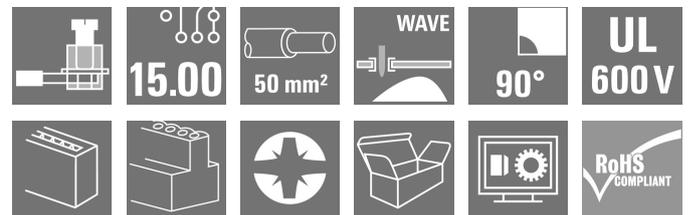


LXXX 15.00/04/90 4.5SN BK BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Product image



The high-current PCB connection for more power on board: 150 A / 1000 V with wires up to 50 mm², transmitted right to the PCB!

The LXXX 15.0 – with its proven steel clamping-yoke technology in a compact standard housing – integrates the latest market requirements for security, power density and miniaturization in power electronics. It connects these requirements into an efficient solution for the entire value-creation chain – including development, production, installation and maintenance.

The function and form of the application's connection method plays a key role. It influences the application's design, reliability, usability and costs. With the Substitution of

For example, with the replacement of complex constructions involving bolts or bus bars, the PCB can be transformed into a system platform that is both consistent and sustainable into the future – even for high-current applications.

The LXXX 15.0 reduces size and complexity while at the same time improving application integration. In so doing, it fulfils the requirements of power electronics better than the established mechanisms and connection elements.

General ordering data

Version	Printed circuit board terminals, 15.00 mm, Number of poles: 4, 90°, Solder pin length (l): 4.5 mm, tinned, black, Clamping yoke connection, Clamping range, max. : 50 mm ² , Box
Order No.	1047150000
Type	LXXX 15.00/04/90 4.5SN BK BX
GTIN (EAN)	4032248784004
Qty.	10 pc(s).
Product data	IEC: 1000 V / 150 A / 0.5 - 50 mm ² UL: 600 V / 126 A / AWG 20 - AWG 1
Packaging	Box

LXXX 15.00/04/90 4.5SN BK BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

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Technical data**Dimensions and weights**

Depth	31 mm	Depth (inches)	1.22 inch
Height	56 mm	Height (inches)	2.205 inch
Height of lowest version	51.5 mm	Width	61 mm
Width (inches)	2.402 inch	Net weight	122.8 g

System parameters

Product family	OMNIMATE Power - series LXXX	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	4	Pin series quantity	1
Fitted by customer	No	Number of rows	1
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	1.2 x 6.5
Screwdriver blade standard	DIN 5264	Tightening torque, min.	2.5 Nm
Tightening torque, max.	4 Nm	Clamping screw	M 6
Stripping length	18 mm	L1 in mm	45 mm
L1 in inches	1.772 "	Touch-safe protection acc. to DIN VDE 0470	IP 20
Protection degree	IP20		

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
Coating	4-6 µm SN	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.	0.5 mm ²
Clamping range, max.	50 mm ²
Wire connection cross section AWG, min.	AWG 20
Wire connection cross section AWG, max.	AWG 1
Solid, min. H05(07) V-U	0.5 mm ²
Solid, max. H05(07) V-U	16 mm ²
Stranded, min. H07V-R	6 mm ²
Stranded, max. H07V-R	50 mm ²
Flexible, min. H05(07) V-K	0.5 mm ²
Flexible, max. H05(07) V-K	35 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 35 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, 0.5 mm ² min.	

Creation date June 12, 2025 11:29:08 AM CEST

Catalogue status 07.06.2025 / We reserve the right to make technical changes.

Data sheet

LXXX 15.00/04/90 4.5SN BK BX

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Technical data

w. wire end ferrule, DIN 46228 pt 1, 35 mm²
max.

LXXX 15.00/04/90 4.5SN BK BX

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Technical data

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	2.5 mm ²
wire end ferrule		Stripping length	nominal 20 mm
		Recommended wire-end ferrule	H2.5/25D BL
		Stripping length	nominal 18 mm
		Recommended wire-end ferrule	H2.5/18
Cross-section for conductor connection	Type	fine-wired	
	nominal	4 mm ²	
wire end ferrule		Stripping length	nominal 20 mm
		Recommended wire-end ferrule	H4.0/26D GR
		Stripping length	nominal 18 mm
		Recommended wire-end ferrule	H4.0/18
Cross-section for conductor connection	Type	fine-wired	
	nominal	6 mm ²	
wire end ferrule		Stripping length	nominal 20 mm
		Recommended wire-end ferrule	H6.0/26 SW
		Stripping length	nominal 18 mm
		Recommended wire-end ferrule	H6.0/18
Cross-section for conductor connection	Type	fine-wired	
	nominal	10 mm ²	
wire end ferrule		Stripping length	nominal 21 mm
		Recommended wire-end ferrule	H10.0/28 EB
		Stripping length	nominal 18 mm
		Recommended wire-end ferrule	H10.0/18
Cross-section for conductor connection	Type	fine-wired	
	nominal	16 mm ²	
wire end ferrule		Stripping length	nominal 21 mm
		Recommended wire-end ferrule	H16.0/28 GN
		Stripping length	nominal 18 mm
		Recommended wire-end ferrule	H16.0/18
Cross-section for conductor connection	Type	fine-wired	
	nominal	1.5 mm ²	
wire end ferrule		Stripping length	nominal 20 mm
		Recommended wire-end ferrule	H1.5/24 R
		Stripping length	nominal 18 mm
		Recommended wire-end ferrule	H1.5/18
Cross-section for conductor connection	Type	fine-wired	
	nominal	35 mm ²	
wire end ferrule		Stripping length	nominal 19 mm
		Recommended wire-end ferrule	H35.0/32D R
		Stripping length	nominal 18 mm
		Recommended wire-end ferrule	H35.0/18
Cross-section for conductor connection	Type	fine-wired	
	nominal	50 mm ²	
wire end ferrule		Stripping length	nominal 18 mm
		Recommended wire-end ferrule	H50.0/18

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Technical data

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

Rated current, min. number of poles (Tu=20°C)	150 A	Rated current, min. number of poles (Tu=40°C)	150 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	8 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

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1198743
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)	127 A
Rated current (Use group C / CSA)	127 A	Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, min.	AWG 20	Wire cross-section, AWG, max.	AWG 1
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)	600 V	Rated voltage (Use group C / UL 1059)	600 V
Rated current (Use group B / UL 1059)	126 A	Rated current (Use group C / UL 1059)	126 A
Wire cross-section, AWG, min.	AWG 20	Wire cross-section, AWG, max.	AWG 1
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	256 mm
VPE width	100 mm	VPE height	64 mm

Type tests

Test: Durability of markings	Standard	DIN EN 60512-1-1 / 01.03
	Test	mark of origin, type identification, type of material, pitch, date clock, approval marking CSA, approval marking UL, durability
	Evaluation	available

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Technical data

Test: Clampable cross section	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02
	Conductor type	Type of conductor and solid 0.5 mm ² conductor cross-section
		Type of conductor and stranded 0.5 mm ² conductor cross-section
		Type of conductor and solid 16 mm ² conductor cross-section
		Type of conductor and flexible 35 mm ² conductor cross-section
		Type of conductor and AWG 20/1 conductor cross-section
		Type of conductor and AWG 20/19 conductor cross-section
		Type of conductor and AWG 10/1 conductor cross-section
		Type of conductor and AWG 1/19 conductor cross-section
		Type of conductor and H07V-R50 conductor cross-section
Type of conductor and H07V-K35 conductor cross-section		
Evaluation	passed	

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Technical data

Test for damage to and accidental loosening of conductors

Standard	DIN EN 60999-1 section 9.5 / 12.00
Requirement	0.3 kg
Conductor type	Type of conductor and solid 0.5 mm ² conductor cross-section
	Type of conductor and stranded 0.5 mm ² conductor cross-section
	Type of conductor and AWG 20/1 conductor cross-section
	Type of conductor and AWG 20/19 conductor cross-section
Evaluation	passed
Requirement	1.4 kg
Conductor type	Type of conductor and AWG 10/1 conductor cross-section
Evaluation	passed
Requirement	2.0 kg
Conductor type	Type of conductor and stranded 10 mm ² conductor cross-section
Evaluation	passed
Requirement	8,6 kg
Conductor type	Type of conductor and AWG 1/19 conductor cross-section
Evaluation	not checked
Requirement	8,6 kg
Conductor type	Type of conductor and flexible 35 mm ² conductor cross-section
Evaluation	passed

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Technical data

Pull-out test	Standard	DIN EN 60999 section 8.5 / 04.94
	Requirement	≥20 N
	Conductor type	Type of conductor and solid 0.5 mm ² conductor cross-section
		Type of conductor and stranded 0.5 mm ² conductor cross-section
		Type of conductor and AWG 20/1 conductor cross-section
		Type of conductor and AWG 20/19 conductor cross-section
	Evaluation	passed
	Requirement	≥80 N
	Conductor type	Type of conductor and AWG 10/1 conductor cross-section
		Evaluation
	Requirement	≥ 90N
	Conductor type	Type of conductor and stranded 10 mm ² conductor cross-section
		Evaluation
	Requirement	> 236 N
	Conductor type	Type of conductor and AWG 1/19 conductor cross-section
		Evaluation
	Requirement	> 190 N
	Conductor type	Type of conductor and flexible 35 mm ² conductor cross-section
Evaluation		passed

Classifications

ETIM 6.0	EC002643	ETIM 7.0	EC002643
ETIM 8.0	EC002643	ETIM 9.0	EC002643
ETIM 10.0	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
ECLASS 15.0	27-46-01-01		

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

LXXX 15.00/04/90 4.5SN BK BX**Weidmüller Interface GmbH & Co. KG**

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Technical data**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. • IP 20 from 16 mm² to 50 mm² • The test point can only be used as potential-pickup point. • Wire-end ferrules are mandatory for stranded wires with more than 19 strands. • Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Approvals

Approvals



Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319226/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319262/-T1z1mm-S800/
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UR)	E60693

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Product Change Notification	Optimierung des QR-Codes auf den Produkten der OMNIMATE Power Leiterplattenanschlussklemmen Optimization QR- Code on OMNIMATE POWER PCB Terminals
User Documentation	QR-Code product handling video
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN PO OMNIMATE EN

Creation date June 12, 2025 11:29:08 AM CEST

Catalogue status 07.06.2025 / We reserve the right to make technical changes.

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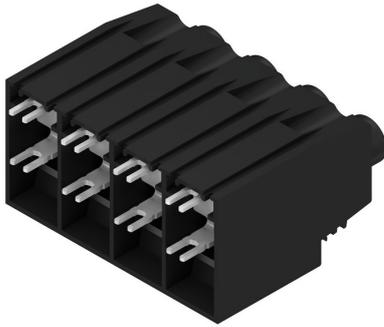
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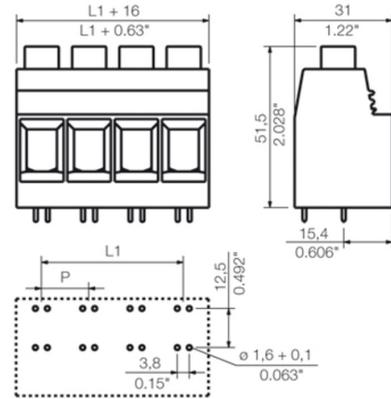
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Drawings

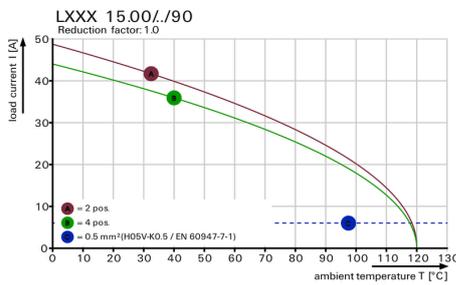
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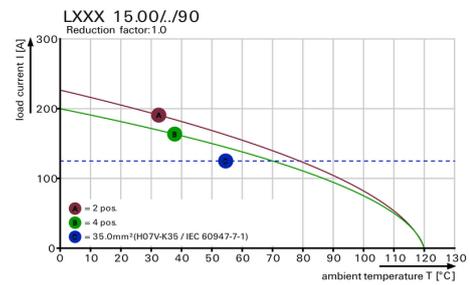
Dimensional drawing



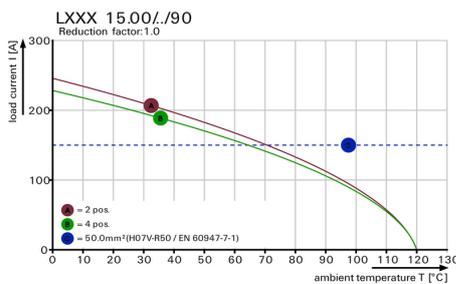
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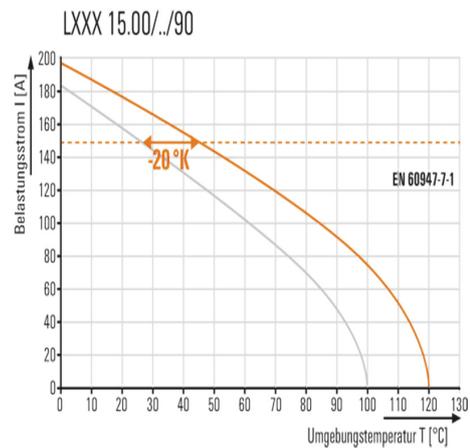
Graph



Graph



Product benefits



Data sheet

LXXX 15.00/04/90 4.5SN BK BX

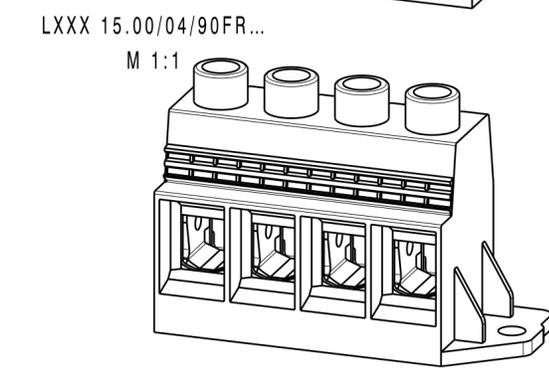
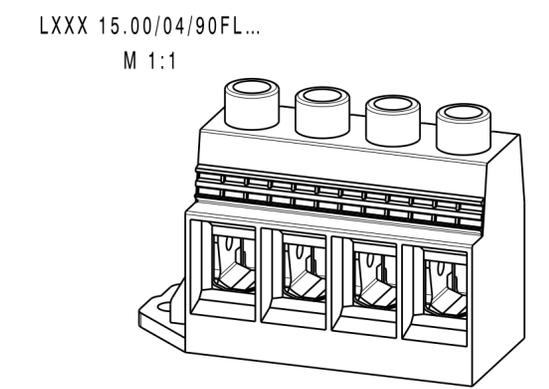
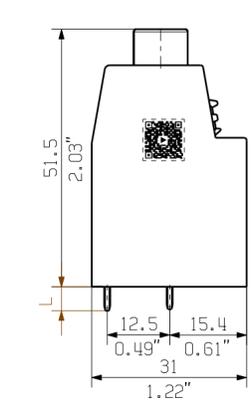
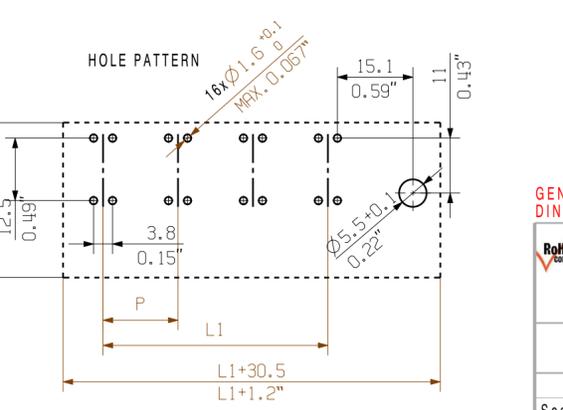
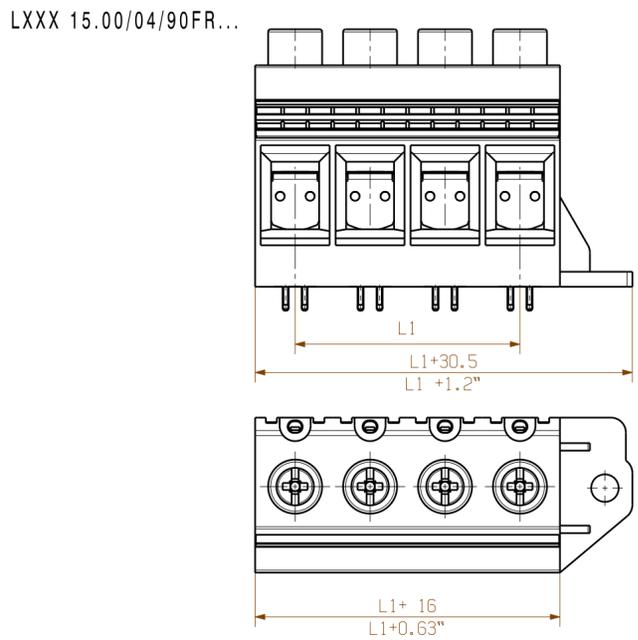
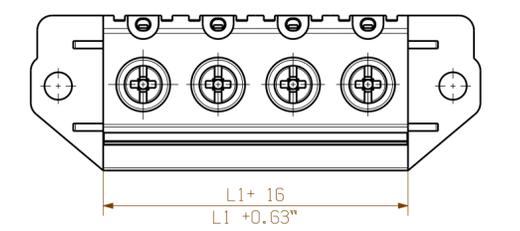
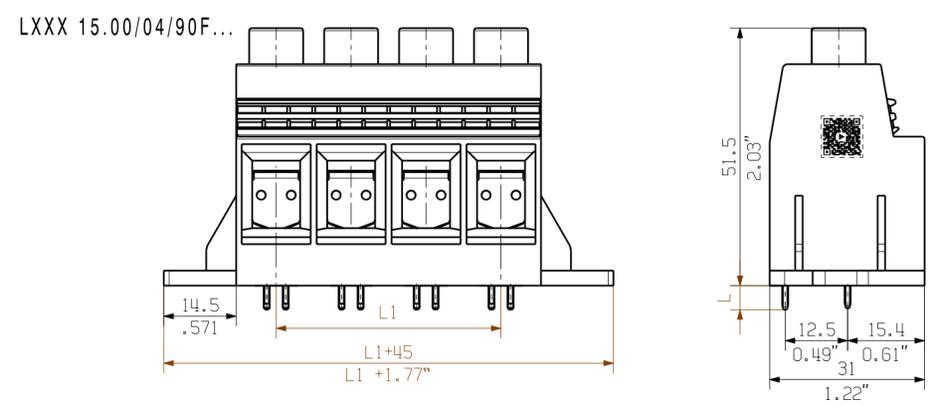
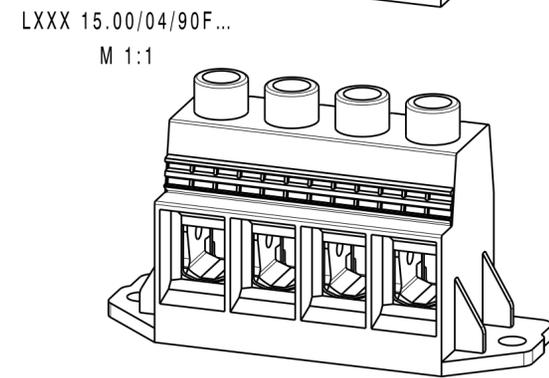
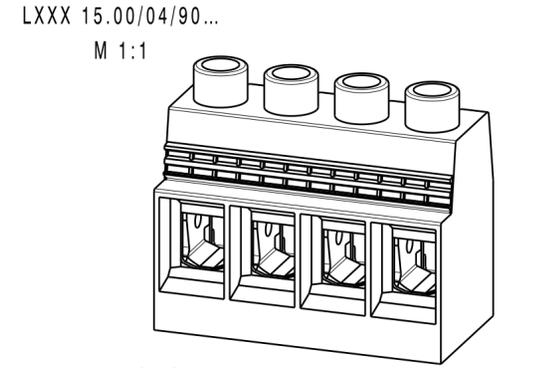
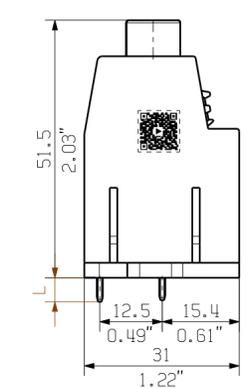
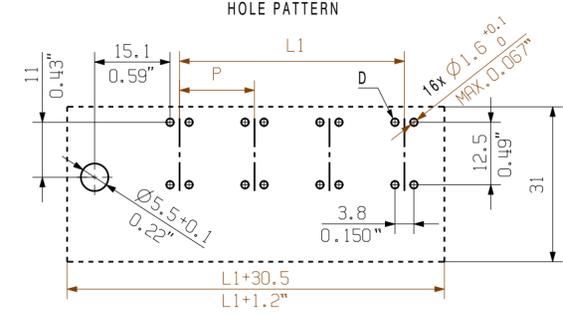
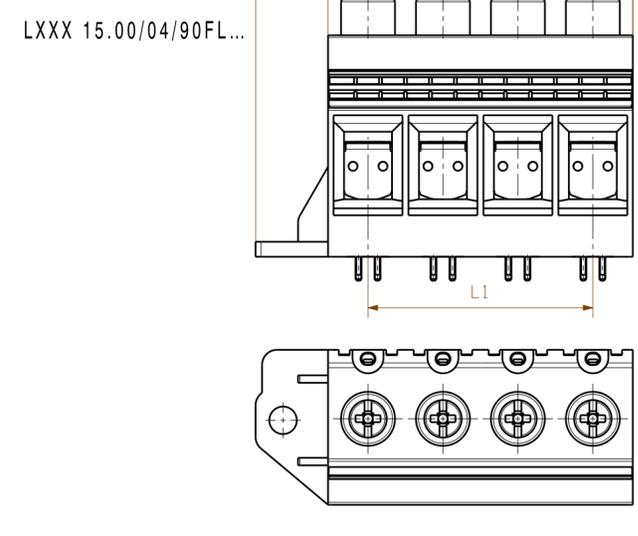
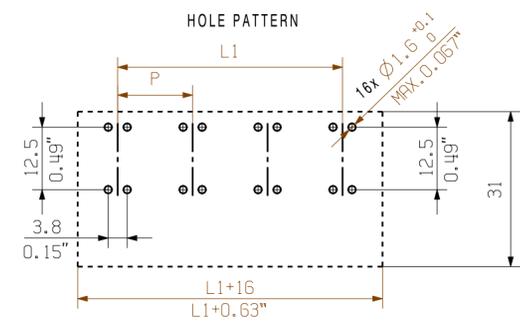
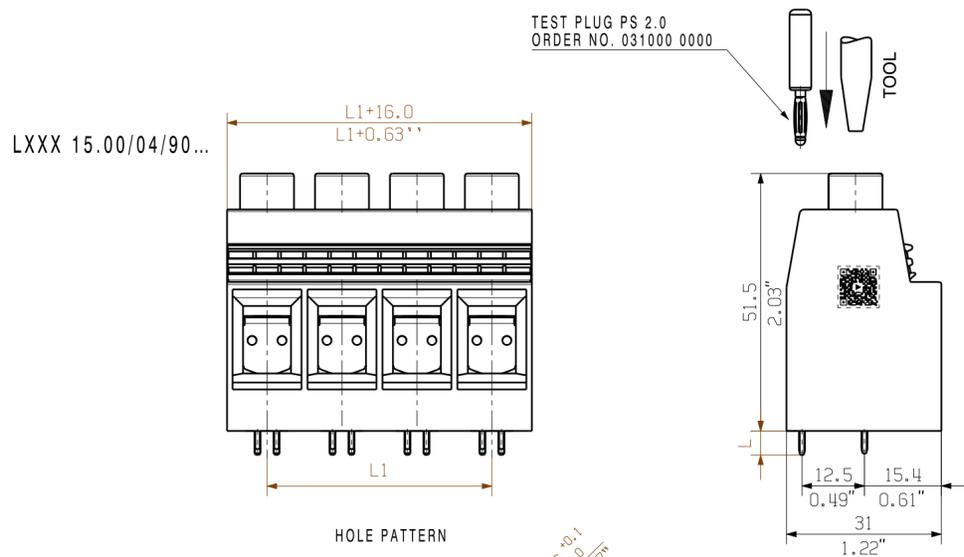
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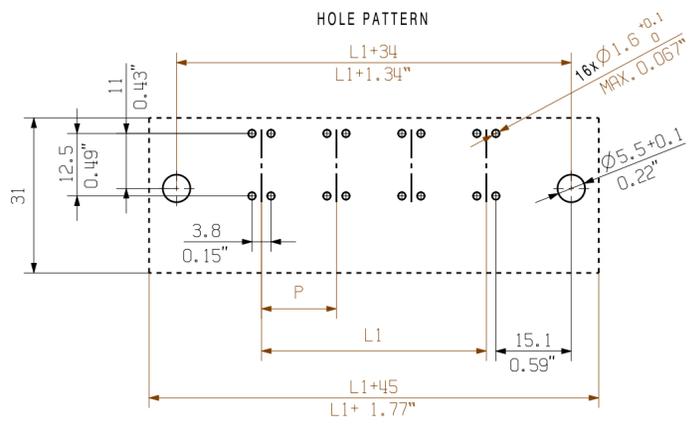
Drawings



Standard-compliant integration



n = No. of poles
L = 4.8^{±0.35}
P = Pitch



Customer drawing

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.

9	120	1.372
8	105	1.313
7	90	1.254
6	75	1.195
5	60	1.136
4	45	1.77
3	30	1.18
2	15	0.59
n	L1[mm]	L1[inch]

GENERAL TOLERANCE:
DIN ISO 2768-m

EC00000683	00	Prim PLM Part No.: 004587	Prim ERP Part No.: 1047150000
First Issue Date 14.05.2018	Max. nos.	Weidmüller	
Modification	46279		
Drawn 03.12.2018 Xiang, Keqin	Date 04.12.2018 Xu, Shary	Sheet 01 of 01 sheets	
Scale: 1/1	Size: A2	LXXX 15.00/.../90... LEITERPLATTENKLEMME PCB TERMINAL	
Drawings Assembly	Product file: 7082 LXXX 15.00		

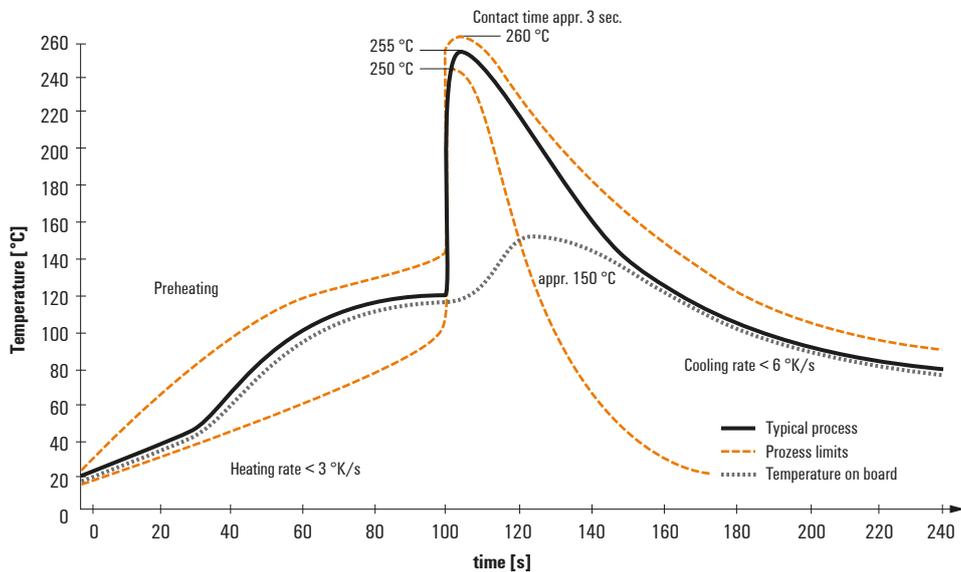
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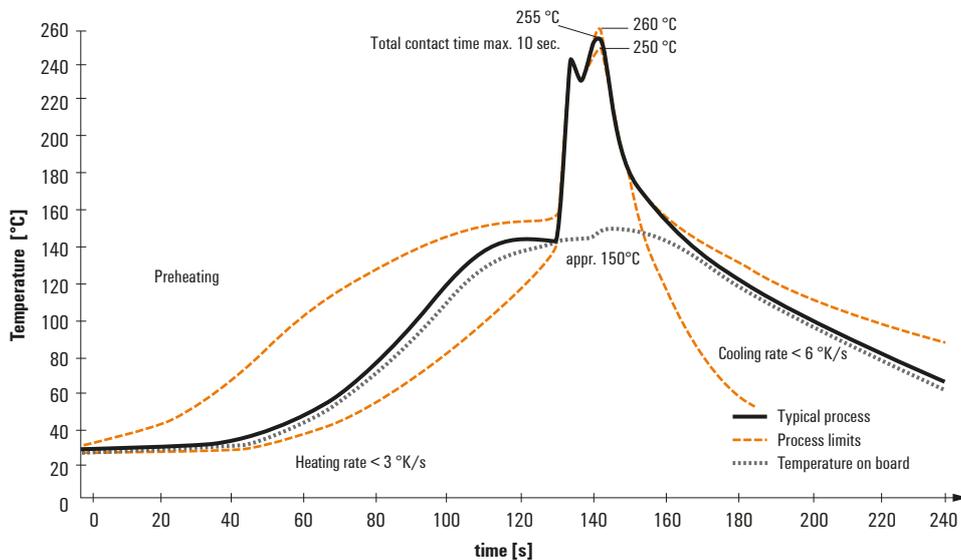
Recommended wave soldering profiles

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 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.