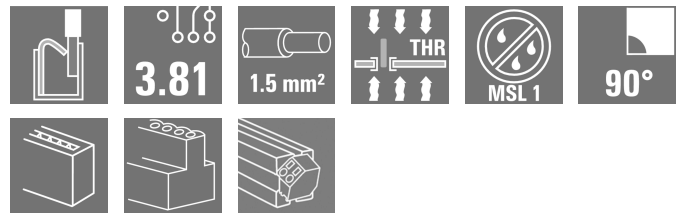
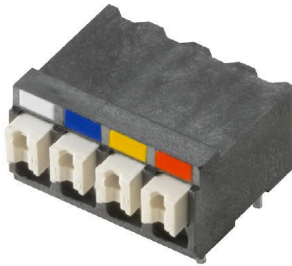


**LSF-SMT 3.81/04/90PN 3.5SN BK TU**
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

**Your special benefits**

- Cost-effective alternative to RJ45 and M12 connections
- Ethernet-compliant data transmission e.g. for PROFINET applications (Cat. 5, up to 100 Mbps)
- Proven PUSH IN wire connection
- Suitable for THT (LMF) and THR (LSF-SMT)soldering process
- Suitable for data transmission according to ISO / IEC 11801-1; DIN EN 50173-1 (VDE 0800-173-1) and ANSI/TIA-568-B.2-10
- Wide range of applications for all IIoT devices

**General ordering data**

Version	Printed circuit board terminals, 3.81 mm, Number of poles: 4, 90°, Solder pin length (l): 3.5 mm, tinned, black, PUSH IN with push button, Clamping range, max.: 1.5 mm², Tube
Order No.	<a href="#">2639530000</a>
Type	LSF-SMT 3.81/04/90PN 3.5SN BK TU
GTIN (EAN)	4050118657296
Qty.	35 items
Product data	IEC: 320 V / 17.5 A / 0.2 - 1.5 mm² UL: 300 V / 12 A / AWG 28 - AWG 14
Packaging	Tube

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## Technical data

## Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate No. (cURus) E60693

## Dimensions and weights

Depth	14.75 mm	Depth (inches)	0.5807 inch
Height	12 mm	Height (inches)	0.4724 inch
Height of lowest version	8.5 mm	Net weight	2.87 g

## Temperatures

Continuous operating temp., max. 120 °C

## Environmental Product Compliance

RoHS Compliance Status Compliant without exemption

REACH SVHC No SVHC above 0.1 wt%

## System specifications

Number of poles	4
Solder pin length (l)	3.5 mm
Mounting onto the PCB	THT/THR solder connection
Pitch in inches (P)	0.150 "
Side termination, characteristic	closed side
Solder eyelet hole diameter tolerance (D)+	0,1 mm
Transmission rate	10 / 100 Mbps
Number of solder pins per pole	2
Solder eyelet hole diameter (D)	1.1 mm
Category	Cat. 5
Product family	OMNIMATE Signal - series LSF
Pitch in mm (P)	3.81 mm
Protection degree	IP20
Performance-Category	Cat. 5 10 / 100 Mbps
Soldering process	Reflow soldering, Manual soldering, Wave soldering
Solder pin dimensions	0.35 x 0.8 mm
Solder pin length tolerance	Lower tolerance with prefix (reveals minimum) -0.3
	Upper tolerance with prefix (reveals maximum) 0
	Tolerance, unit mm
Solder pin length tolerance	0 / -0.3 mm
Solder pin dimensions = d tolerance	Lower tolerance with prefix (reveals minimum) -0.1
	Upper tolerance with prefix (reveals maximum) 0
	Tolerance, unit mm

## Electrical properties

Volume resistance 1.60 mΩ

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## Material data

Insulating material	LCP GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 175	Moisture Level (MSL)	1
UL 94 flammability rating	V-0	Contact material	Copper alloy
Contact surface	tinned	Layer structure of solder connection	4...6 µm Sn matt
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	120 °C
Temperature range, installation, min.	-30 °C	Temperature range, installation, max.	120 °C

## Conductors suitable for connection

Clamping range, min.		0.13 mm <sup>2</sup>	
Clamping range, max.		1.5 mm <sup>2</sup>	
Wire connection cross section AWG, min.		AWG 28	
Wire connection cross section AWG, max.		AWG 14	
Solid, min. H05(07) V-U		0.2 mm <sup>2</sup>	
Solid, max. H05(07) V-U		1.5 mm <sup>2</sup>	
Flexible, min. H05(07) V-K		0.2 mm <sup>2</sup>	
Flexible, max. H05(07) V-K		1.5 mm <sup>2</sup>	
w. plastic collar ferrule, DIN 46228 pt 4, min.		0.25 mm <sup>2</sup>	
w. plastic collar ferrule, DIN 46228 pt 4, max.		0.75 mm <sup>2</sup>	
w. wire end ferrule, DIN 46228 pt 1, min.		0.25 mm <sup>2</sup>	
w. wire end ferrule, DIN 46228 pt 1, max.		1.5 mm <sup>2</sup>	
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.25 mm <sup>2</sup>
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H0.25/12 HBL</a>
	Cross-section for conductor connection	Type	fine-wired
		nominal	0.34 mm <sup>2</sup>
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H0.34/12 TK</a>
	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm <sup>2</sup>
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H0.5/14 OR</a>
	Cross-section for conductor connection	Type	fine-wired
		nominal	0.75 mm <sup>2</sup>
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H0.75/14T HBL</a>

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 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	17.5 A
Rated current, max. number of poles (Tu=20°C)	16 A	Rated current, min. number of poles (Tu=40°C)	17.5 A

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Rated current, max. number of poles (Tu=40°C)	14 A	Rated voltage for surge voltage class / pollution degree II/2	320 V
Rated voltage for surge voltage class / pollution degree III/2	160 V	Rated voltage for surge voltage class / pollution degree III/3	160 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	2.5 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	2.5 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	2.5 kV	Short-time withstand current resistance	3 x 1s with 80 A

## Rated data acc. to CSA

Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	10 A	Rated current (Use group D / CSA)	10 A
Wire cross-section, AWG, min.	AWG 28	Wire cross-section, AWG, max.	AWG 14

## Rated data acc. to UL 1059

Institute (cURus)	CURUS	Certificate No. (cURus)	E60693
Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group D / UL 1059)	300 V
Rated current (Use group B / UL 1059)	12 A	Rated current (Use group D / UL 1059)	10 A
Wire cross-section, AWG, min.	AWG 28	Wire cross-section, AWG, max.	AWG 14
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

## Packing

Packaging	Tube	VPE length	557.00 mm
VPE width	20.00 mm	VPE height	15.00 mm

## Type tests

Test: Durability of markings	Standard	DIN EN 60512-1-1 / 01.03	
	Test	mark of origin, type identification, pitch, durability	
	Evaluation	available	
	Test	approval marking UL	
Test: Clampable cross section	Evaluation	on packaging label	
	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02	
	Conductor type	Type of conductor and conductor cross-section	solid 0.14 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 0.14 mm <sup>2</sup>
		Type of conductor and conductor cross-section	solid 1.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 1.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	AWG 24/1
		Type of conductor and conductor cross-section	AWG 24/19
		Type of conductor and conductor cross-section	AWG 16/1

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## Technical data

Test for damage to and accidental loosening of conductors		Type of conductor and conductor cross-section	AWG 16/19
	Evaluation	passed	
	Standard	DIN EN 60999-1 section 9.4 / 12.00	
	Requirement	0.2 kg	
	Conductor type	Type of conductor and conductor cross-section	AWG 24/1
		Type of conductor and conductor cross-section	AWG 24/19
	Evaluation	passed	
	Requirement	0.3 kg	
	Conductor type	Type of conductor and conductor cross-section	stranded 0.25 mm <sup>2</sup>
		Type of conductor and conductor cross-section	solid 0.5 mm <sup>2</sup>
Pull-out test	Evaluation	passed	
	Requirement	0.4 kg	
	Conductor type	Type of conductor and conductor cross-section	solid 1.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 1.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	AWG 16/1
		Type of conductor and conductor cross-section	AWG 16/19
	Evaluation	passed	
	Standard	DIN EN 60999-1 section 9.5 / 12.00	
	Requirement	≥10 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 24/1
		Type of conductor and conductor cross-section	AWG 24/19
	Evaluation	passed	
	Requirement	≥20 N	
	Conductor type	Type of conductor and conductor cross-section	stranded 0.25 mm <sup>2</sup>
		Type of conductor and conductor cross-section	H05V-U0.5
	Evaluation	passed	
	Requirement	≥40 N	
	Conductor type	Type of conductor and conductor cross-section	H07V-U1.5
		Type of conductor and conductor cross-section	H07V-K1.5
		Type of conductor and conductor cross-section	AWG 16/1

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## Technical data

	Type of conductor and conductor cross-section	AWG 16/19
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	<ul style="list-style-type: none"> <li>• Additional push button colours on request</li> <li>• Operating force of slider max. 40 N</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• P on drawing = pitch</li> <li>• 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.</li> <li>• Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended.</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>

## 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		

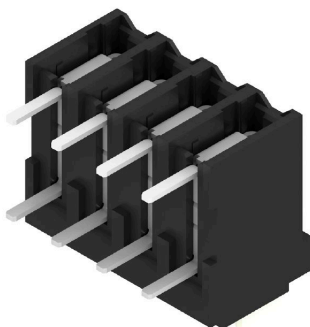
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## Drawings

### Product image



### Dimensioned drawing

