

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

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Scalability, individual design and cost efficiency

The CH20M22 modular electronics housing offers a flexible and efficient solution for common electronics applications. With a width of 22 mm, it is perfect for integrating the PCB and connecting SPE (Single Pair Ethernet) and RJ45 connections. This combination enables reliable and future-proof data transmission in compact applications. Automated THT and THR soldering processes, coding options and CAD data ensure efficient production. Various connection technologies, including screw and tension clamp connections, enable application-specific design. The sophisticated synergy of design, connection technology and functionality ensures a safe, user-friendly and market-driven solution.

As a premium housing, the modular CH20M22 housing offers a durable and robust design.

Perfect for anyone who values quality, safety and a scalable housing concept.

Version	Electronics housing sample, OMNIMATE Housing - series CH20M black, Sample kit for developers, consisting of individual parts incl. female plug, Complete enclosure, Connection technology, Width: 22.5 mm
Order No.	<u>1519330000</u>
Туре	SAMPLE CH20M22 2/2
GTIN (EAN)	4050118326789
Qty.	1 pc(s).



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Technical data

-			
Dim	ensions	and	weights

Depth	113.6 mm	Depth (inches)	4.472 inch
Height	117.2 mm	Height (inches)	4.614 inch
Width	22.5 mm	Width (inches)	0.886 inch
Length	0 mm	Net weight	108.55 g

Temperatures

Installation temperature	Humidity	5 - 93% rel. humidity, Tu =
-25 °C	285 °C	40°C, no condensation

Rated data acc. to IEC

Rated current, max. number of poles		Rated current, max. number of poles	
(Tu=20°C)	10 A	(Tu=40°C)	9 A
Rated voltage for surge voltage class /		Rated voltage for surge voltage class /	
pollution degree II/2	400 V	pollution degree III/2	320 V
Rated voltage for surge voltage class /		Rated impulse voltage for surge voltage	
pollution degree III/3	250 V	class/ pollution degree II/2	250 kV
Rated impulse voltage for surge voltage		Rated impulse voltage for surge voltage	
class/ pollution degree III/2	4 kV	class/ contamination degree III/3	4 kV

Material data

Comparative Tracking Index (CTI)	400 ≤ CTI <600	Insulating material	PA 66 GF 30
Insulating material group	II	Material	Plastic
Surface finish	untreated	UL 94 flammability rating	V-0

General data

Colour	black	Colour chart (similar)	RAL 9011
Encapsulation option	No	Protection degree	IP20 in installed state
Rail	TS 35		

Design - IN requirements

PCB thickness	1.6 mm	Tolerance for the PCB shape	±0.1 mm
Tolerance of circuit board thickness	±0.15 mm		

Assembly properties

Number of connection levels	2	Number of ventilation openings	2
Number of poles	4	Cross-connection	No
Type of contact to PCB	Solder connection, direct	Type of connection	pluggable

Housing properties

Flip cover mountable	Yes	Marker integrateable	Yes	
Cut out as preperation for fund	ctional port	Color of clip-on foot		
integrated	No		orange	
Cross-connection	No	Number of connection levels	2	
Number of poles	4			



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Technical data

Connectable coducteurs

Wire connection method	Clamping yoke connection	Stripping length	8 mm
Tightening torque, min.	0.4 Nm	Tightening torque, max.	0.5 Nm
Clamping range, min.	0.13 mm ²	Clamping range, max.	2.5 mm ²
Wire connection cross section A	.WG,	Wire connection cross section AV	VG,
min.	AWG 26	max.	AWG 14
Solid, min. H05(07) V-U	0.2 mm ²	Solid, max. H05(07) V-U	2.5 mm ²
Stranded, max. H07V-R	2.5 mm ²	Flexible, min. H05(07) V-K	0.2 mm ²
w. plastic collar ferrule, DIN 462	28 pt 4,	w. plastic collar ferrule, DIN 4622	28 pt 4,
min.	0.25 mm ²	max.	2.5 mm ²
w. wire end ferrule, DIN 46228	pt 1,	w. wire end ferrule, DIN 46228 p	t 1,
min.	0.25 mm ²	max.	2.5 mm ²
Max. clamping range	2.5 mm ²		

Classifications

ETIM 7.0	EC001031	ETIM 8.0	EC001031
ETIM 9.0	EC001031	ETIM 10.0	EC001031
ECLASS 11.0	27-18-27-02	ECLASS 12.0	27-18-27-02
ECLASS 13.0	27-19-05-01	ECLASS 14.0	27-19-01-01
ECLASS 15.0	27-19-01-01		

Environmental Product Compliance

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

Approvals

ROHS	Conform

Downloads

Engineering Data	CAD data – Pin_header_pin_length_CH20M_A_OV_PCB-SHL_70315 CAD data – STEP
Technical Documentation	PCB_position_50881_LP-POSITION_22MM
Catalogues	Catalogues in PDF-format



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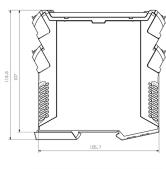
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Drawings













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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

Туре	ESG 8/13.5/43.3 SAI AU	Version
Order No.	<u>1912130000</u>	ESG, Device markers x 13.5 mm, PA 66, Colour: Transparent
GTIN (EAN)	4032248541164	
Qty.	5 pc(s).	

Female plugs - PUSH IN spring connection



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General ordering data

	-			
Туре	BHF 5.00/04/180LH BK/OR	Version	Product data	Packaging
Order No.	<u>1989190000</u>	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 4,	IEC: 400 V / 10 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4050118373820	180°, PUSH IN with actuator, Box	UL: 300 V / 10 A / AWG 26 - AWG 1	4
Qty.	78 pc(s).			
Туре	BHF 5.00/04/180LH BK/BK	Version	Product data	Packaging
Type Order No.	BHF 5.00/04/180LH BK/BK 1497500000	Version PCB plug-in connector, female plug, 5.00 mm, Number of poles: 4,	Product data IEC: 400 V / 10 A / 0.2 - 2.5 mm ²	Packaging Box
				Вох

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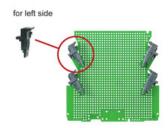
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Accessories

Туре	BHF 5.00/04/180LH BK/BL	Version	Product data	Packaging
Order No.	1989090000	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 4,	IEC: 400 V / 10 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4050118533453	180°, PUSH IN with actuator, Box	UL: 300 V / 10 A / AWG 26 - AWG 1	4
Qty.	78 pc(s).			

SHL-SMT 5.00/04GL - left connection side



Male connectors with solder pin length optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

Туре	SHL-SMT 5.00/04GL 5.9RL	Version	Product data	Packaging
Order No.	<u>1069810000</u>	PCB plug-in connector, Connection element, left, male header, open	IEC: 400 V	Tape
GTIN (EAN)	4032248824694	side, THT/THR solder connection, 5.00 mm, Number of poles: 4, 90°,	UL: 300 V / 9 A / AWG 26 - AWG 12	
Qty.	130 pc(s).	Solder pin length (I): 5.9 mm, tinned, black, Tape		
Туре	SHL-SMT 5.00/04GL 5.9BX	Version	Product data	Packaging
Type Order No.	SHL-SMT 5.00/04GL 5.9BX 1069770000	Version PCB plug-in connector, Connection element, left, male header, open	Product data IEC: 400 V	Packaging Box
	,		IEC: 400 V	Вох



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Accessories

Custom printing



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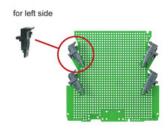
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- Individual laser-quality printing according to specifications

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General ordering data

Туре	ESG 8/13.5/43.3 SAI SDR	Version
Order No.	1038860000	ESG, Device markers x 13.5 mm, PA 66, Colour: To customer
GTIN (EAN)	4032248768110	specification
Qty.	1 pc(s).	

SHL-SMT 5.00/04GL - left connection side



High-temperature-resistant, straight, open pin header. Packed in box or tape. On tape and with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

Туре	SHL-SMT 5.00/04GL 4.2RL	Version	Product data	Packaging
Order No.	1069670000	PCB plug-in connector, Connection element, left, male header, open	IEC: 400 V	Tape
GTIN (EAN)	4032248825172	side, THT/THR solder connection, 5.00 mm, Number of poles: 4, 90° ,	UL: 300 V / 9 A / AWG 26 - AWG 12	
Qty.	130 pc(s).	Solder pin length (I): 4.2 mm, tinned, black, Tape		
Туре	SHL-SMT 5.00/04GL 4.2BX	Version	Product data	Packaging
Order No.	1069640000	PCB plug-in connector, Connection element, left, male header, open	IEC: 400 V	Box
GTIN (EAN)	4032248825080	side, THT/THR solder connection, 5.00 mm, Number of poles: 4, 90°,	UL: 300 V / 9 A / AWG 26 - AWG 12	
Qty.	108 pc(s).	Solder pin length (I): 4.2 mm, tinned, black, Box		
Туре	SHL-SMT 5.00/04GL 1.5BX	Version	Product data	Packaging
Order No.	1063220000	PCB plug-in connector, Connection element, left, male header, open	IEC: 400 V	Box
GTIN (EAN)	4032248814886	side, THT/THR solder connection, 5.00 mm, Number of poles: 4, 90°,	UL: 300 V / 9 A / AWG 26 - AWG 12	
Qty.	108 pc(s).	Solder pin length (I): 1.5 mm, tinned, black, Box		



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Туре	SHL-SMT 5.00/04GL 1.5RL	Version	Product data	Packaging
Order No.	1063250000	PCB plug-in connector, Connection element, left, male header, open	IEC: 400 V	Tape
GTIN (EAN)	4032248814916	side, THT/THR solder connection, 5.00 mm, Number of poles: 4, 90°,	UL: 300 V / 9 A / AWG 26 - AWG 12	
Qty.	130 pc(s).	Solder pin length (I): 1.5 mm, tinned, black, Tape		

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Туре	ESG 6.6/20 BHZ 5.00 SDR	Version
Order No.	1221520000	ESG, Device markers x 20 mm, PA 66, Colour: To customer
GTIN (EAN)	4050118005066	specification
Qty.	40 pc(s).	



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Accessories

CH20M AD SHL 5.00/04 - Side element cover for CH20M22, CH20M45, CH20M67



Future-proof solutions for industrial electronics for mounting in the control cabinet

Electronichousings are crucial for the integration of electronic assemblies in the control cabinet. They protect sensitive components and ensure reliable connections. Thanks to high-quality materials, they offer long-term solutions for industrial applications.

Your advantages:

Flexibility: Scalable solutions for different requirements Safety: Robust design to protect your electronics Efficiency: Simple installation and optimized connection technology

Housing solutions for every application:

Our portfolio includes modular housings (e.g. CH20M), small housings and profile housings designed for control, signal conversion and safety applications. These housings offer customizable designs, easy mounting and high connection capacity.

Customization:

In addition to standard solutions, we offer customization in design, color and printing. The Weidmüller Configurator enables individual design.

Our service:

We offer expert advice and technical support for your projects. In the download area you will find CAD data, data sheets and installation instructions for efficient integration.

CH20M AD SHL 5.00/04 AG \dots	Version
<u>1472830000</u>	Hood, OMNIMATE Housing - series CH20M Agate grey, Side element
4050118279429	cover, Width: 22.5 mm
50 pc(s).	
CH20M AD SHL 5.00/04 LG	Version
<u>1432890000</u>	Hood, OMNIMATE Housing - series CH20M Light Grey, Side element
4050118237641	cover, Width: 22.5 mm
50 pc(s).	
CH20M AD SHL 5.00/04 GG	Version
CH20M AD SHL 5.00/04 GG 1413740000	Version Hood, OMNIMATE Housing - series CH20M Graphite grey, Side
<u>1413740000</u>	Hood, OMNIMATE Housing - series CH20M Graphite grey, Side
1413740000 4050118241648	Hood, OMNIMATE Housing - series CH20M Graphite grey, Side element cover, Width: 22.5 mm
1413740000 4050118241648 50 pc(s).	Hood, OMNIMATE Housing - series CH20M Graphite grey, Side element cover, Width: 22.5 mm
1413740000 4050118241648 50 pc(s). CH20M AD SHL 5.00/04 BK	Hood, OMNIMATE Housing - series CH20M Graphite grey, Side element cover, Width: 22.5 mm Version
	1472830000 4050118279429 50 pc(s). CH20M AD SHL 5.00/04 LG 1432890000 4050118237641



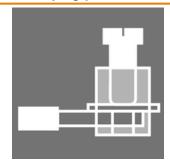
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Accessories

Female plugs - Clamping yoke screw connection



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Туре	BHZ 5.00/04/90LH BK/BL	Version	Product data	Packaging
Order No.	1069380000	PCB plug-in connector Blue release lever cod. 02	IEC: 400 V / 10 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4032248825028		UL: 300 V / 10 A / AWG 26 - AWG 12	2
Qty.	78 pc(s).			
Туре	BHZ 5.00/04/90LH GGY/BL	Version	Product data	Packaging
Order No.	<u>1372580000</u>	PCB plug-in connector Blue release lever BHZ 5.00/04/90LH SN	IEC: 400 V / 10 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4050118174625	GGY/BL BX cod. 02	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	78 pc(s).			
Туре	BHZ 5.00/04/90LH BK/BK	Version	Product data	Packaging
Order No.	1069350000	PCB plug-in connector Black release lever cod. 02	IEC: 400 V / 10 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4032248825011		UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	78 pc(s).			
Туре	BHZ 5.00/04/90LH BK/OR	Version	Product data	Packaging
Order No.	1063280000	PCB plug-in connector Orange release lever cod. 02	IEC: 400 V / 10 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4032248814947		UL: 300 V / 10 A / AWG 26 - AWG 12	2
Qty.	78 pc(s).			
Туре	BHZ 5.00/04/90LH GGY/GGY	Version	Product data	Packaging
Order No.	1372520000	PCB plug-in connector BHZ 5.00/04/90LH SN GGY/GGY BX cod. 02	IEC: 400 V / 10 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4050118174229		UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	78 pc(s).			
Туре	BHZ 5.00/04/90LH BK/GGY	Version	Product data	Packaging
Order No.	1421750000	PCB plug-in connector BHZ 5.00/04/90LH SN BK/GGY BX cod. 02	IEC: 400 V / 10 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4050118225518		UL: 300 V / 10 A / AWG 26 - AWG 12	2



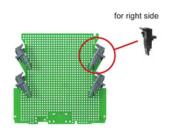
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Accessories

SHL-SMT 5.00/04GR - right connection side

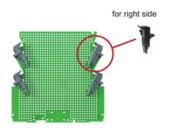


Male connectors with solder pin length optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

General ordering data

Туре	SHL-SMT 5.00/04GR 5.9BX	Version	Product data	Packaging
Order No.	<u>1069710000</u>	PCB plug-in connector, Connection element, right, male header, open	IEC: 400 V	Box
GTIN (EAN)	4032248825073	side, THT/THR solder connection, 5.00 mm, Number of poles: 4, 90° ,	UL: 300 V / 9 A / AWG 26 - AWG 12	
Qty.	108 pc(s).	Solder pin length (I): 5.9 mm, tinned, black, Box		
Туре	SHL-SMT 5.00/04GR 5.9RL	Version	Product data	Packaging
Type Order No.	SHL-SMT 5.00/04GR 5.9RL 1069740000	Version PCB plug-in connector, Connection element, right, male header, open		Packaging Tape
• •	· ·		IEC: 400 V	0 0

SHL-SMT 5.00/04GR - right connection side



High-temperature-resistant, straight, open pin header. Packed in box or tape. On tape and with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

Туре	SHL-SMT 5.00/04GR 1.5BX	Version	Product data	Packaging
Order No.	1063150000	PCB plug-in connector, Connection element, right, male header, open	IEC: 400 V	Box
GTIN (EAN)	4032248876471	side, THT/THR solder connection, 5.00 mm, Number of poles: 4, 90°,	UL: 300 V / 9 A / AWG 26 - AWG 12	
Qty.	108 pc(s).	Solder pin length (I): 1.5 mm, tinned, black, Box		
Туре	SHL-SMT 5.00/04GR 1.5RL	Version	Product data	Packaging
Order No.	1063180000	PCB plug-in connector, Connection element, right, male header, open	IEC: 400 V	Tape
GTIN (EAN)	4032248814855	side, THT/THR solder connection, 5.00 mm, Number of poles: 4, 90°,	UL: 300 V / 9 A / AWG 26 - AWG 12	
Qty.	130 pc(s).	Solder pin length (I): 1.5 mm, tinned, black, Tape		
Туре	SHL-SMT 5.00/04GR 4.2RL	Version	Product data	Packaging
Type Order No.	SHL-SMT 5.00/04GR 4.2RL 1069610000	Version PCB plug-in connector, Connection element, right, male header, open		Packaging Tape
• •	· ·		IEC: 400 V	Tape
Order No.	1069610000	PCB plug-in connector, Connection element, right, male header, open	IEC: 400 V	Tape
Order No. GTIN (EAN)	1069610000 4032248825059	PCB plug-in connector, Connection element, right, male header, open side, THT/THR solder connection, 5.00 mm, Number of poles: 4, 90°,	IEC: 400 V	Tape
Order No. GTIN (EAN) Oty.	1069610000 4032248825059 130 pc(s).	PCB plug-in connector, Connection element, right, male header, open side, THT/THR solder connection, 5.00 mm, Number of poles: 4, 90°, Solder pin length (I): 4.2 mm, tinned, black, Tape	IEC: 400 V UL: 300 V / 9 A / AWG 26 - AWG 12 Product data	Tape
Order No. GTIN (EAN) Qty. Type	1069610000 4032248825059 130 pc(s). SHL-SMT 5.00/04GR 4.2BX	PCB plug-in connector, Connection element, right, male header, open side, THT/THR solder connection, 5.00 mm, Number of poles: 4, 90°, Solder pin length (I): 4.2 mm, tinned, black, Tape Version	IEC: 400 V UL: 300 V / 9 A / AWG 26 - AWG 12 Product data IEC: 400 V	Tape Packaging Box
Order No. GTIN (EAN) Oty. Type Order No.	1069610000 4032248825059 130 pc(s). SHL-SMT 5.00/04GR 4.2BX 1069570000	PCB plug-in connector, Connection element, right, male header, open side, THT/THR solder connection, 5.00 mm, Number of poles: 4, 90°, Solder pin length (I): 4.2 mm, tinned, black, Tape Version PCB plug-in connector, Connection element, right, male header, open	IEC: 400 V UL: 300 V / 9 A / AWG 26 - AWG 12 Product data IEC: 400 V	Tape Packaging Box



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