

CH20M12 B FE BK/OR

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.	1176990000
Type	CH20M12 B FE BK/OR
GTIN (EAN)	4032248970476
Qty.	14 pc(s).

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Technical data**Dimensions and weights**

Height	109.3 mm	Height (inches)	4.303 inch
Length	107.4 mm	Length (inches)	4.228 inch
Net weight	30.786 g	Width	12 mm
Width (inches)	0.472 inch		

Temperatures

Operating temperature range	-40 °C...120 °C	Installation temperature	-25 °C...85 °C
Humidity	5 - 93% rel. humidity, Tu = 40°C, no condensation		

Component Properties

Color of clip-on foot	orange	Cut out in clip-on foot area as preparation for	FE contact, contact not included!
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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	
	Acceleration longitudinal	50 m/s ²	
Vibration test	Test duration	5 hours per axle	
	Effective acceleration	7.9 m/s ²	
	Test category	1B	

Thermal tests

Thermal tests	Test conditions	seven housings installed in a row - no spacing, two connection level, one coolinglevel	
	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 PCB boards, max.	1	Number of connection levels	3 max.
Number of poles, max.	12		

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

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	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
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

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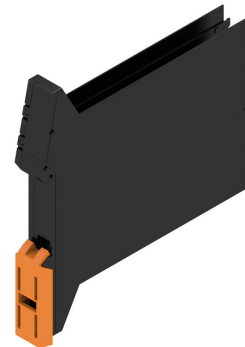
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Drawings

Product image



Product benefits



Base element including FE cut-out