

## CH20M45 B FE BK/OR 2010

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

[www.weidmueller.com](http://www.weidmueller.com)

### Product image



The basic element of the modular CH20M housing offers a number of advantages that make it an excellent choice for your projects. With special cut-outs for bus and FE contacts, it is particularly flexible and adaptable.

Another plus point is the option of laser printing on the housing, which offers you high precision and individual design options. A wide range of colors is also available so that you can design the housing entirely according to your wishes.

The CH20M housing is also suitable for standard mounting rails, which makes installation and integration into existing systems easier.

### General ordering data

Version	Modular housing, OMNIMATE Housing - series CH20M black, Base element, Recess in the detent foot area for FE contact, Width: 45 mm
Order No.	<a href="#">1177030000</a>
Type	CH20M45 B FE BK/OR 2010
GTIN (EAN)	4032248970377
Qty.	6 items

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**Technical data**

**Approvals**

ROHS Conform

**Dimensions and weights**

Depth	108 mm	Depth (inches)	4.252 inch
Height	109.3 mm	Height (inches)	4.3031 inch
Width	45 mm	Width (inches)	1.7716 inch
Net weight	49.83 g		

**Temperatures**

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

**Environmental Product Compliance**

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

**Material data**

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

**General data**

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

**Assembly properties**

Number of slots for female connectors of 12 the mounted assembly, max.		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	30.00 m/s <sup>2</sup>	
	Acceleration vertical	30.00 m/s <sup>2</sup>	
	Acceleration longitudinal	50.00 m/s <sup>2</sup>	

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Vibration test	Test category	1B
	Test duration	5 hours per axle
	Effective acceleration	7.9 m/s <sup>2</sup>

**Thermal tests**

Thermal tests	General test advices	All thermal 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 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	orange	Cut out in clip-on foot area as preparation for	FE contact, contact not included!
Number of connection levels, max.	3		

**Design - IN requirements**

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

**Individualization options**

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

**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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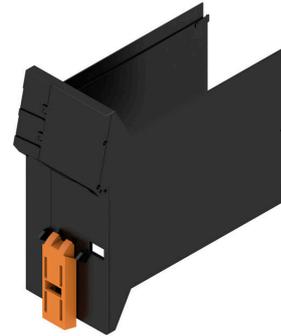
**Classifications**

ETIM 8.0	EC001031	ETIM 9.0	EC001031
ETIM 10.0	EC001031	ECLASS 14.0	27-19-06-01
ECLASS 15.0	27-19-06-01		

**Product image**

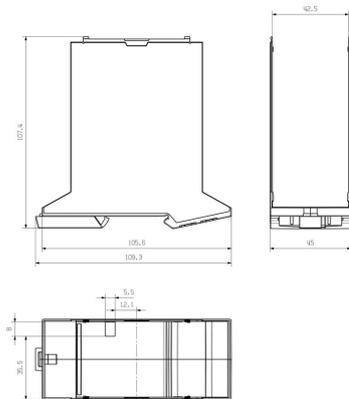


**Product benefits**



Base element including FE cut-out

**Dimensioned drawing**



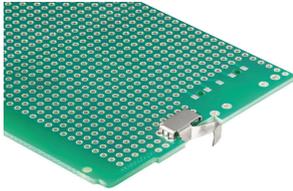
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**Accessories**

**FE Contact - CH20M**



Functional safety - either fully integrated or simply mounted

The optional "CH20M FE" connection provides optimum protection for your system with a mounting rail contact for functional earthing.

The pre-assembled functional earth contact in a 6 mm housing ensures a reliable connection of electronic shields to the mounting rail. A functional earth contact is available for housings from 12.5 to 67.5 mm, which can be processed using the reflow method.

**General ordering data**

Type	CH20M FE 12-67 1.5SN RL	Version	
Order No.	<a href="#">1189370000</a>	Electronics housings, Accessories, THT/THR solder connection, 5.00	
GTIN (EAN)	4032248972715	mm, Number of poles: 1, Solder pin length (l): 1.5 mm, tinned, Silver	
Qty.	750 ST	grey, Tape	
Type	CH20M FE 12-67 3.2SN RL	Version	
Order No.	<a href="#">1264240000</a>	Electronics housings, Accessories, THT/THR solder connection, 5.00	
GTIN (EAN)	4050118073997	mm, Number of poles: 1, Solder pin length (l): 3.2 mm, tinned, grey,	
Qty.	750 ST	Tape	