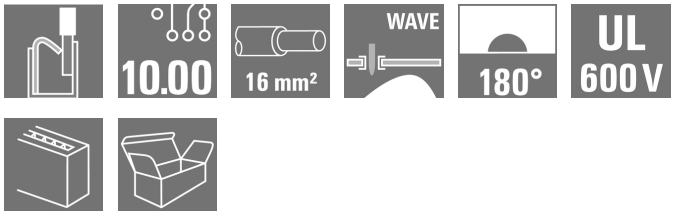
OMNIMATE Power - series LU
LUFS 10.00/12/180V 5.0SN BK BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Product image

Similar to illustration



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 10.00/12/180V 5.0SN BK BX
Order No.	2492210000
Version	Printed circuit board terminals, 10.00 mm, Number of poles: 12, 180°, Solder pin length (l): 5 mm, tinned, black, PUSH IN, Clamping range, max. : 16 mm², Box
GTIN (EAN)	4050118559934
Qty.	10 pc(s).
Product data	IEC: 1000 V / 76 A / 0.5 - 16 mm² UL: 600 V / 57 A / AWG 18 - AWG 4
Packaging	Box

Creation date May 2, 2020 10:01:44 AM CEST

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Technical data

Dimensions and weights

Width	121.58 mm	Width (inches)	4.787 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	96.874 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
Number of poles	12	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	2	Screwdriver blade	0.8 x 4.0
Stripping length	18 mm	L1 in mm	110 mm
L1 in inches	4.331 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 of operational elements	orange	Material of operational elements	PA4T GF
Colour chart (similar)	RAL 9011	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	Insulation strength	≥ 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.	50 °C
Max. relative humidity during storage	70 %	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

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Technical data

Plug gauge in accordance with EN 60999 a x b; ø	5.4 mm x 5.1 mm; 5.3 mm		
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	2.5 mm²
	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 mm²
	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 mm²
	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 mm²
	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 mm²
	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 mm²
	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
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)		
Max. clamping range	16 mm²		

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Technical data

Rated data acc. to IEC

tested acc. to standard	IEC 60947-7-4	Rated current, min. number of poles (Tu=20°C)	76 A
Rated current, max. number of poles (Tu=20°C)	76 A	Rated current, min. number of poles (Tu=40°C)	76 A
Rated current, max. number 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 / 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)	57 A
Rated current (Use group C / CSA)	57 A	Rated current (Use group D / CSA)	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 / UL 1059)	600 V	Rated voltage (Use group C / UL 1059)	600 V
Rated voltage (Use group D / UL 1059)	600 V	Rated voltage (Use group F / UL 1059)	1,000 V
Rated current (Use group B / UL 1059)	57 A	Rated current (Use group C / UL 1059)	57 A
Rated current (Use group D / UL 1059)	5 A	Rated current (Use group F / UL 1059)	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.		

Packing

Packaging	Box	VPE length	0 m
VPE width	0 m	VPE height	0 m

Classifications

ETIM 6.0	EC002643	ETIM 7.0	EC002643
eClass 9.0	27-44-04-01	eClass 9.1	27-44-04-01
eClass 10.0	27-44-04-01		

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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. • 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	c UL us

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	STEP
White paper power electronics connected correctly	Download Whitepaper
User Documentation	QR-Code product handling video
White paper UL 600 V	Download Whitepaper

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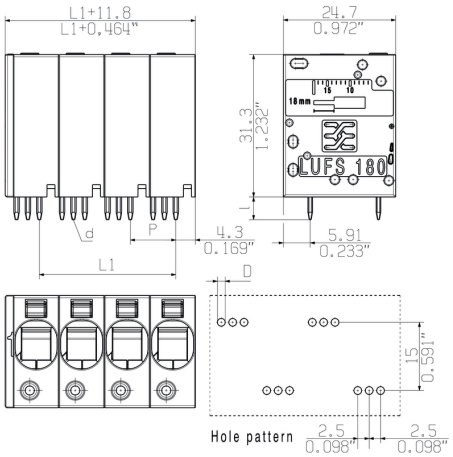
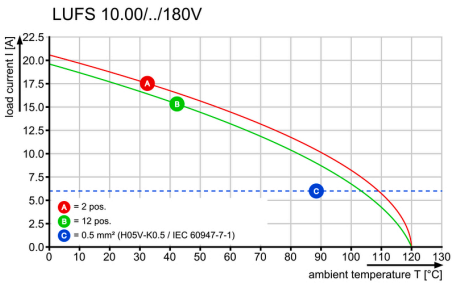
Drawings

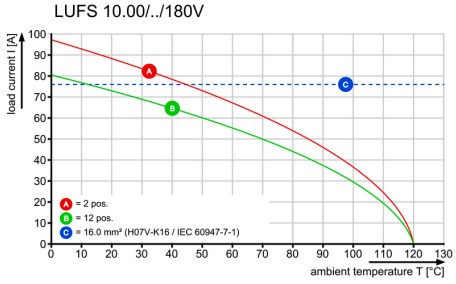
Dimensional drawing



Derating curve



Derating curve



Product benefits

Power up to UL 600 V
Offset solder pins

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Accessories

Slotted screwdriver

Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

General ordering data

Type	SDS 0.8X4.0X100	Version
Order No.	9008340000	Screwdriver, Blade width (B): 4 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4032248056293	thickness (A): 0.8 mm
Qty.	1 pc(s).	

Additional accessories

No task is too small when creating the perfect solution.
Connections form just one part of the overall process. Small details are often the key to the perfect solution in applications where potentials are tested, grouped or even isolated.
A system is not a system without small but essential details:
- Test plugs ensure reliable pick-up from diagnostic sockets

In tandem with the manufacturing process and application.

General ordering data

Type	PS 2.0 MC	Version	Product data	Packaging
Order No.	0310000000	PCB plug-in connector, Accessories, Test plug, red, Number of poles: 1		Box
GTIN (EAN)	4008190000059			
Qty.	20 pc(s).			

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Accessories

Slotted screwdriver

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

Type	SDIS 0.8X4.0X100	Version
Order No.	9008400000	Screwdriver, Blade width (B): 4 mm, Blade length: 100 mm, Blade
GTIN (EAN)	4032248056361	thickness (A): 0.8 mm
Qty.	1 pc(s).	

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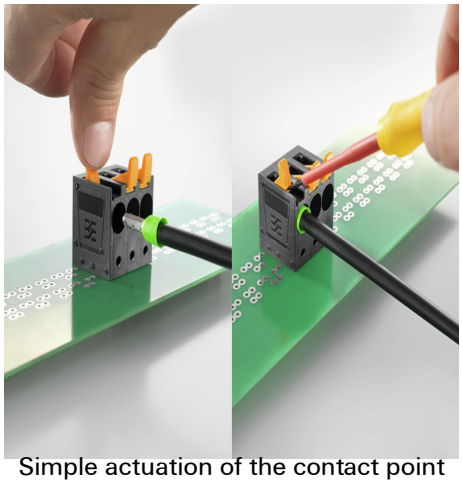
Drawings

Product benefits



Simple actuation of the contact point

Wave Solder Profile

Recommended wave solderding profiles

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
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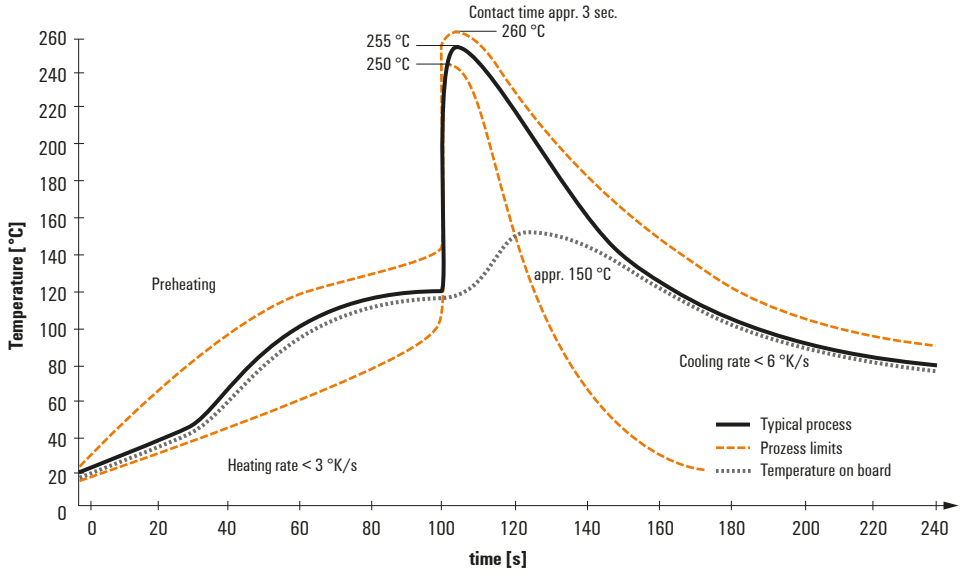
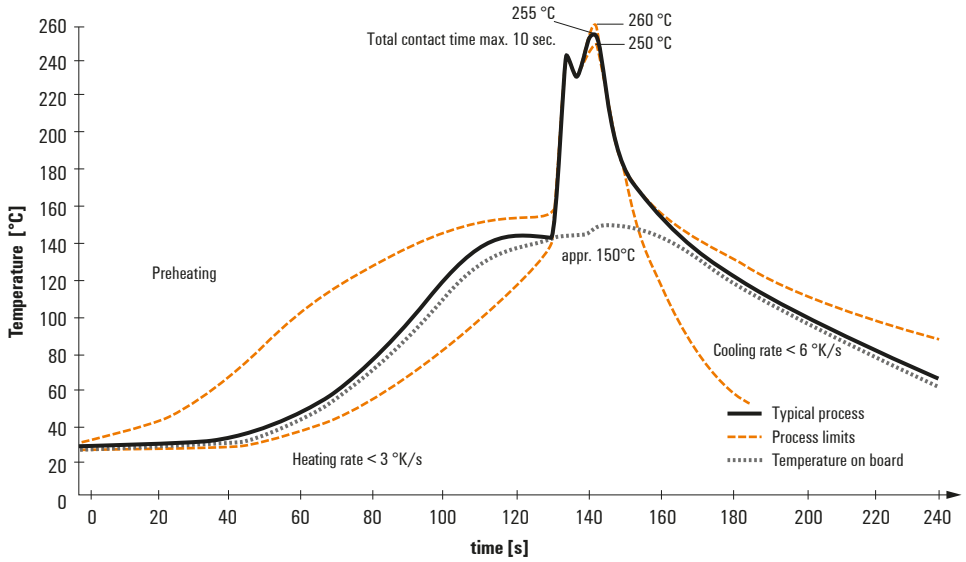
Single Wave:



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.