Product data sheet

Power connectors

M23 male cable connector, Contacts: 19, 6.0 - 10.0 mm, unshielded, solder, IP67

Area
M23 series 623

Order number
99 4631 00 19

Illustration

Scale drawing

Contact arrangement (Plug-in side)

You can find the assembly instructions on the next page.

Technical data

General features

<table>
<thead>
<tr>
<th>Order number</th>
<th>99 4631 00 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector design</td>
<td>male cable connector</td>
</tr>
<tr>
<td>Version</td>
<td>straight</td>
</tr>
<tr>
<td>Connector locking system</td>
<td>screw</td>
</tr>
<tr>
<td>Termination</td>
<td>solder</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP67</td>
</tr>
<tr>
<td>Arrangement of contacts</td>
<td>clockwise</td>
</tr>
<tr>
<td>Cross-sectional area</td>
<td>16x1.00 / 3x1.50 mm² / 16x AWG 18 / 3x AWG 16</td>
</tr>
<tr>
<td>Cable outlet</td>
<td>6.0 - 10.0 mm</td>
</tr>
<tr>
<td>Temperature range from/to</td>
<td>-25 °C / 125 °C</td>
</tr>
<tr>
<td>Mechanical operation</td>
<td>&gt; 50 Mating cycles</td>
</tr>
<tr>
<td>Weight (g)</td>
<td>81</td>
</tr>
<tr>
<td>Customs tariff number</td>
<td>85369010</td>
</tr>
</tbody>
</table>

Electrical parameters

| Rated voltage | 150 V |
| Rated impulse voltage | 1500 V |
| Rated current (40 °C) | 16 x 8 A / 3 x 10 A |
| Insulation resistance | ≥ 10¹⁰ Ω |
| Pollution degree | 3 |
| Overvoltage category | II |
| Insulating material group | III |
| EMC compliance | unshielded |

Material

| Contact body material | PBT/PA66 |
| Contact material      | CuZn (brass) |
| Contact plating       | Au (gold) |
| REACH SVHC            | CAS 7439-92-1 (Lead) |

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Assembly instructions / Panel cut-out

- Push the cable screw connection (1), adapter (2) and coupling nut (3) onto the cable.
- Strip the cable coating by 20 mm.
- Trim foil, filler and inner insulation.
- Strip the single wires by 3.5 mm, twist and tin.
- Solder the single wires to the contacts.
- Insert the distance shell (4).
- Guide the insert (5) and distance shell (4) into the insert ring (6), mind that the desired coding groove of the insert (6) is pushed into the coding bar.

- Screw the adapter (2) as tight as possible.
- Screw the cable gland (1) as tight as possible.

Please note: torque for clamping screw for contact insert (5) with screw contacts:
- max. 0.1 Nm for screw contacts with mating dia. 1 mm
- max. 0.2 Nm for screw contacts with mating dia. 2 mm
Product data sheet

Power connectors

<table>
<thead>
<tr>
<th>Product description</th>
<th>M23 male cable connector, Contacts: 19, 6.0 - 10.0 mm, unshielded, solder, IP67</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>M23 series 623</td>
</tr>
<tr>
<td>Order number</td>
<td>99 4631 00 19</td>
</tr>
</tbody>
</table>

Security notices

The connector must not be plugged or unplugged under load. Non-observance and improper use can result in personal injury.

The connectors have been developed for applications in plant engineering, control and electrical equipment construction. The user is responsible for checking whether the connectors can also be used in other areas of application.

Connectors which are used in circuits with voltages dangerous to the touch may only be installed and used by, or under the supervision of, persons with electrical engineering training, taking into account the applicable regulations and standards.

Plug connectors with enclosure protection IP 67 and IP 68 are not suitable for use under water. When used outdoors, the plug connectors must be protected separately against corrosion. For further information on the IP protection classes, please refer to the "Technical Information" download centre.

To lock the cable connector with the device connector, the threaded ring is tightened "hand-tight" (approx. 50 cNm).
DECLARATION FROM THE MANUFACTURER

For part no.: 99 4631 00 19

06/10/2020

With regard to the


With the REACH regulation, the EU has created a uniform system for the Registration, Evaluation, Authorisation and restriction of Chemicals – or REACH. The purpose of this regulation is to ensure a high level of protection of human health and the environment.

Franz Binder GmbH & Co. Elektrische Bauelemente KG hereby confirms that it acts as a downstream user (producer of products) according to the aforementioned regulation.

We obtain all raw materials and/or preparations, from which the connectors are made, from suppliers who have already registered or pre-registered all substances, including those present in the preparations. The products supplied by the company are not subject to registration.

With regard to Article 33(1) of the REACH regulation, Franz Binder GmbH & Co. Elektrische Bauelemente KG complies with its information obligations:

An up-to-date candidate list (candidate list of substances of very high concern for authorisation, as of 25/06/2020 see: https://echa.europa.eu/de/candidate-list-table) in accordance with Article 59 (1, 10) of the regulation (EC) No 1907/2006 (REACH) has been published.
The aforementioned article includes the following substances from the up-to-date candidate list in concentrations of more than 0,1 percent by mass:

- CAS 7439-92-1 (Lead)

Please refer any questions to our Product Compliance Team:

Product-Compliance@binder-connector.de
DECLARATION FROM THE MANUFACTURER

For part no.: 99 4631 00 19 06/10/2020

With regard to the

COMMISSION DELEGATED DIRECTIVE (EU) 2015/863
of 31 March 2015
amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the
list of restricted substances

Directive 2011/65/EU stipulates provisions on the restriction of the use of hazardous substances in electrical
and electronic equipment (EEE) with a view to contributing to the protection of human health and the
environment, including the environmentally sound recovery and disposal of EEE waste.

ANNEX II
Restricted substances referred to in Article 4(1) and maximum concentration values tolerated by weight in
homogeneous materials

Lead (0,1%) mercury (0,1%) cadmium (0,01%) hexavalent chromium (0,1%) polybrominated biphenyls (PBB)
(0,1%) polybrominated diphenyl ethers (PBDE) (0,1%) bis(2-ethylhexyl) phthalate (DEHP) (0,1%) butyl benzyl
phthalate (BBP) (0,1%) dibutyl phthalate (DBP) (0,1%) diisobutyl phthalate (DIBP) (0,1%)

Franz Binder GmbH & Co. Elektrische Bauelemente KG hereby confirms that it complies with all standard
articles of the aforementioned Directive. Our products do not contain any of the specified prohibited
substances above the maximum permitted concentrations specified therein, taking into account the
exceptions in Annex III of Directive 2011/65/EU.

• Complies with RoHS III with exception 6c

Please refer any questions to our Product Compliance Team:
Product-Compliance@binder-connector.de
MANUFACTURER’S DECLARATION

For part no.: 99 4631 00 19  
06/10/2020

with regard to

Declaration of compliance with China RoHS – Components

We herewith declare the compliance of this product with the Chinese marking requirements. This product can be recycled and used safely during its environmentally friendly use period of 50 years. These articles will be sold as components only for manufacturing. According to the Electronic Industry Standard SJ/T 11364-2014 it needs not to be marked with Environmentally Friendly Use Period (EFUP) label. This product should be recycled after its environmental protection use period has expired because it may contain substances or elements as shown in the following table:

<table>
<thead>
<tr>
<th>Hazardous Substance</th>
<th>Part Name</th>
<th>Lead (Pb)</th>
<th>Mercury (Hg)</th>
<th>Cadmium (Cd)</th>
<th>Hexavalent Chromium (Cr(VI))</th>
<th>Polybrominated biphenyls (PBB)</th>
<th>Polybrominated diphenyl ethers (PBDE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connectors</td>
<td>X</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

This table is prepared in accordance with the provisions of SJ/T 11364.

O: Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572

X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572

The table shows where these substances may be found in this Electrical and Electronic Product.

Please refer any questions to our Product Compliance Team:

Product-Compliance@binder-connector.de