

#### Weidmüller Interface GmbH & Co. KG Klingenbergstraße 26

D-32758 Detmold Germany

www.weidmueller.com

### **Product image**





Similar to illustration

High-temperature resistant, double level, laterally offset, male connector with flange or solder flange. 1.5 mm solder pin is suitable for reflow soldering. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded.

#### **General ordering data**

Version	PCB plug-in connector, male header, Flange, THT/ THR solder connection, 5.08 mm, Number of poles: 12, 180°, Solder pin length (I): 1.5 mm, tinned, black, Box
Order No.	<u>1828930000</u>
Туре	SLDV-THR 5.08/12/180F 1.5SN BK BX
GTIN (EAN)	4032248335626
Qty.	50 pc(s).
Product data	IEC: 400 V / 15 A
	UL: 300 V / 10 A
Packaging	Box

Creation date March 25, 2021 2:55:44 PM CET



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# **Technical data**

### Dimensions and weights

Depth	23.67 mm	Depth (inches)	0.932 inch
Height	27.66 mm	Height (inches)	1.089 inch
Height of lowest version	26.16 mm	Net weight	11.32 g
Width	40.64 mm	Width (inches)	1.6 inch

### **System specifications**

Product family	OMNIMATE Signal - series BL/SL 5.08	3				
Type of connection	Board connection					
Mounting onto the PCB	THT/THR solder connection	THT/THR solder connection				
Pitch in mm (P)	5.08 mm	i.08 mm				
Pitch in inches (P)	0.2 inch					
Outgoing elbow	180°					
Number of poles	12					
Number of solder pins per pole	1					
Solder pin length (I)	1.5 mm					
Solder pin length tolerance	0 / -0.3 mm					
Solder pin dimensions	d = 1.2 mm, Octagonal					
Solder eyelet hole diameter (D)	1.4 mm					
Solder eyelet hole diameter tolerance (D	))+ 0,1 mm					
L1 in mm	25.4 mm					
L1 in inches	1 inch					
Number of rows	2					
Pin series quantity	2					
Touch-safe protection acc. to DIN VDE 57 106	finger-safe plugged/ back-of-hand-safe unplugged					
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged					
Volume resistance	≤5 mΩ					
Can be coded	Yes					
Plugging force/pole, max.	10 N					
Pulling force/pole, max.	7.5 N					
Tightening torque	Torque type	Mounting screw, PCB				
	Usage information	Tightening torque	min.	0.15 Nm		
			max.	0.2 Nm		
		Recommended screw	Part	PTSC KA		
			number	<u>2.2X4.5</u>		
				<u>WN1412</u>		

#### **Material data**

Insulating material	LCP GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	Illa
Comparative Tracking Index (CTI)	≥ 175	Moisture Level (MSL)	1
UL 94 flammability rating	V-0	Contact material	CuSn
Contact surface		Layer structure of solder connection	13 µm Ni / 24 µm Sn
	tinned		matt
Layer structure of plug contact	13 μm Ni / 24 μm Sn	Storage temperature, min.	
	matt		-40 °C
Storage temperature, max.	70 °C	Operating temperature, max.	100 °C
Temperature range, installation, max.	100 °C		

# **Technical data**



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### Rated data acc. to IEC

tested acc. to standard		Rated current, min. number of poles	
	IEC 60664-1, IEC 61984	(Tu=20°C)	15 A
Rated current, max. number of poles		Rated current, min. number of poles	
(Tu=20°C)	10.5 A	(Tu=40°C)	13 A
Rated current, max. number of poles		Rated voltage for surge voltage class /	
(Tu=40°C)	9 A	pollution degree II/2	400 V
Rated voltage for surge voltage class /		Rated voltage for surge voltage class /	
pollution degree III/2	320 V	pollution degree III/3	250 V
Rated impulse voltage for surge voltage		Rated impulse voltage for surge voltage	
class/ pollution degree II/2	4 kV	class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage		Short-time withstand current resistance	
class/ contamination degree III/3	4 kV		1 x 1s with 120 A

### Rated data acc. to CSA

Institute (CSA)	SP:	Certificate No. (CSA)	
			200039-1121690
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

	ЯĽ
B / UL 1059)	300 V

Rated voltage (Use group B / UL 1059)	300 V
Rated current (Use group B / UL 1059)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Certificate No. (UR)

	E60693
Rated voltage (Use group D / UL 1059)	300 V
Rated current (Use group D / UL 1059)	10 A

### Packing

Institute (UR)

Packaging	Box	VPE length	64 mm
VPE width	182 mm	VPE height	224 mm
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### 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

**Technical data** 

### SLDV-THR 5.08/12/180F 1.5SN BK BX



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### 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 · Rated current related to rated cross-section & min. No. of poles. • Spacing between rows: see hole layout • 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 Approvals Approvals SP. ROHS Conform UL File Number Search E60693 **Downloads** Approval/Certificate/Document of Conformity **Declaration of the Manufacturer** Engineering Data **STEP** WSCAD **Engineering Data**

# Drawings

**Dimensional drawing** 

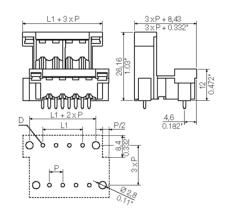


#### Weidmüller Interface GmbH & Co. KG Klingenbergstraße 26

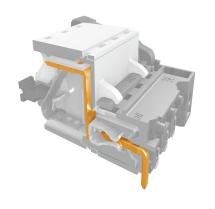
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### **Dimensional drawing**

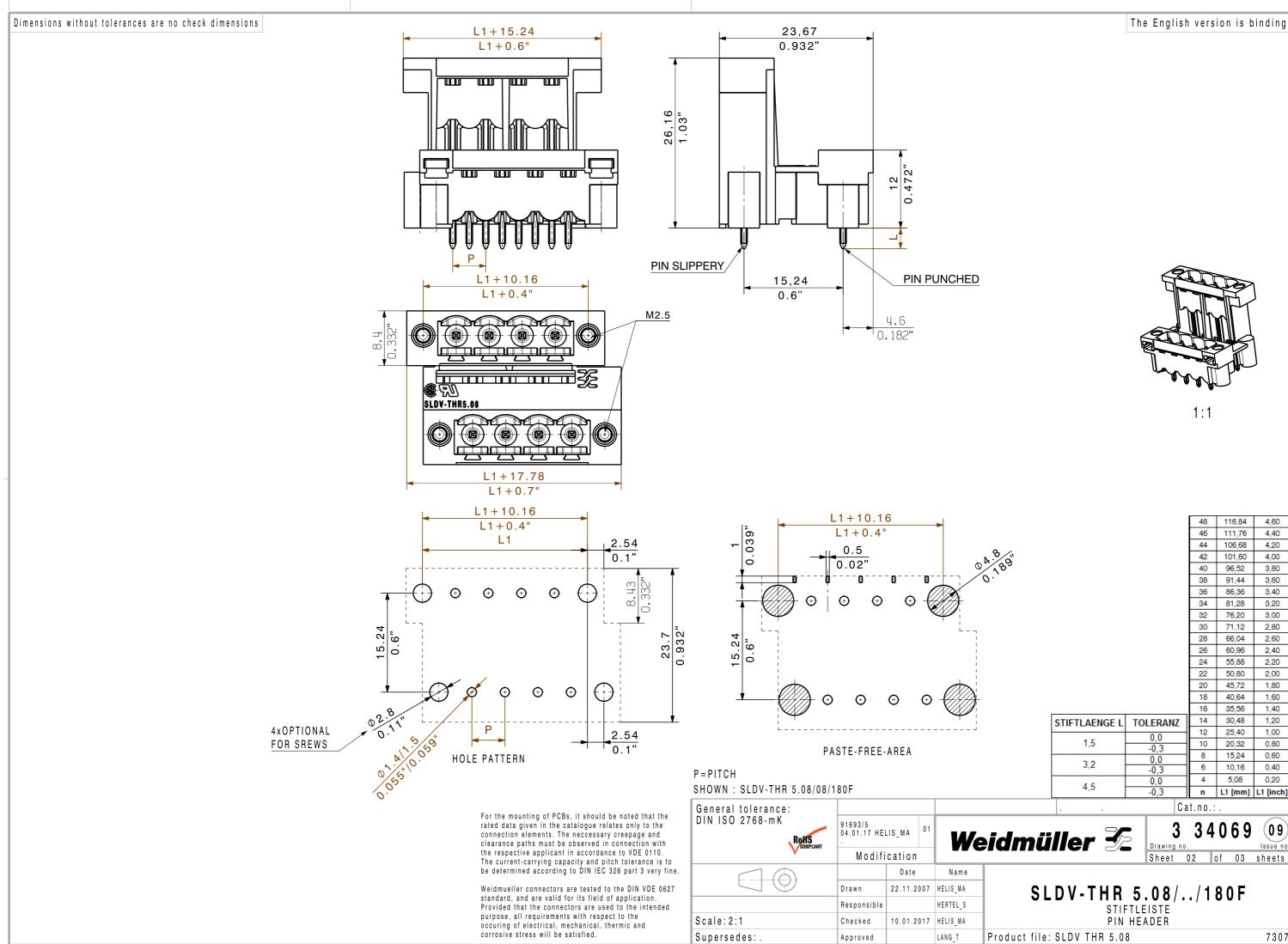


### **Product benefits**



Safe power transmission Proven properties

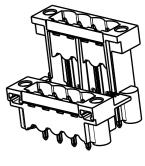
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		Sheet	02	of	03	sheets
1						
	SLDV-THR 5	08/	/ -	180	) F	
			••/			
	STIFTLE					
	PIN HE	A D E R				
	Product file: SLDV THR 5.08					7307
	1					

	Cat.no.:.				
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-0,3	n	L1 [mm]	L1 [inch]
	4,5	0,0	4	5,08	0,20
	3,2	-0,3	6	10,16	0,40
	1,5	0,0	8	15,24	0,60
		-0,3	10	20,32	0,80
		0,0	12	25,40	1,00
	STIFTLAENGE L	TOLERANZ	14	30,48	1,20
			16	35,56	1,40
			18	40,64	1,60
			20	45,72	1,80
			22	50,80	2,00
			24	55,88	2,20
			26	60,96	2,40
			28	66,04	2,60
			30	71,12	2,80
			34	76,20	3,20
			36 34	86,36 81,28	3,40 3,20
			38	91,44	3,60
5			40	96,52	3,80
.9					





1:1

48

116.84

46 111,76 4,40

44 106,68 4,20

42 101,60

4,60

4,00

# Wave Solder Profile

### **Recommended wave solderding profiles**

# Weidmüller 🟵

#### Weidmüller Interface GmbH & Co. KG

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**Double Wave:** 

Single 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.

# **Reflow Solder Profile**

### **Recommended reflow soldering profile**



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Time [sec]

### **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  $\leq +3$ 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  $\geq$  -6K/s solder is cured. Board and components cool down while avoiding cold cracks.