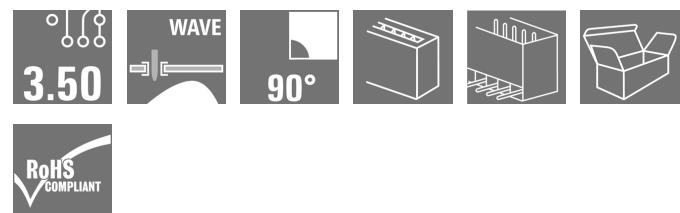


SL 3.50/02/90G 3.2SN BK BX

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

www.weidmueller.com

Product image

Pin headers for wave soldering in 3.50 mm pitch

- Plugging direction is parallel (90°), straight 180° or angled (135°) to the PCB
- Housing variant: screw flange (F)
- Packed in a cardboard box (BX)
- Pin header can be coded

General ordering data

Version	PCB plug-in connector, male header, closed side, THT solder connection, 3.50 mm, Number of poles: 2, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box
Order No.	1683240000
Type	SL 3.50/02/90G 3.2SN BK BX
GTIN (EAN)	4008190475352
Qty.	100 pc(s).
Product data	IEC: 320 V / 17 A UL: 300 V / 10 A
Packaging	Box

Creation date September 16, 2022 9:10:11 AM CEST

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Technical data**Dimensions and weights**

Depth	11.1 mm	Depth (inches)	0.437 inch
Height	10.7 mm	Height (inches)	0.421 inch
Height of lowest version	7.5 mm	Width	8.4 mm
Width (inches)	0.331 inch	Net weight	0.76 g

System specifications

Product family	OMNIMATE Signal - series BL/SL 3.50	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	3.5 mm
Pitch in inches (P)	0.138 inch	Outgoing elbow	90°
Number of poles	2	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Solder pin length tolerance	+0.1 / -0.3 mm
Solder pin dimensions	d = 1.2 mm, Octagonal	Solder pin dimensions = d tolerance	0 / -0.03 mm
Solder eyelet hole diameter (D)	1.4 mm	Solder eyelet hole diameter tolerance (D)+ 0.1 mm	
L1 in mm	3.5 mm	L1 in inches	0.138 inch
Number of rows	1	Pin series quantity	1
Touch-safe protection acc. to DIN VDE 57 106	Safe from back-of-hand touch	Touch-safe protection acc. to DIN VDE 0470	IP 10
Volume resistance	6.00 mΩ	Can be coded	Yes
Plugging force/pole, max.	10 N	Pulling force/pole, max.	10 N

Material data

Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	UL 94 flammability rating	V-0
Contact base material	CuSn	Contact material	CuSn
Contact surface	tinned	Layer structure of solder connection	2...4 µm Ni / 5...8 µm Sn glossy
Layer structure of plug contact	2...4 undefined Ni / 5...8 undefined Sn glossy	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-30 °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)	17 A
Rated current, max. number of poles (Tu=20°C)	12 A	Rated current, min. number of poles (Tu=40°C)	14.5 A
Rated current, max. number of poles (Tu=40°C)	10 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 impulse voltage for surge voltage class/ pollution degree II/2	2,500 V
Rated impulse voltage for surge voltage class/ pollution degree III/2	2.5 kV		

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Technical data**Rated data acc. to CSA**

Institute (CSA)	Certificate No. (CSA)
	154685-1318353
Rated voltage (Use group B / CSA)	300 V
Rated current (Use group B / CSA)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Packing

Packaging	Box	VPE length	39 mm
VPE width	90 mm	VPE height	98 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.
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Notes	<ul style="list-style-type: none"> Additional variants on request Gold-plated contact surfaces on request Rated current related to rated cross-section & min. No. of poles. 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 average humidity 70%, 36 months
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Approvals

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

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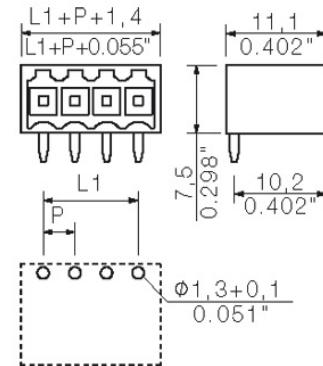
Technical data**Downloads**

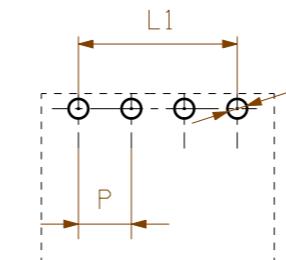
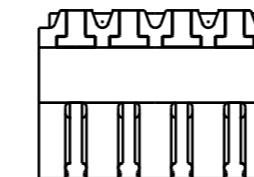
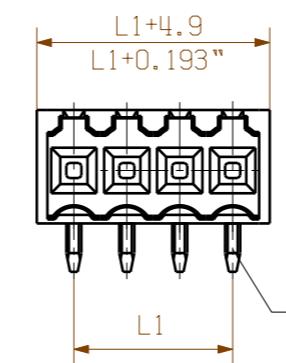
Engineering Data	CAD data – STEP
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN FL DRIVES DE

SL 3.50/02/90G 3.2SN BK BX

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Drawings**Product image****Dimensional drawing**



SHOWN: SL 3.50/04/90G

$P = 3.50$ Raster Pitch
 $D = 01,3^{+0,1}_{-0,3}$
 $\phi 0.051^{+0,1}_{-0,1}$
 $d = 1,2\text{mm oktogonal}$
 $0.047^{\prime\prime}$ octogonal

pin length l / Stiftlänge l	tolerance/ Toleranz	cat. no.:
1,5	0,1 -0,3	3 196 70 48
3,2	0,1 -0,3	
4,5	0,1 -0,3	
6	17,5	
7	21,0	
8	24,5	
9	28,0	
10	31,5	
11	35,0	
12	38,5	
13	42,0	
14	45,5	
15	49,0	
16	52,5	
17	56,0	
18	59,5	
19	63,0	
20	66,5	
21	70,0	
22	73,5	
23	77,0	
24	80,5	

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.

General tolerance:
DIN ISO 2768-mK



96310/5
06.07.17 HELIS_MA 00

Modification



Date

Name

Drawn

21.08.2008

Responsible

AMANN_A

Scale: 5/1

20.09.2017

Supersedes: .

HERTEL_S

Approved

LANG_T

Weidmüller

3 196 70 48

Drawing no. 02 of 03 sheets

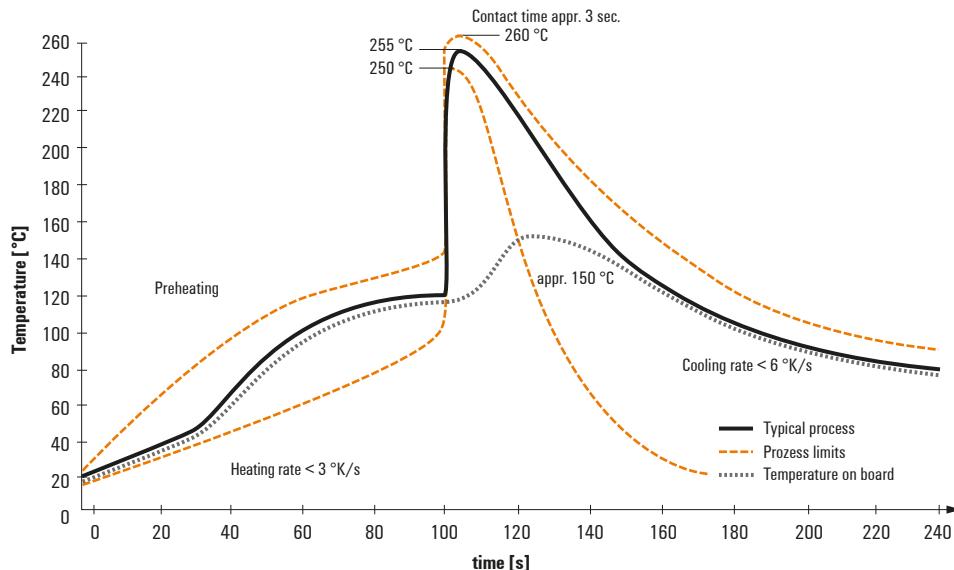
SL 3.50/../90...
STIFTELEISTE
MALE HEADER

Product file: SL 3.50

7296

Recommended wave soldering 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.