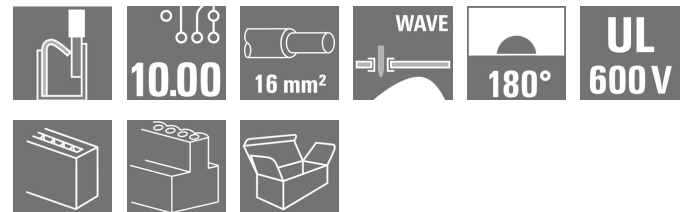


OMNIMATE Power - series LU
LUFS 10.00/01/180 5.0SN BK BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com



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 10.00/01/180 5.0SN BK BX
Order No.	2491810000
Version	PCB terminal, 10.00 mm, No. of poles: 1, 180°, Solder pin length (l): 5 mm, Black, PUSH IN, Clamping range, max.: 16 mm ² , Box
GTIN (EAN)	4050118545968
Qty.	50 pc(s).
Product data	IEC: 1000 V / 76 A / 0.5 - 16 mm ² UL: 600 V / 57 A / AWG 18 - AWG 4
Packaging	Box

OMNIMATE Power - series LU
LUFS 10.00/01/180 5.0SN BK BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

Technical data**Dimensions and weights**

Width	11.58 mm	Width (inches)	0.456 inch
Height	36.3 mm	Height (inches)	1.429 inch
Height of lowest version	31.3 mm	Depth	24.7 mm
Depth (inches)	0.972 inch	Net weight	9.863 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	1	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	6	Screwdriver blade	0.8 x 4.0
Stripping length	18 mm	L1 in mm	0 mm
L1 in inches	0 inch	Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
Touch-safe protection acc. to DIN VDE 57 106	touch-safe with connected connectors from 6 mm ²		

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
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 mm ²	Clamping range, max.	16 mm ²
Wire connection cross section AWG, min.	AWG 18	Wire connection cross section AWG, max.	AWG 4
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.	0.5 mm ²	w. plastic collar ferrule, DIN 46228 pt 4, max.	16 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm ²	w. wire end ferrule, DIN 46228 pt 1, max.	16 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
LUFS 10.00/01/180 5.0SN BK BX**

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com


Technical data**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)	76 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)		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 E)	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 E)	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.		

Packaging

Packaging	Box	Packaging unit (VPE) length	170 MMT
Packaging unit (VPE) width	120 MMT	Packaging unit (VPE) height	50 MMT

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

Data sheet

**OMNIMATE Power - series LU
LUFS 10.00/01/180 5.0SN BK BX**

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Technical data

Notes

- | | |
|-------|--|
| Notes | <ul style="list-style-type: none"> • 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

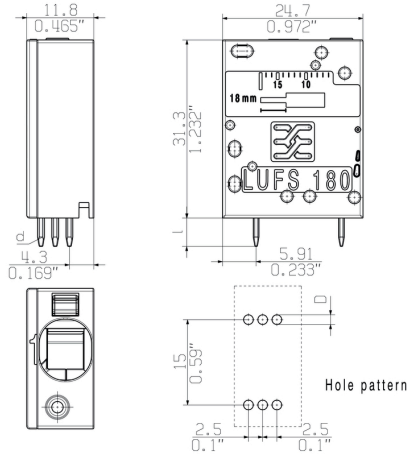
Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	STEP
Motion controllers white paper	Download Whitepaper
White Paper UL 600 V	Download Whitepaper

OMNIMATE Power - series LU
LUFS 10.00/01/180 5.0SN BK BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

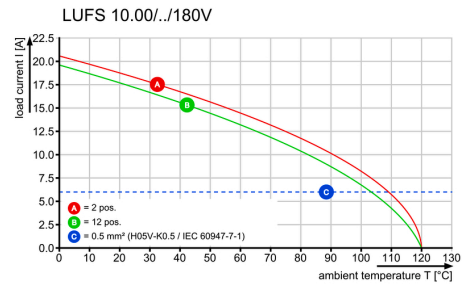
Drawings

Dimensional drawing

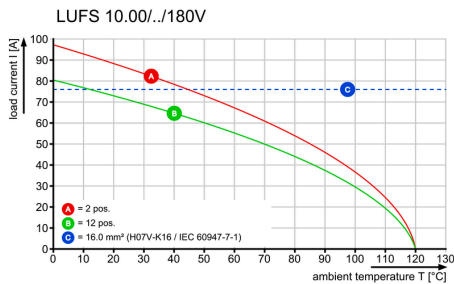


Graph

Derating curve



Derating curve



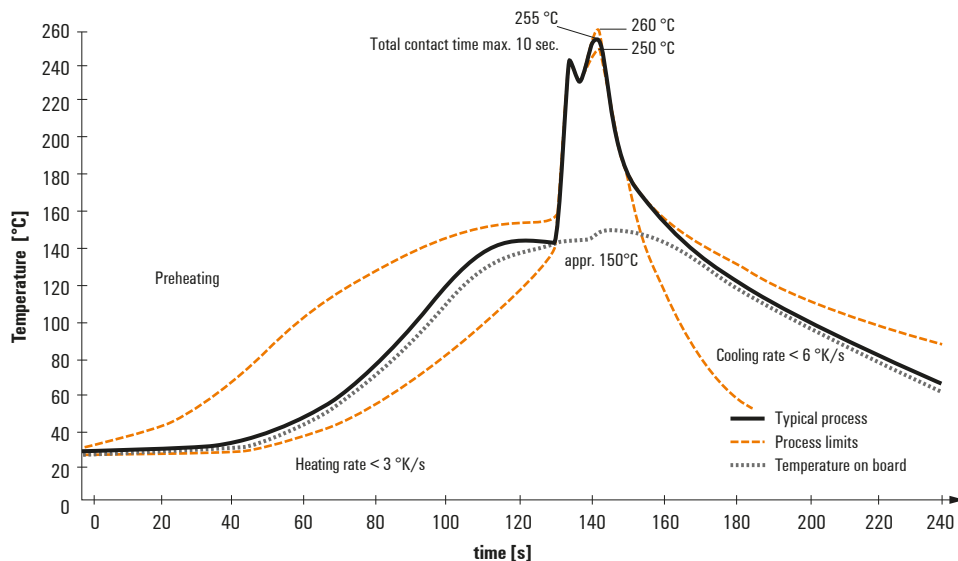
Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG
 Klängenbergstraße 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.