Data sheet

CH20M45 B BUS BK/OR 2010

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

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 detent foot area for BUS contact, Width: 45 mm
Order No.	1177020000
Type	CH20M45 B BUS BK/OR 2010
GTIN (EAN)	4032248970483
Qty.	6 items

CH20M45 B BUS BK/OR 2010

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

www.weidmueller.com

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	49.5 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 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 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	30.00 m/s²
	Acceleration vertical	30.00 m/s²
	Acceleration longitudinal	50.00 m/s²

CH20M45 B BUS BK/OR 2010

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

www.weidmueller.com

Technical data

Vibration test	Test category	1B
	Test duration	5 hours per axle
	Effective acceleration	7.9 m/s²

Thermal tests

Thermal tests	General test advices	All thermal 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 conditions	seven housings installed in a row - no spacing
	Test axles	horizontal
	Ambient temperature	55 °C
	Power dissapation, max.	4.2 W
	Ambient temperature	50 °C
	Power dissapation, max.	4.8 W
	Ambient temperature	40 °C
	Power dissapation, max.	5.9 W
	Ambient temperature	20 °C
	Power dissapation, max.	8.25 W

Component properties

Color of clip-on foot	orange	Cut out in clip-on foot area as preperation for	BUS-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
Alternitive 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.

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		

CH20M45 B BUS BK/OR 2010

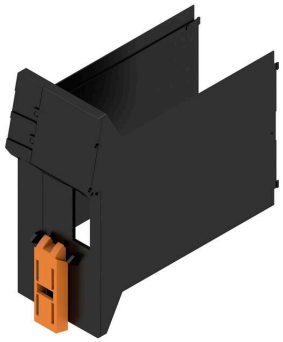
Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Drawings

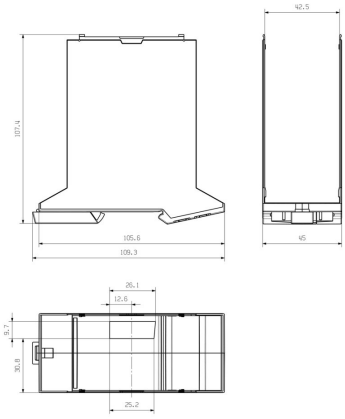
Product image

Product benefits



Base element including BUS cut-out

Dimensioned drawing



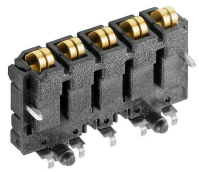
CH20M45 B BUS BK/OR 2010

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

www.weidmueller.com

Accessories

Bus contact block - Solder flange



The integrated rail bus for the modular electronics housing system
When supplying, connecting or distributing within modular applications, the rail bus can replace the tedious individual wiring process with a flexible and uninterrupted system-wide solution.
The system bus is securely integrated within the 35-mm standard mounting rail. The SMD-bus contact block can be reflow-soldered so that it can be completely automatically processed during the component assembly. The resistant, gold-plated contact surfaces ensure a permanent and reliable contact for all housing widths.

- Unlimited scalability The integrated connection solution covers all system widths: from the 6-mm slice to the 67-mm large-area housing.
- Easy to service during installation It's easy to replace a module, even in existing modules groups – without any influence on the neighbouring modules.
- Universal integration The uninterrupted system bus is securely integrated within the 35-mm standard mounting rail.
- Maximum availability Five fully-galvanized and partially gold-plated twin-arched contacts are used to establish a permanent contact to the rail bus. THR solder flanges ensure that the connection to the circuit board is stable.

General ordering data

Type	SR-SMD 4.50/05/90LF 1.5...	Version
Order No.	1155900000	PCB plug-in connector, Bus-contact block for CH20M12-67, Solder
GTIN (EAN)	4032248942381	flange, THT/THR solder connection, Number of poles: 5, 180°, Solder
Qty.	300 ST	pin length (l): 1.5 mm, Gold-plated, black
Type	SR-SMD 4.50/05/90LF 1.5...	Version
Order No.	1155890000	PCB plug-in connector, Bus-contact block for CH20M12-67, Solder
GTIN (EAN)	4032248942527	flange, THT/THR solder connection, Number of poles: 5, 180°, Solder
Qty.	78 ST	pin length (l): 1.5 mm, Gold-plated, black

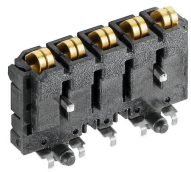
CH20M45 B BUS BK/OR 2010

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

www.weidmueller.com

Accessories

Bus contact block - Middle solder flange



The integrated rail bus for the modular electronics housing system
When supplying, connecting or distributing within modular applications, the rail bus can replace the tedious individual wiring process with a flexible and uninterrupted system-wide solution.
The system bus is securely integrated within the 35-mm standard mounting rail. The SMD-bus contact block can be reflow-soldered so that it can be completely automatically processed during the component assembly. The resistant, gold-plated contact surfaces ensure a permanent and reliable contact for all housing widths.

- Unlimited scalability The integrated connection solution covers all system widths: from the 6-mm slice to the 67-mm large-area housing.
- Easy to service during installation It's easy to replace a module, even in existing modules groups – without any influence on the neighbouring modules.
- Universal integration The uninterrupted system bus is securely integrated within the 35-mm standard mounting rail.
- Maximum availability Five fully-galvanized and partially gold-plated twin-arched contacts are used to establish a permanent contact to the rail bus. THR solder flanges ensure that the connection to the circuit board is stable.

General ordering data

Type	SR-SMD 4.50/05/90LFM 3....	Version
Order No.	1155880000	PCB plug-in connector, Bus-contact block for CH20M12-67, Middle
GTIN (EAN)	4032248942305	solder flange, THT/THR solder connection, Number of poles: 5, 180°,
Qty.	300 ST	Solder pin length (l): 3.2 mm, Gold-plated, black
Type	SR-SMD 4.50/05/90LFM 3....	Version
Order No.	1155870000	PCB plug-in connector, Bus-contact block for CH20M12-67, Middle
GTIN (EAN)	4032248942510	solder flange, THT/THR solder connection, Number of poles: 5, 180°,
Qty.	78 ST	Solder pin length (l): 3.2 mm, Gold-plated, black