

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

## **Product image**









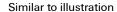












2-tier male header with parallel pin arrangement. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

### **General ordering data**

Version	PCB plug-in connector, male header, closed side, THT solder connection, 5.08 mm, Number of poles: 4, 90°, Solder pin length (I): 3.2 mm, tinned,
	orange, Box
Order No.	<u>1601790000</u>
Туре	SLD 5.08/04/90G 3.2SN OR BX
GTIN (EAN)	4008190055752
Qty.	50 pc(s).
Product data	IEC: 400 V / 11 A
	UL: 300 V / 10 A
Packaging	Box

Creation date March 24, 2021 8:53:18 AM CET



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# **Technical data**

### **Dimensions and weights**

Depth	22 mm	Depth (inches)	0.866 inch
Height	31.25 mm	Height (inches)	1.23 inch
Height of lowest version	28.05 mm	Net weight	5.56 g
Width	12.12 mm	Width (inches)	0.477 inch

### **System specifications**

Product family	OMNIMATE Signal - series	Type of connection	
	BL/SL 5.08	Type of comments.	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	5.08 mm
Pitch in inches (P)	0.2 inch	Outgoing elbow	90°
Number of poles	4	Number of solder pins per pole	1
Solder pin length (I)	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)	1.3 mm	Solder eyelet hole diameter tolerance (	D)+ 0,1 mm
L1 in mm	5.08 mm	L1 in inches	0.2 inch
Number of rows	2	Pin series quantity	2
Touch-safe protection acc. to DIN VDE	Safe from back-of-hand	Volume resistance	
57 106	touch		≤5 mΩ
Can be coded	Yes		

### **Material data**

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	UL 94 flammability rating	V-0
Contact material	CuSn	Contact surface	tinned
Layer structure of solder connection	13 µm Ni / 24 µm Sn matt	Layer structure of plug contact	13 μm Ni / 24 μm Sn matt
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	100 °C
Temperature range, installation, min.	-25 °C	Temperature range, installation, max.	100 °C

### Rated data acc. to IEC

tested acc. to standard		Rated current, min. number of poles	
	IEC 60664-1, IEC 61984	(Tu=20°C)	11 A
Rated current, max. number of poles		Rated current, min. number of poles	
(Tu=20°C)	8.5 A	(Tu=40°C)	9.5 A
Rated current, max. number of poles		Rated voltage for surge voltage class /	
(Tu=40°C)	7 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



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# **Technical data**

### Rated data acc. to CSA

nstitute (CSA)	<b>6</b> P-	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.		

			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			
Institute (UR)	<i>7</i> 17	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)		Rated current (Use group D / UL 1059)	
Reference to approval values	Specifications are maximum values, details - see approval certificate.		
Packing			
Packaging	Box	VPE length	51 mm
VPE width	77 mm	VPE height	192 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	standards and norms and comp	eveloped, manufactured and delivered according ly with the assured properties in the data sheet i	esp. fulfill decorative propertie

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 product	s are developed, manufactured and deliv	vered according international recognized	
o come,	standards and norms an	•	the data sheet resp. fulfill decorative properties	
Notes	Additional colours on	request		
	Rated current related to rated cross-section & min. No. of poles.			
	Spacing between row	vs: see hole layout		
	• P on drawing = pitch			
		to the component itself. Clearance and c dance with the relevant application stand	reepage distances to other components are to ards.	
	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	WSCAD



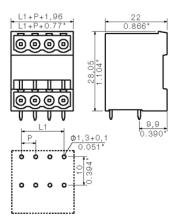
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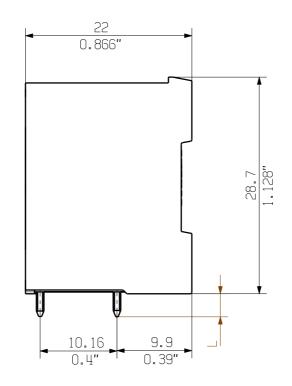
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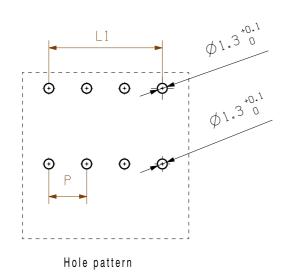
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# **Drawings**

### **Dimensional drawing**







P = 5.08 Raster Pitch

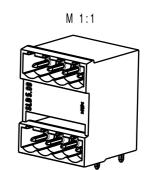
 $D = { 01,3 \atop 00.051 \text{ "} \atop +0.1 \atop +0.1 }$ 

 $d = \begin{array}{l} 1,2mm \text{ oktogonal} \\ 0.047 \text{" octogonal} \end{array}$ 

n = no of poles

P = pitch

Shown: SLD 5.08/08/90G



3,2	0,1
3,2	-0,3
4 E	0,1
4,5	-0,3
Solder pin length L	Tolerance

13	60,96	2,400
12	55,88	2,200
11	50,80	2,000
10	45,72	1,800
9	40,64	1,600
8	35,56	1,400
7	30,48	1,200
6	25,40	1,000
5	20,32	0,800
4	15,24	0,600
3	10,16	0,400
2	5,08	0,200

116,84

111,76

106,68

101,60

96,52 91,44

86,36

81,28

76,20

71,12

66,04

24 23

22

20

19 18

17

16

15

14

4,600

4,400

4,200

4,000 3,800

3,600

3,400

3,200

3,000

2,800

2,600

7304

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.

				oluei pili leligu		olerance		n	L1 [i	mm]	L1 [inch]	
General tolerance: DIN ISO 2768-mK									Cat.no.:.			
	102002/5 20.02.18 HE	LIS_MA 00	W	e <b>idm</b> ül	ller		Drawing	-	97	5 9	14 Issue no	
	Modification							01	o f	01	sheets	
		Date	Name									
	Drawn	19.08.2003	#AttributeErr	or: Benutzer None nicht ge	funde <b>S</b> #	D 5.0	<b>8</b> /	190	)			
					J L	<b>-</b> 0.0	<b>U</b> / I I	, ,	,			

Drawn 19.08.2003 #AttributeError Benutzer None nicht gefunde \$\frac{\text{SLD 5.08}}{\text{LD 5.08}}\text{...}\$

Responsible HERTEL\_S

SCAIE: 2:1 Checked 27.02.2018 HELIS\_MA MALE HEADER

Supersedes: Approved LANG\_T Product file: SLD 5.08



### Recommended wave solderding profiles

#### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16 D-32758 Detmold Germany

Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

### 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.