# Miniature connectors

## Product description
M16 IP40 male panel mount connector, Contacts: 4, unshielded, solder, IP40

### Area
- M16 IP40 series 680
- Order number
  - 09 0311 09 04

## Technical data

### General features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order number</td>
<td>09 0311 09 04</td>
</tr>
<tr>
<td>Connector design</td>
<td>male panel mount connector</td>
</tr>
<tr>
<td>Version</td>
<td>connector male 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>IP40</td>
</tr>
<tr>
<td>Cross-sectional area</td>
<td>0.75 mm² / AWG 18</td>
</tr>
<tr>
<td>Temperature range from/to</td>
<td>-40 °C / 85 °C</td>
</tr>
<tr>
<td>Mechanical operation</td>
<td>&gt; 500 Mating cycles</td>
</tr>
<tr>
<td>Weight (g)</td>
<td>10.745</td>
</tr>
<tr>
<td>Customs tariff number</td>
<td>85369010</td>
</tr>
</tbody>
</table>

### Material

- **Housing material**
  - Zinc die-cast nickel-plated
  - PBT (UL94 V-0)
- **Contact body material**
  - CuZn (brass)
- **Contact plating**
  - Au (gold)
- **REACH SVHC**
  - CAS 7439-92-1 (Lead)

### Electrical parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>250 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>1500 V</td>
</tr>
<tr>
<td>Rated current (40 °C)</td>
<td>6 A</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>≥ 10¹⁰ Ω</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>1</td>
</tr>
<tr>
<td>Overvoltage category</td>
<td>I</td>
</tr>
<tr>
<td>Insulating material group</td>
<td>III</td>
</tr>
<tr>
<td>EMC compliance</td>
<td>unshielded</td>
</tr>
</tbody>
</table>

## Illustration

- Scale drawing
- Contact arrangement (Plug-in side)

You can find the assembly instructions on the next page.
Product data sheet

Miniature connectors

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Assembly instructions / Panel cut-out

Date: 2020-10-07 - Page 2 of 3
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.

To protect against unintentional opening of the connector, the thread between the housing and the connector head must be secured with a suitable cyanoacrylate adhesive when used in circuits with voltages dangerous to the touch. This does not apply to connectors used in SELV and PELV circuits according to IEC 61140 (EN 61140, VDE 0140-1).

The plug connector is not suitable for mains voltages. Please observe the pollution degree and the overvoltage category. For further information, please refer to the download center "Technical Information".
DECLARATION FROM THE MANUFACTURER

For part no.: 09 0311 09 04

07/10/2020

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.: 09 0311 09 04 07/10/2020

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%)
- Dibuty 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.: 09 0311 09 04

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>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>
</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