

BHF 5.00/03/180LH BK/OR

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



The optimum framework for function and innovation: The connection technology for the modular CH20M housing offers you numerous advantages that can make your projects more efficient. With our PCB terminal blocks and connectors, you benefit from flexible and reliable connection technology.

Thanks to automated production processes such as THT and THR soldering and reel packaging, we can guarantee high quality and precision. This enables fast and uncomplicated integration into your systems.

In addition, we offer you a wide range of colors as well as various coding and printing options to customize your housings. This allows you to ensure that your products are not only functional, but also visually appealing.

General ordering data

Version	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 3, 180°, PUSH IN with actuator, Box
Order No.	1989210000
Type	BHF 5.00/03/180LH BK/OR
GTIN (EAN)	4050118373639
Qty.	108 items
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

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Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate No. (cURus) E60693

Dimensions and weights

Depth	32.4 mm	Depth (inches)	1.2756 inch
Height	16.4 mm	Height (inches)	0.6457 inch
Width	17.5 mm	Width (inches)	0.689 inch
Length	0 mm	Net weight	6.91 g

Environmental Product Compliance

RoHS Compliance Status Compliant without exemption

REACH SVHC No SVHC above 0.1 wt%

System Parameters

Product family	OMNIMATE Housing - series CH20M	Type of connection	Field connection
Wire connection method	PUSH IN with actuator	Pitch in mm (P)	5.00 mm
Pitch in inches (P)	0.197 "	Conductor outlet direction	180°
Number of poles	3	L1 in mm	10.00 mm
L1 in inches	0.394 "	Number of rows	1
Pin series quantity	1	Rated cross-section	2.5 mm ²
Touch-safe protection acc. to DIN VDE 57 106	Safe from back-of-hand touch	Protection degree	IP20
Volume resistance	≤5 mΩ	Can be coded	Yes
Stripping length	10 mm	Screwdriver blade	0.6 x 3.5
Plugging cycles	25		

Material data

Insulating material	PA 66 GF 30	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	I
Comparative Tracking Index (CTI)	600 ≤ CTI	Moisture Level (MSL)	
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

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w. plastic collar ferrule, DIN 46228 pt 4, 0.25 mm ² min.		w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, 0.25 mm ² min.		w. wire end ferrule, DIN 46228 pt 1, 2.3 mm ² max.	
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.

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	10 A
Rated current, min. number of poles (Tu=40°C)	9 A	Rated voltage for surge voltage class / pollution degree II/2	400 V
Rated voltage for surge voltage class / pollution degree III/2	320 V	Rated voltage for surge voltage class / pollution degree III/3	250 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	4 kV	Creepage distance, min.	3.2 mm
Clearance, min.	3 mm		

Rated data acc. to CSA

Institute (CSA)	CSA	Certificate No. (CSA)	200039-70153051
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 14
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (cURus)	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 14
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Material data

UL 94 flammability rating	V-0	Insulating material	PA 66 GF 30
Insulating material group	I	Comparative Tracking Index (CTI)	600 ≤ CTI

General data

Colour	orange	Protection degree	IP20
Colour chart (similar)	RAL 2000		

Technical datawww.weidmueller.com**Important note**

IPC conformity

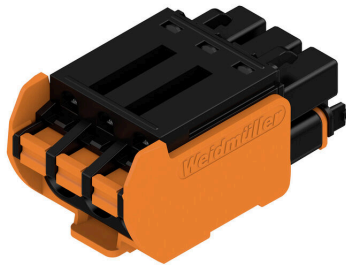
Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.

Classifications

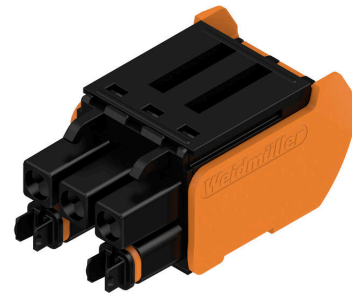
ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		

Drawings

Product image



Product image



Product benefits, Similar to illustration



coding

Wiring example



coding

Example of use

