

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	DCD when in accompanion formula when E OO was
version	PCB plug-in connector, female plug, 5.00 mm,
	Number of poles: 3, 180°, PUSH IN, Box
Order No.	<u>1497670000</u>
Туре	BHF 5.00/03/180LH BK/BK
GTIN (EAN)	4050118306811
Qty.	108 pc(s).
Product data	IEC: 400 V / 10 A / 0.2 - 2.5 mm <sup>2</sup>
	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	Type of connection		
•	BL/SL 5.00		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 <sup>2</sup>	
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,		Wire connection cross section AWG,	
min.	AWG 24	max.	AWG 14
Solid, min. H05(07) V-U	0.2 mm <sup>2</sup>	Solid, max. H05(07) V-U	1.5 mm <sup>2</sup>
Stranded, min. H07V-R	0.2 mm <sup>2</sup>	Stranded, max. H07V-R	2.5 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.2 mm <sup>2</sup>	Flexible, max. H05(07) V-K	2.5 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt	4,	w. plastic collar ferrule, DIN 46228 pt	1,
min.	0.25 mm <sup>2</sup>	max.	2.5 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1,		w. wire end ferrule, DIN 46228 pt 1,	
min.	0.25 mm <sup>2</sup>	max.	2.3 mm <sup>2</sup>
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		Rated current, min. number of poles	
	IEC 60664-1, IEC 61984	(Tu=20°C)	10 A
Rated current, min. number of poles		Rated voltage for surge voltage class /	
(Tu=40°C)	9 A	pollution degree II/2	400 V
Rated voltage for surge voltage class /		Rated voltage for surge voltage class /	
pollution degree III/2	320 V	pollution degree III/3	250 V
Rated impulse voltage for surge voltage		Rated impulse voltage for surge voltage	
class/ pollution degree II/2	4 kV	class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage			
class/ contamination degree III/3	4 kV		

#### Rated data acc. to CSA

Institute (CSA)	<b>€</b> P:	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

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	C = 100 03	1	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.		

Certificate No. (cURus)

### **General data**

ECLASS 10.0

Institute (cURus)

Colour	black	Colour chart (similar)	RAL 9011
Protection degree	IP20		
Material data			
Comparative Tracking Index (CTI)	≥ 400	Insulating material	PA 66 GF 30
Insulating material group	II	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 11.0

27-44-03-09



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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 Ce

CSA Certificate of Compliance

Engineering Data STEP



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## **Drawings**

### Similar to illustration





coding

## Wiring example

