

CH20M45 B RD/BK 2014

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, customised design, innovative functionality and cost efficiency. You need a choice which offers the maximum performance with the minimum overhead.

The CH20M45 modular electronics housings come in an integrated extra-large assortment. It is suited for those electronics applications that require more space, such as compact controllers and power supplies.

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 red, Base element, Width: 45 mm
Order No.	1206910000
Type	CH20M45 B RD/BK 2014
GTIN (EAN)	4032248988655
Qty.	6 pc(s).

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Technical data

Dimensions and weights

Depth	107.4 mm	Depth (inches)	4.228 inch
Height	109.3 mm	Height (inches)	4.303 inch
Width	45 mm	Width (inches)	1.772 inch
Net weight	39.33 g		

Temperatures

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

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

General data

Colour	red	Colour chart (similar)	RAL 3020
Encapsulation option	No	Protection degree	IP20 in installed state
Rail	TS 35		

Assembly properties

Number of slots for female connectors of the mounted assembly, max.	12	Number of PCBs, max.	2
Number of connection levels, max.	3	Number of poles, max.	48
Height of components on the PCB (usage of 1 PCB), max.	38.6 mm	Height of components on the PCB (usage of 2 PCB), max.	34.7 mm
Type of assembly of the PCB	double-sided		

Mechanical tests

According to Standard	DIN EN 61373:1999 (shock and vibration)		
Test conditions	five housings installed in a row, 200g additional weight per PCB, two PCB mounted		
Proved axles	X, Y, Z		
Shock test	General test advices	All mechanical tests were tested on exemplary setup, or in view of depending regulation. The specified results do not replace approval relevant tests. They are just orientation values.	
	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 category	1B	
	Effective acceleration	7.9 m/s ²	
	Test duration	5 hours per axle	

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Thermal tests

Thermal tests	General test advices	All thermal tests were tested on exemplary set-up, or in view of depending regulation. The specified results do not replace approval relevant tests. They are just orientation values.
	Test conditions	seven housings installed in a row - no spacing
	Test axles	horizontal
	Ambient temperature	55 °C
	Power dissipation, max.	4.2 W
	Ambient temperature	50 °C
	Power dissipation, max.	4.8 W
	Ambient temperature	40 °C
	Power dissipation, max.	5.9 W
	Ambient temperature	20 °C
	Power dissipation, max.	8.25 W

Component properties

Color of clip-on foot	black	Number of connection levels, max.	3
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Design - IN requirements

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

Individualization options

Customer specific labelling possible	Yes	Customer specific order process	See guideline under downloads
Processing possibilities	Laser processing		

Classifications

ETIM 8.0	EC001031	ETIM 9.0	EC001031
ECLASS 11.0	27-18-27-92	ECLASS 12.0	27-18-27-92
ECLASS 13.0	27-19-06-01		

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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Technical data

Downloads

Engineering Data	CAD data – STEP
	CAD data – PCB_position_50882_LP-POSITION_45MM
	CAD data – Pin_header_pin_length_CH20M_A_OV_PCB-SHL_70315
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

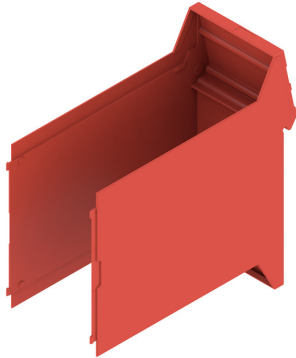
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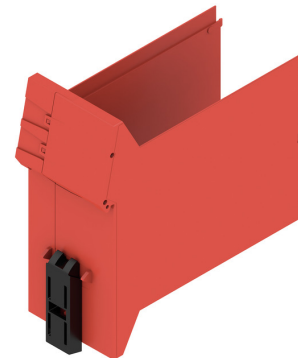
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Drawings

Product image



Product image



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

Dimensioned drawing

