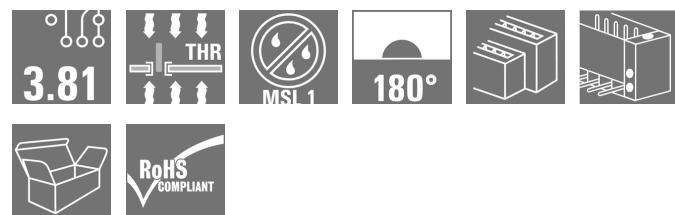


**SCD-THR 3.81/32/180F 3.2SN BK BX**

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

[www.weidmueller.com](http://www.weidmueller.com)

**Product image**

## Similar to illustration

High-temperature-resistant two-tier SCD-THR pin header for reflow soldering.

- It allows you to use two interfaces on only one surface and with only one step in the work flow.
- Outlet direction: 90° (recumbent)
- Connections at the same level and with access that is flush over the front board.
- Space for labelling and coding
- Packed in cardboard box.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.

**General ordering data**

Version	PCB plug-in connector, male header, Flange, THT/THR solder connection, 3.81 mm, Number of poles: 32, 180°, Solder pin length (l): 3.2 mm, tinned, black, Box
Order No.	<a href="#">1031660000</a>
Type	SCD-THR 3.81/32/180F 3.2SN BK BX
GTIN (EAN)	4032248760626
Qty.	20 pc(s).
Product data	IEC: 320 V / 17.5 A UL: 300 V / 11 A
Packaging	Box

Creation date September 15, 2022 9:52:35 PM CEST

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

Depth	22.7 mm	Depth (inches)	0.894 inch
Height	25.1 mm	Height (inches)	0.988 inch
Height of lowest version	21.9 mm	Width	71.35 mm
Width (inches)	2.809 inch	Net weight	33.25 g

**Environmental Product Compliance**

REACH SVHC	SCIP	b33b9da0-c682-4dc7-bd8e-f9d80cce5b55
	Lead 7439-92-1	

**System specifications**

Product family	OMNIMATE Signal - series BC/SC 3.81		
Type of connection	Board connection		
Mounting onto the PCB	THT/THR solder connection		
Pitch in mm (P)	3.81 mm		
Pitch in inches (P)	0.15 inch		
Outgoing elbow	180°		
Number of poles	32		
Number of solder pins per pole	1		
Solder pin length (l)	3.2 mm		
Solder pin length tolerance	+0,02 / -0,02 mm		
Solder pin dimensions	d = 1.0 mm, Octagonal		
Solder pin dimensions = d tolerance	0 / -0,03 mm		
Solder eyelet hole diameter (D)	1.3 mm		
Solder eyelet hole diameter tolerance (D)+ 0,1 mm			
Outside diameter of solder pad	2.1 mm		
Template aperture diameter	1.9 mm		
L1 in mm	57.15 mm		
L1 in inches	2.25 inch		
Number of rows	2		
Pin series quantity	2		
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch		
Touch-safe protection acc. to DIN VDE 0470	IP 20		
Volume resistance	≤5 mΩ		
Can be coded	Yes		
Plugging force/pole, max.	8 N		
Pulling force/pole, max.	5.5 N		
Tightening torque	Torque type	Mounting screw, PCB	
	Usage information	Tightening torque	min. 0.1 Nm
		max.	0.15 Nm
		Recommended screw	Part number <a href="#">PTSC KA 2.2X4.5 WN1412</a>

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## Technical data

## Material data

Insulating material	LCP GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 175	Moisture Level (MSL)	1
UL 94 flammability rating	V-0	Contact material	Copper alloy
Contact surface	tinned	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		

## Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	17.5 A
Rated current, max. number of poles (Tu=20°C)	9.4 A	Rated current, min. number of poles (Tu=40°C)	17 A
Rated current, max. number of poles (Tu=40°C)	8.1 A	Rated voltage for surge voltage class / pollution degree II/2	320 V
Rated voltage for surge voltage class / pollution degree III/2	160 V	Rated voltage for surge voltage class / pollution degree III/3	160 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	2.5 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	2.5 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	2.5 kV	Short-time withstand current resistance	3 x 1s with 76 A

## Rated data acc. to CSA

Rated voltage (Use group B / CSA)	300 V	Rated current (Use group B / CSA)	11 A
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## Packing

Packaging	Box	VPE length	305 mm
VPE width	136 mm	VPE height	28 mm

## Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	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

## 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>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>P on drawing = pitch</li> <li>Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul>

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**Technical data****Approvals**

Approvals



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate No. (cURus)	E60693

**Downloads**

Approval/Certificate/Document of Conformity [Declaration of the Manufacturer](#)

Engineering Data [CAD data – STEP](#)

Catalogues [Catalogues in PDF-format](#)

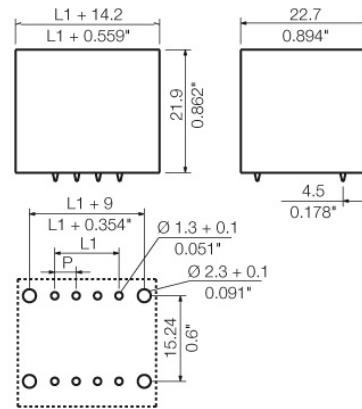
Brochures [FL\\_DRIVES\\_EN](#)  
[MB\\_DEVICE\\_MANUF\\_EN](#)  
[FL\\_DRIVES\\_DE](#)  
[FL\\_BUILDING\\_SAFETY\\_EN](#)  
[FL\\_APPL\\_LED\\_LIGHTING\\_EN](#)  
[FL\\_INDUSTR\\_CONTROLS\\_EN](#)  
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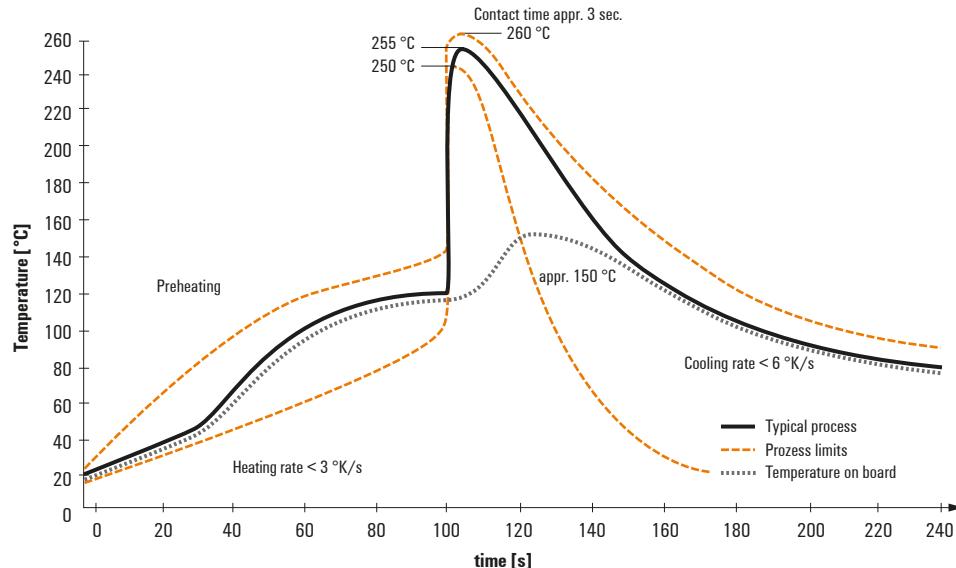
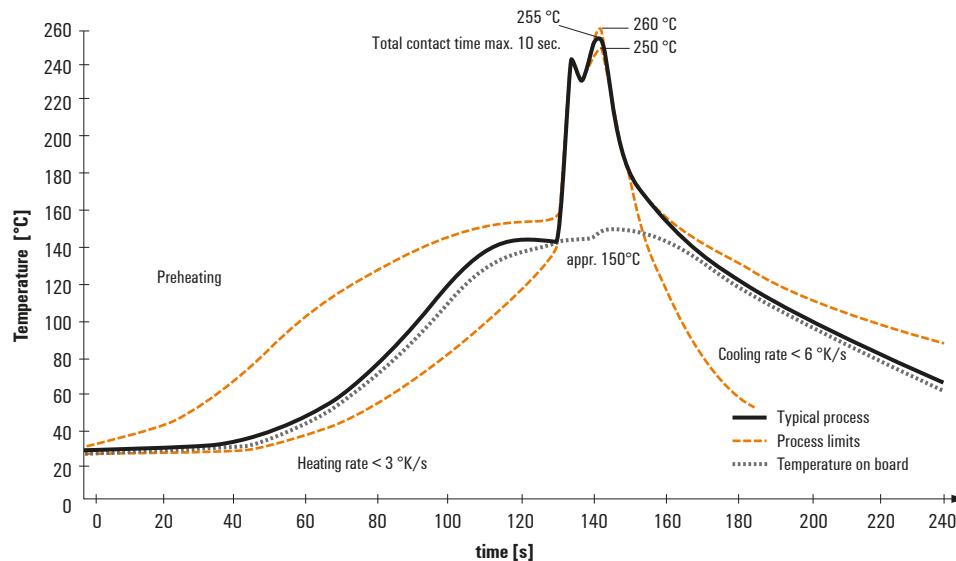
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**Drawings****Dimensional drawing**

## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergsstraße 16  
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 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
[www.weidmueller.com](http://www.weidmueller.com)

**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.

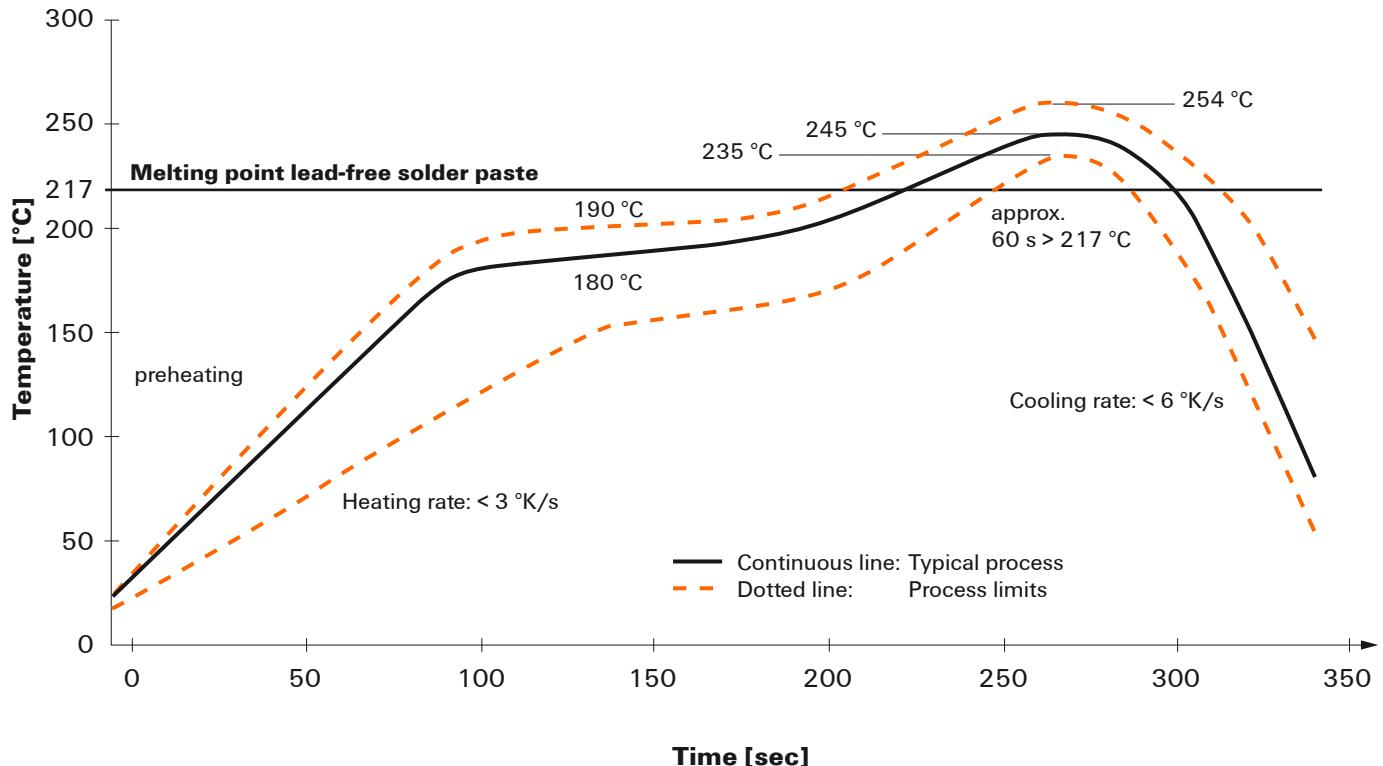
When choosing a suitable profile for your application, the following factors also need to be considered:

- 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  $\leq +3\text{K/s}$ . In parallel the solder paste is 'activated'. The time above melting point of  $217^\circ\text{C}$  the paste gets liquid and components and boards begin to connect. The maximum temperature of  $245^\circ\text{C}$  to  $254^\circ\text{C}$  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.