

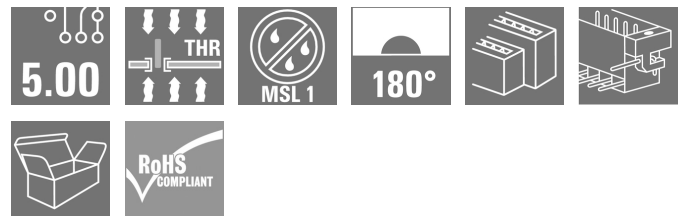
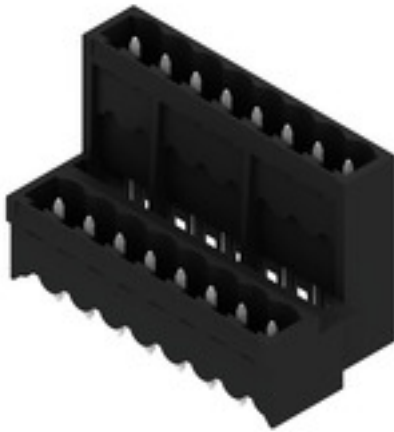
**SLDV-THR 5.00/16/180GLF 3.2SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

High-temperature resistant, double level, laterally offset, closed ended male header, with solder flange option. 1.5 mm solder pin suitable for reflow soldering. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded.

**General ordering data**

Version	PCB plug-in connector, male header, closed side / solder flange, THT/THR solder connection, 5.00 mm, Number of poles: 16, 180°, Solder pin length (l): 3.2 mm, tinned, black, Box
Order No.	<a href="#">1911360000</a>
Type	SLDV-THR 5.00/16/180GLF 3.2SN BK BX
GTIN (EAN)	4032248539451
Qty.	20 pc(s).
Product data	IEC: 400 V / 15 A UL: 300 V / 10 A
Packaging	Box

Creation date October 6, 2024 12:38:30 AM CEST

Catalogue status 28.09.2024 / We reserve the right to make technical changes.

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## Technical data

## Dimensions and weights

Depth	23.43 mm	Depth (inches)	0.922 inch
Height	29.36 mm	Height (inches)	1.156 inch
Height of lowest version	26.16 mm	Width	43 mm
Width (inches)	1.693 inch	Net weight	13.5 g

## System specifications

Product family	OMNIMATE Signal - series BL/SL 5.00	Type of connection	Board connection
Mounting onto the PCB	THT/THR solder connection	Pitch in mm (P)	5 mm
Pitch in inches (P)	0.197 "	Outgoing elbow	180°
Number of poles	16	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Solder pin length tolerance	+0.1 / -0.2 mm
Solder pin dimensions	d = 1.2 mm, Octagonal	Solder pin dimensions = d tolerance	0 / -0.03 mm
Solder eyelet hole diameter (D)	1.5 mm	Solder eyelet hole diameter tolerance (D)	+ 0.1 mm
L1 in mm	35 mm	L1 in inches	1.378 "
Number of rows	2	Pin series quantity	2
Touch-safe protection acc. to DIN VDE 57 106	finger-safe unplugged/ back-of-hand-safe plugged	Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
Protection degree	IP20	Volume resistance	≤5 mΩ
Can be coded	Yes	Plugging force/pole, max.	9 N
Pulling force/pole, max.	8 N		

## Material data

Insulating material	LCP GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIla
Comparative Tracking Index (CTI)	≥ 175	Moisture Level (MSL)	1
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Layer structure of solder connection	1...3 µm Ni / 2...4 µm Sn matt
Layer structure of plug contact	1...3 µm Ni / 2...4 µm Sn matt	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	100 °C		

## Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	15 A
Rated current, max. number of poles (Tu=20°C)	10.5 A	Rated current, min. number of poles (Tu=40°C)	13 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	Short-time withstand current resistance	1 x 1s with 120 A

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## Technical data

## Rated data acc. to CSA

Institute (CSA)



Certificate No. (CSA)

200039-1121690

Rated voltage (Use group B / CSA) 300 V

Rated voltage (Use group D / CSA) 300 V

Rated current (Use group B / CSA) 10 A

Rated current (Use group D / CSA) 10 A

Reference to approval values

Specifications are maximum values, details - see approval certificate.

## Rated data acc. to UL 1059

Institute (UR)



Certificate No. (UR)

E60693

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059) 300 V

Rated voltage (Use group D / UL 1059) 300 V

Rated current (Use group B / UL 1059) 10 A

Rated current (Use group D / UL 1059) 10 A

Reference to approval values

Specifications are maximum values, details - see approval certificate.

## Packing

Packaging	Box	VPE length	130 mm
VPE width	100 mm	VPE height	35 mm

## Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	EC002637	ETIM 9.0	EC002637
ECLASS 9.0	27-44-04-02	ECLASS 9.1	27-44-04-02
ECLASS 10.0	27-44-04-02	ECLASS 11.0	27-46-02-01
ECLASS 12.0	27-46-02-01	ECLASS 13.0	27-46-02-01
ECLASS 14.0	27-46-02-01		

## Environmental Product Compliance

REACH SVHC	/
RoHS Compliance Status	Compliant without exemption

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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	<ul style="list-style-type: none"> <li>Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>Spacing between rows: see hole layout</li> <li>P on drawing = pitch</li> <li>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.</li> <li>In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load</li> <li>Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>

**Approvals**

Approvals



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

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	<a href="#">FL DRIVES EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL DRIVES DE</a> <a href="#">FL BUILDING SAFETY EN</a> <a href="#">FL APPL LED LIGHTING EN</a> <a href="#">FL INDUSTR.CONTROLS EN</a> <a href="#">FL MACHINE SAFETY EN</a> <a href="#">FL HEATING ELECTR EN</a> <a href="#">FL APPL INVERTER EN</a> <a href="#">FL_BASE_STATION_EN</a> <a href="#">FL ELEVATOR EN</a> <a href="#">FL POWER SUPPLY EN</a> <a href="#">FL 72H SAMPLE SER EN</a> <a href="#">PO OMNIMATE EN</a> <a href="#">PO OMNIMATE EN</a>
White paper surface mount technology	<a href="#">Download Whitepaper</a>

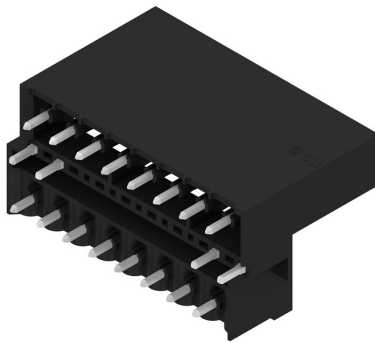
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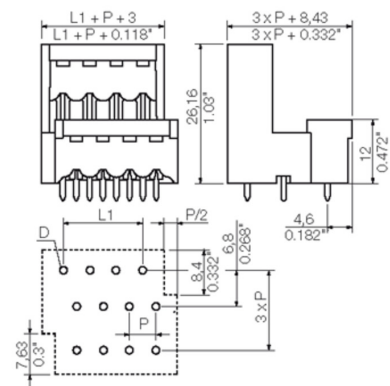
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# Drawings

## Product image



## Dimensional drawing



## Product benefits



Safe power transmission  
Proven properties

## SLDV-THR 5.00/16/180GLF 3.2SN BK BX

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 Klingenbergstraße 26  
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 Germany

www.weidmueller.com

## Accessories

## Additional accessories



**No task is too small when creating the perfect solution.** br />

Connections form just one part of the overall process. Small details are often the key to the perfect solution in applications where potentials are tested, grouped or even isolated.

A system is not a system without small but useful details:

- Test plugs - ensure reliable pick-up from diagnostic sockets
- Cross-connectors - ensure a stable electrical distribution contact directly at the connection
- Compartment partition elements - divide a large number of male connectors into several separate socket connector channels
- Locks and clips - optional vibration-resistant clip-on connection or mounting for male and female connectors

In tandem with the manufacturing process and application - more accessories = smaller workload

## General ordering data

Type	SL AT SW	Version	Product data	Packaging
Order No.	<a href="#">1770240000</a>	PCB plug-in connector, Accessories, Spacer, black, Number of poles: 1		Box
GTIN (EAN)	4032248117710			
Qty.	100 pc(s).			
Type	SL AT OR	Version	Product data	Packaging
Order No.	<a href="#">1598300000</a>	PCB plug-in connector, Accessories, Spacer, orange, Number of poles: 1		Box
GTIN (EAN)	4008190189266			
Qty.	100 pc(s).			

## Coding elements



**Only connects what is supposed to be connected: the right connection at the right place.**

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase.

The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

## General ordering data

Type	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	<a href="#">1573010000</a>	PCB plug-in connector, Accessories, Coding element, orange, Number of poles: 1		Box
GTIN (EAN)	4008190048396			
Qty.	100 pc(s).			

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Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	<a href="#">1545710000</a>	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			

### SLDV-THR 5.00/16/180GLF 3.2SN BK BX

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## Drawings

### Product benefits



Compliant with existing standards



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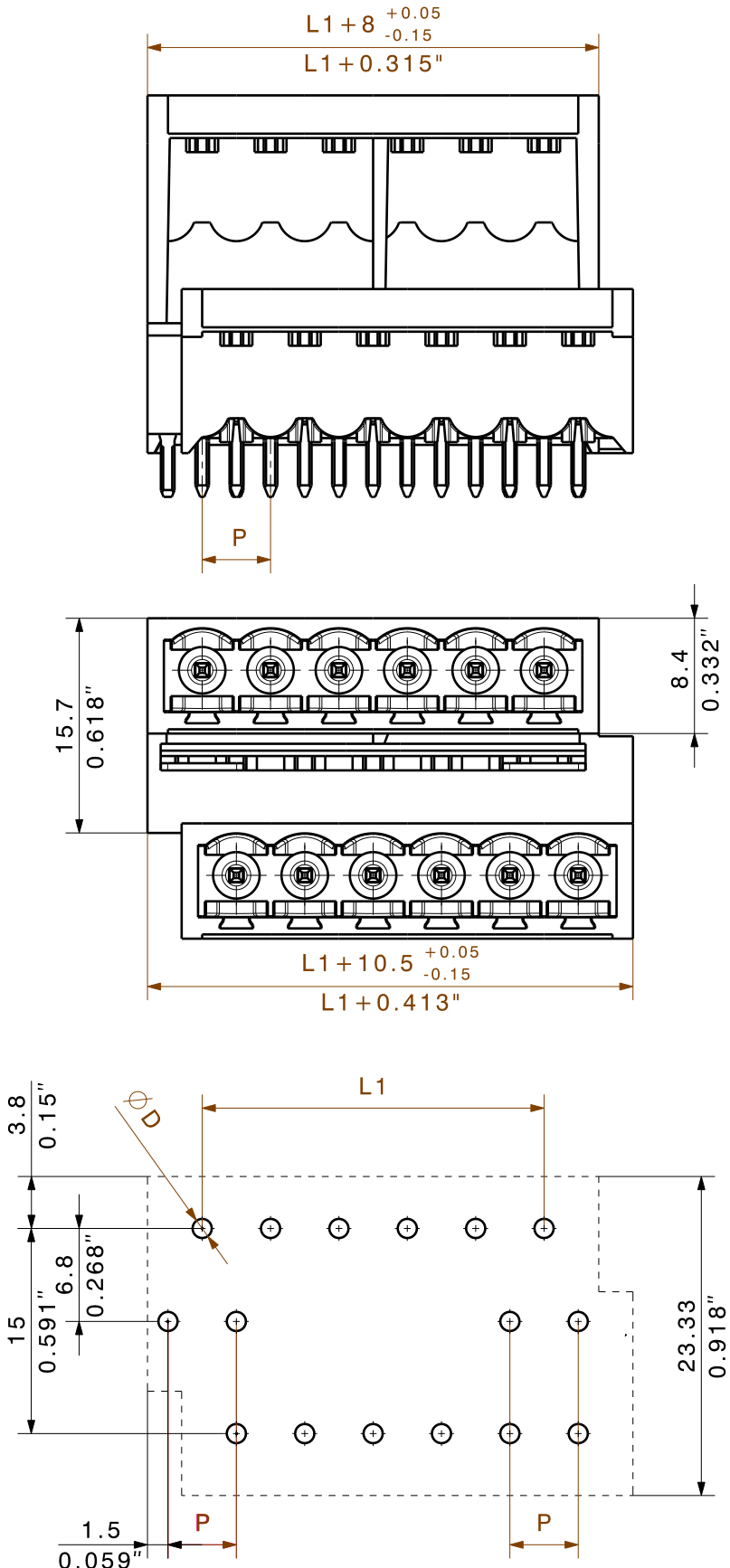
Technical Data

Rev.		Material data	
		Insulation material type	LCP GF
		Insulation material colours	black
		Insulation material flammability class	UL94 V-0
		Insulation resistance	10 <sup>5</sup> MOhm
		Contact base material	CuSn
		Contact plating (mating end)	tin plated
		Contact plating (solder end)	tin plated
		System characteristic values together with counterpart	
		Pitch P	5.00/0.197 mm/inch
		Number of rows	2
		Dielectric strength (r.m.s withstand voltage)	4 kV
		Mechanical operating cycles acc. to IEC 512	25
		Plug in force (max.)	N/pole n.a.
		Pull out force (max.)	N/pole n.a.
		Through resistance (typical)	mOhm <5
		Operating temperature range	°C -55...+100 1)
		Degree of protection acc. to VDE 0106 (plugged/unplugged)	back of hands 7)
		Degree of protection acc. to DIN EN 60529 (plugged/unplugged)	IP10 8)
		Solder pin length L	mm/inch 3.2/0.126 ; 1.5/0.059
		PCB hole diameter D (wave soldering)	mm/inch 1.4/0.055 2)
		PCB hole diameter D (reflow soldering)	mm/inch 1.5/0.059 3)
		Resistance to soldering heat acc. to DIN IEC 60512-6	°C/sec 260/5 4)
		Resistance to soldering heat acc. to EN 61760-1	°C/sec 290/30 5)
		Solderability classification acc. to EN 61760-1	class A
		Solder connection type	through hole solder
		Solder pin diameter d (max.)	mm/inch 1.2/0.047
		Application notes	
		Coding possibility	yes/no yes
		Joinable without loss of pitch	yes/no n.a.
		Manual assembly of modules	yes/no n.a.
		Max. number of poles	n 48
		IEC 664-1 / VDE0110 (4.97) rated data	
		Rated cross section acc. to EN 60999	mm <sup>2</sup> n.a.
		Rated current @ 20°C ambient (together with)	A 18.6 6)
		Rated current @ 40°C ambient (together with)	A 16.1 6)
		Overvoltage category / Pollution degree	III/3 III/2 II/2
		Rated voltage	V 250 320 400
		Rated impulse voltage	kV 4.0 4.0 4.0
		UL 1059 rated data File No.: E60693	
		Rated voltage	V 300
		Rated current	A 10
		AWG wire range (field wiring / factory wiring)	n.a.
		CSA C22.2 rated data File No.: 12400 (old) ReportNo.: 1308147 (new)	
		Rated voltage	V 300
		Rated current	A 10
		AWG wire range (field wiring / factory wiring)	n.a.
		Packaging carton	
		Downloads www.weidmueller.de	

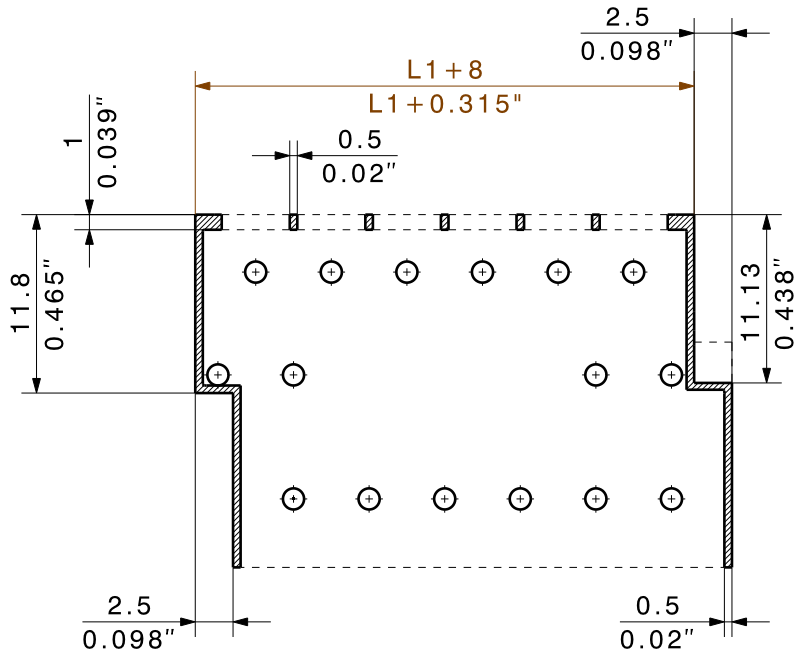
- 1) Sum of ambient temperature and temperature rise  
2) Recommendation for manual assembly  
3) Recommendation for automatic assembly  
4) Recommendation for wave soldering  
5) Recommendation for reflow soldering  
6) Referred to rated cross section and minimum pole number  
7) Fingersafe above PC-board, if plugged with BLZ  
8) IP20 above PC-board, if plugged with BLZ

n.a. = not applicable

Subject to technical changes



Layout Finished Holes



Paste-Free Area

DIE DEUTSCHE VERSION IST VERBINDLICH  
THE GERMAN VERSION IS BINDING

48	115,00	4,53
46	110,00	4,33
44	105,00	4,13
42	100,00	3,94
40	95,00	3,74
38	90,00	3,54
36	85,00	3,35
34	80,00	3,15
32	75,00	2,95
30	70,00	2,76
28	65,00	2,56
26	60,00	2,36
24	55,00	2,17
22	50,00	1,97
20	45,00	1,77
18	40,00	1,57
16	35,00	1,38
14	30,00	1,18
12	25,00	0,98
10	20,00	0,79
8	15,00	0,59
6	10,00	0,39
4	5,00	0,20
n	L1 [mm]	L1 [inch]

RoHS ☒

37601/5  
07.09.07 HERTEL\_S 01

MODIFICATION

DATE  
04.08.2004

NAME  
HERTEL\_S

DRAWN  
RESPONSIBLE  
CHECKED  
13.09.2007  
APPROVED  
GUENTHER\_W

SCALE: 2:1  
SUPERSEDES: -  
SUPERSEDED BY: .

CAT.NO.: .

**Weidmüller**

**C 36146** 05

DRAWING NO. SHEET 5 OF 6 SHEETS

ISSUE NO. SHEETS

**SLDV-THR 5.00/./180GLF**  
SMT Doppelstock-Stiftleiste  
SMT double level pin header

PRODUCT FILE:SLDV-THR 5.08

None

## Recommended wave soldering profiles

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

## 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  $\leq +3\text{K/s}$ . 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  $\geq -6\text{K/s}$  solder is cured. Board and components cool down while avoiding cold cracks.