

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 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	32.4 mm	Depth (inches)	1.276 inch
Height	16.4 mm	Height (inches)	0.646 inch
Width	17.5 mm	Width (inches)	0.689 inch
Length	0 mm	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	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
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	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	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

orange

Colour chart (similar)

RAL 2000

Protection degree

IP20

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www.weidmueller.com**Technical data****Classifications**

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	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	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

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.
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Approvals

Approvals



Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319226/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/
ROHS	Conform
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

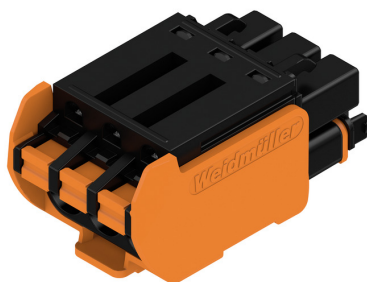
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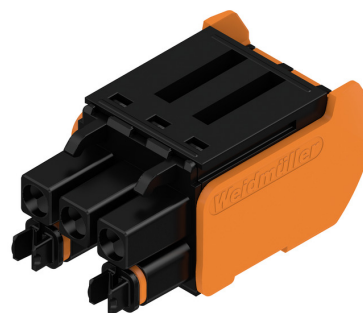
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Drawings

Product image



Product image



Product benefits, Similar to illustration



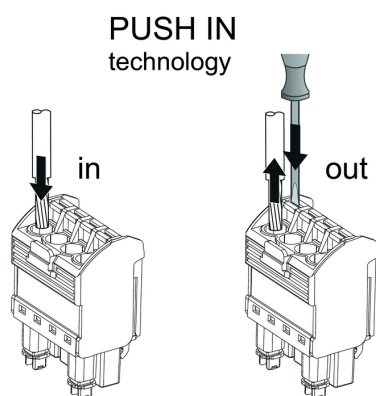
coding

Wiring example



coding

Example of use



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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.	40 pc(s).	

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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).	