

#### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com





# 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 35mm 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

Туре	SR-SMD 4.50/05/90LFM 3.2AU BK BX		
Order No.	<u>1155870000</u>		
Version	PCB plug-in connector, Bus-contact block for CH2OM12-67, Middle solder flange, THT/THR solder connection, No. of poles: 5, 180°, Solder pin length (I): 3.2 mm, Gold-plated, black		
GTIN (EAN)	4032248942510		
Qty.	78 pc(s).		
Product data	UL:		
Packaging	Box		

# **Technical data**



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Moisture Level (MSL)       1       Contact surface       Gold-plated         Storage temperature, min.       -25 °C       Contact surface       Gold-plated         Max. relative humidity during storage       80 %       Operating temperature, max.       55 °C         Operating temperature, max.       100 °C       Temperature, min.       -50 °C         Temperature range, installation, max.       100 °C       Temperature, min.       -30 °C         Rated data acc. to IEC       EC002637       ETIM 5.0       EC002637         Rated data acc. to standard       IEC 60664-1, IEC 61984       EClass 6.2       27-26-07-04         Class 9.0       27-18-27-90       eClass 8.1       27-44-04-02         eClass 9.0       27-18-27-90       eClass 9.1       27-18-27-90         Notes       Interventive: 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 projin accordance with IPC-A-610 °Class 2°. Further claims on the products can be evaluated on request.         Approvals       Approvals					
Height       5.9 mm         Nat weight       3.13 g         System specifications         Product family       OMNIMATE Housing - series CH2OM         Mouning onto the PCB       THT/THR solder connection         connection       Dutgoing elbow         Pitch in inches (P)       0.197 inch         No. of peles       5         Solder pin length tolerance       0.787 inch         Plugging cycles       25         Material data       Colour code       black         Insulating material       LCP         Colour code       black         Insulating material group       Illia         Insulating material group       Illia         Insulating material group       100 °C         Temperature, min.       -50 °C         Operating temperature, min.       -50 °C         Operating temperature, max.       100 °C         Temperature range, installation, max.       100 °C         Temperature range.	Length				
Netweight     3.13 g       System specifications       Product family     OMNIMATE Housing - series CH20M       Wounting onto the PCB     TMT/THR solder (TMT/THR solder connection       Pitch in inches (P)     0.197 inch       No. of poles     5       Solder pin length tolerance     0.11/-0.3 mm       L1 in inches     0.787 inch       Stogder pin length tolerance     0.717 inch       Solder pin length tolerance     0.717 inch       Pingging cycles     25       Material data       Pristerial cycle     26       Material data       Pristerial data       Colour chart (similar)     RAL 9011       Canta training material cycle     Gold column training the single toperature, max.     55 °C       Operating temperature, max.     100 °C       Temperature ange, installation, max.     100 °C       Temperature range, installation, max.     100 °C       Rated data acc. to IEC       Rested acc: to standard     EC 60664-1, IEC 61984       Class 51.     27-44-04-02       Class 51.     27-44-04-02       Class 51.     27-44-04-02       Class 50.     27-18-27-90       Notes       Notes       Provals	Width		Width (inches)		
System specifications       Product family     OMNIMATE Housing - series CH2OM     Type of connection     Board connection       Wouting onto the PCB     TH/T/THR solder connection     Pitch in mm (P)     5 mm     Dutgoing elbow     180°       Solder pin length tolerance     +0.1 / -0.3 mm     L1 in mm     20 mm     Pin series quantity     1       Plugging cycles     25     7 me     20 mm     L1 in mm     20 mm       Plugging cycles     25     7 me     20 mm     L1 in mm     20 mm       Store prime series quantity     1     1     1     1       Plugging cycles     25     Colour code     black     1       Insulating material     LCP     Colour code     black     1       Storage temporature, min.     -25 °C     Max. Teative humidity during storage     80 %     0       Operating temperature, max.     100 °C     Temperature range, installation, min.     -30 °C       Rated data acc. to IEC     EtM 4.0     EC002637     ETM 5.0     EC002637       EtM 4.0     EC002637     ETM 5.0     EC002637       ETM 4.0     EC002637     ETM 5.0     EC002637       ETM 6.0     EC002637     ETM 5.0     27-26-07.04       Class 5.0     27-18-27.90     class 6.2     27-26-07.	· ·		Height (inches)	0.232 inch	
Product family       OMNIMATE Housing - series CH20M       Type of connection       Board connection         Wounting onto the PCB       THT/THR solder connection       Pitch in mm (P)       5 mm       Outgoing elbow       180°         Solder pin length tolerance       40.1 / -0.3 mm       Solder pin length (I)       3.2 mm       L1 in mm       20 mm         L1 in inches       0.787 inch       Solder pin length (I)       3.2 mm       L1 in mm       20 mm         Wagging cycles       25       Solder pin length (I)       3.2 mm       L1 in mm       20 mm         Magging cycles       25       Solder pin length (I)       3.2 mm       L1 in mm       20 mm         Misure Level (MSL)       1       Contor code       black       Insulating material group       Illa         Storage temperature, min.       -25 °C       Storage temperature, max.       56 °C       Operating temperature, max.       56 °C         Operating temperature, max.       100 °C       Temperature range, installation, min.       -30 °C       Temperature range, installation, min.       -30 °C         Temperature range, installation, max.       100 °C       Eff 4.1 EC 61984       Ecoso2637       Eff 4.3 EC 2.7 2.8 C7-04       eClass 6.1       27.44-04-02       eclass 9.1       27.18-27-90       eclass 9.1       27.18-27-90 <td>Net weight</td> <td>3.13 g</td> <td></td> <td></td>	Net weight	3.13 g			
series CH20M     Board connection       Wounting onto the PCB     TH/THR solder connection     Pitch in mm (P)     Board connection       Pitch in inches (P)     0.197 inch     Outgoing albow     180°       Solder pin length tolerance     +0.17-0.3 mm     L1 in mm     20 mm       L1 in inches     0.737 inch     Solder pin length (I)     3.2 mm       Plugging cycles     25     Pitch in mm (P)     The method is a connection       Material data     Colour code     black       Insulating material     LCP     Colour code     black       Colour code     black     Insulation strength     ≥ 10° Ω       Contact surface     Gold-plated     Storage temperature, min.     >20° Ω       Storage temperature, min.     -25 °C     Operating temperature, min.     >50 °C       Operating temperature, max.     100 °C     Temperature range, installation, min.     >30 °C       Rated data acc. to IEC     EtIM 5.0     EC002637     eClass 6.1     27.44-04-02       eclass 9.0     27-18-27.90     eClass 6.1     27.44-04-02       eclass 9.1     27.44-04-02     eclass 9.1     27.48-27.90       Notes     Storage temperature and delivered according international recognized       Price ontormity     Conformity. The products are developed, manufactured and delivered according internatio	System specifications				
series CH20M     Characteristical connection     Board connection       Mounting onto the PCB     TH/THR solder connection     Pitch in mm (P)     5 mm       Outgoing elbow     180°     0.197 inch     Solder pin length (I)     3.2 mm       Solder pin length tolerance     +0.17-0.3 mm     L1 in mch     20 mm     Pitch in mm (P)       Plugging cycles     25     Solder pin length (I)     3.2 mm     L1 in mm     20 mm       Insulating material     LCP     Colour code     black     Insulation strength     1       Plugging cycles     25     Colour code     black     Insulation strength     2 10° Ω       Colour code     Max. relative humidity during storage     80 %     Operating temperature, min.     -25 °C       Max. relative humidity during storage     80 %     Operating temperature, min.     -50 °C       Operating temperature, max.     100 °C     Temperature range, installation, min.     -30 °C       Rated data acc. to IEC     EtIM 4.0     EC002637     eClass 6.1     27.44-04-02       eClass 9.0     27-18-27.90     eClass 8.1     27.44-04-02       eClass 9.1     27-18-27.90     eClass 9.1     27-18-27.90       Notes     PC conformity. The products are developed, manufactured and delivered according international recognized       Notes     PC conformity.	Product family	OMNIMATE Housing -	Type of connection		
connection     5 mm       No. of poles     5       No. of poles     5       Solder pin length tolerance     +0.17-0.3 mm       L1 in inches     0.787 inch       Plugging cycles     25       Material data     1       Insulating material     LCP       Colour code     black       Moisture Level (MSL)     1       Colour code     black       Moisture Level (MSL)     1       Contact surface     Gold-plated       Storage temperature, min.     -25 °C       Max. relative humidity during storage     80 %       Operating temperature, min.     -26 °C       Operating temperature, min.     -60 °C       Operating temperature, min.     -60 °C       Temperature range, installation, max     100 °C       Temperature range, installation, max     100 °C       Rated data acc. to IEC     EC002637       ETIM 4.0     EC0021031       eClass 6.2     27-26-07-04       eClass 8.1     27-44-04-02       eClass 8.1     27-44-04-02       eClass 8.1     27-44-04-02       eClass 8.1     27-44-04-02       eClass 9.0     27-18-27-80       Notes     Enformation and comply with the assured properties in the data sheter resp. Mill decorative projin accordance with IPC-A610				Board connection	
No. of poles       5         Solder pin length tolerance       +0.1/-0.3 mm         L1 in meths       0.787 inch         Plugging cycles       25         Material data       Image: Colour code         Insulating material       LCP         Colour chart (similar)       RAL 9011         TI       ≥ 175         Moisture Level (MSL)       1         Storage temperature, min.       -25 °C         Max. relative humidity during storage       80 %         Operating temperature, max.       100 °C         Temperature range, installation, max.       100 °C         Temperature range, installation, max.       100 °C         Rated data acc. to IEC       ECO2637         ETIM 4.0       ECO2637         ETIM 5.0       ECO2637	Nounting onto the PCB		Pitch in mm (P)	5 mm	
Solder pin length tolerance       +0.1 / -0.3 mm       L1 in mm       20 mm         L1 in inches       0.787 inch       Pin series quantity       1         Plugging cycles       25         Material data       CCP       Colour code       black         Colour chart (similar)       RAL 9011       Insulating material group       Illa         CTI       ≥ 175       Insulating material group       Illa         Colour chart (similar)       RAL 9011       Insulating material group       Illa         Colour chart (similar)       1       Storage temperature, max.       56 °C         Storage temperature, max.       100 °C       Temperature range, installation, min.       -30 °C         Rated data acc. to IEC       EC 60664-1, IEC 61984       EC002637       ETIM 5.0       EC002637         ETIM 6.0       EC002637       ETIM 5.0       EC002637       eClass 8.1       27.40-40-2         Calsas 9.0       27.18-27.90       eClass 8.1       27.40-40-2       eClass 9.1       27.18-27-90         Notes       ECorormity: 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 proj in accordance with IPC-A610 "Class 2". Further claims on the products can be evaluated on request. <td< td=""><td>Pitch in inches (P)</td><td>0.197 inch</td><td></td><td>180°</td></td<>	Pitch in inches (P)	0.197 inch		180°	
L1 in inches 0.787 inch Plugging cycles 25 Material data Material data Insulating material LCP Colour code black Insulating material COP III Insulating material group IIIa Insulating material group IIIa Insulating material group IIIa Insulating material group IIIa Insulating material group IIIa Moisture Level (MSL) 1 Contact surface Gold-plated Storage temperature, min25 °C Operating temperature, min25 °C Operating temperature, max. 100 °C Temperature range, installation, max. 100 °C Temperature range, installation, min30 °C Temperature, min. Temperature, min. Temperature, min. Temperature, min. Temperature, min. Temperature, min. Temperature, min. Temperature, min. Tem	No. of poles	5	Solder pin length (I)	3.2 mm	
Plugging cycles     25       Material data       Insulating material     LCP       Colour chart (similar)     RAL 9011       C11     ≥ 175       Moisture Level (MSL)     1       Contact surface     Goldylated       Storage temperature, min.     -25 °C       Storage temperature, min.     -25 °C       Operating temperature, max.     55 °C       Operating temperature, max.     100 °C       Temperature range, installation, max.     100 °C       Temperature range, installation, max.     100 °C       Rated data acc. to IEC     EC002637       ETIM 4.0     EC002637       ETIM 5.0     EC002637       eClass 6.2     27.26-07-04       sClass 9.0     27.18-27-90       Notes     Encordermity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assued properties in the data sheet resp. fulfil decorative pro in accordance with IPC-A610 °Class 2°. Further claims on the products can be evaluated on request.	Solder pin length tolerance	+0.1 / -0.3 mm	L1 in mm	20 mm	
Material data         Insulating material       LCP         Colour chart (similar)       RAL 9011         CTI       ≥ 175         Moisture Level (MSL)       1         Max. relative humidity during storage       80 %         Operating temperature, min.       -25 °C         Max. relative humidity during storage       80 %         Operating temperature, max.       50 °C         Operating temperature, max.       100 °C         Temperature range, installation, max.       100 °C         Rated data acc. to IEC       EtCe 60664-1, IEC 61984         Class file acc. to standard       IEC 600664-1, IEC 61984         Class 7.1       27.44.04-02         aclass 9.0       27.18-27.90         Reclass 9.0       27.18-27.90         Rotes       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 progin accordance with IPC-A610 °Class 2". Further claims on the products can be evaluated on request.         Notes       Approvals	∟1 in inches	0.787 inch	Pin series quantity	1	
Insulating material LCP Colour code black Colour chart (similar) RAL 9011 CTI ≥ 175 Moisture Level (MSL) 1 Storage temperature, min25 °C Max. relative Munidity during storage 80 % Operating temperature, max. 100 °C Temperature range, installation, min30 °C Temperature, max30 °C Temperature, max	Plugging cycles	25			
Colour chart (similar)       RAL 9011       Insulating material group       Illa         CTI       ≥ 175       Insulation strength       ≥ 10 <sup>6</sup> Ω         Moisture Level (MSL)       1       Contact surface       Gold-plated         Storage temperature, min.       -25 °C       Storage temperature, max.       55 °C         Operating temperature, max.       100 °C       Temperature range, installation, min.       -50 °C         Temperature range, installation, max.       100 °C       Temperature range, installation, min.       -30 °C         Rated data acc. to IEC       EC 60664-1, IEC 61984       EClassifications         ETIM 4.0       EC002637       ETIM 5.0       EC002637         ETIM 6.0       EC001031       eClass 6.2       27-26-07-04         aClass 7.1       27-44-04-02       eClass 8.1       27-44-04-02         aClass 9.0       27-18-27-90       eClass 9.1       27-18-27-90         Notes       Inscredended and norms and comply with the assured properties in the data sheet resp. fulfil decorative projin accordance with IPC-A-610 °Class 2". Further claims on the products can be evaluated on request.         Approvals       Approvals       Approvals	Material data				
Colour chart (similar)       RAL 9011       Insulating material group       Illa         CTI       ≥ 175       Insulation strength       ≥ 10 <sup>6</sup> Ω         Moisture Level (MSL)       1       Contact surface       Gold-plated         Storage temperature, min.       -25 °C       Storage temperature, max.       55 °C         Operating temperature, max.       100 °C       Temperature range, installation, min.       -50 °C         Operating temperature, max.       100 °C       Temperature range, installation, min.       -30 °C         Rated data acc. to IEC       EC 60664-1, IEC 61984       Temperature range, installation, min.       -30 °C         Classifications       ETIM 4.0       EC002637       ETIM 5.0       EC002637         ETIM 4.0       EC001031       eClass 6.2       27-24-04-02         aClass 7.1       27-44-04-02       eClass 9.1       27-18-27-90         Notes       PC 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 proj in accordance with IPC-A-610 °Class 2". Further claims on the products can be evaluated on request.         Approvals       Approvals       Approvals					
CTI       ≥ 175         Moisture Level (MSL)       1         Storage temperature, min.       -25 °C         Max. relative humidity during storage       80 %         Operating temperature, max.       100 °C         Temperature range, installation, max.       100 °C         Rated data acc. to IEC       Temperature range, installation, min.       -30 °C         Rated data acc. to standard       IEC 60664-1, IEC 61984       Class 6.2       27-26-07-04         Class 5.1       27-44-04-02       eClass 6.2       27-26-07-04         eClass 5.1       27-44-04-02       eClass 6.1       27-44-04-02         eClass 9.0       27-18-27-90       eClass 9.1       27-18-27-90         Notes       Image: Standards and norms and comply with the assured properties in the data shere resp. fulfill decorative progin accordance with IPCA-610 °Class 2". Further claims on the products can be evaluated on request.         Approvals       Approvals       Approvals					
Moisture Level (MSL)       1       Contact surface       Gold-plated         Storage temperature, min.       -25 °C       Operating temperature, max.       55 °C         Max. relative humidity during storage       80 %       Operating temperature, max.       55 °C         Operating temperature, max.       100 °C       Temperature, min.       -50 °C         Temperature range, installation, max.       100 °C       Temperature range, installation, min.       -30 °C         Rated data acc. to IEC       IEC 60664-1, IEC 61984       Ecou2637       ETIM 5.0       Ecou2637         ETIM 4.0       ECO02637       ECIM 5.0       ECO02637         ETIM 6.0       ECO01031       eClass 6.2       27-26-07-04         eClass 9.0       27-18-27-90       eClass 9.1       27-18-27-90         Notes       IPC 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 projin accordance with IPC-A-610 °Class 2°. Further claims on the products can be evaluated on request.         Approvals       Approvals       Image: Simple Si	, ,	KAL 9011			
Storage temperature, min.       -25 °C       Storage temperature, max.       55 °C         Operating temperature, max.       100 °C       Temperature, min.       -50 °C         Temperature range, installation, max.       100 °C       Temperature range, installation, min.       -30 °C         Rated data acc. to IEC         Etil 6:0664-1, IEC 61984         Classifications         ETIM 4.0       EC002637         ETIM 5.0       EC002637         EC002637         ETIM 5.0       EC002637         EC100 5.2         Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheat resp. fulfil decorative proj in accordance with IPCA-610 "Class 2.". Further claims on the products can be evaluated on request.         Approvals	-	≥ 175	Insulation strength	≥ 10 <sup>8</sup> Ω	
Max. relative humidity during storage 80 % Operating temperature, max. 100 °C Temperature range, installation, max. 100 °C Rated data acc. to IEC tested data acc. to standard IEC 60664-1, IEC 61984 Classifications ETIM 4.0 EC002637 ETIM 4.0 EC002637 ETIM 5.0 EC002637 ETIM 5.0 EC002637 eClass 6.2 27-26-07-04 eClass 8.1 27-44-04-02 eClass 9.0 27-18-27-90 eClass 9.1 27-18-27-90 Notes Notes Notes Notes Notes Notes PC 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 proj in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request. Approvals	Moisture Level (MSL)	1	Contact surface	Gold-plated	
Operating temperature, max.       100 °C         Temperature range, installation, max.       100 °C         Rated data acc. to IEC       IEC 60664-1, IEC 61984         Classifications       IEC 60664-1, IEC 61984         Classifications       ETIM 4.0         ETIM 4.0       EC002637         ETIM 6.0       EC001031         aClass 7.1       27-44-04-02         aClass 9.0       27-18-27-90         eClass 8.1       27-44-04-02         eClass 9.1       27-18-27-90         Notes       Votes         PC 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 progin accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.         Approvals       JUSA SUBSERVIEW	Storage temperature, min.	-25 °C	Storage temperature, max.	55 °C	
Temperature range, installation, max.       100 °C         Rated data acc. to IEC         tested acc. to standard         IEC 60664-1, IEC 61984         Classifications         ETIM 4.0       EC002637         ETIM 5.0       EC002637         ETIM 5.0       EC002637         ETIM 5.0       EC002637         Class 6.2       27-26-07-04         eClass 9.0       27-44-04-02         eClass 8.1       27-44-04-02         aclass 9.0       27-18-27-90         Notes         PC 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 progin accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.         Approvals	Max. relative humidity during storage	80 %	Operating temperature, min.	-50 °C	
Easted data acc. to IEC       Rested data acc. to standard     IEC 60664-1, IEC 61984       Classifications       ETIM 4.0     EC002637       ETIM 5.0     EC002637       eClass 5.1     27-44-04-02       eClass 9.0     27-18-27-90       Notes       Notes       PC 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 projin accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.       Approvals       Approvals	Operating temperature, max.	100 °C	Temperature range, installation, min.	-30 °C	
tested acc. to standard IEC 60664-1, IEC 61984  Classifications  ETIM 4.0 EC002637 ETIM 6.0 EC001031 eClass 6.2 27-26-07-04 eClass 9.0 27-18-27-90 eClass 8.1 27-44-04-02 eClass 9.0 27-18-27-90 eClass 9.1 27-18-27-90  Notes  Notes  PC 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 pro in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.  Approvals	Temperature range, installation, max.	100 °C			
Classifications         ETIM 4.0       EC002637       ETIM 5.0       EC002637         ETIM 6.0       EC001031       eClass 6.2       27-26-07-04         eClass 7.1       27-44-04-02       eClass 8.1       27-44-04-02         eClass 9.0       27-18-27-90       eClass 9.1       27-18-27-90         Notes         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 projin accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.         Approvals       Conformity Conformity Conformation of the products can be evaluated on request.	Rated data acc. to IEC				
ETIM 6.0       EC001031         eClass 7.1       27.44-04-02         eClass 9.0       27.18-27-90         eClass 9.1       27.18-27-90         Notes       IPC 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 projin accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.         Approvals       Conformity Conformit	tested acc. to standard	IEC 60664-1, IEC 61984			
ETIM 6.0       EC001031       eClass 6.2       27-26-07-04         eClass 7.1       27-44-04-02       eClass 8.1       27-44-04-02         eClass 9.0       27-18-27-90       eClass 9.1       27-18-27-90         Notes         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 projin accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.         Approvals       Approvals	Classifications				
ETIM 6.0       EC001031       eClass 6.2       27-26-07-04         eClass 7.1       27-44-04-02       eClass 8.1       27-44-04-02         eClass 9.0       27-18-27-90       eClass 9.1       27-18-27-90         Notes         Notes       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 projin accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.         Approvals       Conformity Confor					
action       27-44-04-02       action       27-44-04-02         actions 9.0       27-18-27-90       actions 8.1       27-44-04-02         Action       action       27-18-27-90       actions 9.1       27-18-27-90         Notes       action       action       action       actions 9.1       27-18-27-90         Notes       action       action       action       action       action       action         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 projin accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.         Approvals       action	ETIM 4.0	EC002637	ETIM 5.0	EC002637	
eClass 9.0       27-18-27-90       eClass 9.1       27-18-27-90         Notes         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 propin accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.         Approvals       Image: Construction of the product of	ETIM 6.0	EC001031	eClass 6.2	27-26-07-04	
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 propin accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.         Approvals       Conformity is a conformity in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.	eClass 7.1	27-44-04-02	eClass 8.1	27-44-04-02	
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 propin accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.         Approvals       Conformity is the data sheet resp. fulfill decorative propin accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.	eClass 9.0	27-18-27-90	eClass 9.1	27-18-27-90	
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### Creation date February 20, 2019 6:54:20 PM CET

Catalogue status 15.02.2019 / We reserve the right to make technical changes.

# **Technical data**





#### Weidmüller Interface GmbH & Co. KG

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# Drawings

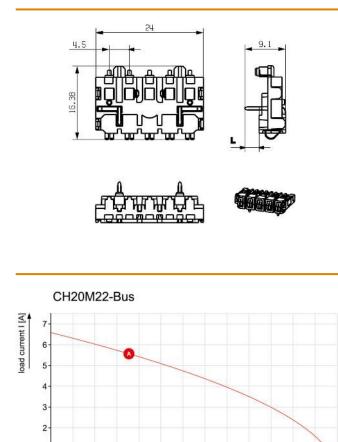
1

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🚯 = 5 Modules = 25 Contacts

30 40 50 60 70

10 20





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100 110 120 130

ambient temperature T [°C]

80 90

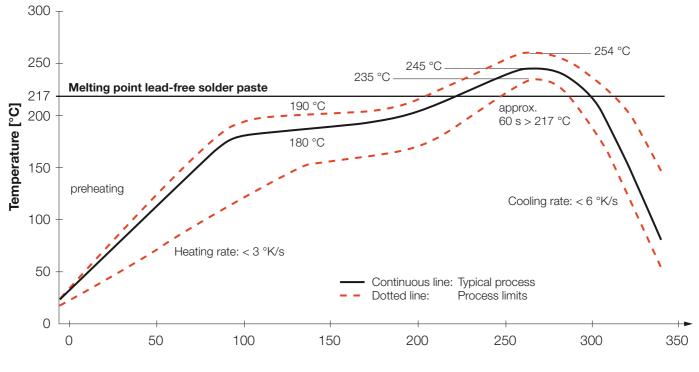
### **Reflow Profile**

### **Recommended reflow soldering profile**



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Time [sec]

#### **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  $\leq +3$ K/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.

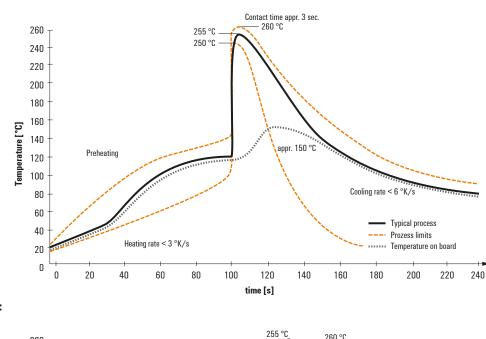
# Wave Solder Profile

### **Recommended wave solderding profiles**

# Weidmüller 🟵

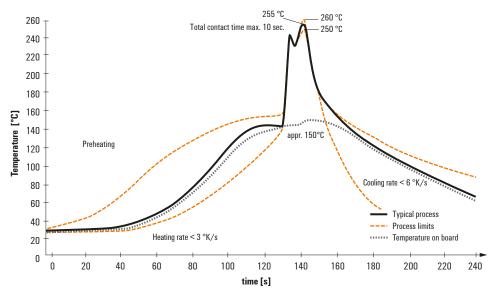
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**Double Wave:** 

Single 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.

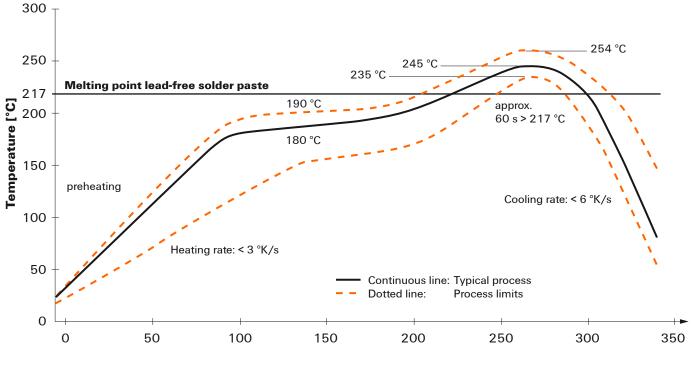
# **Reflow Solder Profile**

### **Recommended reflow soldering profile**



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Time [sec]

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