

LMFS 7.50/02/180 3.5SN BK BX

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

www.weidmueller.com

Product image



The innovative quick connector - simple, safe and economical:

PCB terminals with spring connection and direct PUSH IN technology. A milestone in connection technology.

Amazingly simple and simply amazing in practice:

- Connect and easily detach solid wires or wires with wire-end ferrules without using tools
- Processed automatically in the reflow or vapour phase
- Potentials and clamping points marked clearly by coloured push buttons

World-class design-in and processing phases, and suitable for a vast range of applications.

General ordering data

Version	Printed circuit board terminals, 7.50 mm, Number of poles: 2, 180°, Solder pin length (l): 3.5 mm, tinned, black, PUSH IN, Clamping range, max. : 2.5 mm², Box
Order No.	2774650000
Type	LMFS 7.50/02/180 3.5SN BK BX
GTIN (EAN)	4064675039358
Qty.	100 items
Product data	IEC: 1000 V / 24 A / 0.5 - 2.5 mm² UL: 300 V / 20 A / AWG 24 - AWG 12
Packaging	Box

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Technical data

Approvals

ROHS	Conform
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Dimensions and weights

Depth	14.8 mm	Depth (inches)	0.5827 inch
Height	18.7 mm	Height (inches)	0.7362 inch
Height of lowest version	15.2 mm	Width	15.2 mm
Width (inches)	0.5984 inch	Net weight	3.27 g

Environmental Product Compliance

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

System parameters

Product family	OMNIMATE Signal - series LMF	Wire connection method	PUSH IN
Mounting onto the PCB	THT solder connection	Conductor outlet direction	180°
Pitch in mm (P)	7.50 mm	Pitch in inches (P)	0.295 "
Number of poles	2	Pin series quantity	1
Number of rows	1	Solder pin length (l)	3.5 mm
Solder pin dimensions	0.6 x 0.8 mm	Solder eyelet hole diameter (D)	1.1 mm
Solder eyelet hole diameter tolerance (D)+	0,1 mm	Number of solder pins per pole	2
Screwdriver blade	0.6 x 3.5	Screwdriver blade standard	DIN 5264
Stripping length	10 mm	Touch-safe protection acc. to DIN VDE 0470	IP 20
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 of operational elements	orange	Colour chart (similar)	RAL 9011
Comparative Tracking Index (CTI)	≥ 600	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Coating	4-6 µm SN
Tinning type	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.	-25 °C
Temperature range, installation, max.	120 °C		

Conductors suitable for connection

Clamping range, min.	0.12 mm ²	Clamping range, max.	2.5 mm ²
Wire connection cross section AWG, min.	AWG 24	Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.5 mm ²	Solid, max. H05(07) V-U	2.5 mm ²
Flexible, min. H05(07) V-K	0.25 mm ²	Flexible, max. H05(07) V-K	2.5 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.25 mm ²	w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	0.25 mm ²	w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm ²
Reference text	Length of ferrules is to be chosen depending on the product and the		

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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, IEC 60947-7-4	Rated current, min. number of poles (Tu=20°C)	24 A
Rated current, max. number of poles (Tu=20°C)	20 A	Rated current, min. number of poles (Tu=40°C)	23 A
Rated current, max. number of poles (Tu=40°C)	18 A	Rated voltage for surge voltage class / pollution degree II/2	1000 V
Rated voltage for surge voltage class / pollution degree III/2	600 V	Rated voltage for surge voltage class / pollution degree III/3	500 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	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Short-time withstand current resistance	3 x 1s with 120 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)	20 A	Rated current (Use group D / CSA)	10 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 12

Rated data acc. to UL 1059

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)	20 A	Rated current (Use group D / UL 1059)	10 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 12

Packing

Packaging	Box	VPE length	338.00 mm
VPE width	130.00 mm	VPE height	27.00 mm

Type tests

Test: Durability of markings	Standard	IEC 61984 section 6.2 and 7.3.2 / 10.11	
	Test	mark of origin, type identification, approval marking UL, approval marking CSA, durability	
	Evaluation	available	
Test: Clampable cross section	Standard	IEC 60947-7-4 sections 7.1.2 and 9.3.2 / 01.19	
	Conductor type	Type of conductor and conductor cross-section	solid 0.2 mm ²
		Type of conductor and conductor cross-section	stranded 0.2 mm ²
		Type of conductor and conductor cross-section	solid 2.5 mm ²
		Type of conductor and conductor cross-section	AWG 12/7
		Type of conductor and conductor cross-section	AWG 24/11
Evaluation	passed		

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Test for damage to and accidental loosening of conductors	Standard	IEC 60999-1 section 9.4 / 11.99		
	Requirement	0.2 kg		
	Conductor type	Type of conductor and conductor cross-section	solid 0.2 mm ²	
		Type of conductor and conductor cross-section	stranded 0.2 mm ²	
		Type of conductor and conductor cross-section	AWG 24/11	
	Evaluation	passed		
	Requirement	0.7 kg		
	Conductor type	Type of conductor and conductor cross-section	solid 2.5 mm ²	
		Evaluation	passed	
	Requirement	0.9 kg		
Conductor type	Type of conductor and conductor cross-section	AWG 12/7		
	Standard	IEC 60999-1 section 9.5 / 11.99		
Pull-out test	Requirement	≥10 N		
	Conductor type	Type of conductor and conductor cross-section	solid 0.2 mm ²	
		Type of conductor and conductor cross-section	stranded 0.2 mm ²	
		Type of conductor and conductor cross-section	AWG 24/11	
	Evaluation	passed		
	Requirement	≥50 N		
	Conductor type	Type of conductor and conductor cross-section	solid 2.5 mm ²	
		Evaluation	passed	
	Requirement	≥ 60 N		
	Conductor type	Type of conductor and conductor cross-section	AWG 12/7	

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. • Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

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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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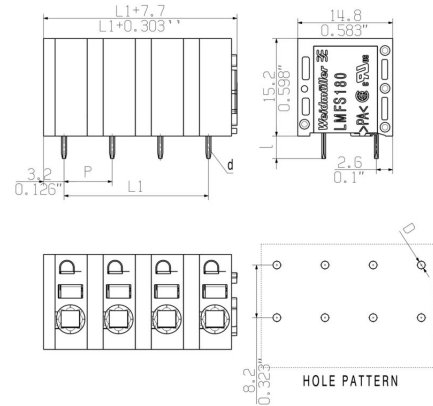
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Drawings

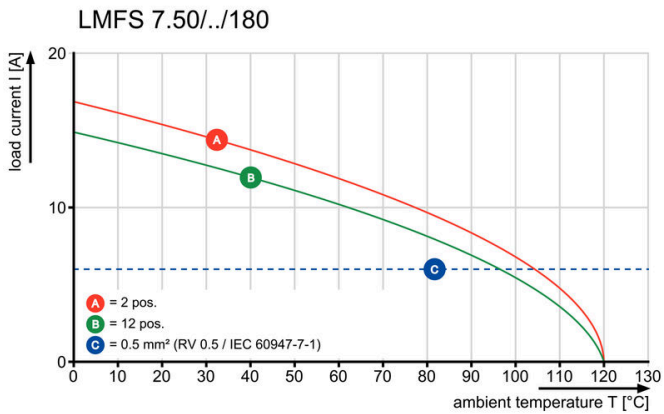
Product image



Dimensional drawing



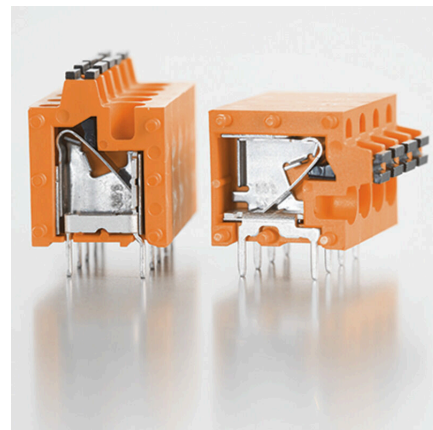
Derating curve



Derating curve



Product benefits



Product benefits



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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 0.6X3.5X100	Version	
Order No.	9008390000	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056354		
Qty.	1 ST		

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	
Order No.	0310000000	PCB plug-in connector, Accessories, Test plug, red, Number of poles:	
GTIN (EAN)	4008190000059		
Qty.	20 ST		1