

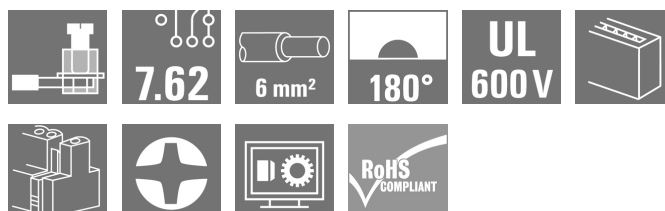
**BVZ 7.62IT/04/180MF3 SN BK BX****Weidmüller Interface GmbH & Co. KG**

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="#">1312730000</a>  |
| Type         | BVZ 7.62IT/04/180MF3 SN BK BX   |
| GTIN (EAN)   | 4050118115635   |
| 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 May 16, 2024 6:40:09 PM CEST

Catalogue status 04.05.2024 / We reserve the right to make technical changes.

**BVZ 7.62IT/04/180MF3 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**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 | 23.06 g |                 |            |

**System Parameters**

|  |   |  |                   |
|--|---|--|-------------------|
| Product family                               | OMNIMATE Power - series<br>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 "                                   | Conductor outlet direction                 | 180°              |
| Number of poles                              | 4                                       | L1 in mm                                   | 30.48 mm          |
| L1 in inches                                 | 1.2 "                                   | 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 |

**BVZ 7.62IT/04/180MF3 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**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. |                              |                             |

## BVZ 7.62IT/04/180MF3 SN BK BX

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Technical data


## Rated data acc. to IEC

|   |                        |   |                   |
|---|------------------------|---|-------------------|
| tested acc. to standard   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 57 A              |
| Rated current, min. number of poles (Tu=40°C)                             | 41 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 1,000 V           |
| Rated voltage for surge voltage class / pollution degree III/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 II/2      | 6 kV                   | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 8 kV              |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 8 kV                   | Short-time withstand current resistance                               | 3 x 1s with 420 A |
| Clearance, min.   | 10.2 mm                | Creepage distance, min.   | 13.8 mm           |

## Rated data acc. to CSA

|                                   |        |                                   |        |
|-----------------------------------|--------|-----------------------------------|--------|
| Rated voltage (Use group B / CSA) | 600 V  | Rated voltage (Use group C / CSA) | 600 V  |
| Rated voltage (Use group D / CSA) | 600 V  | Rated current (Use group B / CSA) | 40.5 A |
| Rated current (Use group C / CSA) | 40.5 A | Rated current (Use group D / CSA) | 5 A    |
| Wire cross-section, AWG, min.     | AWG 24 | 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 C / UL 1059) | 600 V   |
| Rated voltage (Use group D / UL 1059) | 600 V   | Rated voltage (Use group F / UL 1059) | 1,000 V |
| Rated current (Use group B / UL 1059) | 40.5 A  | Rated current (Use group C / UL 1059) | 40.5 A  |
| Rated current (Use group D / UL 1059) | 5 A   | Rated current (Use group F / UL 1059) | 40.5 A  |
| Wire cross-section, AWG, min.         | AWG 24  | Wire cross-section, AWG, max.         | AWG 8   |
| Reference to approval values          | Specifications are maximum values, details - see approval certificate.              |                                       |         |

## 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    | ETIM 9.0    | 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 | ECLASS 13.0 | 27-46-02-02 |

## BVZ 7.62IT/04/180MF3 SN BK BX

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## 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>• In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul> |

## Approvals

Approvals



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

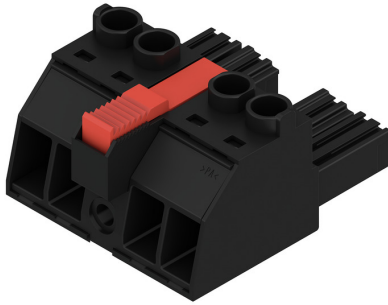
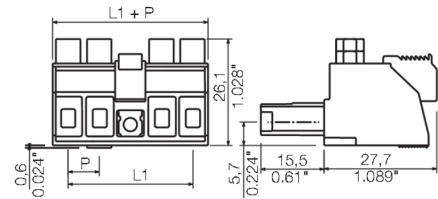
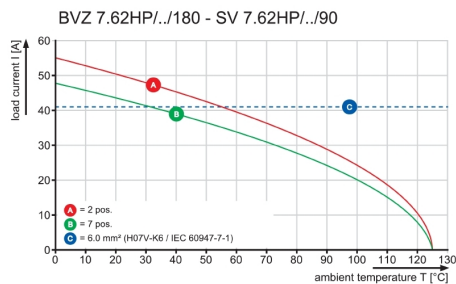
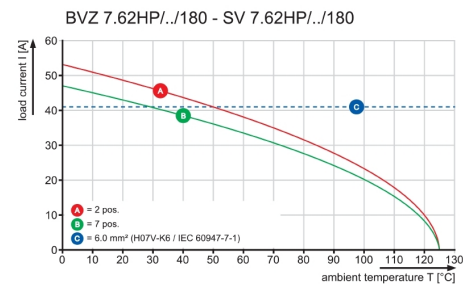
## Downloads

|   |  |
|---|--|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>  |
| Engineering Data                            | <a href="#">CAD data – STEP</a>  |
| 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>                                       |

**BVZ 7.62IT/04/180MF3 SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

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

**Drawings**
**Product image**

**Dimensional drawing**

**Graph**

**Graph**


## BVZ 7.62IT/04/180MF3 SN BK BX

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Accessories

## Crosshead screwdriver Phillips



VDE insulated crosshead screwdriver, for Phillips screws, SDIK PH DIN 7438, ISO 8764/2-PH, output to ISO 8764-PH, SoftFinish grip

## General ordering data

|            |                            |                          |
|------------|----------------------------|--------------------------|
| Type       | SDIK PH1                   | Version                  |
| Order No.  | <a href="#">9008570000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056569              |                          |
| Qty.       | 1 pc(s).                   |                          |

## Coding elements



**The pluggable connections for power electronics - optimised for modern drive technologies, e.g. motor starters, frequency converters and servo-controllers.**

OMNIMATE Power sets the new standard – with increased safety and innovative solutions such as the pluggable shield, integrated signal contacts and one-handed operation.

The three product lines offer you further advantages:

- Application-oriented scalability: from the compact 4 mm<sup>2</sup> connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm<sup>2</sup> connector for 76 A (IEC) or 54 A (UL)
- Unlimited usage up to 1,000 V (IEC) or 600 V (UL)
- A variety of application optimised mounting options

Our Service:

Design your individual connectors simply by using the

## General ordering data

|            |                            |  |              |           |
|------------|----------------------------|--|--------------|-----------|
| Type       | BV/SV 7.62HP KO RD 2022    | Version  | Product data | Packaging |
| Order No.  | <a href="#">2007300000</a> | PCB plug-in connector, Accessories, Coding element, red, Number of |              | Box       |
| GTIN (EAN) | 4050118392715              | poles: 1   |              |           |
| Qty.       | 20 pc(s).                  |  |              |           |

**BVZ 7.62IT/04/180MF3 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Slotted screwdriver**

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

**General ordering data**

|            |                            |                          |
|------------|----------------------------|--------------------------|
| Type       | SDIS 0.8X4.0X100           | Version                  |
| Order No.  | <a href="#">9008400000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056361              |                          |
| Qty.       | 1 pc(s).                   |                          |

**Slotted screwdriver**

Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

**General ordering data**

|            |                            |                          |
|------------|----------------------------|--------------------------|
| Type       | SDS 0.8X4.5X125            | Version                  |
| Order No.  | <a href="#">9009020000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248266883              |                          |
| Qty.       | 1 pc(s).                   |                          |



**BVZ 7.62IT/04/180MF3 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Crosshead screwdriver Phillips**

Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

**General ordering data**

|            |                            |                          |
|------------|----------------------------|--------------------------|
| Type       | SDK PH1                    | Version                  |
| Order No.  | <a href="#">9008480000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056477              |                          |
| Qty.       | 1 pc(s).                   |                          |

**Crimping tools****Crimping tools for wire end ferrules, with and without plastic collars**

- Ratchet guarantees precise crimping
- Release option in the event of incorrect operation

**General ordering data**

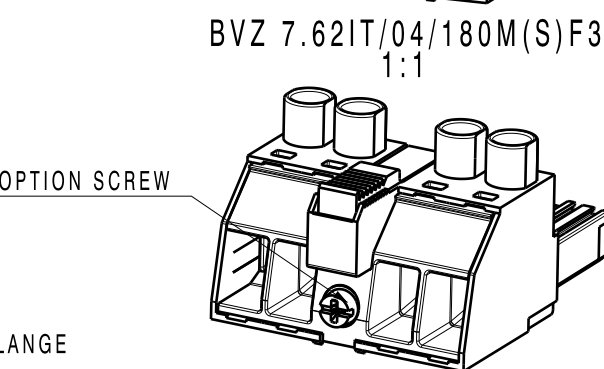
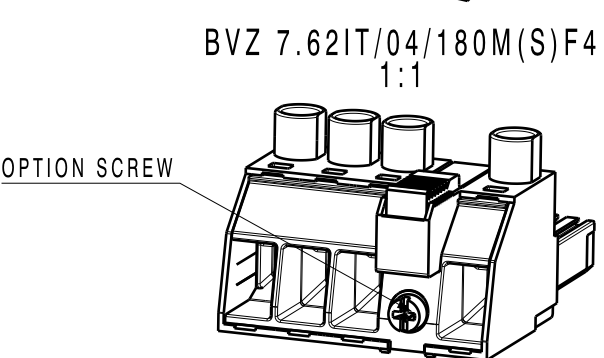
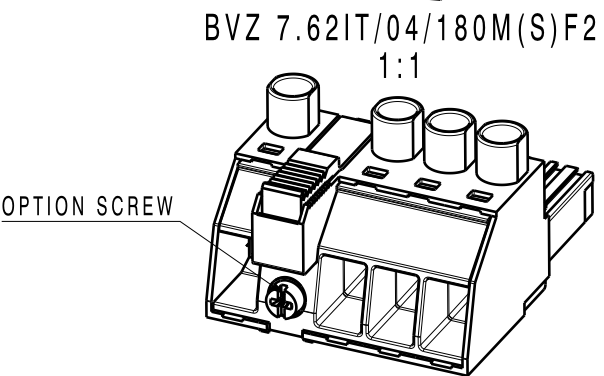
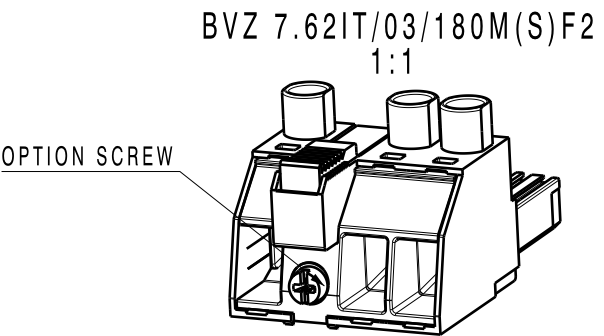
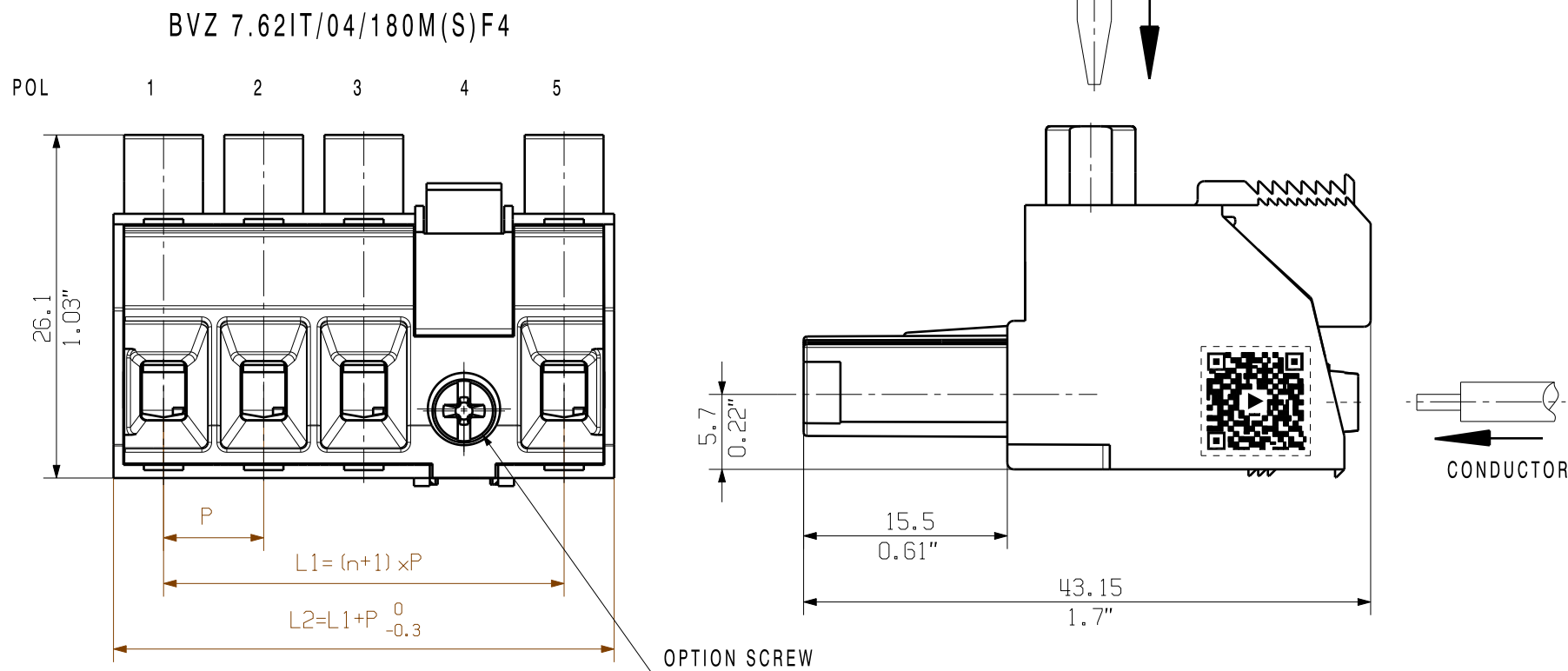
|            |                            |  |
|------------|----------------------------|--|
| Type       | PZ 6/5                     | Version  |
| Order No.  | <a href="#">9011460000</a> | Pressing tool, Crimping tool for wire-end ferrules, 0.25mm <sup>2</sup> , 6mm <sup>2</sup> , |
| GTIN (EAN) | 4008190165352              | Trapezoidal indentation crimp  |
| Qty.       | 1 pc(s).                   |  |

The reproduction, distribution and utilization of this document as well as the communication of its contents to others without explicit authorization is prohibited. Offenders will be held liable for the payment of damages. Weidmüller exclusively reserves the right to file for patents, utility models or designs.

© Weidmüller Interface GmbH & Co. KG

Dimensions without tolerances are no check dimensions

The English version is binding



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   | n  | MM    | INCH |
|                           | POSITION |     |     |     |     | 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

RoHS COMPLIANT

EC00001333

First Issue Date

24.06.2011

Max. nos.

Modification

Drawn

29.04.2019

Helis, Maria

Responsible

Döhrer, Karl

Approved

14.05.2019

Lang, Thomas

Scale: 2:1

Size: A3

Drawings Assembly

Prim PLM Part No.: 011202

Prim ERP Part No.: 1312730000

**Weidmüller**

**50052**

Drawing no. 16

Sheet 02 of 05 sheets

**BVZ 7.62IT/./180MF...**

BUCHSENLEISTE

SOCKET BLOCK

Product file: 7391 BVZ7.62HP\_MF