

**CH20M6 BP 4P-4P BUS TGY LF 1 1293806****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image****The electronics world in a single slice**

With a width of only 6.1 mm, a wide range of compact applications originates from this electronic development expertise.

The modular housing design supports the engineering with many intelligent features:

- **Maximum freedom of design** with large total surface area (6800 mm<sup>2</sup>) on the PCB – enabling the maximum component assembly with the space-saving form of the reflow-compatible THR terminals.
- **Customised design opportunities** with laser printing and housing colours, individual processing options, variable printing, and easily labelled hinged cover
- **Maximum processing efficiency** with reflow-compatible connection elements for reflow soldering in machine-ready tape packaging.
- **Error-free assembly and solder processes** with optimised frame and connecting adapter shapes on the PCB resulting in a perfect fit and positioning of the connection elements
- **Quick installation** with features such as "Wire Ready" or the all-purpose Multi-Tool screw head

The combination of extensive knowledge from electronics developers and Weidmüller competence - creating innovative synergy for electronics applications.

**General ordering data**

|            |  |
|------------|--|
| Version    | Modular housing, OMNIMATE Housing - series CH20M Traffic grey (RAL), Housing base, Recess in detent foot area for BUS contact, Width: 6.1 mm |
| Order No.  | <a href="#">2771400000</a>   |
| Type       | CH20M6 BP 4P-4P BUS TGY LF 1 1293806   |
| GTIN (EAN) | 4064675032137  |
| Qty.       | 50 pc(s).  |

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**Technical data****Dimensions and weights**

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Depth      | 114.3 mm | Depth (inches)  | 4.5 inch   |
| Height     | 110.7 mm | Height (inches) | 4.358 inch |
| Width      | 6.1 mm   | Width (inches)  | 0.24 inch  |
| Net weight | 9.06 g   |                 |            |

**Material data**

|                                  |                 |                           |     |
|----------------------------------|-----------------|---------------------------|-----|
| Comparative Tracking Index (CTI) | 400 ≤ CTI < 600 | Insulating material       | PBT |
| Insulating material group        | II              | UL 94 flammability rating | V-0 |

**General data**

|                      |                    |                        |                         |
|----------------------|--------------------|------------------------|-------------------------|
| Colour               | Traffic grey (RAL) | Colour chart (similar) | RAL 7042                |
| Encapsulation option | No                 | Protection degree      | IP20 in installed state |
| Rail                 | TS 35              |                        |                         |

**Assembly properties**

|                             |           |                                       |        |
|-----------------------------|-----------|---------------------------------------|--------|
| Number of PCBs, max.        | 1         | Number of connection levels, max.     | 8      |
| Number of poles, max.       | 8         | Height of components on the PCB, max. | 3.5 mm |
| Type of assembly of the PCB | one-sided |                                       |        |

**Mechanical tests**

|                       |  |  |  |
|-----------------------|--|--|--|
| According to Standard | DIN EN 61373:1999 (shock and vibration)  |  |  |
| Test conditions       | 50g additional weight on the PCB, with endbrackets WEW 35/1 (1059000000), four housings installed in a row |  |  |
| Proved axes           | 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  | 50 m/s <sup>2</sup>  |  |
|                       | Acceleration vertical  | 50 m/s <sup>2</sup>  |  |
|                       | Acceleration longitudinal  | 50 m/s <sup>2</sup>  |  |
| Vibration test        | Test category  | 1B   |  |
|                       | Effective acceleration   | 7.9 m/s <sup>2</sup>   |  |
|                       | Test duration  | 5 hours per axle   |  |

**Component properties**

|   |                                    |                                   |   |
|---|------------------------------------|-----------------------------------|---|
| Cut out in clip-on foot area as preparation for | BUS-contact, contact not included! | Number of connection levels, max. | 8 |
|---|------------------------------------|-----------------------------------|---|

**Design - IN requirements**

|                                      |         |                             |         |
|--------------------------------------|---------|-----------------------------|---------|
| PCB thickness                        | 0.8 mm  | Tolerance for the PCB shape | ±0.1 mm |
| Tolerance of circuit board thickness | ±0.1 mm |                             |         |

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|                                      |                 |                                    |                               |
|--------------------------------------|-----------------|------------------------------------|-------------------------------|
| Alternative colours                  | More on request | Customer specific cutouts possible | Yes                           |
| Customer specific labelling possible | Yes             | Customer specific order process    | See guideline under downloads |

**Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 7.0    | EC001031    | ETIM 8.0    | EC001031    |
| ETIM 9.0    | EC001031    | ECLASS 11.0 | 27-18-27-92 |
| ECLASS 12.0 | 27-18-27-92 | ECLASS 13.0 | 27-19-06-01 |

**Downloads**

|                  |  |
|------------------|--|
| Engineering Data | <a href="#">CAD data – PCB Reference Layout</a><br><a href="#">CAD data – STEP</a> |
| Catalogues       | <a href="#">Catalogues in PDF-format</a>   |

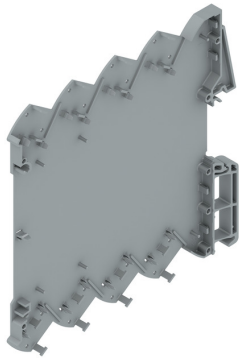
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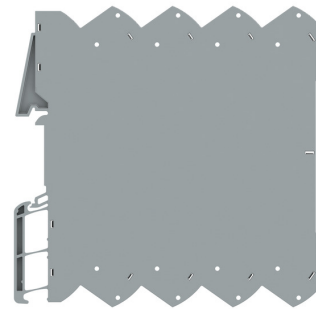
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## Drawings

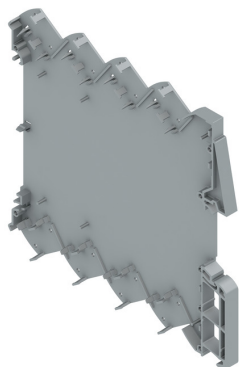
### Product image



### Product image

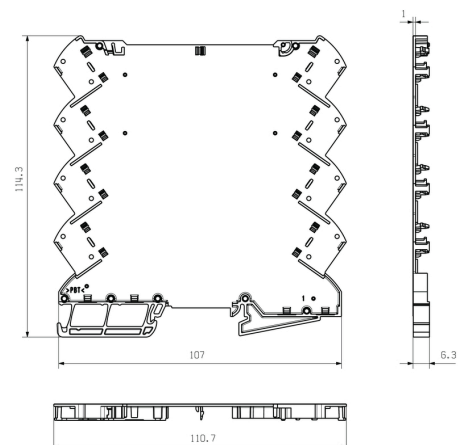


### Product benefits



Base element including BUS cut-out

### Dimensioned drawing



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## Accessories

## CH20M6 C - Tilt cover



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## General ordering data

|            |                            |   |
|------------|----------------------------|---|
| Type       | CH20M6 C BK 1819           | Version   |
| Order No.  | <a href="#">2418620000</a> | Modular housing, OMNIMATE Housing - series CH20M black,       |
| GTIN (EAN) | 4032248899142              | Transparent, Flip cover, Width: 6.1 mm                        |
| Qty.       | 50 pc(s).                  |   |
| Type       | CH20M6 C TP 8089           | Version   |
| Order No.  | <a href="#">1073410000</a> | Modular housing, OMNIMATE Housing - series CH20M Transparent, |
| GTIN (EAN) | 4032248831203              | Flip cover, Width: 6.1 mm                                     |
| Qty.       | 50 pc(s).                  |   |

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## Accessories

## SR-SMD - Bus contact block CH20M6



### 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 4.50/05/90 AU BK ... | Version   | Product data    | Packaging |
|------------|-----------------------------|---|-----------------|-----------|
| Order No.  | <a href="#">1155840000</a>  | PCB plug-in connector, Bus-contact block for CH20M6, THT/THR    | IEC: 160 V      | Box       |
| GTIN (EAN) | 4032248942534               | solder connection, Number of poles: 5, 180°, Gold-plated, black | UL: 300 V / 5 A |           |
| Qty.       | 78 pc(s).                   |   |                 |           |
| Type       | SR-SMD 4.50/05/90 AU BK ... | Version   | Product data    | Packaging |
| Order No.  | <a href="#">1155850000</a>  | PCB plug-in connector, Bus-contact block for CH20M6, THT/THR    | IEC: 160 V      | Tape      |
| GTIN (EAN) | 4032248942374               | solder connection, Number of poles: 5, 180°, Gold-plated, black | UL: 300 V / 5 A |           |
| Qty.       | 300 pc(s).                  |   |                 |           |