

LX 15.00/09/90 4.5SN BK BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

High-performance PCB terminal with proven clamping yoke connection at 15.00 mm pitch, conductor outlet direction in 90° design. Version and test point.

General ordering data

Version	Printed circuit board terminals, 15.00 mm, Number of poles: 9, 90°, Solder pin length (l): 4.5 mm, tinned, black, Clamping yoke connection, Clamping range, max. : 25 mm², Box
Order No.	2283750000
Type	LX 15.00/09/90 4.5SN BK BX
GTIN (EAN)	4050118428728
Qty.	10 pc(s).
Product data	IEC: 1000 V / 101 A / 1.5 - 25 mm² UL: 600 V / 85 A / AWG 16 - AWG 4
Packaging	Box

Creation date August 29, 2024 10:58:08 PM CEST

Catalogue status 17.08.2024 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

Depth	29.1 mm	Depth (inches)	1.146 inch
Height	41.5 mm	Height (inches)	1.634 inch
Height of lowest version	37 mm	Width	148 mm
Width (inches)	5.827 inch	Net weight	146.568 g

System parameters

Product family	OMNIMATE Power - series LX	Wire connection method	Clamping yoke connection
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	15 mm	Pitch in inches (P)	0.591 "
Number of poles	9	Pin series quantity	1
Fitted by customer	No	Number of rows	1
Max. adjacent poles per row	10	Solder pin length (l)	4.5 mm
Solder pin dimensions	1.2 x 1.2 mm	Solder eyelet hole diameter (D)	1.6 mm
Solder eyelet hole diameter tolerance (D)+ 0,1 mm		Number of solder pins per pole	4
Screwdriver blade	1.0 x 5.5	Screwdriver blade standard	DIN 5264
Tightening torque, min.	2.4 Nm	Tightening torque, max.	4 Nm
Clamping screw	M 5	Stripping length	16 mm
L1 in mm	135 mm	L1 in inches	5.319 "
Touch-safe protection acc. to DIN VDE 0470	IP 10	Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch
Protection degree	IP20	Volume resistance	0.50 mΩ

Material data

Insulating material	Wemid (PA)	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	UL 94 flammability rating	V-0
Contact material	Cu-alloy	Contact surface	tinned
Layer structure of solder connection	1.5...3 µm Ni / 4...6 µm Sn matt	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	120 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	120 °C		

Conductors suitable for connection

Clamping range, min.	1.31 mm ²
Clamping range, max.	25 mm ²
Wire connection cross section AWG, min.	AWG 16
Wire connection cross section AWG, max.	AWG 4
Solid, min. H05(07) V-U	1.5 mm ²
Solid, max. H05(07) V-U	16 mm ²
Stranded, min. H07V-R	6 mm ²
Stranded, max. H07V-R	25 mm ²
Flexible, min. H05(07) V-K	1.5 mm ²
Flexible, max. H05(07) V-K	25 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 1.5 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 16 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, 1.5 mm ² min.	

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Technical dataw. wire end ferrule, DIN 46228 pt 1, max. 16 mm²

Plug gauge in accordance with EN 60999 a x b; ø 6.9 mm x 6.9 mm

Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	4 mm ²	
	wire end ferrule	Stripping length	nominal	15 mm
		Recommended wire-end ferrule	H4.0/15	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	6 mm ²	
	wire end ferrule	Stripping length	nominal	15 mm
		Recommended wire-end ferrule	H6.0/15	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	10 mm ²	
	wire end ferrule	Stripping length	nominal	15 mm
		Recommended wire-end ferrule	H10.0/15	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	16 mm ²	
	wire end ferrule	Stripping length	nominal	15 mm
		Recommended wire-end ferrule	H16.0/15	

Reference text Length of ferrules is to be chosen depending on the product and the rated voltage., The outside diameter of the plastic collar should not be larger than the pitch (P)

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	101 A
Rated current, max. number of poles (Tu=20°C)	101 A	Rated current, min. number of poles (Tu=40°C)	101 A
Rated current, max. number of poles (Tu=40°C)	101 A	Rated voltage for surge voltage class / pollution degree II/2	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	1,000 V	Rated voltage for surge voltage class / pollution degree III/3	1,000 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	6 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	8 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	8 kV	Short-time withstand current resistance	3 x 1s mit 1000 A

Rated data acc. to CSA

Rated voltage (Use group B / CSA)	600 V	Rated voltage (Use group C / CSA)	600 V
Rated voltage (Use group D / CSA)	600 V	Rated current (Use group B / CSA)	85 A
Rated current (Use group C / CSA)	85 A	Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, min.	AWG 16	Wire cross-section, AWG, max.	AWG 4

Rated data acc. to UL 1059

Rated voltage (Use group B / UL 1059)	600 V	Rated voltage (Use group C / UL 1059)	600 V
Rated voltage (Use group D / UL 1059)	600 V	Rated current (Use group B / UL 1059)	85 A
Rated current (Use group C / UL 1059)	85 A	Rated current (Use group D / UL 1059)	5 A
Wire cross-section, AWG, min.	AWG 16	Wire cross-section, AWG, max.	AWG 4

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Technical data**Packing**

Packaging	Box	VPE length	295 mm
VPE width	91 mm	VPE height	65 mm

Type tests

Test: Durability of markings	Standard	DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96
	Test	mark of origin, type identification, pitch, approval marking CSA, approval marking UL, type of material, durability
	Evaluation	available
Test: Clampable cross section	Standard	DIN EN 60999 section 6 and 8.1 / 04.94, DIN EN 60947-1 section 8.2.4.5.1 / 12.99
	Conductor type	Type of conductor and solid 1.5 mm ² conductor cross-section
		Type of conductor and stranded 1.5 mm ² conductor cross-section
		Type of conductor and solid 16 mm ² conductor cross-section
		Type of conductor and AWG 16/1 conductor cross-section
	Evaluation	passed
Test for damage to and accidental loosening of conductors	Standard	DIN EN 60999 section 8.4 / 04.94
	Requirement	0.4 kg
	Conductor type	Type of conductor and solid 1.5 mm ² conductor cross-section
		Type of conductor and stranded 1.5 mm ² conductor cross-section
		Type of conductor and AWG 16/7 conductor cross-section
		Type of conductor and AWG 16/19 conductor cross-section
	Evaluation	passed
Pull-out test	Standard	DIN EN 60999 section 8.5 / 04.94
	Requirement	≥40 N
	Conductor type	Type of conductor and H05V-U1.5 conductor cross-section
		Type of conductor and H05V-K1.5 conductor cross-section
		Type of conductor and AWG 16/7 conductor cross-section
		Type of conductor and AWG 16/19 conductor cross-section
	Evaluation	passed

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Technical data

Classifications

ETIM 6.0	EC002643	ETIM 7.0	EC002643
ETIM 8.0	EC002643	ETIM 9.0	EC002643
ECLASS 9.0	27-44-04-01	ECLASS 9.1	27-44-04-01
ECLASS 10.0	27-44-04-01	ECLASS 11.0	27-46-01-01
ECLASS 12.0	27-46-01-01	ECLASS 13.0	27-46-01-01
ECLASS 14.0	27-46-01-01		

Environmental Product Compliance

REACH SVHC	/
RoHS Compliance Status	Compliant without exemption

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	<ul style="list-style-type: none"> • Additional variants on request • Rated current related to rated cross-section & min. No. of poles. • Wire end ferrule without plastic collar to DIN 46228/1 • Wire end ferrule with plastic collar to DIN 46228/4 • 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. • The test point can only be used as potential-pickup point. • Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Approvals

ROHS	Conform
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Downloads

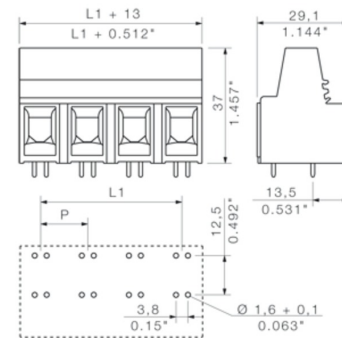
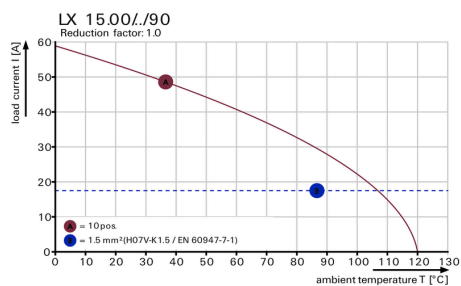
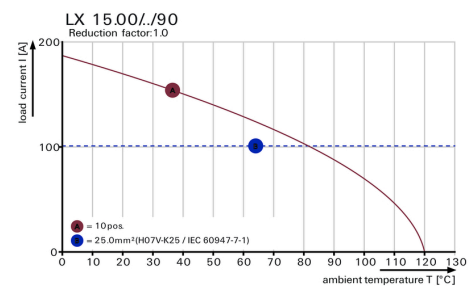
Product Change Notification	20220201 Visual change OMNIMATE® Power PCB terminal blocks and connectors 20220201 Visuelle Änderung OMNIMATE® Power Leiterplattenklemmen und -steckverbinder
User Documentation	QR-Code product handling video
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN FL DRIVES DE

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Drawings
Product image

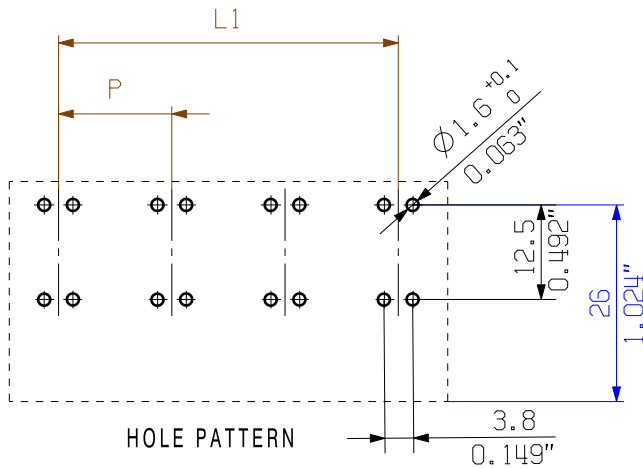
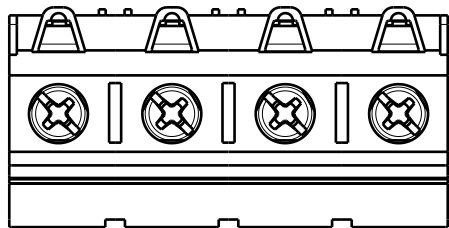
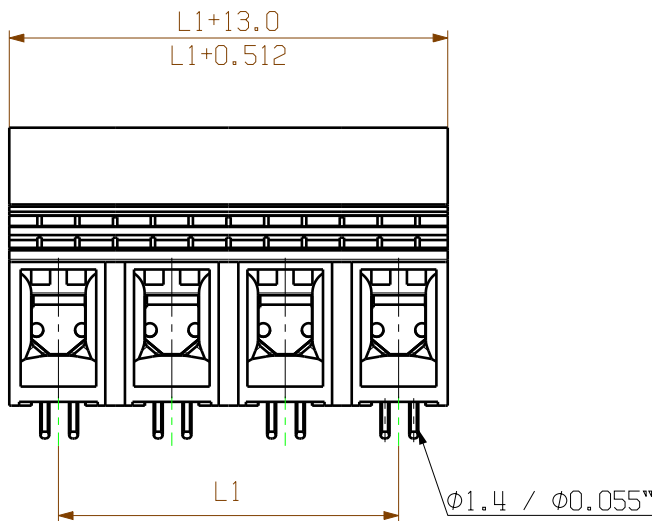
Dimensional drawing

Graph

Graph


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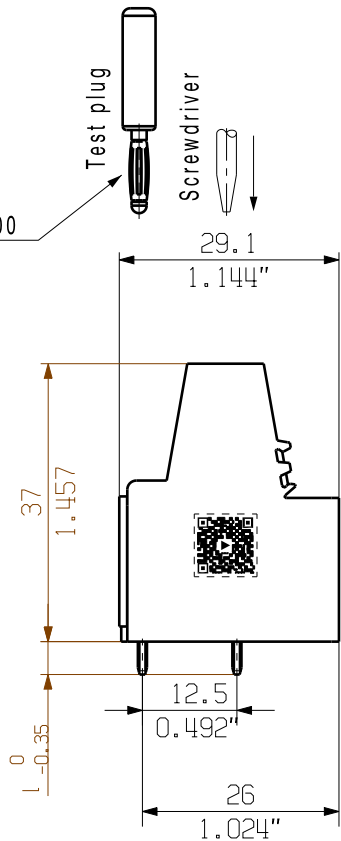
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Dimensions without tolerances are no check dimensions

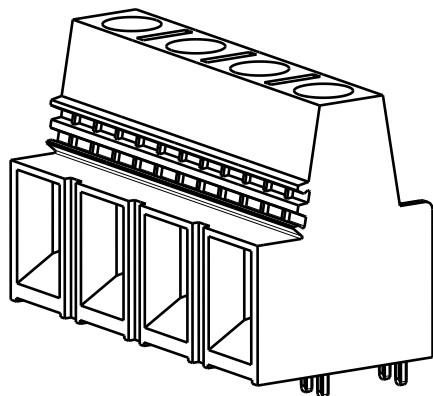
The English version is binding



PS 2.0
Order NO. 031000 0000



Conductor
direction



P = Pitch
n = No. of Poles
l = Pin length
Shown: LX15.00/04/90/...

6,5	0/-0,35	5	60,00	2,362
4,5	0/-0,35	4	45,00	1,772
PIN LENGTH I	TOLERANCE	3	30,00	1,181
		2	15,00	0,591
		n	L1 [mm]	L1 [Inch]

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 60664-1 (VDE 0110). The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 60326-3 very fine.

Weidmüller PCB components are tested to the IEC 60947-7-4 standard, and are valid for its field of application. Provided that the components 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-m

	EC00000683	00	Prim PLM Part No.: 009292		Prim ERP Part No.: 1226480000	
	First Issue Date 14.05.2018		Max. nos. Modification		Weidmüller	
		Drawn	Date	Name	LX.. 15.00/./90... LEITERPLATTENKLEMME PCB TERMINAL	
		Responsible		Xiang, Keqin		
Scale: 1/1		Approved	04.12.2018	Xu, Shary		
Drawings Assembly					Product file: 7234 LX 15.00	

29942
Drawing no. 29
Sheet 01 of 04 sheets

Recommended wave soldering 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.

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