

# M23-12S1N8AA500S - Device connector front mounting

1628499

<https://www.phoenixcontact.com/us/products/1628499>

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The figure shows the 12-position version

M23, Device connector front mounting, application: Signal, series: M23 PRO Signal, angled rotatable, shielded: yes, for standard and ONECLICK fast locking system, No. of pos.: 12, Direction of rotation: Standard, contact connection type: Socket, Crimp connection, 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                          | 1628499       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | AB30          |
| Product key                          | ABRABM        |
| GTIN                                 | 4055626622149 |
| Weight per piece (including packing) | 118.4 g       |
| Weight per piece (excluding packing) | 102.022 g     |
| Customs tariff number                | 85366990      |
| Country of origin                    | DE            |

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## Technical data

### Notes

|                    |   |
|--------------------|---|
| Order information: | Order 12 x 1 mm crimp contacts separately |
| Notes on operation | 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).

## Product properties

|                |                                   |
|----------------|-----------------------------------|
| Product type   | Circular connectors (device side) |
| Product family | M23 PRO                           |

## Material specifications

|  |    |
|--|----|
| Flammability rating according to UL 94 | V0 |
|--|----|

## Connector

### Insulating body

|   |   |
|---|---|
| Note  | Order information: Order crimp contacts Ø 1 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                             | 12  |
| Direction of rotation                           | Standard  |
| Connection profile                              | 12  |
| Installation height                             | 2000 m  |
| Number (Signal contacts)                        | 12  |
| Contact diameter (Signal contacts)              | 1 mm  |
| Litz wires Min. cross section (Signal contacts) | 0.08 mm <sup>2</sup>                                      |
| Litz wires Max. cross section (Signal contacts) | 1 mm <sup>2</sup>   |
| Rated current Contact (Signal contacts)         | 8 A (for max. connection cross section)                   |
| Rated voltage Contact (Signal contacts)         | 150 V   |
| Rated surge voltage                             | 2.5 kV  |
| Overvoltage category                            | III   |
| Degree of pollution                             | 3   |

### Housing

|                                   |   |
|-----------------------------------|---|
| Type                              | Flange housing                                |
| Thread type                       | M23   |
| Design                            | angled rotatable                              |
| Type of locking                   | for standard and ONECLICK fast locking system |
| Pg screw connection               | none  |
| Mounting type                     | Front mounting/square flange (4x Ø 3.1 mm)    |
| Flange dimensions                 | 26 mm x 26 mm                                 |
| Housing material                  | GD-Zn   |
| Degree of protection (plugged in) | IP66/IP68 (2 m / 24 h)                        |

## Environmental and real-life conditions

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## Ambient conditions

|                                 |                                     |
|---------------------------------|-------------------------------------|
| Degree of protection            | IP68                                |
| 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

Dimensional drawing



Installation dimensions

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Schematic diagram



Connector pin assignment

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Diagram



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

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1628499>



**cUL Recognized**

Approval ID: E335019-20141210



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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27440109 |
| ECLASS-15.0 | 27440109 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC003569 |
|-----------|----------|

### UNSPSC

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

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## Environmental product compliance

### EU RoHS

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

### 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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