

SCDN 3.81/12/90F 3.2SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

Similar to illustration

Extra flat two-tier SCDN pin header for wave soldering.

- Two compact interfaces are used with the flat BCF 3.81 (PUSH IN) socket block.
- Available as 90° (recumbent).
- Connections on a single level, allowing 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 solder connection, 3.81 mm, Number of poles: 12, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box
Order No.	1041000000
Type	SCDN 3.81/12/90F 3.2SN OR BX
GTIN (EAN)	4032248769841
Qty.	50 pc(s).
Product data	IEC: 320 V / 17.5 A UL: 300 V / 10 A
Packaging	Box

Creation date March 22, 2021 7:17:17 PM CET

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Technical data

Dimensions and weights

Depth	13.3 mm	Depth (inches)	0.524 inch
Height	18.4 mm	Height (inches)	0.724 inch
Height of lowest version	15.2 mm	Net weight	6.88 g
Width	33.25 mm	Width (inches)	1.309 inch

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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System specifications

Product family	OMNIMATE Signal - series BC/SC 3.81			
Type of connection	Board connection			
Mounting onto the PCB	THT solder connection			
Pitch in mm (P)	3.81 mm			
Pitch in inches (P)	0.15 inch			
Outgoing elbow	90°			
Number of poles	12			
Number of solder pins per pole	1			
Solder pin length (l)	3.2 mm			
Solder pin length tolerance	+0,02 / -0.2 mm			
Solder pin dimensions	d = 1.0 mm, Octagonal			
Solder pin dimensions = d tolerance	0 / -0,03 mm			
Solder eyelet hole diameter (D)	1.2 mm			
Solder eyelet hole diameter tolerance (D)	+ 0,1 mm			
L1 in mm	19.05 mm			
L1 in inches	0.75 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			
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

Material data

Insulating material	PA GF	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 550	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

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Technical data

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)	13.2 A	Rated current, min. number of poles (Tu=40°C)	17 A
Rated current, max. number of poles (Tu=40°C)	12.2 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 voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	11 A	Rated current (Use group D / CSA)	11 A

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 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	25 mm
VPE width	175 mm	VPE height	255 mm

Classifications

ETIM 6.0	EC002637	ETIM 7.0	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

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	• Additional colours on request • 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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Technical data

Approvals

Approvals



ROHS	Conform
UL File Number Search	E60693

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	STEP

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Drawings

Technical drawing of the 10-pin connector showing top, side, and detail views with dimensions in inches and millimeters.

Top View Dimensions:

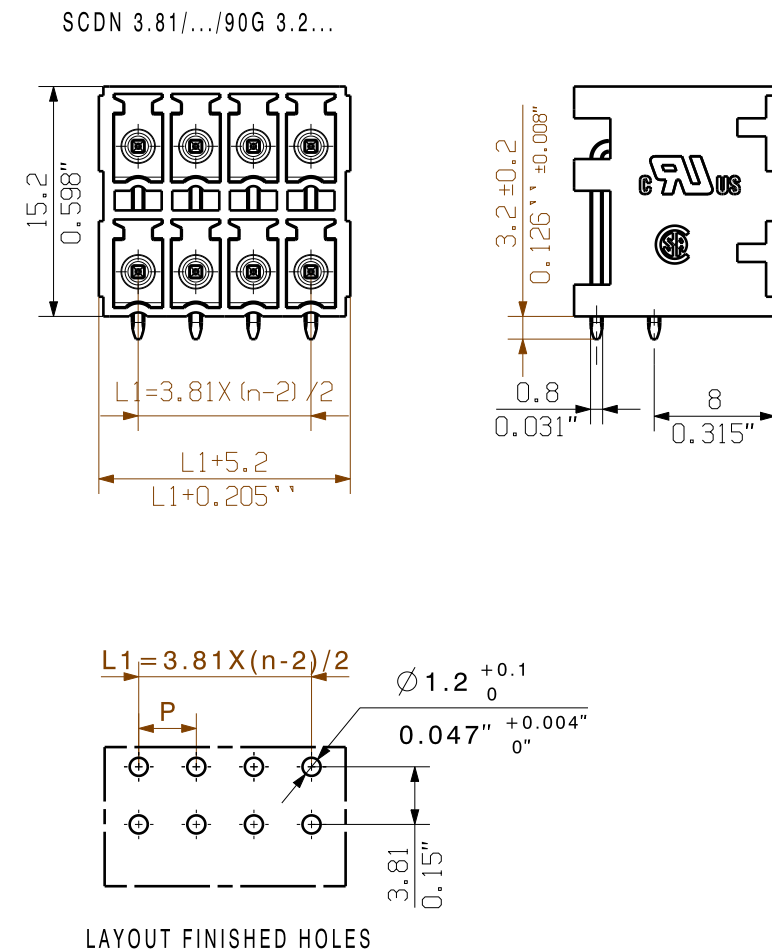
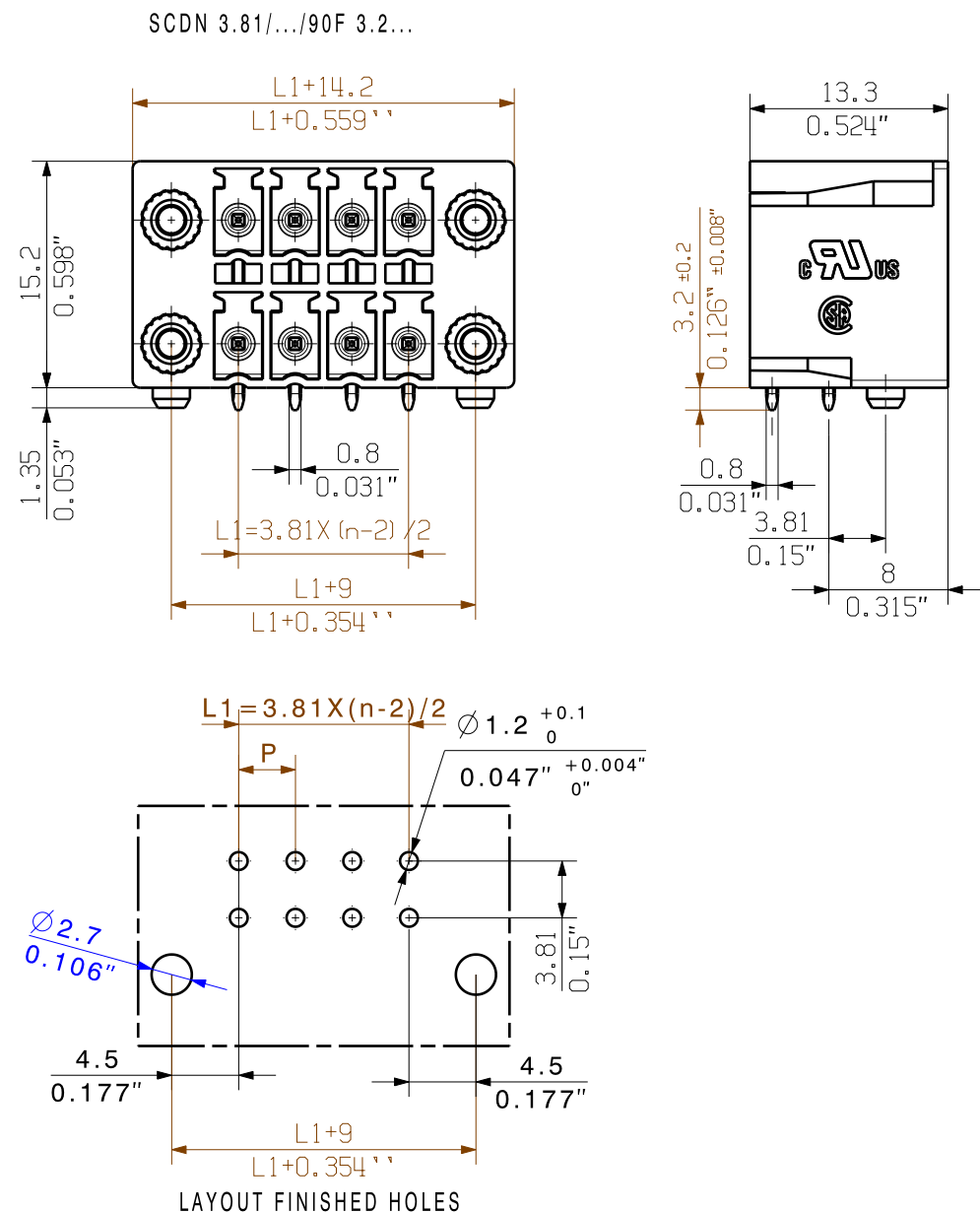
- Overall width: $L1 + 14.2$ (mm)
- Pin pitch: $L1 + 0.559$ (mm)
- Pin diameter: $L1 + 9$ (mm)
- Pin offset: $L1 + 0.354$ (mm)

Side View Dimensions:

- Pin height: 8.3 (mm)
- Pin diameter: $\varnothing 0.327$ (mm)
- Pin offset: 0.598 (mm)
- Pin diameter: $\varnothing 0.116$ (mm)
- Pin diameter: 3 (mm)

Detail View Dimensions:

- Pin diameter: $\varnothing 1.3 + 0.1$ (mm)
- Pin diameter: $\varnothing 0.051$ (mm)
- Pin diameter: 3.81 (mm)
- Pin diameter: $\varnothing 0.15$ (mm)
- Pin diameter: 3.81 (mm)
- Pin diameter: $\varnothing 0.15$ (mm)
- Pin diameter: $\varnothing 2.7 + 0.1$ (mm)
- Pin diameter: $\varnothing 0.106$ (mm)



NOTE:

n=NO OF POLES
P=PITCH

KUNDENZEICHNUNG
CUSTOMER DRAWING

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

Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

32	57.15	2.250
30	53.34	2.100
28	49.53	1.950
26	45.72	1.800
24	41.91	1.650
22	38.10	1.500
20	34.29	1.350
18	30.48	1.200
16	26.67	1.050
14	22.86	0.900
12	19.05	0.750
10	15.24	0.600
8	11.43	0.450
6	7.62	0.300
4	3.81	0.150
n	L1 [mm]	L1 [inch]

GENERAL TOLERANCE: DIN ISO 2768-m		78721/5 06.11.14 MA_J		01	CAT.NO.: .	
RoHS COMPLIANT		MAX. NRN./NOS.		MODIFICATION		
DRAWN		DATE		NAME		
RESPONSIBLE		25.11.2014		XU_S		
CHECKED		25.11.2014		ZHOU_N		
APPROVED		XU_S		XU_S		
SCALE: 3/1		SUPERSEDES: .		PRODUCT FILE: SCDN 3.81		
Weidmüller		C 46288		03		
DRAWING NO.		SHEET 01		OF 03 SHEETS		
ISSUE NO.		7086		7086		
SCDN... 3.81/.../90... THR-LOETANSCHLUSS STIFTSLEISTE THR SOLDER CONNECTION PIN HEADER						

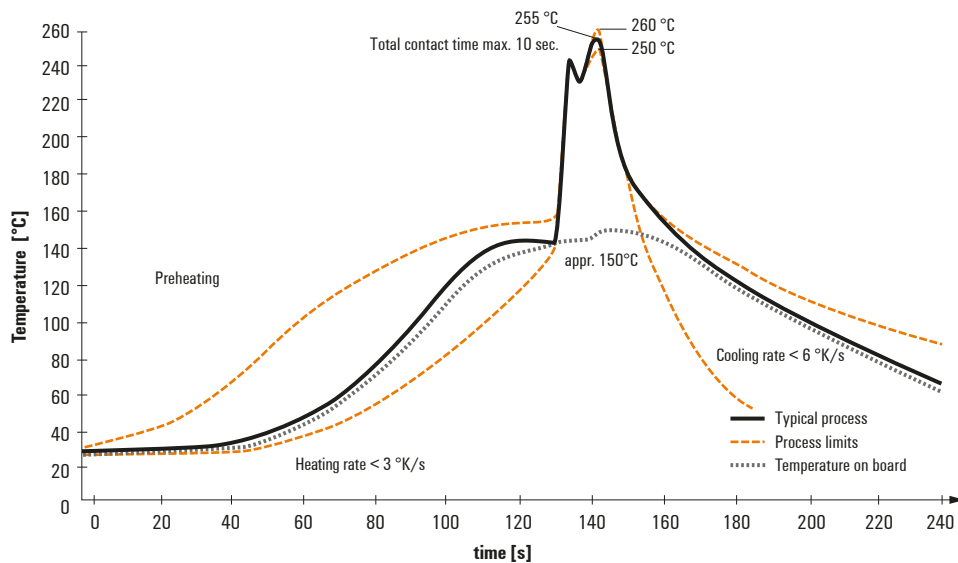
Recommended wave soldering profiles

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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.