OMNIMATE Power - series LU
LUFS 10.00/05/180V 5.0SN BK BX

Weidmüller Interface GmbH & Co. KG
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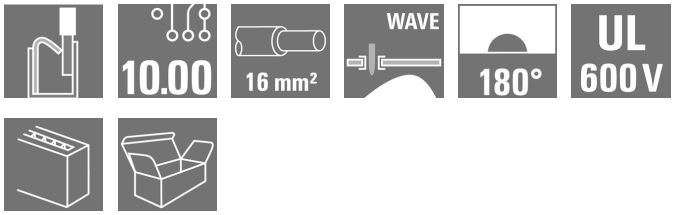

High-performance PCB terminal with a PUSH IN connection system for conductor cross-sections up to 16 mm².

- Fast connection without tools thanks to pushers to open the contact point, or direct plug-in method
- Securely closed contact point, with the "Connection Safety Concept" the conductor is always clamped securely
- Integrated test point for PS 2.0 test plug
- Central tip test point for test probes on the upper side of the terminal
- Increased derating reserves because WEMID insulating material is used.
- Conductor outlet direction of 180°

General ordering data

Type	LUFS 10.00/05/180V 5.0SN BK BX
Order No.	2492140000
Version	PCB terminal, 10.00 mm, No. of poles: 5, 180°, Solder pin length (l): 5 mm, tinned, Black, PUSH IN, Clamping range, max. : 16 mm², Box
GTIN (EAN)	4050118559873
Qty.	25 pc(s).
Product data	IEC: 1000 V / 76 A / 0.5 - 16 mm² UL: 600 V / 57 A / AWG 18 - AWG 4
Packaging	Box

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Technical data

Dimensions and weights

Net weight	40.899 g

System parameters

Product family	OMNIMATE Power - series LU	Wire connection method	PUSH IN
Mounting onto the PCB	THT solder connection	Conductor outlet direction	180°
Pitch in mm (P)	10 mm	Pitch in inches (P)	0.394 inch
No. of poles	5	Fitted by customer	No
Solder pin length (l)	5 mm	Solder pin dimensions	d = 1.2 mm, Octagonal
Solder eyelet hole diameter (D)	1.6 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
Number of solder pins per pole	3	Screwdriver blade	0.8 x 4.0
Stripping length	18 mm	L1 in mm	40 mm
L1 in inches	1.575 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		

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 base material	E-Cu
Contact surface	tinned	Layer structure of solder connection	4-10 µm Sn matt
Storage temperature, min.	-25 °C	Storage temperature, max.	55 °C
Max. relative humidity during storage	80 %	Operating temperature, min.	-40 °C
Operating temperature, max.	120 °C		

Conductors suitable for connection

Clamping range, min.	0.5 mm²	Clamping range, max.	16 mm²
Wire connection cross section AWG, min.	AWG 18	Wire connection cross section AWG, max.	AWG 4
Solid, min. H05(07) V-U	0.5 mm²	Solid, max. H05(07) V-U	16 mm²
Stranded, min. H07V-R	6 mm²	Stranded, max. H07V-R	16 mm²
Flexible, min. H05(07) V-K	0.5 mm²	Flexible, max. H05(07) V-K	16 mm²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.5 mm²	w. plastic collar ferrule, DIN 46228 pt 4, max.	16 mm²
w. wire end ferrule, DIN 46228 pt 1, min	0.5 mm²	w. wire end ferrule, DIN 46228 pt 1, max.	16 mm²
Plug gauge acc. to EN 60999 a x b; Ø	5.4 mm x 5.1 mm; 5.3 mm		

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Rated data acc. to IEC

tested acc. to standard	IEC 60947-7-4	Rated current, min. no. of poles (Tu=20°C)	76 A
Rated current, max. no. of poles (Tu=20°C)	76 A	Rated current, min. no. of poles (Tu=40°C)	76 A
Rated current, max. no. of poles (Tu=40°C)	67 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		

Rated data acc. to CSA

Rated voltage (Use group B)	600 V	Rated voltage (Use group C)	600 V
Rated voltage (use group D)	600 V	Rated current (use group B)	57 A
Rated current (use group C)	57 A	Rated current (use group D)	5 A
Wire cross-section, AWG, min.	AWG 18	Wire cross-section, AWG, max.	AWG 4

Rated data acc. to UL 1059

Institute (cURus)	c US	Certificate No. (cURus)	E60693
Rated voltage (use group B)	600 V	Rated voltage (use group C)	600 V
Rated voltage (use group D)	600 V	Nominal voltage (use group F)	1,000 V
Rated current (use group B)	57 A	Rated current (use group C)	57 A
Rated current (use group D)	5 A	Nominal current (use group F)	57 A
Wire cross-section, AWG, min.	AWG 18	Wire cross-section, AWG, max.	AWG 4
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Classifications

ETIM 3.0	EC001284	ETIM 4.0	EC002643
ETIM 5.0	EC002643	ETIM 6.0	EC002643
eClass 6.2	27-26-11-01	eClass 9.1	27-44-04-01

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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. • The test point can only be used as potential-pickup point.
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.

Approvals

Approvals	

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	STEP
Motion controllers white paper	Download Whitepaper
White Paper UL 600 V	Download Whitepaper

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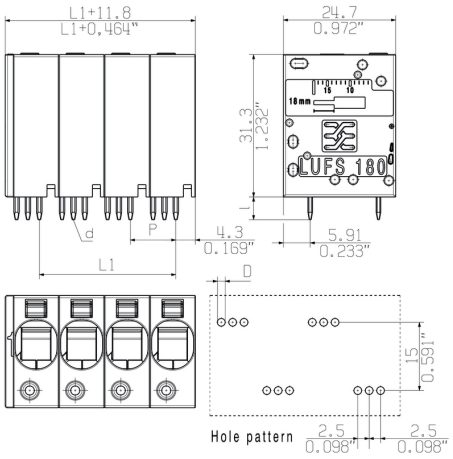
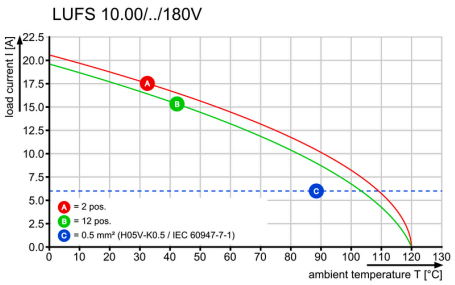
Drawings

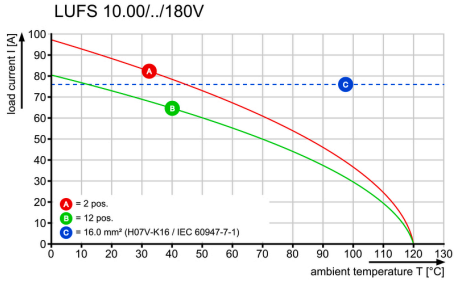
Dimensional drawing



Derating curve



Derating curve



Wave Solder Profile

Recommended wave solderding profiles

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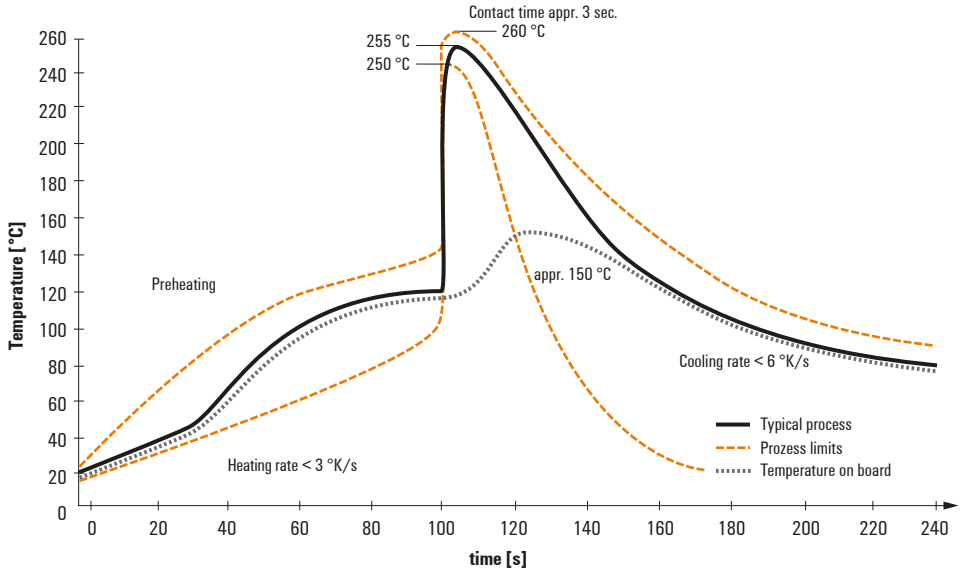
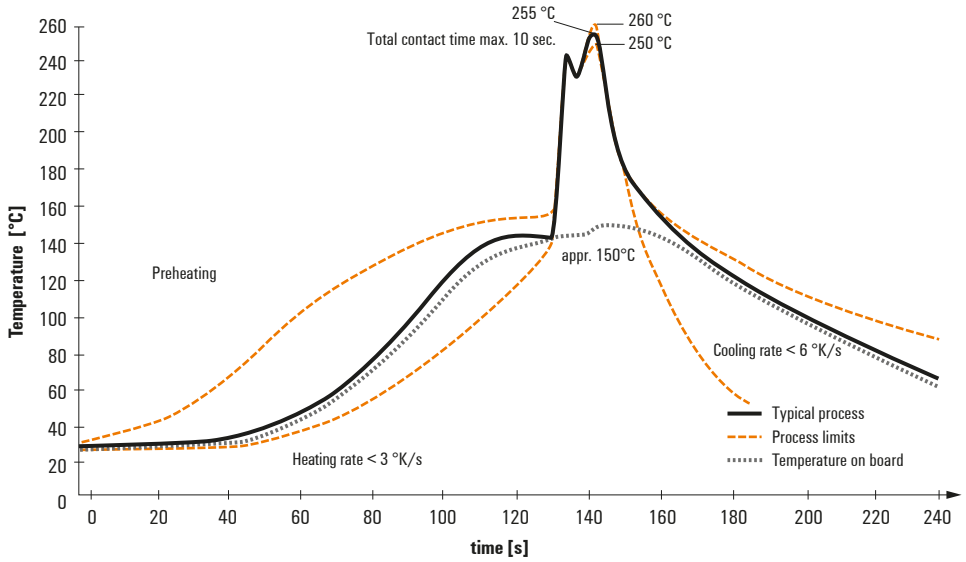
Single Wave:



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.