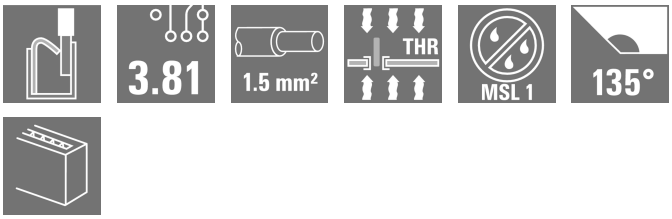
Data sheet

LSF-SMT APL 3.81/03/135 3.5SN BK TU

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com



Features and benefits:

- Ethernet-APL compliant
- Space and weight saving design
- Cost-effective alternative to RJ45 and M12 connections
- Available with PUSH IN, SNAP IN, clamping yoke or tension spring connection
- Suitable for THT and THR soldering processes
- 10 Mbit/s communication for long ranges (1000m) according to IEEE 802.3cg-2019
- PoDL remote power supply according to IEEE 802.3bu
- Ethernet-APL is suitable for all IIoT devices and tailored for the process industry

General ordering data

Version	Printed circuit board terminals, 3.81 mm, Number of poles: 3, 135°, Solder pin length (l): 3.5 mm, tinned, black, PUSH IN with push button, Clamping range, max. : 1.5 mm², Tube
Order No.	2875050000
Type	LSF-SMT APL 3.81/03/135 3.5SN BK TU
GTIN (EAN)	4064675650263
Qty.	46 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	12.7 mm	Depth (inches)	0.5 inch
Height	16.4 mm	Height (inches)	0.6457 inch
Height of lowest version	12.9 mm	Width	11.82 mm
Width (inches)	0.4654 inch	Net weight	2.91 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	3	
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	
Product family	OMNIMATE Signal - series LSF	
Pitch in mm (P)	3.81 mm	
Protection degree	IP20	
Performance-Category	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)	+0.1
	Tolerance, unit	mm
Solder pin length tolerance	+0.1 / -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
Tolerance of solder pin position	± 0.1 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

Packing

Packaging	Tube	VPE length	554.00 mm
VPE width	22.00 mm	VPE height	17.00 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	
	Evaluation	on packaging label	
Test: Clampable cross section	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 mm²
		Type of conductor and conductor cross-section	stranded 0.14 mm²
		Type of conductor and conductor cross-section	solid 1.5 mm²
		Type of conductor and conductor cross-section	stranded 1.5 mm²
		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
		Type of conductor and conductor cross-section	AWG 16/19
	Evaluation	passed	
Test for damage to and accidental loosening of conductors	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	

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	Conductor type	Type of conductor and conductor cross-section	stranded 0.25 mm²
		Type of conductor and conductor cross-section	solid 0.5 mm²
	Evaluation	passed	
	Requirement	0.4 kg	
	Conductor type	Type of conductor and conductor cross-section	solid 1.5 mm²
		Type of conductor and conductor cross-section	stranded 1.5 mm²
		Type of conductor and conductor cross-section	AWG 16/1
		Type of conductor and conductor cross-section	AWG 16/19
	Evaluation	passed	
Pull-out test	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 mm²
		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
		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	• Additional push button colours on request • Operating force of slider max. 40 N • Rated current related to rated cross-section & min. No. of poles. • Wire end ferrule with plastic collar to DIN 46228/4

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Technical data

- Wire end ferrule without plastic collar to DIN 46228/1
- 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.
- Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended.
- Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Classifications

ETIM 8.0	EC002643	ETIM 9.0	EC002643
ETIM 10.0	EC002643	ECLASS 14.0	27-46-01-01
ECLASS 15.0	27-46-01-01		

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Drawings