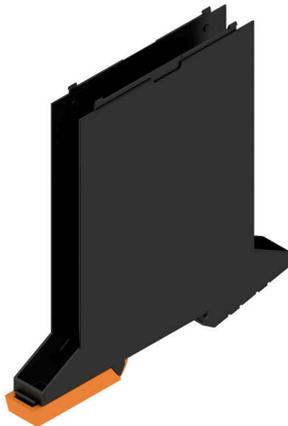


CH20M12 B FE BK/OR 2010

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 the detent foot area for FE contact, Width: 12.5 mm |
| Order No. | 1176990000 |
| Type | CH20M12 B FE BK/OR 2010 |
| GTIN (EAN) | 4032248970476 |
| Qty. | 14 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 | 12.5 mm | Width (inches) | 0.4921 inch |
| Net weight | 7.79 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 6 the mounted assembly, max. | | Number of PCBs, max. | 1 |
| Number of connection levels, max. | 3 | Number of poles, max. | 12 |
| Height of components on the PCB, max. | 6.1 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, 100g additional weight on the PCB | | |
| 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 ² | |
| | Acceleration vertical | 30.00 m/s ² | |
| | Acceleration longitudinal | 50.00 m/s ² | |
| Vibration test | Test category | 1B | |
| | Test duration | 5 hours per axle | |

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Technical data

Effective acceleration 7.9 m/s²

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 | 80 °C | |
| | Power dissipation, max. | 0.8 W | |
| | Ambient temperature | 60 °C | |
| | Power dissipation, max. | 1.35 W | |
| | Ambient temperature | 40 °C | |
| | Power dissipation, max. | 1.9 W | |
| Ambient temperature | 20 °C | | |
| Power dissipation, max. | 2.65 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 |

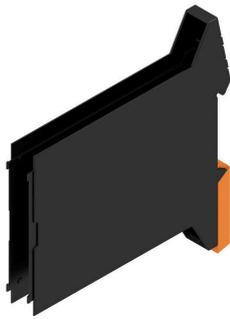
Important note

| | |
|---------------------|---|
| 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. |
|---------------------|---|

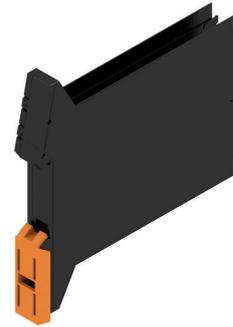
Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| 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

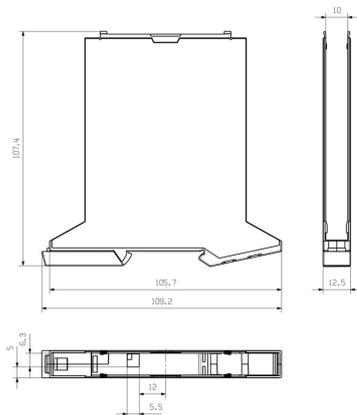


Product benefits



Base element including FE cut-out

Dimensioned drawing



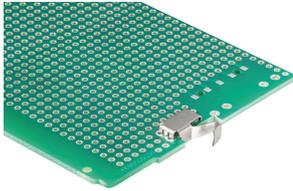
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Accessories

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. | 1189370000 | 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. | 1264240000 | 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 |