

## CH20M45 SET 20/02 BK/OR

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

[www.weidmueller.com](http://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 CH20M45 modular electronics housings come in an integrated extra-large assortment. It is suited for those electronics applications that require more space, such as compact controllers and power supplies.

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 EMC-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    | Electronics housing sample, OMNIMATE Housing - series CH20M black, Width: 45 mm |
| Order No.  | <a href="#">1519430000</a>  |
| Type       | CH20M45 SET 20/02 BK/OR   |
| GTIN (EAN) | 4050118327069   |
| Qty.       | 1 pc(s).  |

## CH20M45 SET 20/02 BK/OR

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

www.weidmueller.com

## Technical data

### Dimensions and weights

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Height     | 117.2 mm | Height (inches) | 4.614 inch |
| Width      | 45 mm    | Width (inches)  | 1.772 inch |
| Length     | 113.6 mm | Length (inches) | 4.472 inch |
| Net weight | 145.64 g |                 |            |

### Temperatures

|                             |                |                             |   |
|-----------------------------|----------------|-----------------------------|---|
| Operating temperature, min. | -40 °C         | Operating temperature, max. | 120 °C  |
| Installation temperature    | -25 °C...85 °C | Humidity                    | 5 - 93% rel. humidity, Tu = 40°C, no condensation |

### Rated data acc. to IEC

|   |       |   |       |
|---|-------|---|-------|
| Rated current, max. number of poles (Tu=20°C)                         | 10 A  | Rated current, max. number of poles (Tu=40°C)                             | 9 A   |
| Rated voltage for surge voltage class / pollution degree II/2         | 400 V | Rated voltage for surge voltage class / pollution degree III/2            | 320 V |
| Rated voltage for surge voltage class / pollution degree III/3        | 250 V | Rated impulse voltage for surge voltage class/ pollution degree II/2      | 4 kV  |
| Rated impulse voltage for surge voltage class/ pollution degree III/2 | 4 kV  | Rated impulse voltage for surge voltage class/ contamination degree III/3 | 4 kV  |

### Design - IN requirements

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

### Assembly properties

|                             |                           |                    |           |
|-----------------------------|---------------------------|--------------------|-----------|
| Number of connection levels | 2                         | Number of poles    | 4         |
| Type of contact to PCB      | Solder connection, direct | Type of connection | pluggable |

### Connectable conductors

|   |                     |   |                      |
|---|---------------------|---|----------------------|
| Stripping length                                | 8 mm                | Tightening torque, min.                         | 0.4 Nm               |
| Tightening torque, max.                         | 0.5 Nm              | Clamping range, min.                            | 0.13 mm <sup>2</sup> |
| Clamping range, max.                            | 2.5 mm <sup>2</sup> | Wire connection cross section AWG, min.         | AWG 26               |
| Wire connection cross section AWG, max.         | AWG 14              | Solid, min. H05(07) V-U                         | 0.2 mm <sup>2</sup>  |
| Solid, max. H05(07) V-U                         | 2.5 mm <sup>2</sup> | Stranded, max. H07V-R                           | 2.5 mm <sup>2</sup>  |
| Flexible, min. H05(07) V-K                      | 0.2 mm <sup>2</sup> | w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.25 mm <sup>2</sup> |
| w. plastic collar ferrule, DIN 46228 pt 4, max. | 2.5 mm <sup>2</sup> | w. wire end ferrule, DIN 46228 pt 1, min.       | 0.25 mm <sup>2</sup> |
| w. wire end ferrule, DIN 46228 pt 1, max.       | 2.5 mm <sup>2</sup> | Max. clamping range                             | 2.5 mm <sup>2</sup>  |

### General data

|                      |       |                        |                         |
|----------------------|-------|------------------------|-------------------------|
| Colour               | black | Colour chart (similar) | RAL 9011                |
| Encapsulation option | No    | Protection degree      | IP20 in installed state |

## CH20M45 SET 20/02 BK/OR

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

## Technical data

### Material data

|                           |             |                           |    |
|---------------------------|-------------|---------------------------|----|
| Insulating material       | PA 66 GF 30 | Insulating material group | II |
| UL 94 flammability rating | V-0         |                           |    |

### Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC001031    | ETIM 7.0    | EC001031    |
| ETIM 8.0    | EC001031    | ECLASS 9.0  | 27-18-27-02 |
| ECLASS 9.1  | 27-18-27-92 | ECLASS 10.0 | 27-18-27-02 |
| ECLASS 11.0 | 27-18-27-02 | ECLASS 12.0 | 27-18-27-02 |

### 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 | <a href="#">CAD data – PCB_position_50882_LP-POSITION_45MM</a><br><a href="#">CAD data – Pin_header_pin_length_CH20M_A_OV_PCB-SHL_70315</a><br><a href="#">CAD data – STEP</a>                  |
| Catalogues       | <a href="#">Catalogues in PDF-format</a>  |
| Brochures        | <a href="#">FL ANALO.SIGN.CONV. EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL MACHINE SAFETY EN</a><br><a href="#">FL 72H.SAMPLE.SER EN</a><br><a href="#">PO OMNIMATE EN</a> |

**CH20M45 SET 20/02 BK/OR**

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

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

Drawings

Product image



Product image



Product image



Dimensioned drawing

