

**OMNIMATE Housing - series CH20M  
CH20M FE 12-67 3.2SN RL**

**Weidmüller Interface GmbH & Co. KG**  
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**FE contact****Functional reliability - either fully integrated or simply mounted**

The optional "CH20M FE" connection optimally protects your system with a mounting rail contact for the functional earth.

- The functional earth contact pre-assembled in the 6 mm housing enables permanent and reliable connection of electronic shields for the electronic circuit to the mounting rail (e.g. "CH20M6 BP 4P-4P FE BK", 1164650000)
- A functional earth contact, which can be processed fully automatically using the reflow method together with the male connectors and an optional bus contact, is available for housings from 12.5 to 67.5 mm. The position of the PCB in the housing specifies the pin length of 1.5 mm / 3.2 mm

**General ordering data**

Type	CH20M FE 12-67 3.2SN RL
Order No.	<a href="#">1264240000</a>
Version	Electronics housings, Accessories, THT/THR solder connection, 5.00 mm, Number of poles: 1, Solder pin length (l): 3.2 mm, tinned, Tape
GTIN (EAN)	4050118073997
Qty.	750 pc(s).
Product data	UL:
Packaging	Tape

## Data sheet

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## Technical data

### Dimensions and weights

Net weight	0.502 g
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### Material data

Contact surface	tinned
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### Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984
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### Classifications

ETIM 6.0	EC001031	ETIM 7.0	EC001031
eClass 9.0	27-18-27-90	eClass 9.1	27-18-27-90
eClass 10.0	27-18-27-92		

### Notes

IPC conformity	Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.
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### Approvals

ROHS	Conform
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### Downloads

Brochure/Catalogue	<a href="#">FL ANALO.SIGN.CONV. EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">CAT 2 PORTFOLIOGUIDE EN</a> <a href="#">FL MACHINE SAFETY EN</a> <a href="#">FL 72H SAMPLE SER EN</a> <a href="#">PO OMNIMATE EN</a>
Engineering Data	<a href="#">EPLAN</a>
Engineering Data	<a href="#">STEP</a>

## Recommended wave soldering profiles

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### Single Wave:



### Double Wave:



### Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.

## Recommended reflow soldering profile

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### Reflow soldering profile

The perfect soldering profile for SMT Surface Mount Technology is one the most exiting question in SMT production. But there are more than one correct answer: The diagram of temperature-on-time is related to processing features of solder paste and to maximum load of components.

We have to consider the following parameters:

- Time for pre heating
- Maximum temperature
- Time above melting point
- Time for cooling
- Maximum heating rate
- Maximum cooling rate

We recommend a typical solder profile with associated process limits. With preheating components and board are prepared smoothly for the solder phase. Heating rate is typically  $\leq +3K/s$ . In parallel the solder paste is ‚activated‘. The time above melting point of 217°C the paste gets liquid and components and boards begin to connect. The maximum temperature of 245°C to 254°C should stay between 10 and 40 seconds. In the cooling phase at  $\geq -6K/s$  solder is cured. Board and components cool down while avoiding cold cracks.