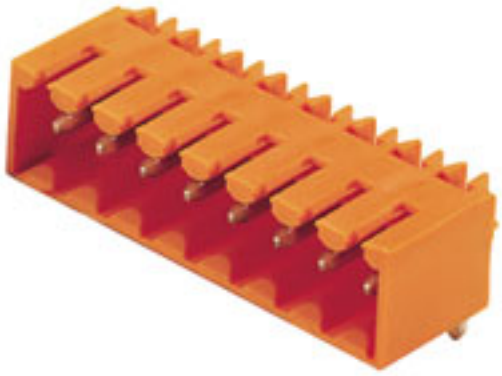
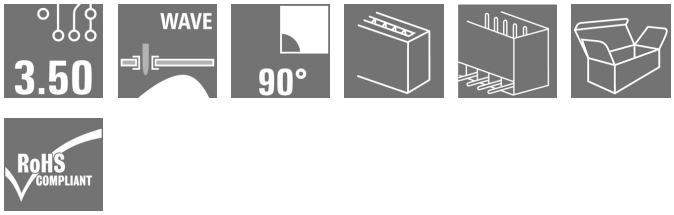
OMNIMATE Signal - series BL/SL 3.50
SL 3.50/16/90G 3.2SN BK BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com





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

Type	SL 3.50/16/90G 3.2SN BK BX
Order No.	1790320000
Version	PCB plug-in connector, male header, closed side, THT solder connection, 3.50 mm, No. of poles: 16, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box
GTIN (EAN)	4032248214785
Qty.	50 pc(s).
Product data	IEC: / 17 A UL: 300 V / 10 A
Packaging	Box

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Technical data

Dimensions and weights

Width	57.4 mm	Width (inches)	2.26 inch
Height	10.7 mm	Height (inches)	0.421 inch
Height of lowest version	7.5 mm	Depth	11.1 mm
Depth (inches)	0.437 inch	Net weight	4.72 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°
No. of poles	16	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Solder pin length tolerance	+0.1 / -0.3 mm
Tolerance of solder pin position	± 0.20 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	52.5 mm
L1 in inches	2.067 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	Can be coded	Yes
Plugging cycles	25	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
CTI	≥ 200	Insulation strength	≥ 10^8 Ω
GWFI	960 °C	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.	-25 °C	Storage temperature, max.	55 °C
Max. relative humidity during storage	80 %	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. no. of poles (Tu=20°C)	17 A
Rated current, max. no. of poles (Tu=20°C)	12 A	Rated current, min. no. of poles (Tu=40°C)	14.5 A
Rated current, max. no. of poles (Tu=40°C)	10 A		

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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 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
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	60 mm
VPE width	60 mm	VPE height	145 mm

Classifications

ETIM 4.0	EC002637	ETIM 5.0	EC002637
ETIM 6.0	EC002637	eClass 6.2	27-26-07-04
eClass 7.1	27-44-04-02	eClass 8.1	27-44-04-02
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02

Notes

Notes	
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.

Approvals

Approvals	
ROHS	Conform

Downloads

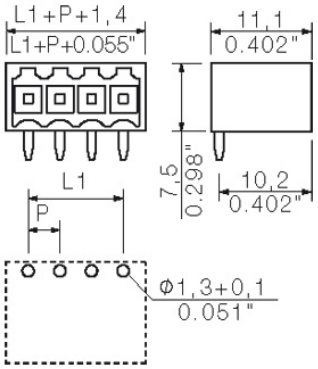
Brochure/Catalogue	FL DRIVES EN FL DRIVES DE
Engineering Data	STEP

Creation date May 27, 2019 6:00:00 PM CEST

OMNIMATE Signal - series BL/SL 3.50
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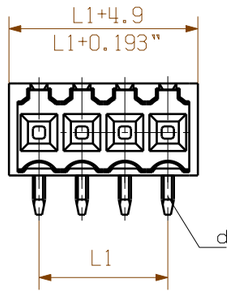
Drawings

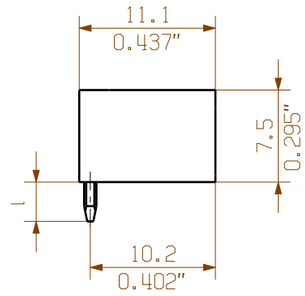


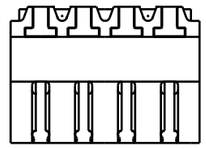
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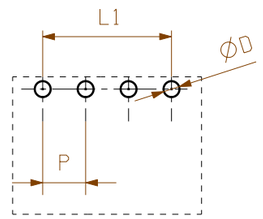
Dimensions without tolerances are no check dimensions

The English version is binding









hole pattern

n Polzahl/ no of poles	L1	Toleranz/ tolerance L1
24	80.5	+/-0.2
23	77.0	
22	73.5	
21	70.0	
20	66.5	
19	63.0	
18	59.5	
17	56.0	
16	52.5	
15	49.0	
14	45.5	
13	42.0	+/-0.15
12	38.5	
11	35.0	
10	31.5	
9	28.0	+/-0.1
8	24.5	
7	21.0	
6	17.5	
5	14.0	
4	10.5	
3	7.0	
2	3.5	

pin length l/ Stiftlänge l	tolerance/ Toleranz
1,5	0,1
	-0,3
3,2	0,1
	-0,3
4,5	0,1
	-0,3

P= 3.50 Raster Pitch

D= Ø1,3 +0.1 / Ø0.051" +0.1

d= 1,2mm oktogonal 0.047" octogonal

SHOWN: SL 3.50/04/90G

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The neccessary 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.

Weidmueller 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 occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

General tolerance: DIN ISO 2768-mK

RoHS COMPLIANT

96310/5 06.07.17 HELIS_MA . 00

Modification

. .

Cat.no.: .

Weidmüller

3 19670 (48)

Drawing no. Issue no.

Sheet 02 of 03 sheets

	Date	Name
Drawn	21.08.2008	HELIS_MA
Responsible		AMANN_A
Checked	20.09.2017	HERTEL_S
Approved		LANG_T

Scale: 5/1

Supersedes: .

SL 3.50/../90...

STIFTLEISTE

MALE HEADER

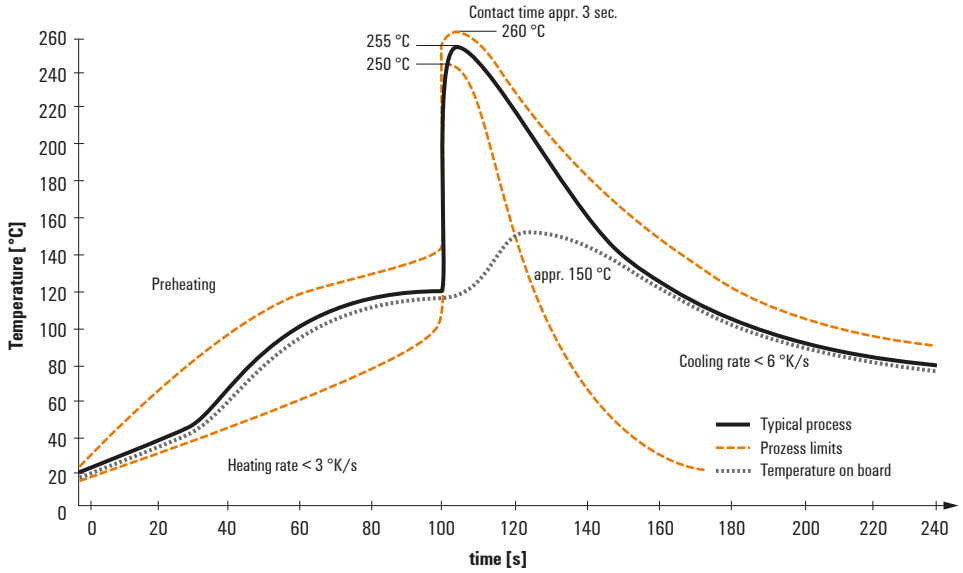
Product file: SL 3.50 7296

Wave Solder Profile

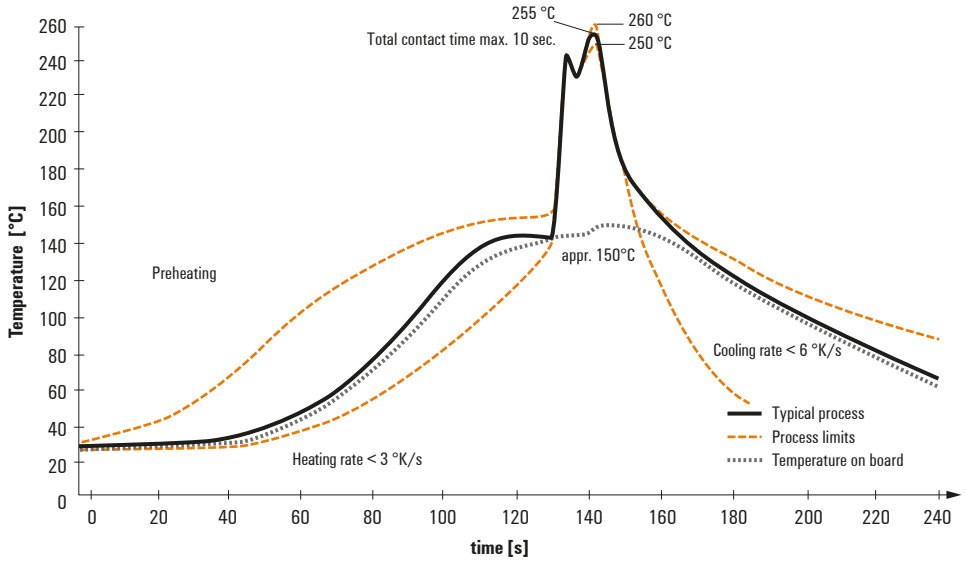
Recommended wave solderding profiles

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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.