

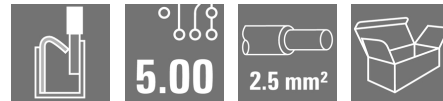
BHF 5.00/03/180LH BK/OR**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image**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 re-flow 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

| | |
|--------------|---|
| Version | PCB plug-in connector, female plug, 5.00 mm, Number of poles: 3, 180°, PUSH IN with actuator, Tension-clamp connection, Box |
| Order No. | 1989210000 |
| Type | BHF 5.00/03/180LH BK/OR |
| GTIN (EAN) | 4050118373639 |
| Qty. | 108 pc(s). |
| Product data | IEC: 400 V / 10 A / 0.2 - 2.5 mm ² UL: 300 V / 10 A / AWG 26 - AWG 14 |
| Packaging | Box |

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Technical data

Dimensions and weights

| | | | |
|------------|----------|-----------------|------------|
| Depth | 30.82 mm | Depth (inches) | 1.213 inch |
| Width | 17.5 mm | Width (inches) | 0.689 inch |
| Length | 14.6 mm | Length (inches) | 0.575 inch |
| Net weight | 6.91 g | | |

System Parameters

| | | | |
|------------------------|---|----------------------------|---------------------|
| Product family | OMNIMATE Housing - series CH20M | Type of connection | Field connection |
| Wire connection method | PUSH IN with actuator, Tension-clamp connection | Pitch in mm (P) | 5 mm |
| Pitch in inches (P) | 0.197 " | Conductor outlet direction | 180° |
| Number of poles | 3 | L1 in mm | 10 mm |
| L1 in inches | 0.394 " | Number of rows | 1 |
| Pin series quantity | 1 | Rated cross-section | 2.5 mm ² |
| Protection degree | IP20 | Volume resistance | ≤5 mΩ |
| Can be coded | Yes | Stripping length | 10 mm |
| Plugging cycles | 25 | | |

Material data

| | | | |
|---------------------------------------|-------------|---------------------------------------|--------|
| Insulating material | PA 66 GF 30 | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | I |
| Comparative Tracking Index (CTI) | 600 ≤ CTI | UL 94 flammability rating | V-0 |
| Contact material | Cu-alloy | Contact surface | tinned |
| Storage temperature, min. | -40 °C | Storage temperature, max. | 70 °C |
| 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

| | | | |
|---|-------------------------|---|--|
| Wire connection cross section AWG, min. | AWG 24 | Wire connection cross section AWG, max. | AWG 14 |
| Solid, min. H05(07) V-U | 0.2 mm ² | Solid, max. H05(07) V-U | 1.5 mm ² |
| Stranded, min. H07V-R | 0.2 mm ² | Stranded, max. H07V-R | 2.5 mm ² |
| Flexible, min. H05(07) V-K | 0.2 mm ² | Flexible, max. H05(07) V-K | 2.5 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.25 mm ² | w. plastic collar ferrule, DIN 46228 pt 4, max. | 2.5 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.25 mm ² | w. wire end ferrule, DIN 46228 pt 1, max. | 2.3 mm ² |
| Plug gauge in accordance with EN 60999 a x b; ø | 2.8 mm x 2.4 mm; 3.0 mm | | |
| | | 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
($T_u=40^{\circ}\text{C}$)

9 A

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

320 V

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

4 kV

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

4 kV

Creepage distance, min.

3.2 mm

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

10 A

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

400 V

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

250 V

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

4 kV

Clearance, min.

3 mm

Rated data acc. to CSA

Institute (CSA)



Certificate No. (CSA)

200039-70153051

Rated voltage (Use group B / CSA)

300 V

Rated voltage (Use group D / CSA)

300 V

Rated current (Use group C / CSA)

10 A

Wire cross-section, AWG, min.

AWG 26

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / CSA)

50 V

Rated current (Use group B / CSA)

10 A

Rated current (Use group D / CSA)

10 A

Wire cross-section, AWG, max.

AWG 14

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 D / UL 1059)

300 V

Rated current (Use group C / UL 1059)

10 A

Wire cross-section, AWG, min.

AWG 26

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / UL 1059)

50 V

Rated current (Use group B / UL 1059)

10 A

Rated current (Use group D / UL 1059)

10 A

Wire cross-section, AWG, max.

AWG 14

Material data

Comparative Tracking Index (CTI)

 $600 \leq \text{CTI}$

Insulating material group

I

Insulating material

PA 66 GF 30

UL 94 flammability rating

V-0

General data

Colour

black

Colour chart (similar)

RAL 9011

Protection degree

IP20

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Technical data

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 |

Environmental Product Compliance

REACH SVHC /

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.

Approvals

Approvals



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

Downloads

| | |
|---|---|
| Approval/Certificate/Document of Conformity | CSA Certificate of Compliance |
| Engineering Data | CAD data – STEP |
| Catalogues | Catalogues in PDF-format |

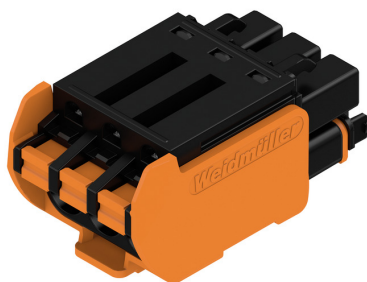
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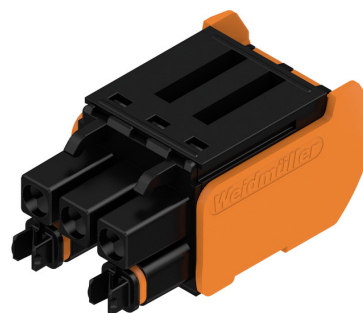
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Drawings

Product image



Product image



Product benefits, Similar to illustration



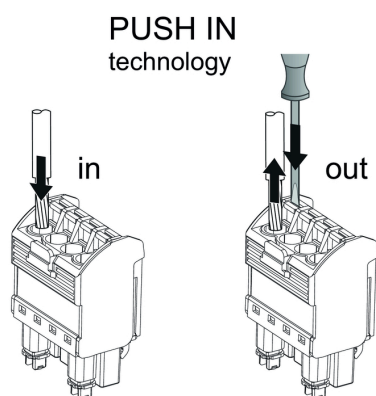
coding

Wiring example



coding

Example of use



BHF 5.00/03/180LH BK/OR**Weidmüller Interface GmbH & Co. KG**

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www.weidmueller.com**Accessories****Blank**

ESG is the tried-and-tested marker in MultiCard format for use on many well-known electrical devices. The result is high-quality device marking with a high-contrast appearance.

Various types are available for devices from manufacturers like Siemens, ABB, Beckhoff etc.

Advantages at a glance:

- Tags for universal usage, self-adhesive or clip-on tags, depending on type
- For aligned equipment, e.g. circuit breakers, we supply ESG markers for clipping onto tag rails
- Individual laser-quality printing according to specifications

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

General ordering data

| | | |
|------------|----------------------------|---|
| Type | ESG 6.6/15 BHZ 5.00/03 | Version |
| Order No. | 1082520000 | ESG, Device markers x 15 mm, PA 66, Colour: white |
| GTIN (EAN) | 4032248845323 | |
| Qty. | 200 pc(s). | |

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www.weidmueller.com**Accessories****Custom printing**

ESG is the tried-and-tested marker in MultiCard format for use on many well-known electrical devices. The result is high-quality device marking with a high-contrast appearance.

Various types are available for devices from manufacturers like Siemens, ABB, Beckhoff etc.

Advantages at a glance:

- Tags for universal usage, self-adhesive or clip-on tags, depending on type
- For aligned equipment, e.g. circuit breakers, we supply ESG markers for clipping onto tag rails
- Individual laser-quality printing according to specifications

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

General ordering data

| | | |
|------------|----------------------------|---|
| Type | ESG 6.6/15 BHZ 5.00 SDR | Version |
| Order No. | 1346320000 | ESG, Device markers x 15 mm, PA 66, Colour: To customer |
| GTIN (EAN) | 4050118151183 | specification |
| Qty. | 200 pc(s). | |