

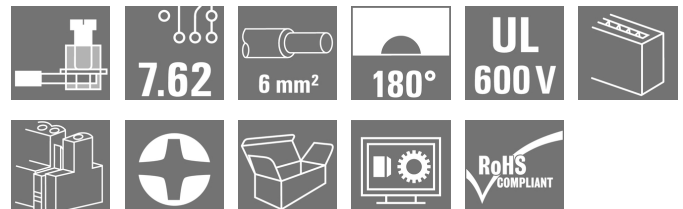
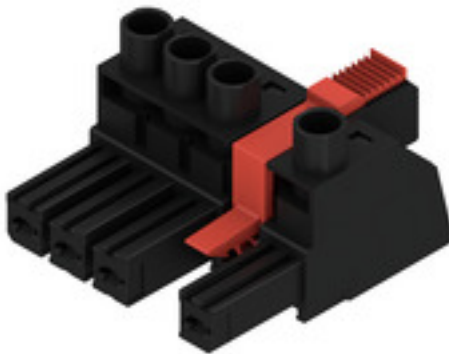
**BVZ 7.62IT/04/180MF2 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

180° female plug with a 7.62 pitch for IT power networks. Meets the requirements of UL1059 600 V class C. In combination with male header SV 7.62 IT.. with leading contact.

Meets the extended requirements on 5.5 mm touch safety for IT power networks as per IEC 61800-5-1 for 400 V to earth.

The self-locking (optionally also screwable) middle flange reduces the space requirements by one pitch width in comparison with conventional solutions.

On request also available without middle flange interlock.

**General ordering data**

|              |                                                                                                                                    |
|--------------|------------------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4, 180°, Clamping yoke connection, Clamping range, max.: 10 mm², Box |
| Order No.    | <a href="#">1156740000</a>                                                                                                         |
| Type         | BVZ 7.62IT/04/180MF2 SN BK BX                                                                                                      |
| GTIN (EAN)   | 4032248943845                                                                                                                      |
| Qty.         | 32 pc(s).                                                                                                                          |
| Product data | IEC: 1000 V / 57 A / 0.2 - 10 mm²<br>UL: 600 V / 40.5 A / AWG 24 - AWG 8                                                           |
| Packaging    | Box                                                                                                                                |

Creation date September 16, 2022 1:14:27 AM CEST

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**Technical data****Dimensions and weights**

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Depth      | 43.1 mm  | Depth (inches)  | 1.697 inch |
| Height     | 26.1 mm  | Height (inches) | 1.028 inch |
| Width      | 38.1 mm  | Width (inches)  | 1.5 inch   |
| Net weight | 23.068 g |                 |            |

**System Parameters**

|                                              |                                      |                                            |                   |
|----------------------------------------------|--------------------------------------|--------------------------------------------|-------------------|
| Product family                               | OMNIMATE Power - series BV/SV 7.62IT | Type of connection                         | Field connection  |
| Wire connection method                       | Clamping yoke connection             | Pitch in mm (P)                            | 7.62 mm           |
| Pitch in inches (P)                          | 0.3 inch                             | Conductor outlet direction                 | 180°              |
| Number of poles                              | 4                                    | L1 in mm                                   | 30.48 mm          |
| L1 in inches                                 | 1.2 inch                             | Number of rows                             | 1                 |
| Pin series quantity                          | 1                                    | Rated cross-section                        | 6 mm <sup>2</sup> |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch               | Touch-safe protection acc. to DIN VDE 0470 | IP 20             |
| Volume resistance                            | 4.50 mΩ                              | Can be coded                               | Yes               |
| Stripping length                             | 12 mm                                | Tightening torque, min.                    | 0.5 Nm            |
| Tightening torque, max.                      | 0.6 Nm                               | Clamping screw                             | M 3               |
| Screwdriver blade                            | 0.6 x 3.5                            | Plugging cycles                            | 25                |
| Plugging force/pole, max.                    | 14 N                                 | Pulling force/pole, max.                   | 14 N              |

**Material data**

|                                       |                    |                                       |        |
|---------------------------------------|--------------------|---------------------------------------|--------|
| Insulating material                   | PA GF              | Colour                                | black  |
| Colour chart (similar)                | RAL 9011           | Insulating material group             | II     |
| Comparative Tracking Index (CTI)      | ≥ 500              | UL 94 flammability rating             | V-0    |
| Contact material                      | Copper alloy       | Contact surface                       | tinned |
| Layer structure of plug contact       | 6...8 µm Sn glossy | Storage temperature, min.             | -40 °C |
| Storage temperature, max.             | 70 °C              | Operating temperature, min.           | -50 °C |
| Operating temperature, max.           | 125 °C             | Temperature range, installation, min. | -25 °C |
| Temperature range, installation, max. | 125 °C             |                                       |        |

**Conductors suitable for connection**

|                                                                      |                         |
|----------------------------------------------------------------------|-------------------------|
| Clamping range, min.                                                 | 0.2 mm <sup>2</sup>     |
| Clamping range, max.                                                 | 10 mm <sup>2</sup>      |
| Solid, min. H05(07) V-U                                              | 0.2 mm <sup>2</sup>     |
| Solid, max. H05(07) V-U                                              | 6 mm <sup>2</sup>       |
| Flexible, min. H05(07) V-K                                           | 0.5 mm <sup>2</sup>     |
| Flexible, max. H05(07) V-K                                           | 10 mm <sup>2</sup>      |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.25 mm <sup>2</sup> min. |                         |
| w. plastic collar ferrule, DIN 46228 pt 4, 6 mm <sup>2</sup> max.    |                         |
| w. wire end ferrule, DIN 46228 pt 1, 0.25 mm <sup>2</sup> min.       |                         |
| w. wire end ferrule, DIN 46228 pt 1, 6 mm <sup>2</sup> max.          |                         |
| Plug gauge in accordance with EN 60999 a x b; ø                      | 2.8 mm x 2.0 mm; 2.4 mm |

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**Technical data**

|                                        |                                                                                                                                                                        |                              |                             |       |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|-------|
| Clampable conductor                    | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                  |       |
|                                        |                                                                                                                                                                        | nominal                      | 0.5 mm <sup>2</sup>         |       |
|                                        | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                     | 14 mm |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.5/18 OR</a>  |       |
|                                        | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                  |       |
|                                        |                                                                                                                                                                        | nominal                      | 1 mm <sup>2</sup>           |       |
|                                        | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                     | 15 mm |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.0/18 GE</a>  |       |
|                                        | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                  |       |
|                                        |                                                                                                                                                                        | nominal                      | 1.5 mm <sup>2</sup>         |       |
|                                        | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                     | 15 mm |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.5/18D SW</a> |       |
|                                        |                                                                                                                                                                        | Stripping length             | nominal                     | 12 mm |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.5/12</a>     |       |
|                                        | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                  |       |
|                                        |                                                                                                                                                                        | nominal                      | 0.75 mm <sup>2</sup>        |       |
|                                        | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                     | 14 mm |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.75/18 W</a>  |       |
|                                        | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                  |       |
|                                        |                                                                                                                                                                        | nominal                      | 2.5 mm <sup>2</sup>         |       |
|                                        | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                     | 14 mm |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H2.5/19D BL</a> |       |
|                                        |                                                                                                                                                                        | Stripping length             | nominal                     | 12 mm |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H2.5/12</a>     |       |
|                                        | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                  |       |
|                                        |                                                                                                                                                                        | nominal                      | 4 mm <sup>2</sup>           |       |
| wire end ferrule                       | Stripping length                                                                                                                                                       | nominal                      | 12 mm                       |       |
|                                        | Recommended wire-end ferrule                                                                                                                                           | <a href="#">H4.0/12</a>      |                             |       |
|                                        | Stripping length                                                                                                                                                       | nominal                      | 14 mm                       |       |
|                                        | Recommended wire-end ferrule                                                                                                                                           | <a href="#">H4.0/20D GR</a>  |                             |       |
| Cross-section for conductor connection | Type                                                                                                                                                                   | fine-wired                   |                             |       |
|                                        | nominal                                                                                                                                                                | 6 mm <sup>2</sup>            |                             |       |
| wire end ferrule                       | Stripping length                                                                                                                                                       | nominal                      | 14 mm                       |       |
|                                        | Recommended wire-end ferrule                                                                                                                                           | <a href="#">H6.0/20 SW</a>   |                             |       |
|                                        | Stripping length                                                                                                                                                       | nominal                      | 12 mm                       |       |
|                                        | Recommended wire-end ferrule                                                                                                                                           | <a href="#">H6.0/12</a>      |                             |       |
| Reference text                         | The outside diameter of the plastic collar should not be larger than the pitch (P), Length of ferrules is to be chosen depending on the product and the rated voltage. |                              |                             |       |

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**Technical data****Rated data acc. to IEC**

tested acc. to standard

IEC 60664-1, IEC 61984

Rated current, min. number of poles  
( $T_u=40^{\circ}\text{C}$ )

41 A

Rated voltage for surge voltage class /  
pollution degree III/2

1,000 V

Rated impulse voltage for surge voltage  
class/ pollution degree II/2

6 kV

Rated impulse voltage for surge voltage  
class/ contamination degree III/3

8 kV

Clearance, min.

10.2 mm

Rated current, min. number of poles  
( $T_u=20^{\circ}\text{C}$ )

57 A

Rated voltage for surge voltage class /  
pollution degree II/2

1,000 V

Rated voltage for surge voltage class /  
pollution degree III/3

800 V

Rated impulse voltage for surge voltage  
class/ pollution degree III/2

8 kV

Short-time withstand current resistance

3 x 1s with 420 A

Creepage distance, min.

13.8 mm

**Rated data acc. to CSA**

Institute (CSA)



Certificate No. (CSA)

200039-1121690

Rated voltage (Use group B / CSA)

600 V

Rated voltage (Use group D / CSA)

600 V

Rated current (Use group C / CSA)

40.5 A

Wire cross-section, AWG, min.

AWG 24

Reference to approval values

Specifications are  
maximum values, details -  
see approval certificate.

Rated voltage (Use group C / CSA)

600 V

Rated current (Use group B / CSA)

40.5 A

Rated current (Use group D / CSA)

5 A

Wire cross-section, AWG, max.

AWG 8

**Rated data acc. to UL 1059**

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059)

600 V

Rated voltage (Use group D / UL 1059)

600 V

Rated current (Use group C / UL 1059)

40.5 A

Wire cross-section, AWG, min.

AWG 24

Reference to approval values

Specifications are  
maximum values, details -  
see approval certificate.

Rated voltage (Use group C / UL 1059)

600 V

Rated current (Use group B / UL 1059)

40.5 A

Rated current (Use group D / UL 1059)

5 A

Wire cross-section, AWG, max.

AWG 8

**Packing**

Packaging

Box

VPE length

351 mm

VPE width

135 mm

VPE height

49 mm

**Classifications**

ETIM 6.0

EC002638

ETIM 7.0

EC002638

ETIM 8.0

EC002638

ECLASS 9.0

27-44-03-09

ECLASS 9.1

27-44-03-09

ECLASS 10.0

27-44-03-09

ECLASS 11.0

27-46-02-02

ECLASS 12.0

27-46-02-02

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**Technical data****Important note**

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IPC conformity | Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.                                                                                                                                                                                                                                                                                                                      |
| Notes          | <ul style="list-style-type: none"> <li>• Additional variants on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• P on drawing = pitch</li> <li>• Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.</li> <li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul> |

**Approvals**

Approvals



|                         |            |
|-------------------------|------------|
| ROHS                    | Conform    |
| UL File Number Search   | UL Website |
| Certificate No. (cURus) | E60693     |

**Downloads**

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>                                                                                                                                                                                                                                                                                                                                                                  |
| Engineering Data                            | <a href="#">CAD data – STEP</a>                                                                                                                                                                                                                                                                                                                                                                                  |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                                                                                                                                                                                                                                                                                                                                                                     |
| Product Change Notification                 | <a href="#">20220201 Visual change OMNIMATE® Power PCB terminal blocks and connectors</a><br><a href="#">20220201 Visuelle Änderung OMNIMATE® Power Leiterplattenklemmen und -steckverbinder</a><br><a href="#">20220208 Visual change Temporarily different color for connectors and accessories</a><br><a href="#">20220208 Visuelle Änderung Vorübergehend anderer Farbton für Steckverbinder und Zubehör</a> |
| User Documentation                          | <a href="#">QR-Code product handling video</a>                                                                                                                                                                                                                                                                                                                                                                   |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                                                                                                                                                                                                                                                                                                                                                         |
| Brochures                                   | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">FL HEATING ELECTR EN</a><br><a href="#">FL APPL. INVERTER EN</a><br><a href="#">FL BASE STATION EN</a><br><a href="#">FL ELEVATOR EN</a><br><a href="#">FL POWER SUPPLY EN</a><br><a href="#">FL 72H SAMPLE SER EN</a><br><a href="#">PO OMNIMATE EN</a><br><a href="#">PO OMNIMATE EN</a>    |

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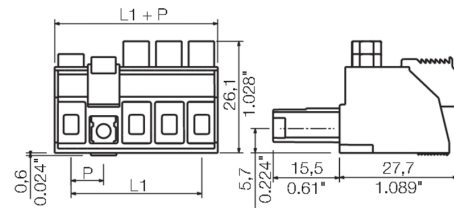
[www.weidmueller.com](http://www.weidmueller.com)

# Drawings

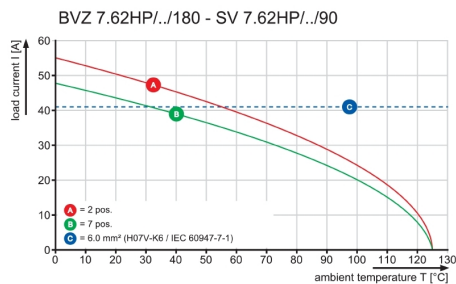
## Product image



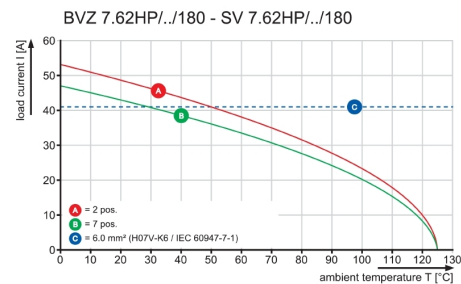
## Dimensional drawing



## Graph



## Graph



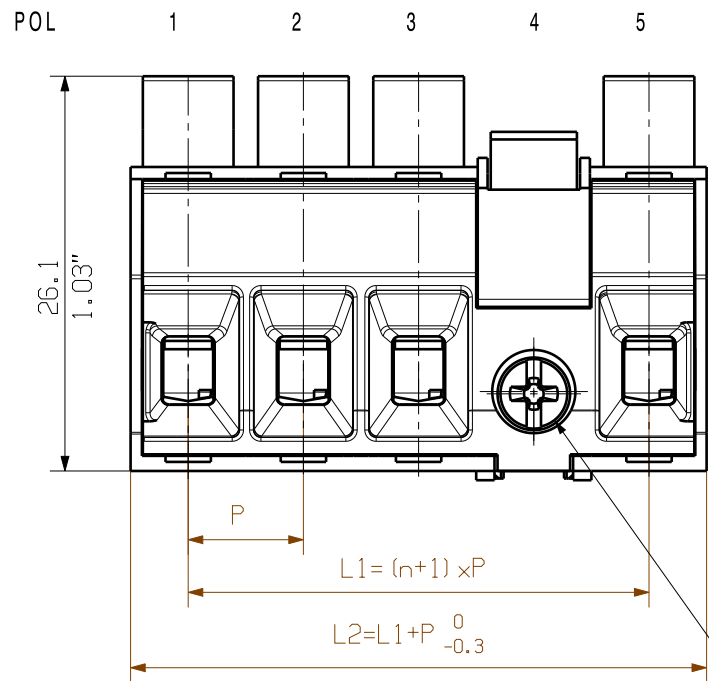
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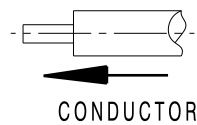
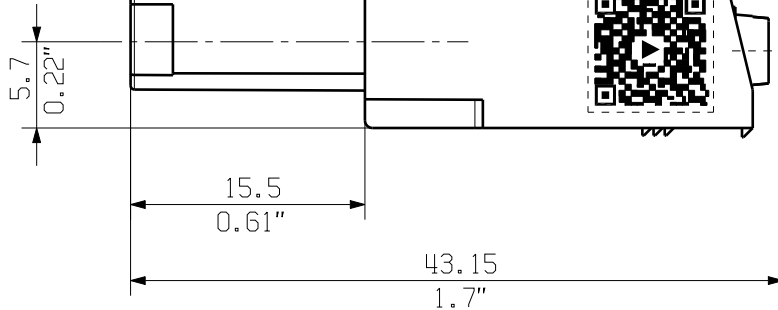
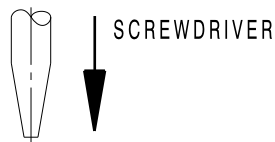
Dimensions without tolerances are no check dimensions

The English version is binding

BVZ 7.62IT/04/180M(S)F4



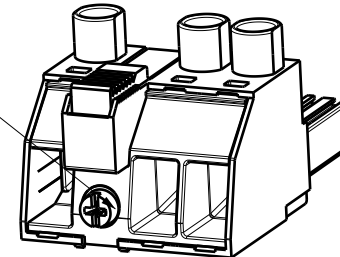
OPTION SCREW



CONDUCTOR

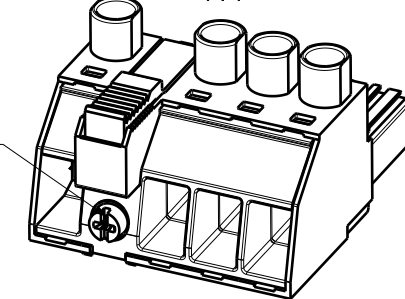
BVZ 7.62IT/03/180M(S)F2  
1:1

OPTION SCREW



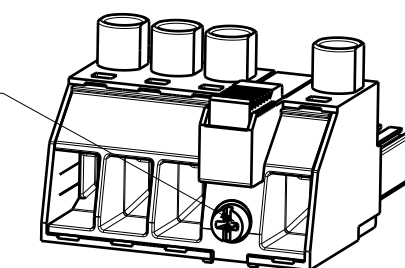
BVZ 7.62IT/04/180M(S)F2  
1:1

OPTION SCREW



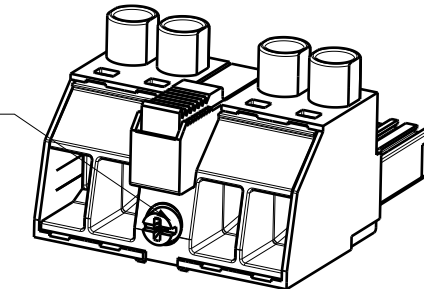
BVZ 7.62IT/04/180M(S)F4  
1:1

OPTION SCREW



BVZ 7.62IT/04/180M(S)F3  
1:1

OPTION SCREW



P=RASTER/PITCH  
MF =MITTELFANSCH/MIDDLE FLANGE  
PE= POTENTIAL ERDE/GROUND  
n=POLZAHL/NO. OF POLES  
POL= POL/POLES

|                           |          |     |     |     |     |   |       |      |
|---------------------------|----------|-----|-----|-----|-----|---|-------|------|
| BVZ7.62IT/03/180 MF 2     | POL      | MF  | POL | POL |     | 7 | 53,34 | 2,10 |
| BVZ7.62IT/04/180 MF 3     | POL      | POL | MF  | POL | POL | 6 | 45,72 | 1,80 |
| BVZ7.62IT/04/180 MF 4     | POL      | POL | POL | MF  | POL | 5 | 38,10 | 1,50 |
| BVZ7.62IT/04/180 MF 2     | POL      | MF  | POL | POL | POL | 4 | 30,48 | 1,20 |
|                           |          |     |     |     |     | 3 | 22,86 | 0,90 |
|                           |          |     |     |     |     | 2 | 15,24 | 0,60 |
| BEZEICHNUNG/<br>PART NAME | 1        | 2   | 3   | 4   | 5   |   | MM    | INCH |
|                           | POSITION |     |     |     |     | n | L1    |      |

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

HINWEIS: QR Code bitte noch nicht berücksichtigen!  
INFORMATION: Please do not consider the QR code yet

GENERAL TOLERANCE:  
DIN ISO 2768-mK

|                                 |                                        |                                     |
|---------------------------------|----------------------------------------|-------------------------------------|
| EC00001333                      | Prim PLM Part No.: 011202              | Prim ERP Part No.: 1312730000       |
| RoHS COMPLIANT                  | Max. nos.                              | <b>Weidmüller</b>                   |
| First Issue Date<br>24.06.2011  | Modification                           |                                     |
| Scale: 2:1                      | Size: A3                               | Drawn<br>29.04.2019<br>Helis, Maria |
| Drawings Assembly               | Approved<br>14.05.2019<br>Lang, Thomas | Responsible<br>Döhrer, Karl         |
| Product file: 7391 BVZ7.62HP_MF |                                        |                                     |

BVZ 7.62IT/./180MF...  
BUCHSENLEISTE  
SOCKET BLOCK

50052  
Drawing no. Issue no.  
Sheet 02 of 05 sheets

16