

SAMPLE CH20M45 22/22**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Scalability, individual design and cost efficiency**

The CH20M45 modular electronics housing offers you efficiency, flexibility and design at its best - the perfect solution for your electronics applications. With a width of just 45 mm, it is possible to install two PCBs and offers both SPE and RJ45 connection options. This housing impresses with its scalability and cost efficiency, ideal for applications with increased space requirements, such as small controllers or power supplies.

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 CH20M45 housing offers a durable and robust design.

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

General ordering data

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: 45 mm
Order No.	1519470000
Type	SAMPLE CH20M45 22/22
GTIN (EAN)	4050118327113
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	113.6 mm	Depth (inches)	4.472 inch
Height	117.2 mm	Height (inches)	4.614 inch
Width	45 mm	Width (inches)	1.772 inch
Length	0 mm	Net weight	189 g

Temperatures

Installation temperature	-25 °C...85 °C	Humidity	5 - 93% rel. humidity, Tu = 40°C, no condensation
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Rated data acc. to IEC

Rated current, max. number of poles (Tu=20°C)	10 A	Rated current, max. 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

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	4
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 functional port integrated	No	Color of clip-on foot	orange
Cross-connection	No	Number of connection levels	2
Number of poles	4		

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Technical data

Connectable conducteurs

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 AWG, min.	AWG 26	Wire connection cross section AWG, 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 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.	2.5 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
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Downloads

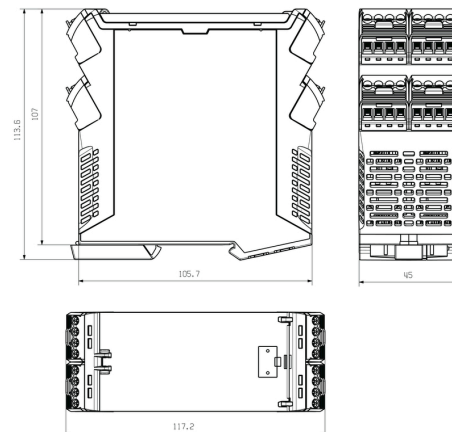
Engineering Data	CAD data – PCB_position_50882_LP-POSITION_45MM CAD data – Pin_header_pin_length_CH20M_A_OV_PCB-SHL_70315 CAD data – STEP
Catalogues	Catalogues in PDF-format
Brochures	FL ANALO.SIGN.CONV. EN MB DEVICE MANUF. EN FL MACHINE SAFETY EN FL 72H SAMPLE SER EN PO OMNIMATE EN

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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

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

Female plugs - PUSH IN spring connection



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

Type	BHF 5.00/04/180LH BK/OR	Version	Product data	Packaging
Order No.	1989190000	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 14	
Qty.	78 pc(s).			
Type	BHF 5.00/04/180LH BK/BK	Version	Product data	Packaging
Order No.	1497500000	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)	4050118306828	180°, PUSH IN with actuator, Box	UL: 300 V / 10 A / AWG 26 - AWG 14	
Qty.	78 pc(s).			

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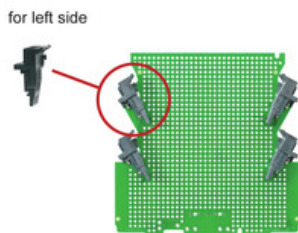
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Accessories

Type	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 14	
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.

General ordering data

Type	SHL-SMT 5.00/04GL 5.9RL	Version	Product data	Packaging
Order No.	1069810000	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 (l): 5.9 mm, tinned, black, Tape		
Type	SHL-SMT 5.00/04GL 5.9BX	Version	Product data	Packaging
Order No.	1069770000	PCB plug-in connector, Connection element, left, male header, open	IEC: 400 V	Box
GTIN (EAN)	4032248825097	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 (l): 5.9 mm, tinned, black, Box		

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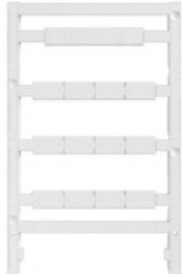
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Accessories

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:

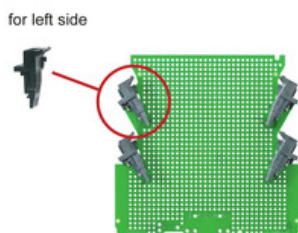
- Tags for universal usage, self-adhesive or clip-on tags, depending on type
- For aligned equipment, e.g. circuit breakers, we supply ESG markers for clipping onto tag rails
- Individual laser-quality printing according to specifications

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General ordering data

Type	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.

General ordering data

Type	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 (l): 4.2 mm, tinned, black, Tape		
Type	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 (l): 4.2 mm, tinned, black, Box		
Type	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 (l): 1.5 mm, tinned, black, Box		

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Accessories

Type	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)	40322488 149 16	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 (l): 1.5 mm, tinned, black, Tape		

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General ordering data

Type	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**

Electronic housings 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.

General ordering data

Type	CH20M AD SHL 5.00/04 AG ...	Version
Order No.	1472830000	Hood, OMNIMATE Housing - series CH20M Agate grey, Side element
GTIN (EAN)	4050118279429	cover, Width: 22.5 mm
Qty.	50 pc(s).	
Type	CH20M AD SHL 5.00/04 LG ...	Version
Order No.	1432890000	Hood, OMNIMATE Housing - series CH20M Light Grey, Side element
GTIN (EAN)	4050118237641	cover, Width: 22.5 mm
Qty.	50 pc(s).	
Type	CH20M AD SHL 5.00/04 GG ...	Version
Order No.	1413740000	Hood, OMNIMATE Housing - series CH20M Graphite grey, Side
GTIN (EAN)	4050118241648	element cover, Width: 22.5 mm
Qty.	50 pc(s).	
Type	CH20M AD SHL 5.00/04 BK ...	Version
Order No.	1221310000	Hood, OMNIMATE Housing - series CH20M black, Side element cover,
GTIN (EAN)	4050118004830	Width: 22.5 mm
Qty.	50 pc(s).	

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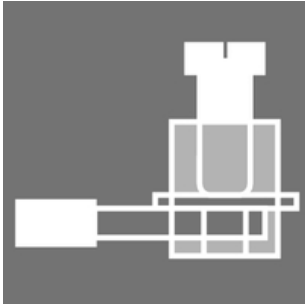
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Accessories

Female plugs - Clamping yoke screw connection

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General ordering data

Type	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	
Qty.	78 pc(s).			
Type	BHZ 5.00/04/90LH GGY/BL	Version	Product data	Packaging
Order No.	1372580000	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).			
Type	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).			
Type	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	
Qty.	78 pc(s).			
Type	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).			
Type	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	
Qty.	78 pc(s).			

SAMPLE CH20M45 22/22

Weidmüller Interface GmbH & Co. KG

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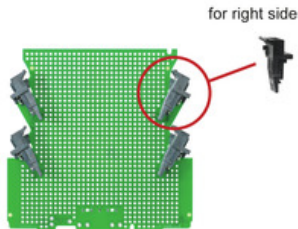
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Accessories

SHL-SMT 5.00/04GR - right connection side

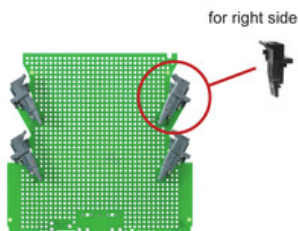


Male connectors with solder pin length optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

General ordering data

Type	SHL-SMT 5.00/04GR 5.9BX	Version	Product data	Packaging
Order No.	1069710000	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 (l): 5.9 mm, tinned, black, Box		
Type	SHL-SMT 5.00/04GR 5.9RL	Version	Product data	Packaging
Order No.	1069740000	PCB plug-in connector, Connection element, right, male header, open	IEC: 400 V	Tape
GTIN (EAN)	4032248825066	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 (l): 5.9 mm, tinned, black, Tape		

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.

General ordering data

Type	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 (l): 1.5 mm, tinned, black, Box		
Type	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 (l): 1.5 mm, tinned, black, Tape		
Type	SHL-SMT 5.00/04GR 4.2RL	Version	Product data	Packaging
Order No.	1069610000	PCB plug-in connector, Connection element, right, male header, open	IEC: 400 V	Tape
GTIN (EAN)	4032248825059	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 (l): 4.2 mm, tinned, black, Tape		
Type	SHL-SMT 5.00/04GR 4.2BX	Version	Product data	Packaging
Order No.	1069570000	PCB plug-in connector, Connection element, right, male header, open	IEC: 400 V	Box
GTIN (EAN)	4032248825165	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 (l): 4.2 mm, tinned, black, Box		

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General ordering data

Type	ESG 6.6/20 BHZ 5.00/04	Version
Order No.	1082540000	ESG, Device markers x 20 mm, PA 66, Colour: white
GTIN (EAN)	4032248845439	
Qty.	200 pc(s).	