

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

Product image





Similar to illustration

Pin headers in glass-fibre-reinforced plastic with straight wire outlet; optimised for wave soldering. The flange variant (F) can be screwed onto the respective counter piece or the circuit board. There is no need for an extra screw to connect the circuit board when the solder flange (LF) version is used. This also protects the solder points from mechanical strain. All pin headers can be manually coded or ordered pre-coded. HC = High Current.

General ordering data

Product data	IEC: 400 V / 24 A UL: 300 V / 18.5 A
Qty.	20 pc(s).
GTIN (EAN)	4032248934584
	Number of poles: 18, 180°, Solder pin length (I): 3.2 mm, tinned, orange, Box
Version	PCB plug-in connector, male header, Dovetails for fixing blocks, THT solder connection, 5.08 mm,
Order No.	<u>1147830000</u>
Туре	SL 5.08HC/18/180B 3.2SN OR BX

Technical data



Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

Dimensions and weights

Width	93.2 mm	Width (inches)	3.669 inch
Height	15.2 mm	Height (inches)	0.598 inch
Height of lowest version	12.2 mm	Depth	8.5 mm
Depth (inches)	0.335 inch	Net weight	7.2 g

System specifications

Product family	OMNIMATE Signal - series
,	BL/SL 5.08
	<i>i</i> -
Mounting onto the PCB	THT solder connection
Pitch in inches (P)	0.2 inch
Number of poles	18
Solder pin length (I)	3.2 mm
Tolerance of solder pin position	± 0.20 mm
Solder pin dimensions = d tolerance	0 / -0,03 mm
Solder eyelet hole diameter tolerance (E	0)+ 0,1 mm
L1 in inches	3.4 inch
Pin series quantity	1
Can be coded	Yes
Plugging force/pole, max.	10 N

Type of connection	
	Board connection
Pitch in mm (P)	5.08 mm
Outgoing elbow	180°
Number of solder pins per pole	1
Solder pin length tolerance	+0.1 / -0.3 mm
Solder pin dimensions	d = 1.2 mm, Octagonal
Solder eyelet hole diameter (D)	1.3 mm
L1 in mm	86.36 mm
Number of rows	1
Volume resistance	≤ 5mΩ
Plugging cycles	25
Pulling force/pole, max.	7.5 N

Material data

Insulating material	PA GF
Colour chart (similar)	RAL 2000
Comparative Tracking Index (CTI)	≥ 550
UL 94 flammability rating	V-0
Contact material	CuMg
Layer structure of solder connection	1-3 μm Ni / 2-4 μm Sn
	matt
Storage temperature, min.	-25 °C
Max. relative humidity during storage	70 %
Operating temperature, max.	100 °C
Temperature range, installation, max.	100 °C

Colour	orange
Insulating material group	II
Insulation strength	≥ 10 ⁸ Ω
GWFI	960 °C
Contact surface	tinned
Layer structure of plug contact	1-3 μm Ni / 2-4 μm Sn
	matt
Storage temperature, max.	50 °C
Operating temperature, min.	-50 °C
Temperature range, installation, min.	-25 °C

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	24 A
Rated current, max. number of poles		Rated current, min. number of poles	
(Tu=20°C)	19 A	(Tu=40°C)	21 A
Rated current, max. number of poles		Rated voltage for surge voltage class /	
(Tu=40°C)	16.5 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			
class/ contamination degree III/3	4 kV		

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)	18.5 A	Rated current (Use group D / CSA)	18.5 A

Technical data

Rated data acc. to UL 1059



Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

ROHS	Conform		
Approvals	c FL us	KEMA	
Approvals			
IPC conformity	standards and norms and comp	veloped, manufactured and delivered according y with the assured properties in the data sheet r Class 2". Further claims on the products can be e	resp. fulfill decorative properties
	be designed in accordance w	omponent itself. Clearance and creepage distance in the relevant application standards.	
	• P on drawing = pitch		
	Rated current related to rated	cross-section & min. No. of poles.	
	Gold-plated contact surfaces	on request	
Notes	Additional colours on request		
Notes			
eClass 10.0	27-44-04-02		
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02
ETIM 6.0	EC002637	ETIM 7.0	EC002637
Classifications			
VPE width	60 mm	VPE height	215 mm
Packaging	Box	VPE length	45 mm
Packing			
	maximum values, details - see approval certificate.		
Rated current (Use group B / UL 1 Reference to approval values	1059) 18.5 A Specifications are	Rated current (Use group D / UL 1059)	10 A
Rated voltage (Use group B / UL 1		Rated voltage (Use group D / UL 1059)	
	C THE US		E60693
Institute (cURus)		Certificate No. (cURus)	

Technical data

Downloads



Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

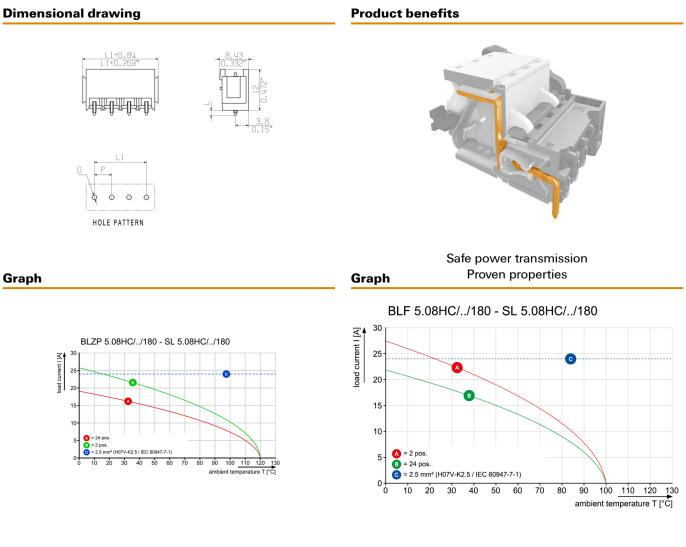
Approval/Certificate/Document of	CB Certificate
Conformity	CB Testreport
	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN
	MB DEVICE MANUF. EN
	FL DRIVES DE
	CAT 2 PORTFOLIOGUIDE EN
	FL BUILDING SAFETY EN
	FL APPL LED LIGHTING EN
	FL INDUSTR.CONTROLS EN
	FL MACHINE SAFETY EN
	<u>FL HEATING ELECTR EN</u>
	FL APPL_INVERTER EN
	FL_BASE_STATION_EN
	FL ELEVATOR EN
	FL POWER SUPPLY EN
	FL 72H SAMPLE SER EN
	PO OMNIMATE EN
Engineering Data	<u>STEP</u>
Product Change Notification	<u>EN - Change of packaging</u>
	DE - Change of packaging

Drawings

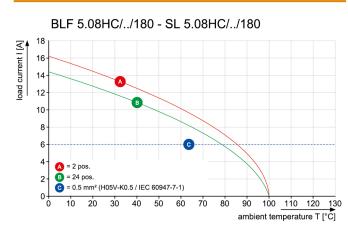


Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com



Graph



Creation date May 2, 2020 2:43:38 AM CEST

Catalogue status 17.04.2020 / We reserve the right to make technical changes.

Mating connector (fully pluggable)

PININ .

BLF 5.08HC/270 SN

معتما متناميني مامعم

General	ordering data			
Туре	BLF 5.08HC/18/270 SN OR	Version	Product data	Packaging
Order No.	<u>1982860000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,	IEC: 400 V / 24 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4032248686957	270°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm ²	, UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	18 pc(s).	Box	12	
,	1.()			
Туре	BLF 5.08HC/18/270 SN BK	Version	Product data	Packaging
-			Product data	Packaging Box
Туре	BLF 5.08HC/18/270 SN BK	Version	Product data IEC: 400 V / 24 A / 0.2 - 2.5 mm²	00

BLZP 5.08HC/225 SN



Clamping-yoke connection with right-angled (90° or 270°) or angled (225°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. The also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Туре	BLZP 5.08HC/18/225 SN 0	Version	Product data	Packaging
Order No.	<u>1946410000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,	IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248622184	$225^\circ\!,$ Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 15 A / AWG 26 - AWG 12	2
Qty.	18 pc(s).			
Туре	BLZP 5.08HC/18/225 SN B	Version	Product data	Packaging
Type Order No.	BLZP 5.08HC/18/225 SN B 1946720000			Packaging Box
			IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Box

Weidmüller Interface GmbH & Co. KG

Weidmüller 🟵

Klingenbergstraße 26 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications



Mating connector (fully pluggable)

BLZP 5.08HC/270 SN



Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Туре	BLZP 5.08HC/18/270 SN 0	Version	Product data	Packaging
Order No.	<u>1948950000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,	IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248626403	$270^\circ\!,$ Clamping yoke connection, Clamping range, max. : 4 mm², Box	2	
Qty.	18 pc(s).			
Туре	BLZP 5.08HC/18/270 SN B	Version	Product data	Packaging
Type Order No.	BLZP 5.08HC/18/270 SN B 1949180000	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,		Packaging Box
			IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box

BLZP 5.08HC/225B SN



Clamping-yoke connection with right-angled (90° or 270°) or angled (225°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. The also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Туре	BLZP 5.08HC/18/225B SN	Version	Product data	Packaging	
Order No.	<u>1946140000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,	IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Box	
GTIN (EAN)	4032248621712	$225^\circ\!,$ Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 15 A / AWG 26 - AWG 12	2	
Qty.	18 pc(s).				
-					
Туре	BLZP 5.08HC/18/225B SN	Version	Product data	Packaging	
Type Order No.	BLZP 5.08HC/18/225B SN 1945910000	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,	Product data IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Packaging Box	
			IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Box	



Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

Mating connector (fully pluggable)

BLZP 5.08HC/180 SN



Female plug with clamping-yoke screw system for connecting wires with straight (180°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. The also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Туре	BLZP 5.08HC/18/180 SN B	Version	Product data	Packaging
Order No.	<u>1943970000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,	IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248618125	180°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	2
Qty.	18 pc(s).			
Туре	BLZP 5.08HC/18/180 SN 0	Version	Product data	Packaging
Type Order No.	BLZP 5.08HC/18/180 SN O 1943740000	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,		Packaging Box
			IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box

BLF 5.08HC/180 SN



Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

General ordering data

Туре	BLF 5.08HC/18/180 SN OR	Version	Product data	Packaging			
Order No.	<u>1013860000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,	IEC: 400 V / 24 A / 0.2 - 2.5 mm ²	Box			
GTIN (EAN)	4032248721962	80°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm², UL: 300 V / 18.5 A / AWG 26 - AWG					
Qty.	18 pc(s).	Box	12				
Туре	BLF 5.08HC/18/180 SN BK	Version	Product data	Packaging			
Type Order No.	BLF 5.08HC/18/180 SN BK 1013610000	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,	Product data IEC: 400 V / 24 A / 0.2 - 2.5 mm ²	Packaging Box			
	-, , -		IEC: 400 V / 24 A / 0.2 - 2.5 mm ²	Box			

Creation date May 2, 2020 2:43:38 AM CEST



Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

Mating connector (fully pluggable)

BLZP 5.08HC/90 SN



Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Туре	BLZP 5.08HC/18/90 SN OR	Version	Product data	Packaging
Order No.	<u>1948170000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,	IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248624591	$90^\circ,$ Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 1	2
Qty.	18 pc(s).			
Туре	BLZP 5.08HC/18/90 SN BK	Version	Product data	Packaging
Type Order No.	BLZP 5.08HC/18/90 SN BK 1948400000	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,	Product data IEC: 400 V / 23 A / 0.2 - 4 mm ²	Packaging Box
			IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box

BLL 5.08/180



Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

General ordering data

Туре	BLL 5.08/18/180 3.2 SN	Version	Product data	Packaging
Order No.	<u>1648950000</u>	PCB plug-in connector, female header, closed side, THT solder	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190293437	connection, 5.08 mm, Number of poles: 18, 180°, Solder pin length	UL: 300 V / 15 A	
Qty.	18 pc(s).	(I): 3.2 mm, tinned, orange, Box		



Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

Mating connector (fully pluggable)

BLF 5.08HC/90 SN

ALLIN



Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

General ordering data

Туре	BLF 5.08HC/18/90 SN OR	Version	Product data	Packaging		
Order No.	<u>1001690000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,	es: 18, IEC: 400 V / 24 A / 0.2 - 2.5 mm ²			
GTIN (EAN)	4032248693498	90°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 18.5 A / AWG 26 - AWG			
Qty.	18 pc(s).	Box 12				
Туре	BLF 5.08HC/18/90 SN BK	Version	Product data	Packaging		
Type Order No.	BLF 5.08HC/18/90 SN BK 1000190001	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 18,	Product data IEC: 400 V / 24 A / 0.2 - 2.5 mm ²	Packaging Box		
			IEC: 400 V / 24 A / 0.2 - 2.5 mm ²	00		

BLL 5.08/90



Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

General ordering data

Туре	BLL 5.08/18/90 3.2 SN O	Version	Product data	Packaging				
Order No.	<u>1648470000</u>	PCB plug-in connector, female header, closed side, THT solder	IEC: 400 V / 23 A	Box				
GTIN (EAN)	4008190292942	connection, 5.08 mm, Number of poles: 18, 90°, Solder pin length (I	onnection, 5.08 mm, Number of poles: 18, 90°, Solder pin length (I): UL: 300 V / 15 A					
Qty.	18 pc(s).	3.2 mm, tinned, orange, Box						

Mating connector (fully pluggable)

BLL 5.08/180B

Weidmüller 🔀

Weidmüller Interface GmbH & Co. KG

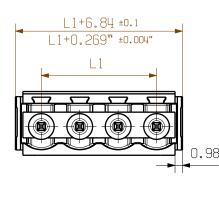
Klingenbergstraße 26 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

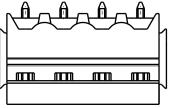
Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

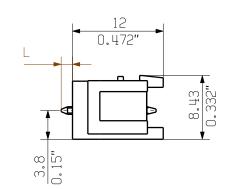
General ordering data							
Туре	BLL 5.08/18/180B 3.2SN	Version	Product data	Packaging			
Order No.	<u>1682890000</u>	PCB plug-in connector, female header, Dovetails for fixing blocks, THT	IEC: 400 V / 23 A	Box			
GTIN (EAN)	4008190474652	solder connection, 5.08 mm, Number of poles: 18, 180°, Solder pin	UL: 300 V / 15 A				
Qty.	18 pc(s).	length (I): 3.2 mm, tinned, orange, Box					

The English version is binding

Dimensions without tolerances are no check dimensions







1/1

4.600

4,400

4,200

4.000

3,800

3.600

3,400

3,200

3.000

2.800

2.600

2,400

2.200

2,000

1,800

1.600

1.400

1,200

1,000

0,800

0.600

0.400

0,200

Landardand

116.84

111,76

106,68

101,60

96.52

91.44

86,36

81,28

76,20

71,12

66.04

60,96

55.88

50,80

45,72

40.64

35.56

30,48

25,40

20,32

15,24

10,16

5,08

24

23

22

21

20

19

18

17

16

15

14

13

12

11

10

9

8

7

6

5

4

3

2

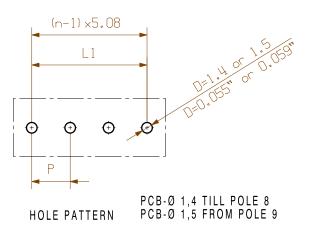
TOLERANZ

TOLERANCE

0,1

-0,3

0,1



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 IEC 60326 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.

P = PITCH

SHOWN: SL 5.08HC/04/180B				4,5	-0	,3	n	L1 (mr	n] L	.1 [Inch]
General tolerance:						C	at.n	0.:.		
DIN ISO 2768-mK	99587/5 22.11.17 HE	LIS_MA 04	We	idmüller	J_	3 Drawing n	-	09	53	04 Issue no.
	Modifi	ication			Sheet		02	of	05	sheets
10		Date	Name							
	Drawn	18.02.2011	HERTEL_S	SI 5 08F	08HC	HC//180				
	Responsible		HERTEL_S		STIFTLE			•••		
Scale: 2:1	Checked	30.11.2017	HELIS_MA		MALE HE					
Supersedes: .	Approved		LANG_T	Product file: SL5.08 H	С					7377

STIFTLAENGE L

PIN LENGTH L

3.2

4.5

The reproduction, distribution and utilization of this document as well as the communication of its contents to others without explicit authorization is prohibited. Offenders will be held liable for the payment of damages. Weidmueller exclusively reserves the right to file for patents, utility models or designs.

Weidmueller Interface GmbH & Co. KG \odot

Wave Solder Profile

Recommended wave solderding profiles

Weidmüller 🟵

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com



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.