

SCD-THR 3.81/08/90F 3.2SN BK BX

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

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: 8, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box
Order No.	1974200000
Type	SCD-THR 3.81/08/90F 3.2SN BK BX
GTIN (EAN)	4032248683710
Qty.	50 pc(s).
Product data	IEC: 320 V / 17.5 A UL: 300 V / 11 A
Packaging	Box

Creation date September 17, 2022 8:35:46 PM CEST

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Technical data**Dimensions and weights**

Depth	21.9 mm	Depth (inches)	0.862 inch
Height	25.9 mm	Height (inches)	1.02 inch
Height of lowest version	22.7 mm	Width	25.63 mm
Width (inches)	1.009 inch	Net weight	12.18 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	90°		
Number of poles	8		
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	11.43 mm		
L1 in inches	0.45 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 PTSC KA 2.2X4.5 WN1412

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Technical data**Material data**

Insulating material	LCP GF
Colour chart (similar)	RAL 9011
Comparative Tracking Index (CTI)	≥ 175
UL 94 flammability rating	V-0
Contact surface	tinned
Storage temperature, max.	70 °C
Operating temperature, max.	120 °C
Temperature range, installation, max.	120 °C

Colour	black
Insulating material group	IIIa
Moisture Level (MSL)	1
Contact material	Copper alloy
Storage temperature, min.	-40 °C
Operating temperature, min.	-50 °C
Temperature range, installation, min.	-25 °C

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984
Rated current, max. number of poles (Tu=20°C)	13.9 A
Rated current, max. number of poles (Tu=40°C)	12.3 A
Rated voltage for surge voltage class / pollution degree II/2	160 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	2.5 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	2.5 kV

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

Rated data acc. to CSA

Institute (CSA)	
Rated voltage (Use group B / CSA)	300 V
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Certificate No. (CSA)	200039-1121690
Rated current (Use group B / CSA)	11 A

Packing

Packaging	Box
VPE width	148 mm

VPE length	260 mm
VPE height	28 mm

Classifications

ETIM 6.0	EC002637
ETIM 8.0	EC002637
ECLASS 9.1	27-44-04-02
ECLASS 11.0	27-46-02-01

ETIM 7.0	EC002637
ECLASS 9.0	27-44-04-02
ECLASS 10.0	27-44-04-02
ECLASS 12.0	27-46-02-01

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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.
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Notes	<ul style="list-style-type: none"> Rated current related to rated cross-section & min. No. of poles. 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. P on drawing = pitch Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months
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Approvals

Approvals



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

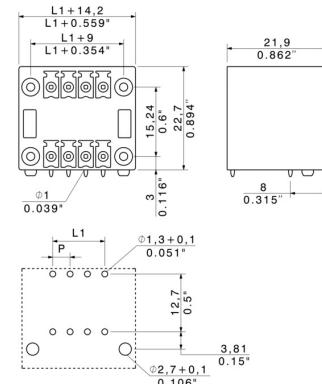
Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
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 FL MACHINE SAFETY EN FL HEATING ELECTR EN 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
White paper surface mount technology	Download Whitepaper

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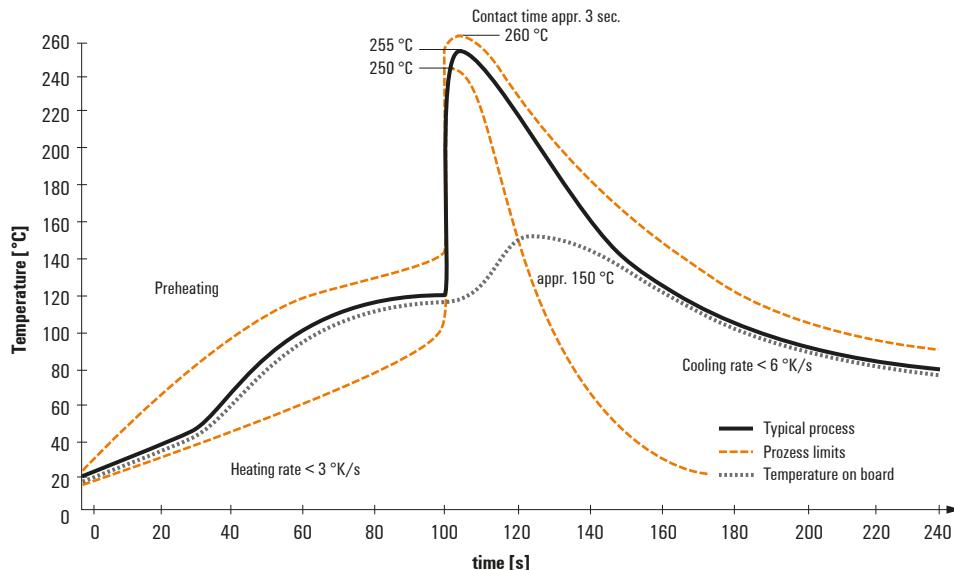
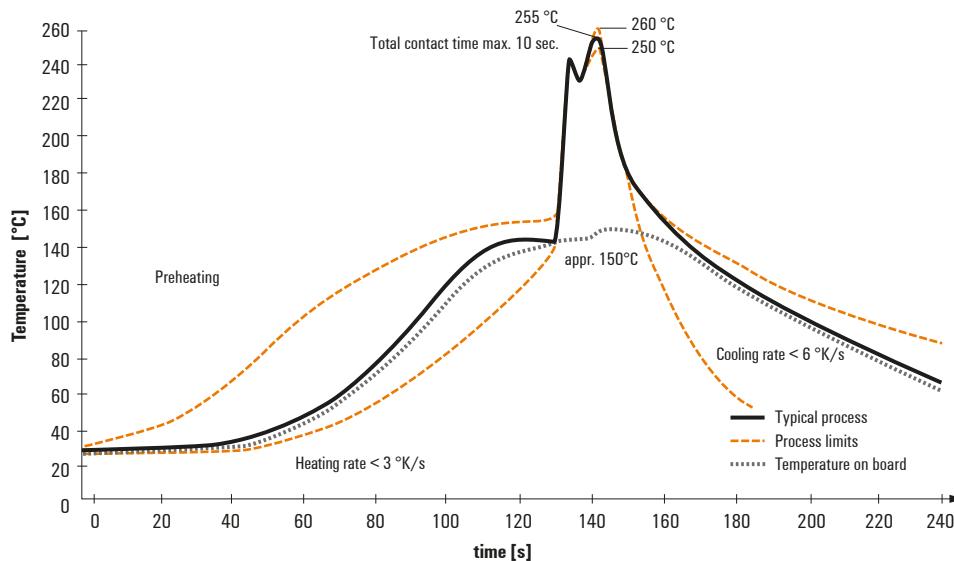
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Drawings**Dimensional drawing**

Recommended wave soldering profiles

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 Fon: +49 5231 14-0
 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.

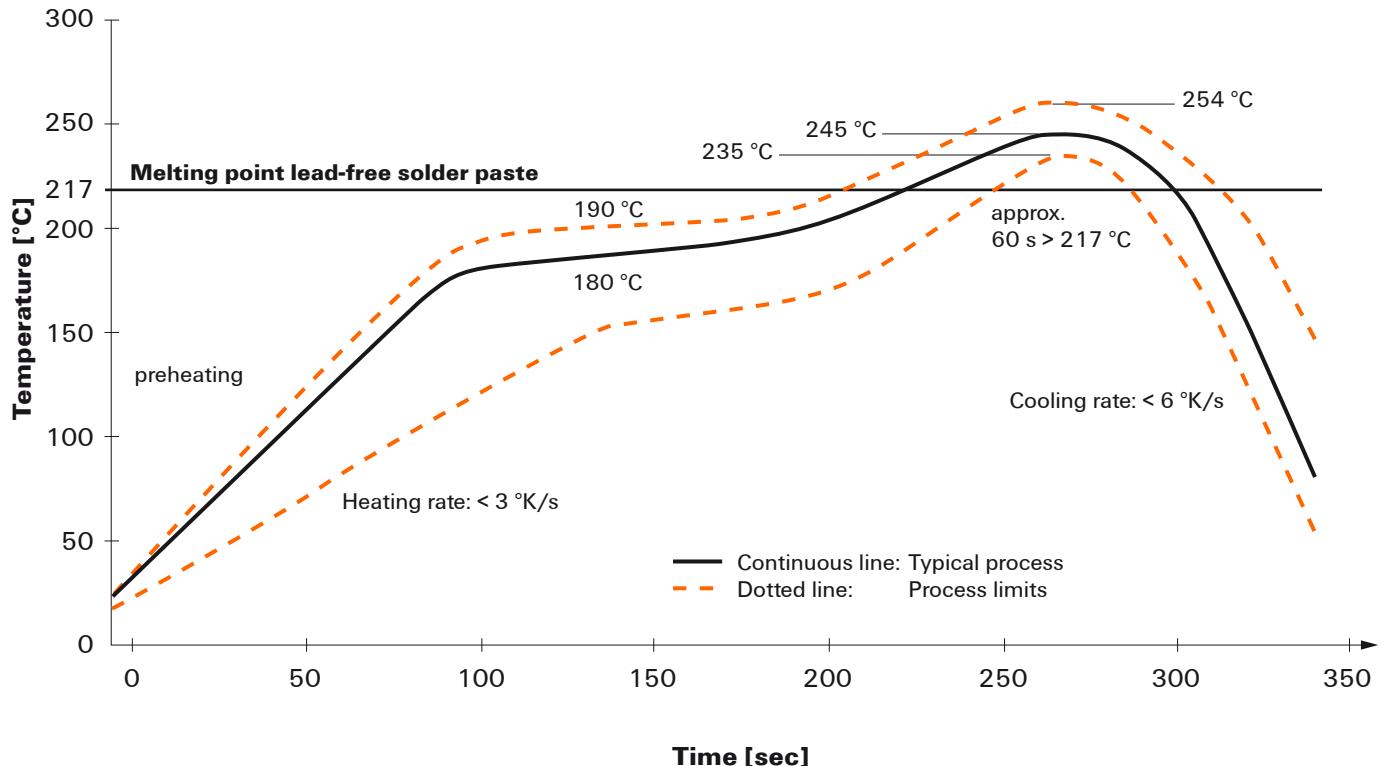
When choosing a suitable profile for your application, the following factors also need to be considered:

- 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.

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.