

OMNIMATE Power - series LU
LU 10.16/07/90 4.5SN BK BX
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16

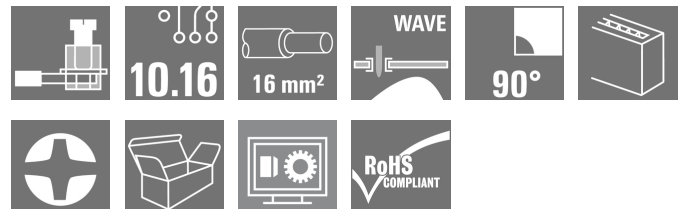
D-32758 Detmold

Germany

Fon: +49 5231 1429-0

Fax: +49 5231 14292083

www.weidmueller.com



This PCB terminal provides connections for 76 A and 16 mm² conductor cross-section with proven clamping yoke connection at 10.16 mm pitch, conductor outlet direction in 90° design.

- 0.50 - 16.0mm² (IEC) / 26 - 6 AWG (UL)
- 1000 V (IEC) / 300 V (UL)
- 76A (IEC) / 60 A (UL)

General ordering data

Type	LU 10.16/07/90 4.5SN BK BX
Order No.	1226250000
Version	PCB terminal, 10.16 mm, No. of poles: 7, 90°, Solder pin length (l): 4.5 mm, tinned, Black, Clamping yoke connection, Clamping range, rated connection, max.: 16 mm ² , Box
GTIN (EAN)	4050118010800
Qty.	20 pc(s).
Product data	IEC: 1000 V / 76 A / 0.5 - 16 mm ² UL: 300 V / 65 A / AWG 26 - AWG 6
Packaging	Box

OMNIMATE Power - series LU

LU 10.16/07/90 4.5SN BK BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 1429-0
 Fax: +49 5231 14292083
 www.weidmueller.com

Technical data

Dimensions and weights

Net weight	65.5 g
------------	--------

System parameters

Product family	OMNIMATE Power - series LU	Wire connection method	Clamping yoke connection
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	10.16 mm	Pitch in inches (P)	0.4 inch
No. of poles	7	Fitted by customer	Yes
Max. adjacent poles per row	10	Solder pin length (l)	4.5 mm
Solder pin dimensions	1.2 x 1.2 mm	Solder pin dimensions = d tolerance	0 / -0,15 mm
Solder eyelet hole diameter (D)	1.6 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
Number of solder pins per pole	2	Screwdriver blade	1.0 x 5.5
Screwdriver blade standard	DIN 5264	Tightening torque, min.	1.2 Nm
Tightening torque, max.	1.5 Nm	Clamping screw	M 4
Stripping length	12 mm	L1 in mm	60.96 mm
L1 in inches	2.4 inch	Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Volume resistance	0.50 mΩ

Material data

Insulating material	Wemid (PA)	Colour	Black
Colour chart (similar)	RAL 9011	Insulating material group	I
CTI	≥ 600	Insulation resistance	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	Contact material	E-Cu
Contact surface	tinned	Layer structure of solder connection	1.5-3 µm Ni / 4-6 µm Sn matt
Storage temperature, min.	-25 °C	Storage temperature, max.	55 °C
Max. relative humidity during storage	80 %	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, rated connection, min.	0.14 mm ²	Clamping range, rated connection, max.	16 mm ²
Wire connection cross section AWG, min.	AWG 22	Wire connection cross section AWG, max.	AWG 8
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	16 mm ²
Flexible, min. H05(07) V-K	0.5 mm ²	Flexible, max. H05(07) V-K	16 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, min.	2.5 mm ²	w. plastic collar ferrule, DIN 46228 pt 4, max.	10 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	2.5 mm ²	w. wire end ferrule, DIN 46228 pt 1, max.	10 mm ²
Plug gauge acc. to EN 60999 a x b; Ø	5.4 mm x 5.1 mm; 5.3 mm		

OMNIMATE Power - series LU
LU 10.16/07/90 4.5SN BK BX
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16

D-32758 Detmold

Germany

Fon: +49 5231 1429-0

Fax: +49 5231 14292083

www.weidmueller.com

Technical data
Rated data acc. to IEC

tested acc. to standard

IEC 60664-1, IEC 61984

Rated current, max. no. of poles (Ta = 20°C)

72 A

Rated current, max. no. of poles (Ta = 40°C)

62 A

Rated voltage for surge voltage class / pollution degree III/2

690 V

Rated impulse voltage for surge voltage class/ pollution degree II/2

4 kV

Rated impulse voltage for surge voltage class/ contamination degree III/3

6 kV

Rated current, min. no. of poles (Ta = 20°C)

76 A

Rated current, min. no. of poles (Ta = 40°C)

76 A

Rated voltage for surge voltage class / pollution degree II/2

1,000 V

Rated voltage for surge voltage class / pollution degree III/3

690 V

Rated impulse voltage for surge voltage class/ pollution degree III/2

6 kV

Short-time withstand current resistance

2 x 1s with 700 A

Rated data acc. to CSA

Institute (CSA)



Certificate No. (CSA)

200039-1198743

Rated voltage (Use group B)

300 V

Rated voltage (use group D)

300 V

Rated current (use group C)

65 A

Wire cross-section, AWG, min.

AWG 22

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C)

150 V

Rated current (use group B)

65 A

Rated current (use group D)

10 A

Wire cross-section, AWG, max.

AWG 6

Rated data acc. to UL 1059

Institute (UR)



Certificate No. (UR)

E60693

Rated voltage (use group B)

300 V

Rated voltage (use group D)

600 V

Rated current (use group C)

65 A

Wire cross-section, AWG, min.

AWG 26

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Rated voltage (use group C)

150 V

Rated current (use group B)

65 A

Rated current (use group D)

5 A

Wire cross-section, AWG, max.

AWG 6

Classifications

ETIM 3.0

EC001284

ETIM 5.0

EC002643

eClass 6.2

27-26-11-01

eClass 8.1

27-44-04-01

eClass 9.1

27-44-04-01

ETIM 4.0

EC002643

ETIM 6.0

EC002643

eClass 7.1

27-44-04-01

eClass 9.0

27-44-04-01

OMNIMATE Power - series LU

LU 10.16/07/90 4.5SN BK BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 1429-0
 Fax: +49 5231 14292083
www.weidmuller.com

Technical data

Notes

Notes

- Additional colours 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.

IPC conformity

The products are developed, manufactured and delivered according to the internationally recognised IPC-A-610 standard, category "permissible". More extensive demands on the products can be evaluated on request.

Approvals

Approvals



ROHS

Conform

Downloads

Approval/Certificate/Document of Conformity

[Declaration of the Manufacturer](#)

Brochure/Catalogue

[FL DRIVES EN](#)
[MB DEVICE MANUF. EN](#)
[FL DRIVES DE](#)
[CAT 2 PORTFOLIOGUIDE EN](#)
[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

[EPLAN, WSCAD](#)

Motion controllers white paper

[Download Whitepaper](#)

White Paper UL 600 V

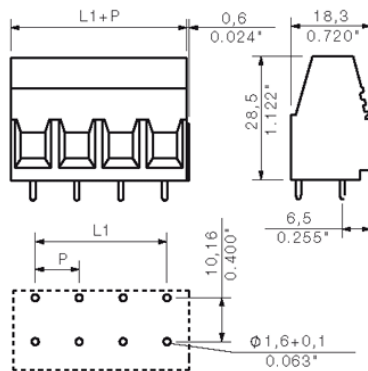
[Download Whitepaper](#)

OMNIMATE Power - series LU LU 10.16/07/90 4.5SN BK BX

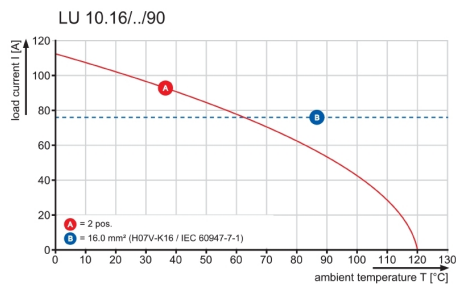
Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 1429-0
Fax: +49 5231 14292083
www.weidmueller.com

Drawings

Dimensional drawing



Graph



Recommended wave soldering 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.

We reserve the right to make technical changes.