

CH20M12 B BK/BK

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



Superior efficiency, flexibility and design - the "standard tailor-made fit"

When selecting a housing design, flexibility is a key factor. Other important criteria are: scalability, customized design, innovative functionality and cost efficiency. You need a choice which offers the maximum performance with the minimum overhead.

The CH20M12 modular electronics housing is the "small" option amongst the "large" housing solutions for compact electronics applications.

The entire system is characterized by excellence: outstanding scalability and flexibility, a high security level, innovative application functionality and a variety of practical details.

- **Quicker installation** with features such as "Wire ready" the universal multi-tool screw head
- **User-friendly operations:** with clear and permanent labelling and extra marking possibilities, integrated release clip or transparent cover
- **Maximum interference immunity** with EMC-compliant construction featuring deeply overlapping module joint edges made from high-performance plastic
- **High operational reliability** with the unique Auto-Set coding system and featuring double-sided touch protection on the pin header and socket blocks

CH20M - a compact name for the most flexible system available on the market. It doesn't just stand for "Component Housing IP20 Modular".

CH20M also stands for efficiency and innovation throughout design, production and use.

General ordering data

Version	Modular housing, OMNIMATE Housing - series CH20M black, Width: 12 mm
Order No.	1104170000
Type	CH20M12 B BK/BK
GTIN (EAN)	4032248878567
Qty.	14 pc(s).

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Technical data**Dimensions and weights**

Height	109.3 mm	Height (inches)	4.303 inch
Width	12 mm	Width (inches)	0.472 inch
Length	107.4 mm	Length (inches)	4.228 inch
Net weight	31.47 g		

Temperatures

Operating temperature range	-40 °C... 120 °C	Humidity	5 - 93% rel. humidity, Tu = 40°C, no condensation
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Component Properties

Color of clip-on foot	black
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Mechanical tests

According to Standard	DIN EN 61373:1999 (shock and vibration)		
Test conditions	five housings installed in a row, 100g additional weight on the PCB		
Proved axles	X, Y, Z		
Shock test	Test category	1	
	Number of shocks per axle	3 in positive and negative direction	
	Shock duration	30 ms	
	Acceleration horizontal	30 m/s ²	
	Acceleration vertical	30 m/s ²	
Vibration test	Acceleration longitudinal	50 m/s ²	
	Test category	1B	
	Effective acceleration	7.9 m/s ²	
	Test duration	5 hours per axle	

Thermal tests

Thermal tests	Test conditions	seven housings installed in a row - no spacing, two connection level, one cooling level	
	Test axles	horizontal, More on request	
	Ambient temperature	80 °C	
	Power dissipation, max.	0.8 W	
	Ambient temperature	60 °C	
	Power dissipation, max.	1.35 W	
	Ambient temperature	40 °C	
	Power dissipation, max.	1.9 W	
	Ambient temperature	20 °C	
	Power dissipation, max.	2.65 W	

Assembly properties

Number of PCBs, max.	1	Number of connection levels, max.	3
Number of poles, max.	12	Height of components on the PCB, max.	6.1 mm
Type of assembly of the PCB	double-sided		

Design - IN requirements

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

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Technical data**Individualization options**

Alternative colours	More on request	Customer specific labelling possible	Yes
Customer specific order process	See guideline under downloads	Processing possibilities	Laser processing

General data

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

Material data

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

Classifications

ETIM 6.0	EC001031	ETIM 7.0	EC001031
ETIM 8.0	EC001031	ECLASS 9.0	27-18-27-90
ECLASS 10.0	27-18-27-92	ECLASS 11.0	27-18-27-92

Important note

Product information	Circuit board contour, restricted zones, and other information for the design in of the circuit board can be found in the category connection technology under the corresponding male headers in the downloads.
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Approvals

ROHS	Conform
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Downloads

Engineering Data	STEP PCB_position_50880_LP-POSITION_12MM Pin_header_pin_length_CH20M_A_OV_PCB-SHL_70315
Engineering Data	EPLAN
User Documentation	Guideline customerspecific housings Guideline kundenspezifische Gehäuse
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 PO OMNIMATE EN

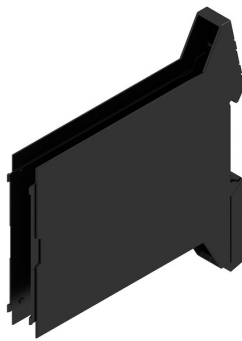
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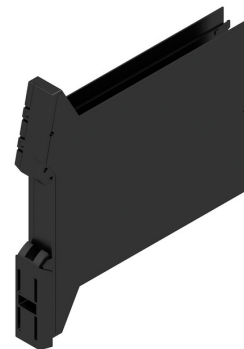
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Drawings

Product image

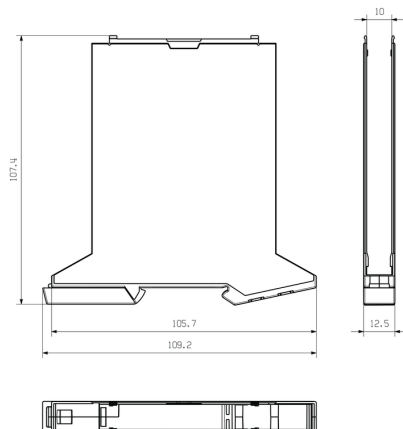


Product image



Base element without cut-out in snap-in foot area

Dimensioned drawing



Mouser Electronics

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