

BHF 5.00/03/180LH BK/BL

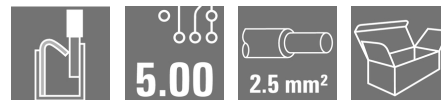
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



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

Version	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 3, 180°, PUSH IN, Box
Order No.	1989200000
Type	BHF 5.00/03/180LH BK/BL
GTIN (EAN)	4050118373622
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
Length	14.6 mm	Length (inches)	0.575 inch
Net weight	6.91 g	Width	17.5 mm
Width (inches)	0.689 inch		

System Parameters

Product family	OMNIMATE Signal - series BL/SL 5.00	Type of connection	Field connection
Wire connection method	PUSH IN	Pitch in mm (P)	5 mm
Pitch in inches (P)	0.197 inch	Conductor outlet direction	180°
Number of poles	3	L1 in mm	10 mm
L1 in inches	0.394 inch	Number of rows	1
Pin series quantity	1	Rated cross-section	2.5 mm ²
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	II
Comparative Tracking Index (CTI)	≥ 400	UL 94 flammability rating	V-0
Contact material	Copper 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		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		

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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

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

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

General data

Colour

black

Colour chart (similar)

RAL 9011

Protection degree

IP20

Material data

Comparative Tracking Index (CTI)

 ≥ 400

Insulating material group

II

Insulating material

PA 66 GF 30

UL 94 flammability rating

V-0

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

ECLASS 11.0

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.

Approvals

Approvals



UL File Number Search

E60693

Downloads

Approval/Certificate/Document of
Conformity

[CSA Certificate of Compliance](#)

Engineering Data

[STEP](#)

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Drawings

Similar to illustration



Similar to illustration



coding

