CH20M22 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, customised design, innovative functionality and cost efficiency. You need a choice which offers the maximum performance with the minimum overhead.
The CH20M22 modular electronics housing is the standard format from amongst the different housing widths. It has the optimal width for most typical 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 ESD-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: 22.5 mm
Order No.	1177010000
Type	CH20M22 B FE BK/OR
GTIN (EAN)	4032248970605
Qty.	10 pc(s).

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Technical data

Dimensions and weights

Height	109.3 mm	Height (inches)	4.303 inch
Width	22.5 mm	Width (inches)	0.886 inch
Length	107.4 mm	Length (inches)	4.228 inch
Net weight	40 g		

Temperatures

Operating temperature range	-40 °C...120 °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 preperation for	FE contact, contact not included!

Mechanical tests

According to Standard	DIN EN 61373:1999 (shock and vibration)	
Test conditions	five housings installed in a row, 200g 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/s²
	Acceleration vertical	30 m/s²
	Acceleration longitudinal	50 m/s²
Vibration test	Test category	1B
	Effective acceleration	7.9 m/s²
	Test duration	5 hours per axle

Thermal tests

Thermal tests	Test conditions	three housings installed in a row - no spacing, three connection level - six connectors per housing
	Test axles	horizontal, More on request
	Ambient temperature	70 °C
	Power dissapation, max.	1.9 W
	Ambient temperature	60 °C
	Power dissapation, max.	2.35 W
	Ambient temperature	40 °C
	Power dissapation, max.	3.4 W
	Ambient temperature	20 °C
	Power dissapation, max.	4.5 W

Assembly properties

Number of PCBs, max.	1	Number of connection levels, max.	3
Number of poles, max.	24	Height of components on the PCB, max.	16.1 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

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.

Approvals

ROHS	Conform

Downloads

Engineering Data	STEP PCB_position_50881_LP-POSITION_22MM Pin_header_pin_length_CH20M_A_0V_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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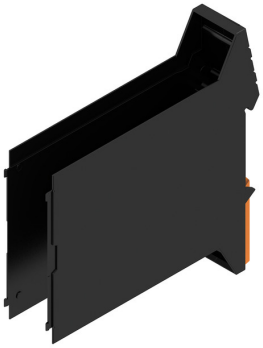
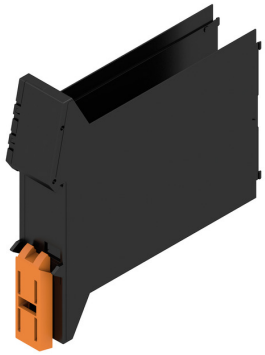
Drawings

Product image

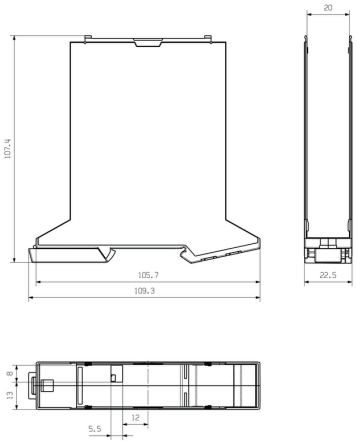


Product benefits



Base element including FE cut-out

Dimensioned drawing



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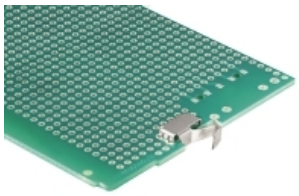
Accessories

FE Contact - CH20M



FE contact
Functional reliability - either fully integrated or simply mounted
The optional "CH20M FE" connection optimally protects your system with a mounting rail contact for the functional earth.

- The functional earth contact pre-assembled in the 6 mm housing enables permanent and reliable connection of electronic shields for the electronic circuit to the mounting rail (e.g. "CH20M6 BP 4P-4P FE BK", 1164650000)
- A functional earth contact, which can be processed fully automatically using the reflow method together with the male connectors and an optional bus contact, is available for housings from 12.5 to 67.5 mm. The position of the PCB in the housing specifies the pin length of 1.5 mm / 3.2 mm

General ordering data

Type	CH20M FE 12-67 1.5SN RL	Version	Product data	Packaging
Order No.	1189370000	Electronics housings, Accessories, THT/THR solder connection, 5.00	UL:	Tape
GTIN (EAN)	4032248972715	mm, Number of poles: 1, Solder pin length (l): 1.5 mm, tinned, Tape		
Qty.	750 pc(s).			

Type	CH20M FE 12-67 3.2SN RL	Version	Product data	Packaging
Order No.	1264240000	Electronics housings, Accessories, THT/THR solder connection, 5.00	UL:	Tape
GTIN (EAN)	4050118073997	mm, Number of poles: 1, Solder pin length (l): 3.2 mm, tinned, Tape		
Qty.	750 pc(s).			

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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1177010000