

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 ESDcompliant 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.	2004700000
Туре	CH20M22 B BUS FE BK/OR 2010
GTIN (EAN)	4050118389036
Qty.	10 Stück



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# **Technische Daten**

# **Dimensions and weights**

Depth	107.4 mm	Depth (inches)	4.228 inch
Height	109.3 mm	Height (inches)	4.303 inch
Width	22.5 mm	Width (inches)	0.886 inch
Net weight	11.5 g		

# **Temperatures**

Operating temperature range	-40 °C120 °C	Operating temperature, min.	-40 °C
Operating temperature, max.		Humidity	5 - 93% rel. humidity, Tu =
	120 °C		40°C, no condensation

# **Component Properties**

Color of clip-on foot		Cut out in clip-on foot area as	BUS-contact, FE contact,
	orange	preperation for	contact not included!
Number of connection levels, max.	3		

#### **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	General test advices	All mechanical tests were tested on examplary 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 <sup>2</sup>	
	Acceleration vertical	30 m/s <sup>2</sup>	
	Acceleration longitudinal	50 m/s <sup>2</sup>	
Vibration test	Effective acceleration	7.9 m/s <sup>2</sup>	
	Test duration	5 hours per axle	
	Test category	1B	

### **Thermal tests**

Thermal tests	General test advices	All thermal tests were tested on examplary
	deficial test advices	setup, or in view of depending regulation. The
		specified results do not replace approval relevant
		tests. They are just orientation values.
	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



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# **Technische Daten**

Assembly	properties /	

Assembly properties			
Number of slots for female connectors of the mounted assembly, max.	of 6	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		
Individualization options			
Customer specific labelling possible	V	Customer specific order process	See guideline under
Processing possibilities	Yes		downloads
Processing possibilities	Laser processing		
General data			
Colour	black	Colour chart (similar)	RAL 9011
Encapsulation option	No	Protection degree	IP20 in installed state
Rail	TS 35		ii 20 iii iiistalida stato
Material data			
Comparative Tracking Index (CTI)	600 ≤ CTI	Insulating material	PA 66 GF 30
Insulating material group	1	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
ECLASS 12.0	27-18-27-92		
Important note			
Product information		eted zones, and other information for the design echnology under the corresponding male heade	
Approvals	in the datagery definitioner.	ostinology and of the corresponding male needs	NO III IIIO GOVINICAGO.
Approvato			
ROHS	Conform		
Downloads			
Engineering Date	CAD data CTED		
Engineering Data	CAD data – STEP CAD data – Pin header	oin length CH2OM A OV PCB-SHL 703	15
Engineering Data	EPLAN		<u> </u>
Technical Documentation	PCB_position_50881_LF	P-POSITION_22MM	
User Documentation	Guideline customerspecific housings Guideline kundenspezifische Gehäuse		
Catalogues	Catalogues in PDF-format		
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# Zeichnungen

# **Product image**



### **Product benefits**



Base element including BUS and FE cut-out

# **Dimensioned drawing**

