

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com







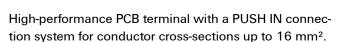








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- Fast connection without tools thanks to pushers to open the contact point, or direct plug-in method
- Securely closed contact point, with the "Connection Safety Concept" the conductor is always clamped securely
- Integrated test point for PS 2.0 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: 1, 90°, Solder pin length (I): 5 mm, black, PUSH IN without actuator, Clamping range, max.: 16 mm², Box	
Order No.	<u>2500560000</u>	
Туре	LUFS 10.00/01/90 5.0SN BK BX	
GTIN (EAN)	4050118594577	
Qty.	50 items	
Product data	IEC: 1000 V / 76 A / 0.5 - 25 mm <sup>2</sup> UL: 1000 V / 53 A / AWG 18 - AWG 4	
Packaging	Вох	







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# **Technical data**

Ap	proval	s
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Approvals	c <b>FL</b> us
ROHS	Conform
UL File Number Search	<u>UL Website</u>
Certificate No. (cURus)	E60693

### **Dimensions and weights**

Depth	28.55 mm	Depth (inches)	1.124 inch
Height	35 mm	Height (inches)	1.378 inch
Height of lowest version	30 mm	Width	11.8 mm
Width (inches)	0.4646 inch	Net weight	9.6 g

### **Environmental Product Compliance**

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

#### **System parameters**

Product family	OMNIMATE Power - series LU	Wire connection method	PUSH IN without actuator
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	10.00 mm	Pitch in inches (P)	0.394 "
Number of poles	1	Pin series quantity	1
Fitted by customer	No	Number of rows	1
Solder pin length (I)	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	4	Screwdriver blade	0.8 x 4.0
Stripping length	18 mm	L1 in mm	0.00 mm
L1 in inches	0.000 "	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 <sup>2</sup>	Protection degree	IP20

#### **Material data**

Insulating material	Wemid (PA)	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	1
Comparative Tracking Index (CTI)	≥ 600	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact base material	E-Cu
Contact material	Cu-alloy	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 <sup>2</sup>
Clamping range, max.	16 mm <sup>2</sup>
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 <sup>2</sup>
Solid, max. H05(07) V-U	16 mm <sup>2</sup>

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tranded, min. H07V-R	6 mm <sup>2</sup>		
tranded, max. H07V-R	25 mm <sup>2</sup>		
exible, min. H05(07) V-K	0.5 mm <sup>2</sup>		
exible, max. H05(07) V-K	25 mm <sup>2</sup>		
. plastic collar ferrule, DIN 46228 pt in.	4, 0.5 mm²		
. plastic collar ferrule, DIN 46228 pt	4. 16 mm²		
ax.	,		
. wire end ferrule, DIN 46228 pt 1,	0.5 mm <sup>2</sup>		
in.			
. wire end ferrule, DIN 46228 pt 1, ax.	16 mm²		
ug gauge in accordance with EN 0999 a x b; ø	5.3mm (B6)		
ampable conductor	Cross-section for conductor connection	Туре	fine-wired
·		nominal	2.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 20 mm
		Recommended wire- end ferrule	H2,5/25D BL
		Stripping length	nominal 18 mm
		Recommended wire-	H2,5/18
		end ferrule	
	Cross-section for conductor connection	Туре	fine-wired
		nominal	4 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 20 mm
		Recommended wire- end ferrule	H4,0/26D GR
		Stripping length	nominal 18 mm
		Recommended wire-	H4,0/18
		end ferrule	
	Cross-section for conductor connection	Туре	fine-wired
		nominal	6 mm <sup>2</sup>
	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	Туре	fine-wired
		nominal	10 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 21 mm
		Recommended wire-	H10,0/28 EB
		end ferrule	
		Stripping length	nominal 18 mm
		Recommended wire- end ferrule	H10,0/18
	Cross-section for conductor connection	Туре	fine-wired
	Closs section for conductor connection	nominal	16 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 21 mm
		Recommended wire-	H16,0/28 GN
		end ferrule	
		Stripping length	nominal 18 mm
		Recommended wire- end ferrule	H16,0/18
	Cross-section for conductor connection	Туре	fine-wired
	Closs section for conductor connection	nominal	1.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 20 mm
		Recommended wire-	H1,5/24 R
		end ferrule	
		Stripping length	nominal 18 mm





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		Recommended wire end ferrule	
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)		
Rated data acc. to IEC			
tested acc. to standard	IEC 60947-7-4	Rated current, min. number of poles	76 A
Rated current, max. number of poles (Tu=20°C)	76 A	(Tu=20°C) 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	1000 V
Rated voltage for surge voltage class / pollution degree III/2	1000 V	Rated voltage for surge voltage class / pollution degree III/3	1000 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	8 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)	53 A
Rated current (Use group C / CSA)	53 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	OUDLIG	O CC + N / HD )	F00000
Institute (cURus)	CURUS	Certificate No. (cURus) E60693	
Rated voltage (Use group B / UL 1059)		Rated voltage (Use group C / UL 1059) 600 V  Rated voltage (Use group E / UL 1059) 1000 V	
Rated voltage (Use group D / UL 1059)			
Rated current (Use group B / UL 1059)		Rated current (Use group C / UL 1059)	
Rated current (Use group D / UL 1059)	5 A AWG 18	Rated current (Use group E / UL 1059)	53 A
Wire cross-section, AWG, min. Reference to approval values	Specifications are maximum values, details - see approval certificate.	Wire cross-section, AWG, max.	AWG 4
Packing			
			107.00
Packaging	Box	VPE length	167.00 mm
VPE width	123.00 mm	VPE height	52.00 mm
Type tests			
Test: Durability of markings	Standard	60512-1-1:2002-02	8.2.4.5.1 / 06.07, IEC
	Test	mark of origin, type i durability, stripping le	
	Evaluation	available	
Test: Clampable cross section	Standard	60947-1 section 8.2	
	Conductor type	Type of conductor and conductor cross	solid 0.5 mm <sup>2</sup>

Catalogue status / Drawings 4

section

section

Type of conductor

and conductor cross-

stranded 0.5 mm<sup>2</sup>

# Weidmüller **₹**

# **LUFS 10.00/01/90 5.0SN BK BX**

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# **Technical data**

		Type of conductor solid 16 mm <sup>2</sup> and conductor cross-section	
		Type of conductor stranded 16 mn and conductor cross-section	n²
		Type of conductor H07V-U16 and conductor cross-section	
		Type of conductor H07V-U6 and conductor cross-section	
		Type of conductor H07V-K16 and conductor cross-section	
		Type of conductor AWG 4 and conductor cross-section	
	Evaluation	passed	
est for damage to and accidental posening of conductors	Standard Requirement	IEC 60999-1 section 9.4 / 11.99 0.3 kg	
	Conductor type	Type of conductor AWG 20/1 and conductor cross-section	
		Type of conductor AWG 20/19 and conductor cross-section	
		Type of conductor H05V-U0.5 and conductor cross-section	
		Type of conductor H05V-K0.5 and conductor cross-section	
	Evaluation	passed	
	Requirement	2.9 kg	
	Conductor type	Type of conductor H07V-U16 and conductor cross-section	
		Type of conductor H07V-K16 and conductor cross-section	
	Evaluation	passed	
	Requirement	4,5 kg	
	Conductor type	Type of conductor AWG 4/7 and conductor cross-section	
		Type of conductor AWG 4/19 and conductor cross-section	
	Evaluation	passed	
ull-out test	Standard	IEC 60999-1 section 9.5 / 11.99	
	Requirement	≥20 N	
	Conductor type	Type of conductor AWG 20/1 and conductor cross-section	
		Type of conductor AWG 20/19 and conductor cross-section	
		Type of conductor H05V-U0.5 and conductor cross-section	
		Type of conductor H05V-K0.5 and conductor cross-section	_



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# **Technical data**

**LUFS 10.00/01/90 5.0SN BK BX** 

Evaluation	passed		
Requirement	≥100 N		
Conductor type	Type of conductor H07V-U16 and conductor cross-section		
	Type of conductor H07V-K16 and conductor cross-section		
Evaluation	passed		
Requirement	≥ 135 N		
Conductor type	Type of conductor AWG 4/7 and conductor cross-section		
	Type of conductor AWG 4/19 and conductor cross- section		
Evaluation	passed		

### 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

- · 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
- $\bullet$  Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

#### Classifications

	·		
ETIM 6.0	EC002643	ETIM 7.0	EC002643
ETIM 8.0	EC002643	ETIM 9.0	EC002643
ETIM 10.0	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
ECLASS 15.0	27-46-01-01		



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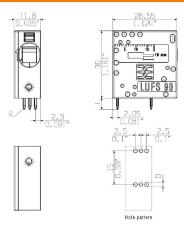
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# **Drawings**

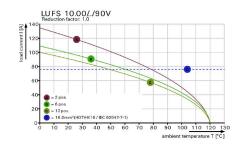
### **Product image**



### **Dimensional drawing**



### **Derating curve**



### **Product benefits**



Power up to UL 600 VOffset solder pins



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# **Drawings**

### **Product benefits**



PUSH IN connection up to 16 mm<sup>2</sup>