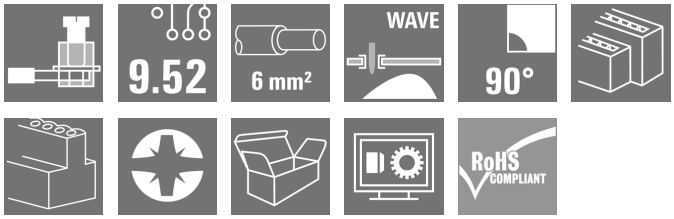
LL2N 9.52/08/90 5.0SN OR BX

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

www.weidmueller.com

Product image



2-row PCB terminal with proven clamping yoke connection at 9.52 mm pitch. Conductor outlet direction 90°. 1000 V and 6 mm² conductor cross-section for 32 A.

General ordering data

Version	Printed circuit board terminals, 9.52 mm, Number of poles: 8, 90°, Solder pin length (l): 5 mm, tinned, orange, Clamping yoke connection, Clamping range, max. : 6 mm², Box
Order No.	1926360000
Type	LL2N 9.52/08/90 5.0SN OR BX
GTIN (EAN)	4032248660223
Qty.	10 pc(s).
Product data	IEC: 1000 V / 32 A / 0.18 - 6 mm² UL: 300 V / 30 A / AWG 26 - AWG 10
Packaging	Box

Creation date July 5, 2024 9:29:12 AM CEST

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Technical data

Dimensions and weights

Depth	28 mm	Depth (inches)	1.102 inch
Height	33.9 mm	Height (inches)	1.335 inch
Height of lowest version	28.9 mm	Width	38.68 mm
Width (inches)	1.523 inch	Net weight	31.3 g

System parameters

Product family	OMNIMATE Signal - series LL	Wire connection method	Clamping yoke connection
Property, clamping point	WireReady	Mounting onto the PCB	THT solder connection
Conductor outlet direction	90°	Pitch in mm (P)	9.52 mm
Pitch in inches (P)	0.375 "	Number of poles	8
Pin series quantity	2	Fitted by customer	Yes
Number of rows	2	Max. adjacent poles per row	24
Solder pin length (l)	5 mm	Solder pin dimensions	0.5 x 1.0 mm
Solder eyelet hole diameter (D)	1.3 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
Number of solder pins per pole	1	Screwdriver blade	0.8 x 4.0
Screwdriver blade standard	DIN 5264	Tightening torque, min.	0.5 Nm
Tightening torque, max.	0.6 Nm	Clamping screw	M 3
Stripping length	7 mm	L1 in mm	28.56 mm
L1 in inches	11.25 "	Touch-safe protection acc. to DIN VDE 0470	IP 20
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Protection degree	IP20

Material data

Insulating material	Wemid (PA)	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	UL 94 flammability rating	V-0
Contact material	Cu-alloy	Contact surface	tinned
Coating	4-6 µm SN	Tinning type	matt
Layer structure of solder connection	2...4 µm Ni / 4...6 µm Sn matt	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	120 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	120 °C		

Conductors suitable for connection

Clamping range, min.	0.18 mm²
Clamping range, max.	6 mm²
Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 10
Solid, min. H05(07) V-U	0.18 mm²
Solid, max. H05(07) V-U	6 mm²
Stranded, min. H07V-R	0.22 mm²
Flexible, min. H05(07) V-K	0.22 mm²
Flexible, max. H05(07) V-K	4 mm²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.5 mm²
w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm²

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Technical data

w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm²			
w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm²			
Plug gauge in accordance with EN 60999 a x b; ø	3.6 mm x 3.1 mm; 2.7 mm			
Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.5 mm²	
	wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H0,5/6	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1 mm²	
	wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H1,0/6	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1.5 mm²	
	wire end ferrule	Stripping length	nominal	7 mm
		Recommended wire-end ferrule	H1,5/7	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	2.5 mm²	
	wire end ferrule	Stripping length	nominal	7 mm
		Recommended wire-end ferrule	H2,5/7	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.75 mm²	
	wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H0,75/6	
Reference text	Length of ferrules is to be chosen depending on the product and the rated voltage., The outside diameter of the plastic collar should not be larger than the pitch (P)			

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	32 A
Rated current, max. number of poles (Tu=20°C)	32 A	Rated current, min. number of poles (Tu=40°C)	32 A
Rated current, max. number of poles (Tu=40°C)	32 A	Rated voltage for surge voltage class / pollution degree II/2	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	690 V	Rated voltage for surge voltage class / pollution degree III/3	690 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	6 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Short-time withstand current resistance	3 x 1s with 120 A

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Technical data

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1815154
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group C / CSA)	300 V
Rated current (Use group B / CSA)	30 A	Rated current (Use group C / CSA)	30 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 10
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (cURus)		Certificate No. (cURus)	E60693
Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group C / UL 1059)	300 V
Rated current (Use group B / UL 1059)	30 A	Rated current (Use group C / UL 1059)	30 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 10
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	152 mm
VPE width	90 mm	VPE height	51 mm

Classifications

ETIM 6.0	EC002643	ETIM 7.0	EC002643
ETIM 8.0	EC002643	ETIM 9.0	EC002643
ECLASS 9.0	27-44-04-01	ECLASS 9.1	27-44-04-01
ECLASS 10.0	27-44-04-01	ECLASS 11.0	27-46-01-01
ECLASS 12.0	27-46-01-01	ECLASS 13.0	27-46-01-01

Environmental Product Compliance

REACH SVHC	/

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Technical data

Important note

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.
Notes	• Rated current related to rated cross-section & min. No. of poles. • Wire end ferrule without plastic collar to DIN 46228/1 • Wire end ferrule with plastic collar to DIN 46228/4 • P on drawing = pitch • Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards. • Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Product Change Notification	Modification of the clamping yoke on product families LM 5.0x, LL 6.35, LL 9.52 and WGK 4
User Documentation	QR-Code product handling video
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL APPL_INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN PO OMNIMATE EN

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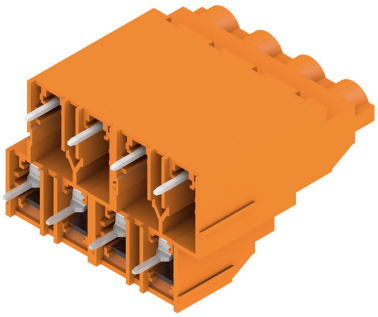
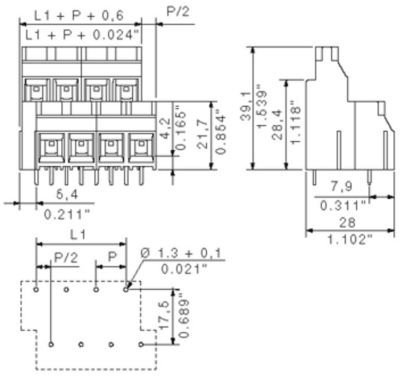
Drawings

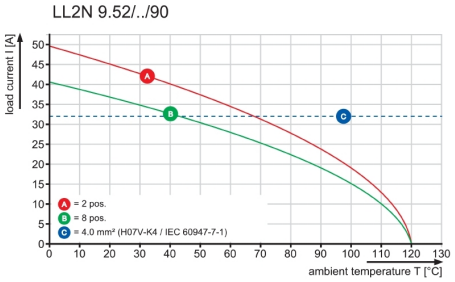
Product image



Dimensional drawing



Graph



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Accessories

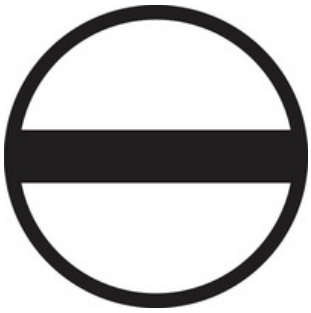
Crosshead screwdriver Pozidriv

Crosshead screwdriver, Pozidriv, SDK PZ DIN 5262, ISO 8764/2-PZ, output to ISO 8764/1-PZ, ChromTop tip, SoftFinish grip

General ordering data

Type	SDK PZ1 X 80	Version
Order No.	2749440000	Screwdriver, Blade width (B): 80 mm, Blade thickness (A):
GTIN (EAN)	4050118895667	
Qty.	1 pc(s).	

Slotted screwdriver



Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

General ordering data

Type	SDS 0.8X4.0X100	Version
Order No.	9008340000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056293	
Qty.	1 pc(s).	

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Accessories

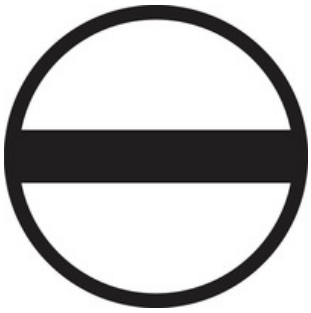
Crosshead screwdriver Pozidriv

VDE insulated crosshead screwdriver type Pozidriv SDIK PZ DIN 7438, ISO 8764/2-PZ, output to ISO 8764-PZ, SoftFinish grip

General ordering data

Type	SDIK PZ1 X 80	Version
Order No.	2749920000	Screwdriver, Blade width (B): 1 mm, 80 mm, Blade thickness (A): 1
GTIN (EAN)	4050118897227	
Qty.	1 pc(s).	

Slotted screwdriver



VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

Type	SDIS 0.8X4.0X100	Version
Order No.	9008400000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056361	
Qty.	1 pc(s).	

WEITERGABE SOWIE VERVIELFAELTIGUNG DIESES DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINES INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTATTET.
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Technical Data ⑪

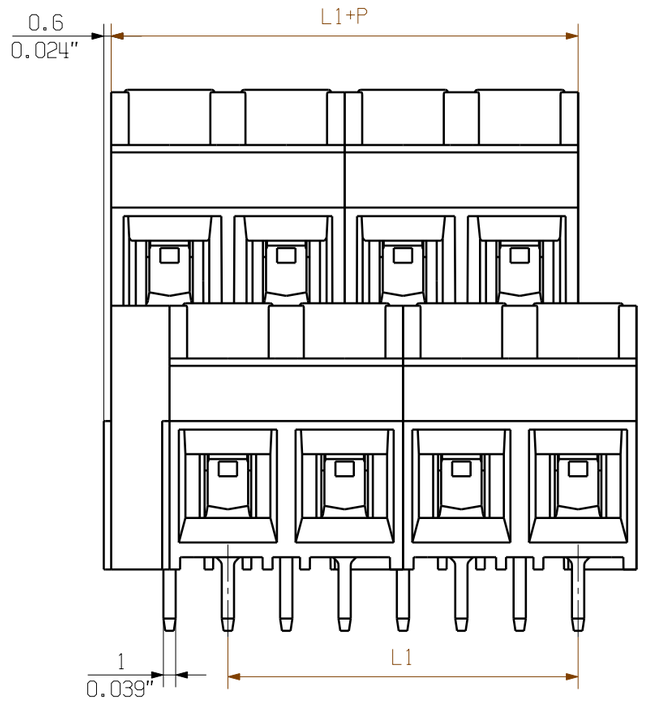
Rev.

Material data			
Insulation material type		PA66/6(WEMID)	
Insulation material colours		grey,orange,black,green	
Insulation material flammability class	UL94	V-0	
Insulation resistance	MOhm	10^3	
Conatct base material		Cu-alloy	
Contact plating		tin-plated	
System characteristic values			
Pitch **P**	mm/inch	9.52 / 0.375	
Number of rows		2	
Dielectric strength (r.m.s withstand voltage)	kV	>5	
Through resistance (typical)	mOhm	0.5	
Operating temperature range	°C	-55...+120	1)
Degree of protection acc. to VDE 0106		finger safe	
Degree of protection acc. to DIN EN 60529		IP20	
Conductor connection method		clamping yoke	
Screw size		M3	
Screw torque max. acc. to EN 60999	Nm	0.5	
Screw driver type	⊖/⊕	SD 0.8x4.0 / SDK PZ1	
Solder pin length **L**	mm/inch	5.0 / 0.197	
PCB hole diameter **D** (wave soldering)	mm/inch	1.3 +0.10/0.051+0.004	2)
PCB hole diameter **D** (reflow soldering)	mm/inch	n.a.	3)
Resistance to soldering heat acc. to DIN IEC 60512-6	°C/sec	260 / 10	4)
Resistance to soldering heat acc. to EN 61760-1	°C/sec	n.a.	5)
Solderability classification acc. to EN 61760-1		n.a.	
Solder connection type		wave soldering	
Solder pin diameter **d** (max.)	mm/inch	1.28/0.05	
Application notes			
Coding possibility	yes/no	no	
Joinable without loss of pitch	yes/no	yes	
Manual assembly of modules	yes/no	yes	
Max. number of poles	n	24	
Conductor			
Clamping range	mm^2	0.18...6.0	
"e" solid H05(07) V-U	mm^2	0.18...6.0	
"f" flexible H05(07) V-K	mm^2	0.22...4.0	
"f" with ferrule acc. to DIN 46228/1	mm^2	0.5...2.5	
... with plastic collar acc. to DIN 46228/4	mm^2	0.5...2.5	
Conductor insulation stripping length	mm/inch	7.0 / 0.267	
Conductor insulation diameter max.	mm/inch	n.a.	
Two wire clamping range	mm^2	n.a.	
Gauge to EN 60999 (a x b ; Ø)	mm	3.6 x 3.1(A4); Ø2.7(B3)	
IEC 664-1 / VDE0110 (4.97) rated data			
Rated cross section acc. to EN 60999	mm^2	4.0	
Rated current @ 20°C ambient (min. pole, max, wire)	A	32	6)
Rated current @ 40°C ambient (min. pole, max, wire)	A	32	6)
Overvoltage category / Pollution degree		**III/3 III/2 II/2**	
Rated voltage	V	690 1000 1000	
Rated impulse voltage	kV	8.0 8.0 6.0	
UL 1059 rated data C UL US **File No.: 60693**		**B C D**	
Rated voltage	V	300 300 300	
Rated current	A	30 30 10	
AWG wire range (field wiring / factory wiring)		26...10	
CSA C22.2 rated data **File No.: LR12400**		**B C D**	
Rated voltage	V	300 300 300	
Rated current	A	30 30 10	
AWG wire range (field wiring / factory wiring)		26....10	
Packaging		carton	
Downloads		www.weidmueller.de	

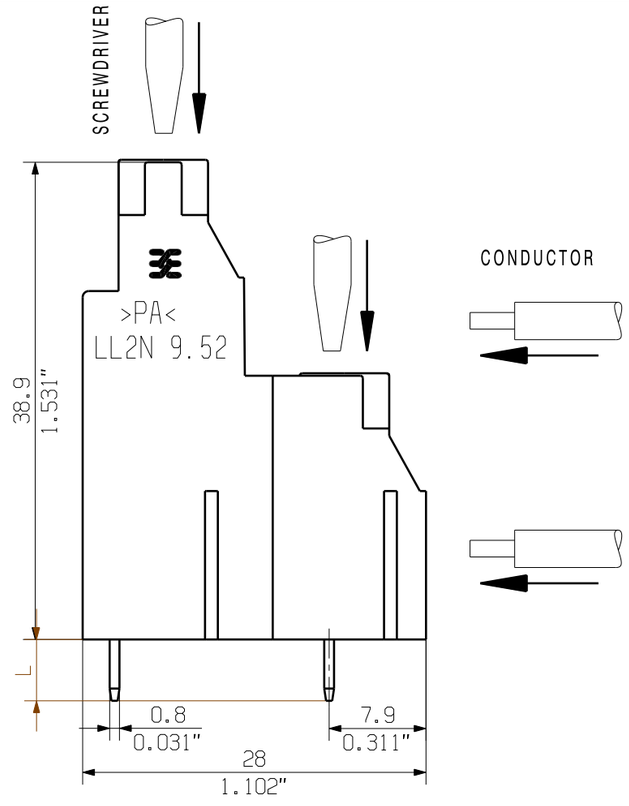
1) Sum of ambient temperature and temperature rise
2) Recommendation for manual assembly
3) Recommendation for automatic assembly
4) Recommendation for wave soldering
5) Recommendation for reflow soldering
6) Referred to rated cross section and minimum pole number

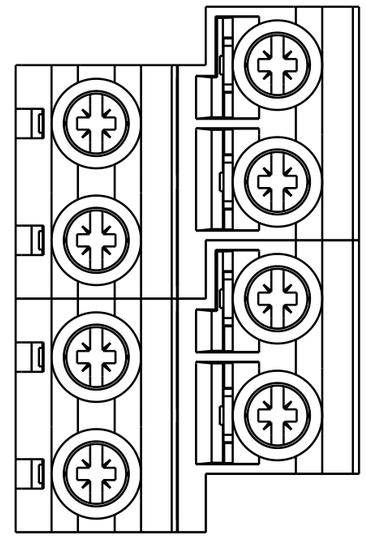
n.a. = not applicable

Subject to technical changes



PCB LAYOUT





24	104.72	4.123
20	85.68	3.373
16	66.64	2.624
12	47.60	1.874
8	28.56	1.124
4	9.52	0.375
N	L1 [mm]	L1 [inch]

For the mounting of PCBs, it should be noted that the rated data stated here relates only to the PCB components alone.
The neccessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110.
The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application.
Provided that the components are used to the intended purpose, all requirements with respect to the occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

KUNDENZEICHNUNG
CUSTOMER DRAWING

METRIC TOLERANCES
X. = ±0.3
X.X = ±0.1
X.XX = ±0.05

37333/5
13.08.07 SHI_S 01
MODIFICATION

CAT.NO.:.

Weidmüller

C 39474 01
DRAWING NO. ISSUE NO.

		DATE	NAME
	DRAWN	16.08.2005	GU_D
SCALE: 2/1	RESPONSIBLE		GU_D
SUPERSEDES: ·	CHECKED	20.07.2007	LIU_ZH
SUPERSEDED BY: .	APPROVED		DONG_H

LL2N 9.52/.../90 ...
LEITERPLATTENKLEMME
PCB TERMINAL

PRODUCT FILE: LL2N 9.52 None

Wave Solder Profile

Recommended wave solderding profiles

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Fax: +49 5231 14-292083
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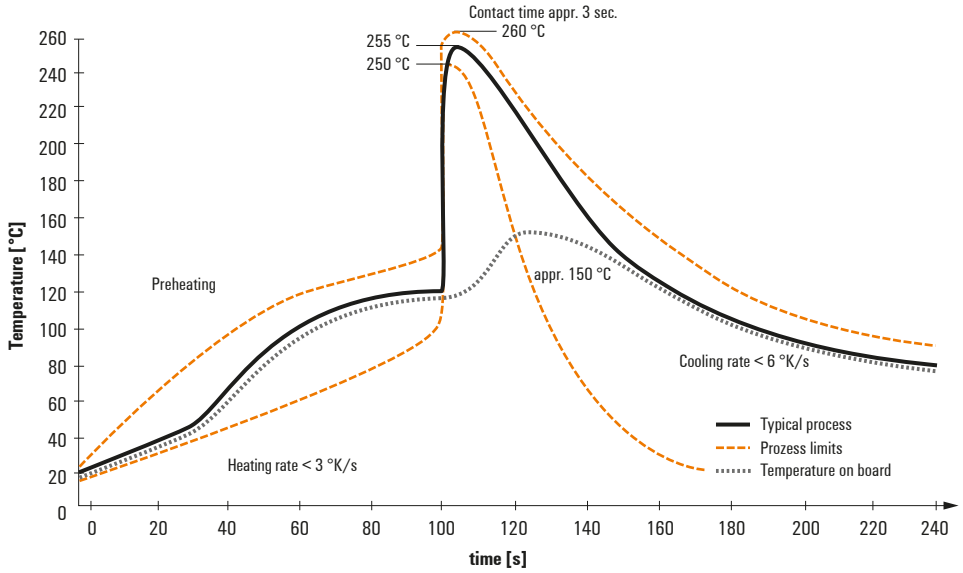
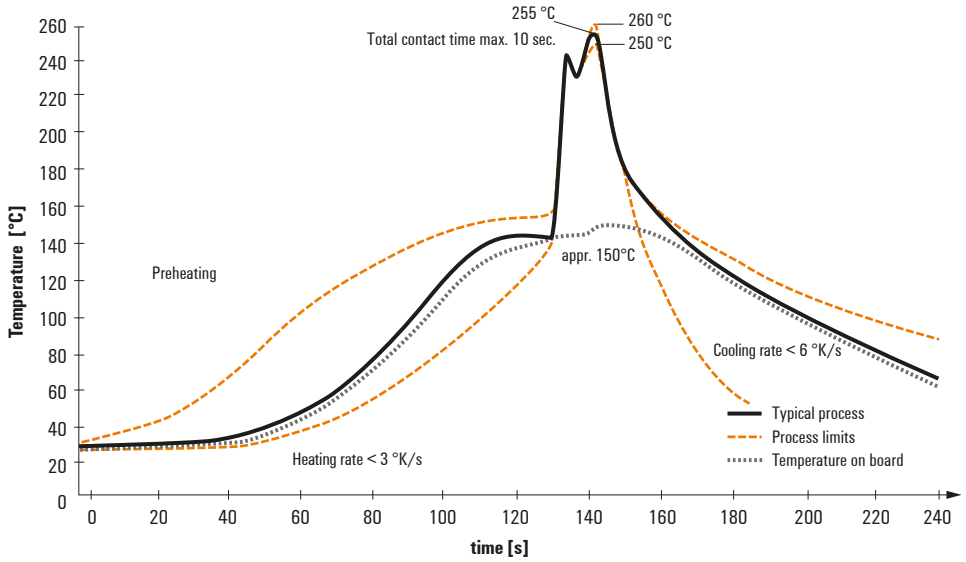
Single Wave:



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.

We reserve the right to make technical changes.