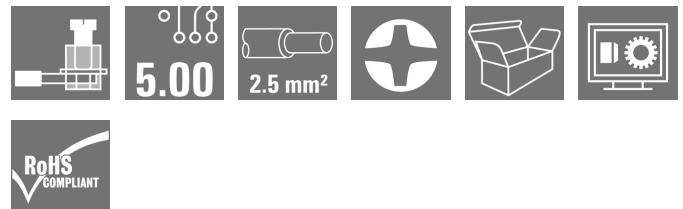
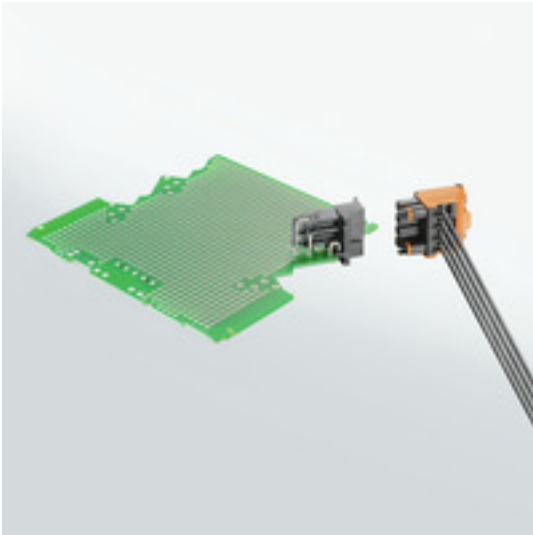


## OMNIMATE Housing - series CH20M BHZ 5.00/04/90LH BK/BK

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
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### Naturally, the CH20M system also shows its perfection in the peripheral interface.

When considering design options, processing, usability, reliability and security, the PCB terminals or pin headers and connectors are just as important in the practice as the entire system.

In every sector, the connection technology is at the top of its class.

- **100% non-interchangeable** Together with the captive, unique "Auto-Set" encoding, the uniquely detectable markers on the plug connection and in the front ensure misconnection-proof assignment of the connections. Both markers can be printed as cards in a PrintJet and then permanently snapped on.
- **100% intuitive** Quick and easy operation by means of an integrated colour-coded release lever with grip tab and including a screwdriver pocket.
- **100% safe** Touch protection for the male and female header on both sides
- **100% efficient** All PCB connection elements are reflow compatible
- **100% time and cost savings** During the installation: the quick all-purpose "Multi-Tool" screw head ensures a secure contact, user-friendly operation and less complexity. Additional features, such as the "Wire ready" technology, enable you to minimize wiring costs and increase customer satisfaction.

Simple, component-friendly unplugging of the female plug using the integrated release lever.

### General ordering data

|              |   |
|--------------|---|
| Type         | BHZ 5.00/04/90LH BK/BK  |
| Order No.    | <a href="#">1069350000</a>  |
| Version      | PCB plug-in connector Black release lever BHZ 5.00/04/90LH SN BK/BK BX              |
| GTIN (EAN)   | 4032248825011   |
| Qty.         | 78 pc(s).   |
| Product data | IEC: 400 V / 10 A / 0.2 - 2.5 mm <sup>2</sup><br>UL: 300 V / 10 A / AWG 26 - AWG 12 |
| Packaging    | Box   |

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

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Length     | 14.6 mm | Length (inches) | 0.575 inch |
| Width      | 22.4 mm | Width (inches)  | 0.882 inch |
| Height     | 29 mm   | Height (inches) | 1.142 inch |
| Net weight | 9.218 g |                 |            |

**System specifications**

| Product family                           | OMNIMATE Housing - series CH20M | Type of connection                       | Field connection |
|--|---------------------------------|--|------------------|
| Pitch in mm (P)                          | 5 mm                            | Pitch in inches (P)                      | 0.197 inch       |
| Number of poles                          | 4                               | L1 in mm                                 | 15 mm            |
| L1 in inches                             | 0.591 inch                      | Number of rows                           | 1                |
| Pin series quantity                      | 1                               | Can be coded                             | Yes              |
| Tightening torque for screw flange, min. | 0.4 Nm                          | Tightening torque for screw flange, max. | 0.6 Nm           |
| Plugging cycles                          | 25                              |  |                  |

**Material data**

|                                       |            |                                       |                     |
|---------------------------------------|------------|---------------------------------------|---------------------|
| Insulating material                   | PA 66 GV30 | Colour                                | black               |
| Colour chart (similar)                | RAL 9011   | Insulating material group             | II                  |
| Comparative Tracking Index (CTI)      | ≥ 400      | Insulation strength                   | ≥ 10 <sup>8</sup> Ω |
| UL 94 flammability rating             | V-0        | Contact material                      | CuSn                |
| Contact surface                       | tinned     | Storage temperature, min.             | -40 °C              |
| Storage temperature, max.             | 50 °C      | Max. relative humidity during storage | 70 %                |
| Operating temperature, min.           | -40 °C     | Operating temperature, max.           | 120 °C              |
| Temperature range, installation, min. | -25 °C     | Temperature range, installation, max. | 120 °C              |

**Conductors suitable for connection**

|   |                         |   |  |
|---|-------------------------|---|--|
| Clamping range, min.                            | 0.13 mm <sup>2</sup>    | Clamping range, max.                            | 3.31 mm <sup>2</sup>   |
| Wire connection cross section AWG, min.         | AWG 26                  | Wire connection cross section AWG, max.         | AWG 14   |
| Solid, min. H05(07) V-U                         | 0.2 mm <sup>2</sup>     | Solid, max. H05(07) V-U                         | 2.5 mm <sup>2</sup>  |
| Stranded, max. H07V-R                           | 2 mm <sup>2</sup>       | Flexible, min. H05(07) V-K                      | 0.2 mm <sup>2</sup>  |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.25 mm <sup>2</sup>    | w. plastic collar ferrule, DIN 46228 pt 4, max. | 2.5 mm <sup>2</sup>  |
| w. wire end ferrule, DIN 46228 pt 1, min.       | 0.25 mm <sup>2</sup>    | w. wire end ferrule, DIN 46228 pt 1, max.       | 2.5 mm <sup>2</sup>  |
| Plug gauge in accordance with EN 60999 a x b; ø |                         | 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. |
|   | 2.8 mm x 2.4 mm; 3.0 mm |   |  |
| Max. clamping range                             | 3.31 mm <sup>2</sup>    |   |  |

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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<br>(Tu=20°C)                         | 10 A  |
| Rated current, min. number of poles<br>(Tu=40°C)                             | 9 A                    | Rated voltage for surge voltage class /<br>pollution degree II/2         | 400 V |
| Rated voltage for surge voltage class /<br>pollution degree III/2            | 320 V                  | Rated voltage for surge voltage class /<br>pollution degree III/3        | 250 V |
| Rated impulse voltage for surge voltage<br>class/ pollution degree II/2      | 4 kV                   | Rated impulse voltage for surge voltage<br>class/ pollution degree III/2 | 4 kV  |
| Rated impulse voltage for surge voltage<br>class/ contamination degree III/3 | 4 kV                   | Clearance, min.  | 3 mm  |
| Creepage distance, min.  | 3.2 mm                 |  |       |

**Rated data acc. to CSA**

|                                   |        |                                   |        |
|-----------------------------------|--------|-----------------------------------|--------|
| Rated voltage (Use group B / CSA) | 300 V  | Rated voltage (Use group C / CSA) | 50 V   |
| Rated voltage (Use group D / CSA) | 300 V  | Rated current (Use group B / CSA) | 10 A   |
| Rated current (Use group C / CSA) | 10 A   | Rated current (Use group D / CSA) | 10 A   |
| Wire cross-section, AWG, min.     | AWG 26 | Wire cross-section, AWG, max.     | AWG 12 |

**Rated data acc. to UL 1059**

|                                       |   |                                       |        |
|---------------------------------------|---|---------------------------------------|--------|
| Institute (cURus)                     |  | Certificate No. (cURus)               | E60693 |
| Rated voltage (Use group B / UL 1059) | 300 V   | Rated voltage (Use group C / UL 1059) | 50 V   |
| Rated voltage (Use group D / UL 1059) | 300 V   | Rated current (Use group B / UL 1059) | 10 A   |
| Rated current (Use group C / UL 1059) | 10 A  | Rated current (Use group D / UL 1059) | 10 A   |
| Wire cross-section, AWG, min.         | AWG 26  | Wire cross-section, AWG, max.         | AWG 12 |
| Reference to approval values          | Specifications are maximum values, details - see approval certificate.              |                                       |        |

**Classifications**

|             |             |            |             |
|-------------|-------------|------------|-------------|
| ETIM 6.0    | EC002638    | ETIM 7.0   | EC002638    |
| eClass 9.0  | 27-44-03-09 | eClass 9.1 | 27-44-03-09 |
| eClass 10.0 | 27-44-03-09 |            |             |

**Notes**

|                |  |
|----------------|--|
| 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. |
|----------------|--|

**Approvals**

|           |   |
|-----------|---|
| Approvals |  |
| ROHS      | Conform   |

**Data sheet****OMNIMATE Housing - series CH20M  
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**Technical data****Downloads**

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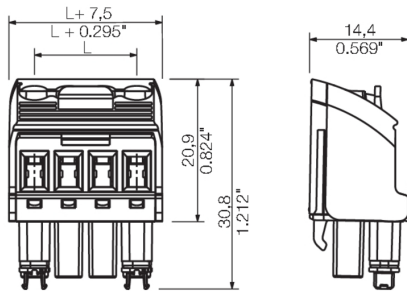
|                    |  |
|--------------------|--|
| Brochure/Catalogue | <a href="#">FL ANALO.SIGN.CONV. EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">CAT 2 PORTFOLIOGUIDE EN</a><br><a href="#">FL MACHINE SAFETY EN</a><br><a href="#">FL 72H SAMPLE SER EN</a><br><a href="#">PO OMNIMATE EN</a> |
| Engineering Data   | <a href="#">EPLAN, WSCAD</a>   |
| Engineering Data   | <a href="#">STEP</a>   |

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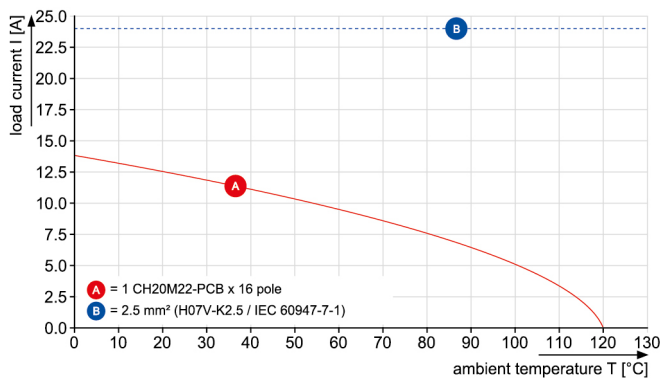
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**Drawings**



BHZ 5.00/..90 - SHL-SMT 5.00/..G



BHZ 5.00/..90 - SHL-SMT 5.00/..G

