

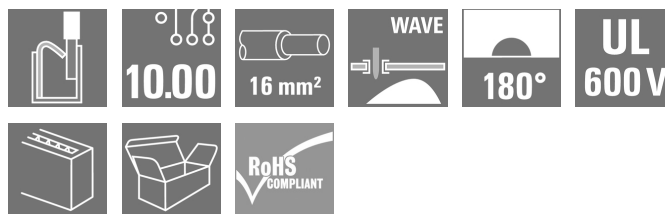
LUFS 10.00/05/180V 5.0SN BK BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

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

Version	Printed circuit board terminals, 10.00 mm, Number of poles: 5, 180°, Solder pin length (l): 5 mm, tinned, black, PUSH IN with actuator, Clamping range, max. : 16 mm ² , Box
Order No.	2492140000
Type	LUFS 10.00/05/180V 5.0SN BK BX
GTIN (EAN)	4050118559873
Qty.	25 pc(s).
Product data	IEC: 1000 V / 101 A / 0.5 - 16 mm ² UL: 600 V / 57 A / AWG 18 - AWG 4
Packaging	Box

Creation date November 7, 2024 7:44:47 AM CET

LUFS 10.00/05/180V 5.0SN BK BX
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

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Technical data
Dimensions and weights

Depth	24.7 mm	Depth (inches)	0.972 inch
Height	36.3 mm	Height (inches)	1.429 inch
Height of lowest version	31.3 mm	Width	51.58 mm
Width (inches)	2.031 inch	Net weight	40.899 g

System parameters

Product family	OMNIMATE Power - series LU	Wire connection method	PUSH IN with actuator
Mounting onto the PCB	THT solder connection	Conductor outlet direction	180°
Pitch in mm (P)	10 mm	Pitch in inches (P)	0.394 "
Number of poles	5	Pin series quantity	1
Fitted by customer	No	Number of rows	1
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	40 mm
L1 in inches	1.575 "	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	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 base material	E-Cu	Contact material	Cu-alloy
Contact surface	tinned	Layer structure of solder connection	4...10 µm Sn matt
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
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, 0.5 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 16 mm ² max.	
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 in accordance with EN 60999 a x b; ø	5.4 mm x 5.1 mm; 5.3 mm

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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
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)		

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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)	101 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)	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 / 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)		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	272 mm
VPE width	169 mm	VPE height	44 mm

Type tests

Test: Durability of markings	Standard	IEC 60947-1 section 8.2.4.5.1 / 06.07, IEC 60512-1-1:2002-02
	Test	mark of origin, type identification, pitch, durability, stripping length
	Evaluation	available

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Test: Clampable cross section	Standard	IEC 60999-1 section 7 and 9.1 / 11.99, IEC 60947-1 section 8.2.4.5.1 / 03.11	
	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 stranded 16 mm ² conductor cross-section	
		Type of conductor and H07V-U16 conductor cross-section	
		Type of conductor and H07V-U6 conductor cross-section	
		Type of conductor and H07V-K16 conductor cross-section	
		Type of conductor and AWG 4 conductor cross-section	
	Evaluation	passed	
Test for damage to and accidental loosening of conductors	Standard	IEC 60999-1 section 9.4 / 11.99	
	Requirement	0.3 kg	
	Conductor type	Type of conductor and AWG 20/1 conductor cross-section	
		Type of conductor and AWG 20/19 conductor cross-section	
		Type of conductor and H05V-U0.5 conductor cross-section	
		Type of conductor and H05V-K0.5 conductor cross-section	
	Evaluation	passed	
	Requirement	2.9 kg	
	Conductor type	Type of conductor and H07V-U16 conductor cross-section	
		Type of conductor and H07V-K16 conductor cross-section	
	Evaluation	passed	
	Requirement	4,5 kg	
	Conductor type	Type of conductor and AWG 4/7 conductor cross-section	
		Type of conductor and AWG 4/19 conductor cross-section	
	Evaluation	passed	

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Technical data

Pull-out test	Standard	IEC 60999-1 section 9.5 / 11.99
	Requirement	≥20 N
	Conductor type	Type of conductor and AWG 20/1 conductor cross-section
		Type of conductor and AWG 20/19 conductor cross-section
		Type of conductor and H05V-U0.5 conductor cross-section
		Type of conductor and H05V-K0.5 conductor cross-section
	Evaluation	passed
	Requirement	≥100 N
	Conductor type	Type of conductor and H07V-U16 conductor cross-section
		Type of conductor and H07V-K16 conductor cross-section
	Evaluation	passed
	Requirement	≥ 135 N
	Conductor type	Type of conductor and AWG 4/7 conductor cross-section
		Type of conductor and AWG 4/19 conductor cross-section
	Evaluation	passed

Classifications

ETIM 6.0	EC002643	ETIM 7.0	EC002643
ETIM 8.0	EC002643	ETIM 9.0	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		

Environmental Product Compliance

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

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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. • The test point can only be used as potential-pickup point. • The single-position PCB terminal block can be used for voltages up to 1500 V (DC) and 1000 V (AC). The relevant device standard and the appropriate required clearances and creepage distances should be observed in the application • Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Product Change Notification	20210909 Color Change of Actuator to LLF(S) and LUF(S) Family 20210909 LLF(S) und LUF(S) Familie - Farbänderung des Betätigungselementes
User Documentation	QR-Code product handling video Assembly instruction_Montageanleitung_LLFS_LUFS_EN_DE
Catalogues	Catalogues in PDF-format

www.weidmueller.com

A black 4-port RJ45 patch panel. It has four RJ45 ports on the front face, each with a white plastic insert. The panel is labeled on the side with 'RJ45 10/100', 'RJ45 10/100', and 'RJ45 10/100'. There is also a small logo and some text on the side.

Technical drawing of the LUFS 180 device, showing front, top, and side views with dimensions in inches and millimeters.

Front View Dimensions:

- Overall width: $L1 + 11.8$ inches / $L1 + 0.464$ inches
- Overall height: 31.3 inches / 1.232 inches
- Pin pitch: 4.3 inches / 0.169 inches
- Pin diameter: 0.098 inches
- Pin spacing: 5.91 inches / 0.233 inches

Top View Dimensions:

- Overall width: 24.7 inches / 0.972 inches
- Overall height: 15 inches / 0.591 inches
- Pin pitch: 2.5 inches / 0.098 inches

Side View Dimensions:

- Overall width: 11.8 inches / 0.464 inches
- Overall height: 31.3 inches / 1.232 inches

Labels:

- LUFS 180
- 18mm
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LUF5 1000L/180V
Reduction factor: 1.0

Y-axis: load current I [A]
X-axis: ambient temperature T [°C]

Legend:

- Red circle: 2 pos.
- Green circle: 12 pos.
- Blue circle: 0.5 mm³ (H05V-K0.5 / EN 60947-7-1)

The graph shows two curves representing the maximum load current as a function of ambient temperature. The upper curve is for a reduction factor of 1.0, and the lower curve is for a reduction factor of 0.5. The curves show that the load current decreases as the ambient temperature increases. The data points for the 2 pos. and 12 pos. configurations are plotted on the curves, and the data point for the 0.5 mm³ configuration is plotted on the lower curve.

Ambient Temperature T [°C]	Load Current I [A] (Reduction factor 1.0)	Load Current I [A] (Reduction factor 0.5)
30	22	19
40	20	17
95	10	6
120	0	0

LUF5 1000L/180V
Reduction factor: 1.0

Y-axis: load current I [A]
X-axis: ambient temperature T [°C]

Legend:

- 2 pos (Red circle)
- 12 pos (Green circle)
- 16 pos (Blue circle)

Additional label: 16.0mm³ (H07V-K16 / IEC 60947-7-1)

Ambient Temperature T [°C]	Load Current I [A] (2 pos)	Load Current I [A] (12 pos)	Load Current I [A] (16 pos)
0	125	100	100
35	105	82	82
70	85	65	65
100	65	45	45
125	25	10	10
130	0	0	0

Figure 10 is a line graph showing the relationship between Load Current (I_A) in Amperes [A] on the Y-axis and Ambient Temperature (T) in degrees Celsius [°C] on the X-axis. The Y-axis ranges from 0 to 200 A, and the X-axis ranges from 0 to 130 °C. The graph is titled "LUFS 10.00./180V" and "Reduction factor: 1.0".

Three curves are plotted, representing different reduction factors:

- ≥ 2 pos. (Red curve): Starts at approximately 150 A at 0 °C and decreases to approximately 100 A at 120 °C.
- ≥ 12 pos. (Green curve): Starts at approximately 110 A at 0 °C and decreases to approximately 100 A at 120 °C.
- $\geq 25.0\text{mm}^3$ (IH07V-K25 / IEC 60947-7-1) (Blue curve): A horizontal dashed line at 100 A.

Key data points are marked on the curves:

- Red dot on the red curve at approximately 35 °C and 130 A.
- Green dot on the green curve at approximately 45 °C and 100 A.
- Blue dot on the blue curve at approximately 100 °C and 100 A.

A yellow and black Würth Elektronik 5E power supply unit is shown in the foreground. The unit has a black side panel with vertical cooling fins and a yellow front panel. The front panel features the Würth Elektronik logo and the model number 5E. Below the logo, there are several ports and connectors, including a DC output port and a ground terminal. The unit is placed on a white surface. In the background, a person is working on a circuit board in a laboratory setting.

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LUFS 10.00/05/180V 5.0SN BK BX**Weidmüller Interface GmbH & Co. KG**

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www.weidmueller.com**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, Screwdriver
GTIN (EAN)	4032248056361	
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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www.weidmueller.com**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, Screwdriver
GTIN (EAN)	4032248056293	
Qty.	1 pc(s).	

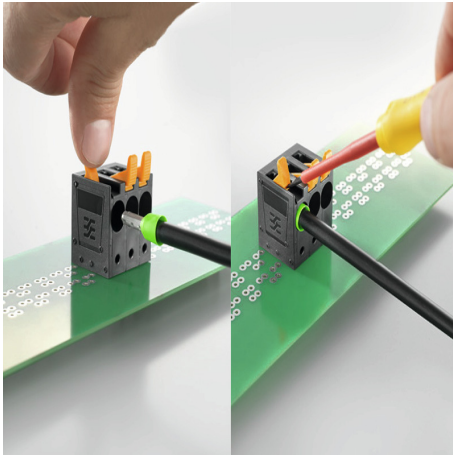
LUFS 10.00/05/180V 5.0SN BK BX

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Drawings

Product benefits



Simple actuation of the contact point

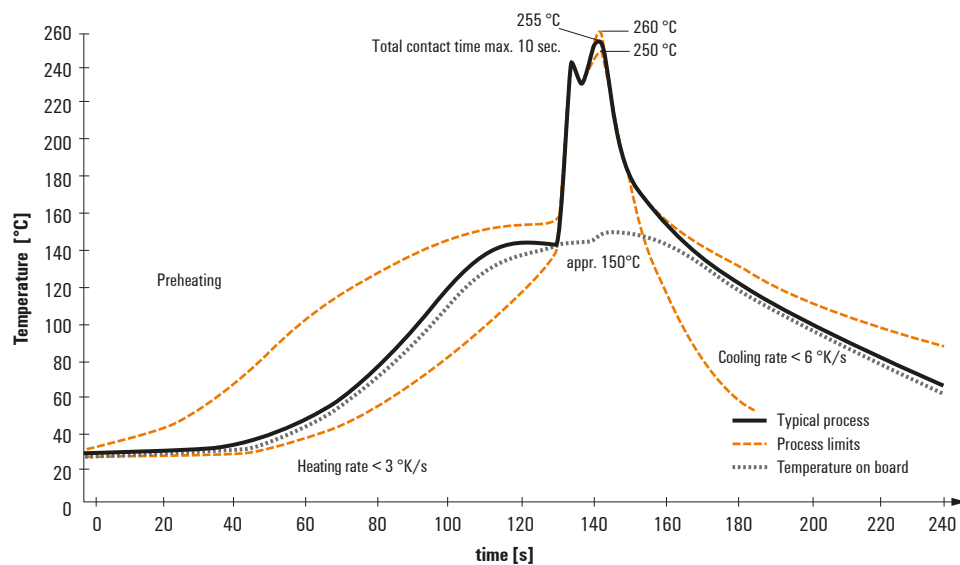
Recommended wave soldering profiles

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Germany
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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.

We reserve the right to make technical changes.