crimp connection, 4x Ø 3.2, flange dimensions: 26 mm x 26 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
- Modern, consistent design for highly convenient operation
- Crimping connection: vibration- and temperature-resistant assembly
- All housing can be fitted with pin or socket contacts
- Safe use in the field, thanks to high degree of protection

## Commercial data

Item number	1629090
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB34
Product key	ABRABL
GTIN	4055626763019
Weight per piece (including packing)	39.2 g
Weight per piece (excluding packing)	38 g
Customs tariff number	85366990
Country of origin	DE

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## Technical data

### Notes

General	Order crimp contacts 8 x Ø 1 mm, 1 x Ø 2 mm separately
General	Please observe the derating curve.

### 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</li> </ul>	

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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).
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## Product properties

Product type	Circular connectors (device side)
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## Material specifications

Flammability rating according to UL 94	V0
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## Connector

### Insulating body

Note	Order information: Order crimp contacts 8 x Ø 1 mm, 1 x Ø 2 mm separately
Coding	N
Insulation body material	PA 6.6
Insertion/withdrawal cycles	100
Connection method	Crimp connection
Contact switching type	Pin
Application	Signal
Number of positions	9
Direction of rotation	Standard
Connection profile	8+1
Contact diameter <b>Power contacts</b>	2 mm
Litz wire cross-section <b>Power contacts</b> min.	0.5 mm <sup>2</sup>
Litz wire cross-section <b>Power contacts</b> max.	2.5 mm <sup>2</sup>
Rated current <b>Power contacts</b>	20 A
Note	for max. connection cross section
Rated voltage	300 V
Rated surge voltage	2.5 kV
Overvoltage category	II
Degree of pollution	3
Contact diameter <b>Signal contacts</b>	1 mm
Litz wire cross-section <b>Signal contacts</b> min.	0.08 mm <sup>2</sup>
Litz wire cross-section <b>Signal contacts</b> max.	1 mm <sup>2</sup>
Nominal current per signal contact	8 A
Note	for max. connection cross section
Rated voltage Signal contact	300 V
Rated surge voltage	2.5 kV
Overvoltage category	II
Degree of pollution	3
Installation height	2000 m

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## Housing

Housing material	GD-Zn
Flange dimensions	26 mm x 26 mm
Type of locking	for standard and ONECLICK fast locking system
Pg screw connection	none
Degree of protection (plugged in)	IP66 / IP68 (2 m / 24 h)
Thread type	M23

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP68
Ambient temperature (operation)	-40 °C ... 105 °C (see to derating)
Altitude	2000 m
Permanent temperature	125 °C (DIN EN 60512-9-2 / 1000 h)

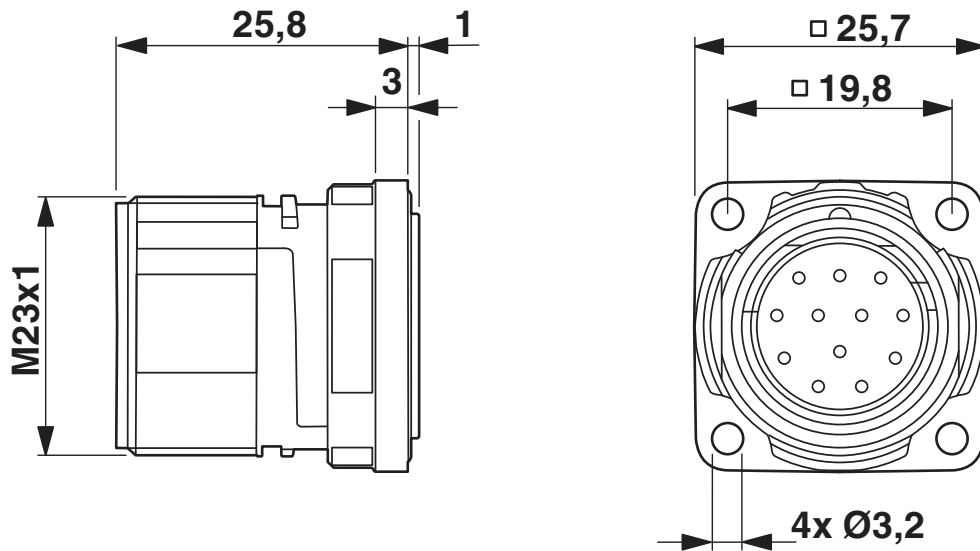
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## Drawings

Dimensional drawing



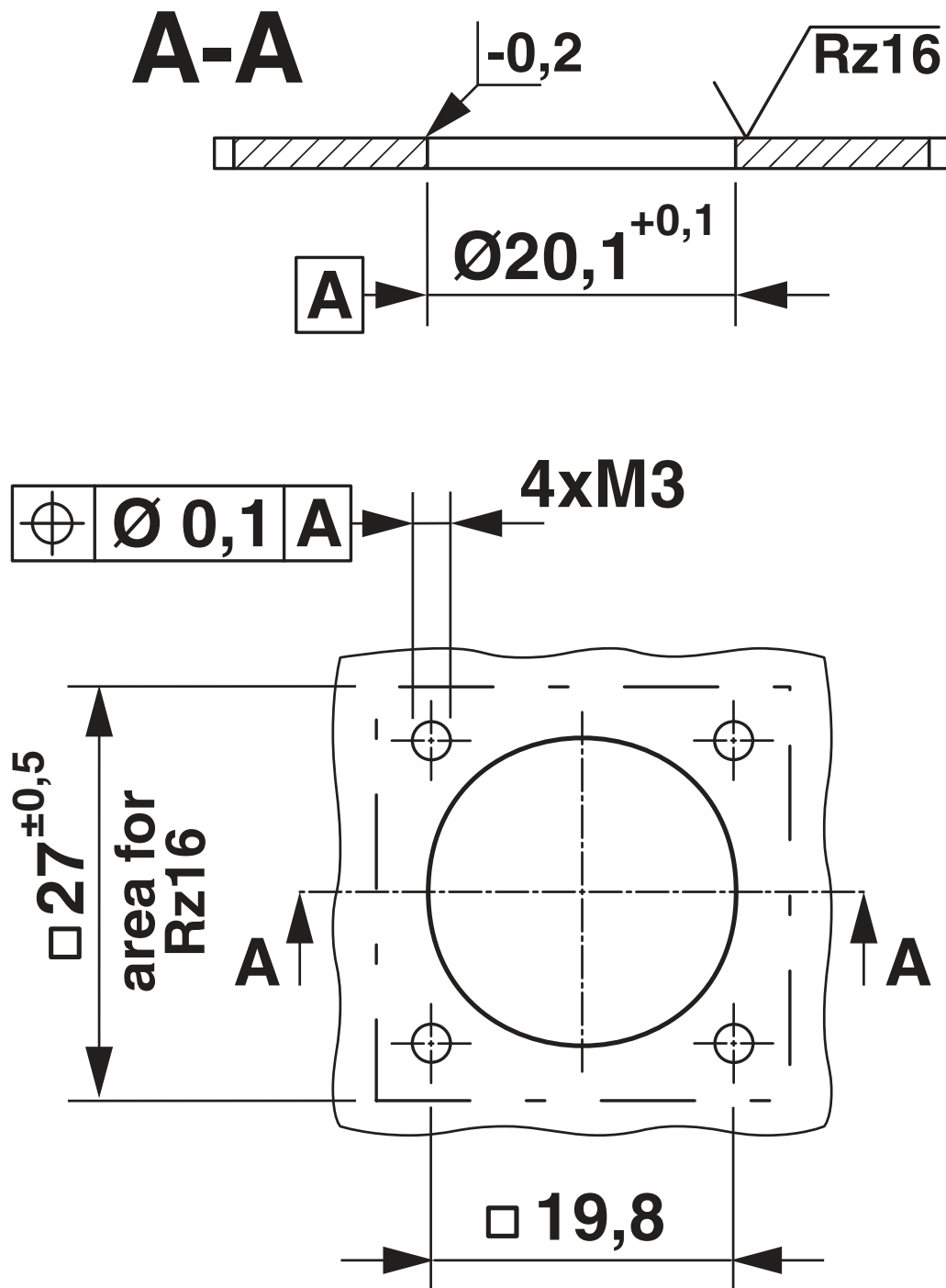
Technical drawings can be found under Downloads

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Dimensional drawing



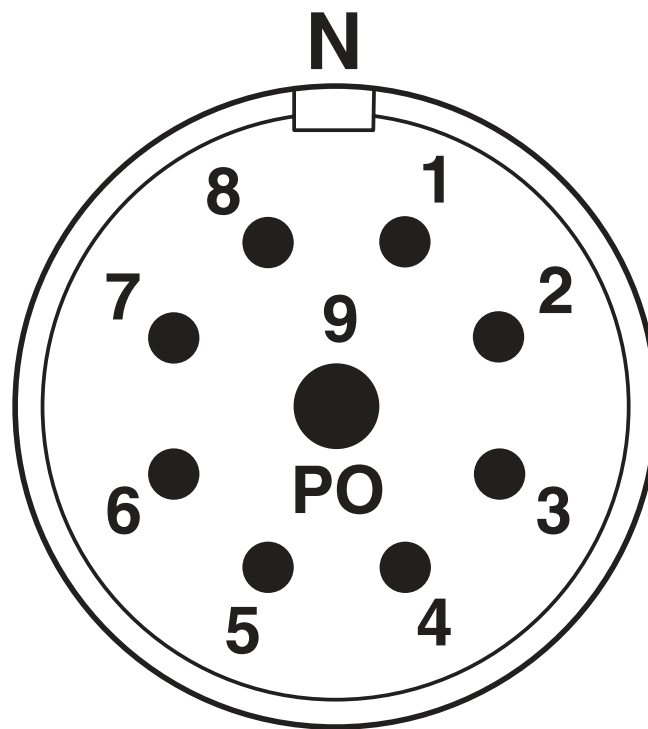
Installation dimensions

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Schematic diagram



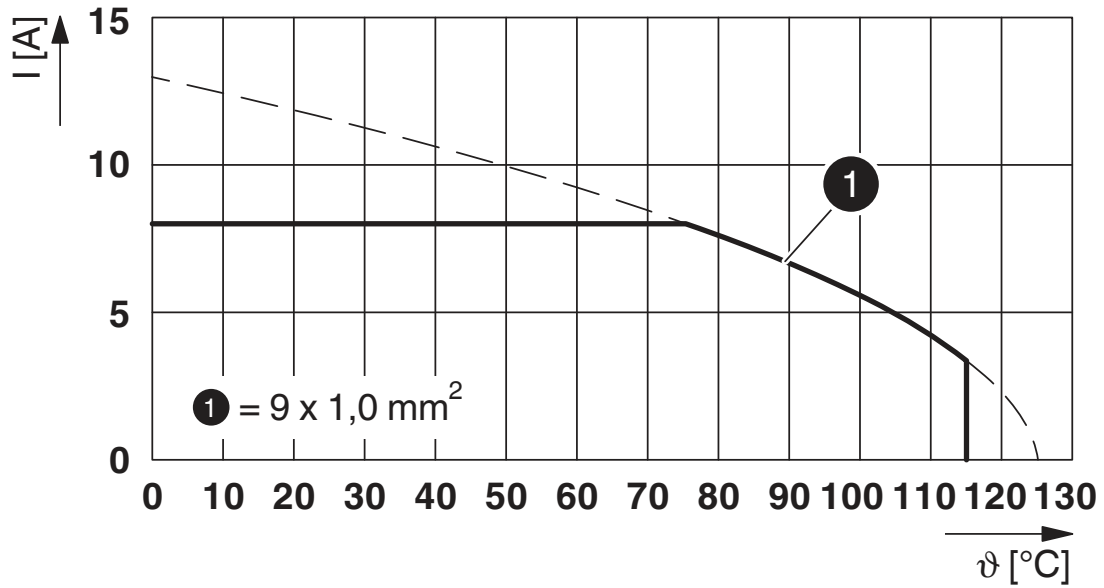
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Diagram



I = current strength,  $\vartheta$  = ambient temperature, 9 x 8 A



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## Classifications

### ECLASS

ECLASS-11.0	27440109
ECLASS-12.0	27440109
ECLASS-13.0	27440109

### ETIM

ETIM 8.0	EC003569
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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## Accessories

### RC-Z2059 - Protective cap

1604225

<https://www.phoenixcontact.com/us/products/1604225>

Plastic protection cap for connectors with M23 external thread



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### RC-Z2104 - Metal protective cap

1604260

<https://www.phoenixcontact.com/us/products/1604260>

Metal protective cap, M23, degree of protection: IP67, series: RC, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1241739



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## RC-11P2000 - Crimp contact

1596770

<https://www.phoenixcontact.com/us/products/1596770>



Crimp contact, Pin, turned, Single contact, contact diameter: 1 mm, crimp range: 0.08 mm<sup>2</sup> ... 0.22 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1240882

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## RC-12P2000 - Crimp contact

1597862

<https://www.phoenixcontact.com/us/products/1597862>



Crimp contact, Pin, turned, Single contact, contact diameter: 1 mm, crimp range: 0.14 mm<sup>2</sup> ... 0.56 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1240882

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<https://www.phoenixcontact.com/us/products/1629090>

## RC-1KP2000 - Crimp contact

1602996

<https://www.phoenixcontact.com/us/products/1602996>



Crimp contact, Pin, turned, Single contact, contact diameter: 1 mm, crimp range: 0.5 mm<sup>2</sup> ... 1 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1241571

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## RC-22P2000 - Crimp contact

1603321

<https://www.phoenixcontact.com/us/products/1603321>



Crimp contact, Pin, 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-22P2300 - Crimp contact

1603324

<https://www.phoenixcontact.com/us/products/1603324>



Crimp contact, Pin, rolled, Taped articles, 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-22P2400 - Crimp contact

1603325

<https://www.phoenixcontact.com/us/products/1603325>



Crimp contact, Pin, rolled, Taped articles, 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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<https://www.phoenixcontact.com/us/products/1629090>

## RC-21P2000 - Crimp contact

1603310

<https://www.phoenixcontact.com/us/products/1603310>



Crimp contact, Pin, 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-21P2300 - Crimp contact

1603313

<https://www.phoenixcontact.com/us/products/1603313>



Crimp contact, Pin, rolled, Taped articles, 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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## PROT-M23PRO-OT-IP20 - Plastic protective cap

1055753

<https://www.phoenixcontact.com/us/products/1055753>

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



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## PROT-M23PRO-OT-IP67 - Plastic protective cap

1055749

<https://www.phoenixcontact.com/us/products/1055749>

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





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## M23PRO-VIB-ORING-OR - Sealing ring

1521137

<https://www.phoenixcontact.com/us/products/1521137>

Vibration O-ring, optional accessory for M23 PRO device connectors



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## M23PRO-VIB-ORING-GN - Sealing ring

1521138

<https://www.phoenixcontact.com/us/products/1521138>

Vibration O-ring, optional accessory for M23 PRO device connectors



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## RC-5SP2000 - Crimp contact

1603529

<https://www.phoenixcontact.com/us/products/1603529>



Crimp contact, Pin, turned, contact diameter: 2 mm, crimp range: 0.5 mm<sup>2</sup> ... 0.75 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1241632

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## RC-59P2000 - Crimp contact

1603498

<https://www.phoenixcontact.com/us/products/1603498>



Crimp contact, Pin, turned, Single contact, contact diameter: 2 mm, crimp range: 0.75 mm<sup>2</sup> ... 1 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1241632

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## RC-5CP2000 - Crimp contact

1603513

<https://www.phoenixcontact.com/us/products/1603513>



Crimp contact, Pin, turned, contact diameter: 2 mm, crimp range: 1 mm<sup>2</sup> ... 1.5 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1241634

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## RC-5AP2000 - Crimp contact

1603505

<https://www.phoenixcontact.com/us/products/1603505>



Crimp contact, Pin, turned, contact diameter: 2 mm, crimp range: 1.5 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1241634

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