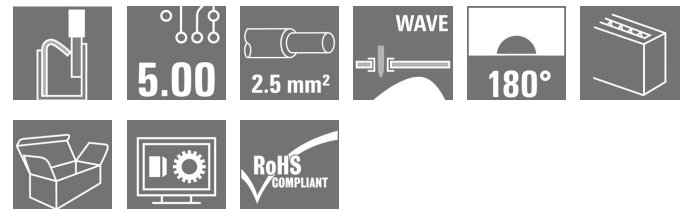


OMNIMATE Signal - series LMF LMF 5.00/20/180 3.5SN OR BX

Weidmüller Interface GmbH & Co. KG
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Germany
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Product image



Similar to illustration

The new LMF allows us to meet the current market requirements for a PCB terminal with PUSH IN connection system for wire cross-sections up to 2.5 mm²

- PUSH IN connection system
- LMF with pusher for opening the terminal point
- LMFS without pusher, the terminal point is opened with a screwdriver
- Integrated test point
- 90° and 180° wire outlet direction

General ordering data

Type	LMF 5.00/20/180 3.5SN OR BX
Order No.	1330380000
Version	Printed circuit board terminals, 5.00 mm, No. of poles: 20, 180°, Solder pin length (l): 3.5 mm, tinned, orange, PUSH IN, Clamping range, max.: 2.5 mm ² , Box
GTIN (EAN)	4050118134414
Qty.	15 pc(s).
Product data	IEC: 400 V / 24 A / 0.5 - 2.5 mm ² UL: 300 V / 20 A / AWG 24 - AWG 12
Packaging	Box

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Technical data

Dimensions and weights

Width	102.7 mm	Width (inches)	4.043 inch
Height	22.7 mm	Height (inches)	0.894 inch
Height of lowest version	19.2 mm	Depth	14.8 mm
Depth (inches)	0.583 inch	Net weight	29.65 g

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)	5 mm	Pitch in inches (P)	0.197 inch
No. of poles	20	Fitted by customer	No
Max. adjacent poles per row	24	Solder pin length (l)	3.5 mm
Solder pin dimensions	d = 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	L1 in mm	95 mm
L1 in inches	3.741 inch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch		

Material data

Insulating material	Wemid (PA)	Colour code	orange
Colour chart (similar)	RAL 2000	CTI	≥ 600
Insulation strength	≥ 10 ⁸ Ω	UL 94 flammability rating	V-0
Contact material	CuSn	Contact surface	tinned
Coating	4-6 µm SN	Tinning type	matt
Layer structure of solder connection	4-6 µm Sn matt	Storage temperature, min.	-25 °C
Storage temperature, max.	55 °C	Max. relative humidity during storage	80 %
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
Plug gauge in accordance with EN 60999 a x b; ø	2.4 mm x 1.5 mm		

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Technical data
Rated data acc. to IEC

tested acc. to standard

IEC 60664-1, IEC 61984

Rated current, max. no. of poles
(Tu=20°C)

24 A

Rated current, max. no. of poles
(Tu=40°C)

24 A

Rated voltage for surge voltage class /
pollution degree III/2

320 V

Rated impulse voltage for surge voltage
class/ pollution degree II/2

4 kV

Rated impulse voltage for surge voltage
class/ contamination degree III/3

4 kV

Rated current, min. no. of poles
(Tu=20°C)

24 A

Rated current, min. no. of poles
(Tu=40°C)

24 A

Rated voltage for surge voltage class /
pollution degree II/2

400 V

Rated voltage for surge voltage class /
pollution degree III/3

250 V

Rated impulse voltage for surge voltage
class/ pollution degree III/2

4 kV

Short-time withstand current resistance

3 x 1s with 120 A

Rated data acc. to CSA

Institute (CSA)



Certificate No. (CSA)

20039-1815154

Rated voltage (Use group B / CSA)

300 V

Rated current (Use group B / CSA)

20 A

Wire cross-section, AWG, min.

AWG 24

Reference to approval values

Specifications are
maximum values, details -
see approval certificate.

Rated voltage (Use group D / CSA)

300 V

Rated current (Use group D / CSA)

10 A

Wire cross-section, AWG, max.

AWG 12

Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059)

300 V

Rated current (Use group B / UL 1059)

20 A

Wire cross-section, AWG, min.

AWG 24

Reference to approval values

Specifications are
maximum values, details -
see approval certificate.

Rated voltage (Use group D / UL 1059)

300 V

Rated current (Use group D / UL 1059)

10 A

Wire cross-section, AWG, max.

AWG 12

Packaging

Packaging

Box

VPE length

348 mm

VPE width

135 mm

VPE height

30 mm

Classifications

ETIM 3.0

EC001284

ETIM 4.0

EC002643

ETIM 5.0

EC002643

ETIM 6.0

EC002643

eClass 6.2

27-26-11-01

eClass 7.1

27-44-04-01

eClass 8.1

27-44-04-01

eClass 9.0

27-44-04-01

eClass 9.1

27-44-04-01

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Technical data

Notes

Notes

- Additional colours 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.

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.

Approvals

Approvals



ROHS

Conform

Downloads

Approval/Certificate/Document of
Conformity

[Declaration of the Manufacturer](#)

Brochure/Catalogue

[FL DRIVES EN](#)
[FL ANALO.SIGN.CONV. EN](#)
[MB DEVICE MANUF. EN](#)
[FL DRIVES DE](#)
[CAT 2 PORTFOLIOGUIDE EN](#)
[FL BUILDING SAFETY EN](#)
[FL APPL LED LIGHTING EN](#)
[FL INDUSTR.CONTROLS EN](#)
[FL MACHINE SAFETY EN](#)
[FL HEATING ELECTR EN](#)
[FL APPL INVERTER EN](#)
[FL BASE STATION EN](#)
[FL ELEVATOR EN](#)
[FL POWER SUPPLY EN](#)
[FL 72H SAMPLE SER EN](#)
[PO OMNIMATE EN](#)

Engineering Data

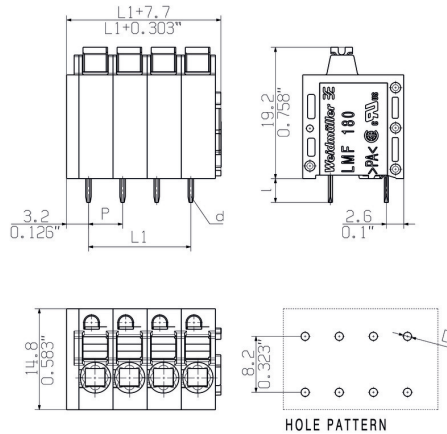
[EPLAN, WSCAD](#)

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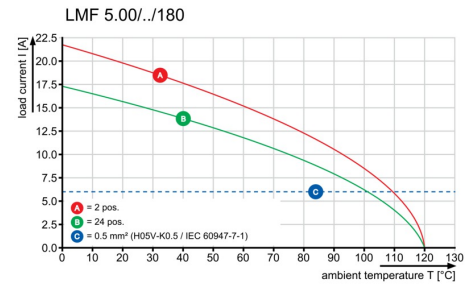
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Drawings

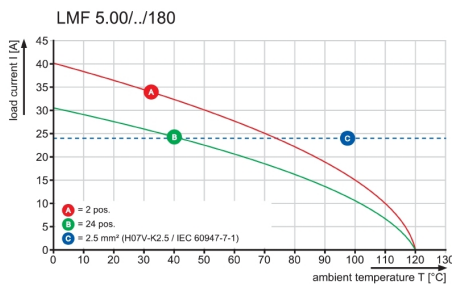
Dimensional drawing



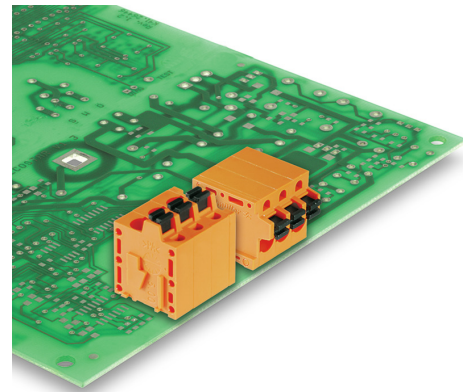
Graph



Graph



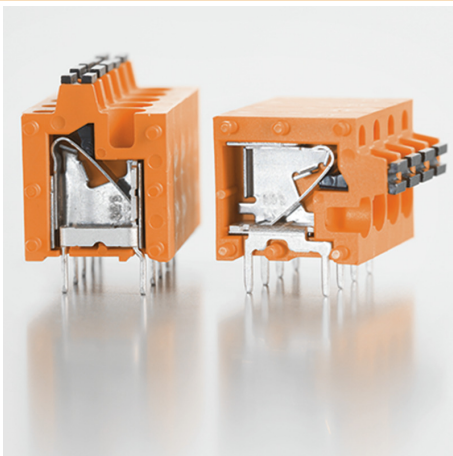
Product benefits



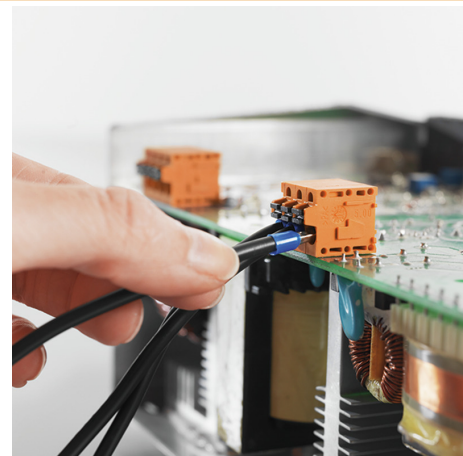
- Optional conductor outlet direction
- Stable mechanical design

Product benefits

Product benefits



- High reliability of the current capacity



- Direct conductor entry
- Cross section up to 2.5 mm²

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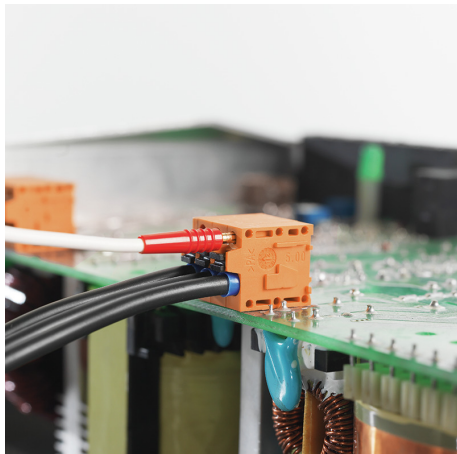
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Drawings

Product benefits



- Maintenance through test point

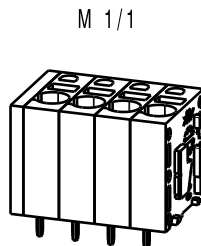
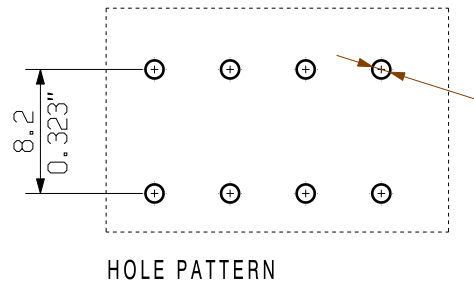
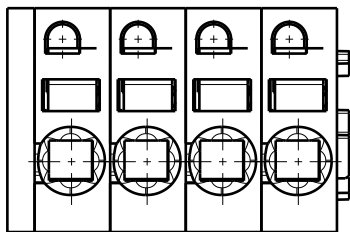
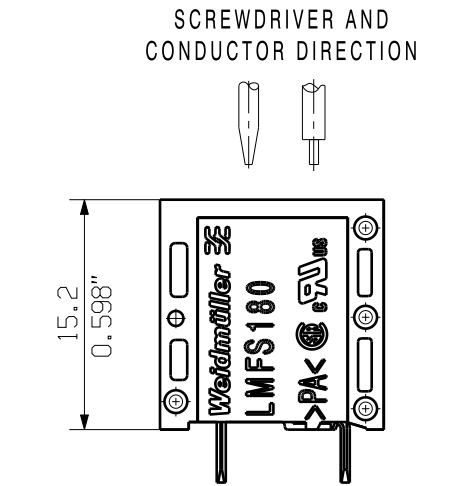
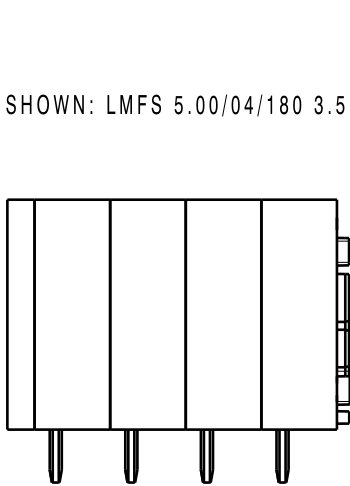
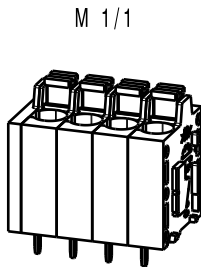
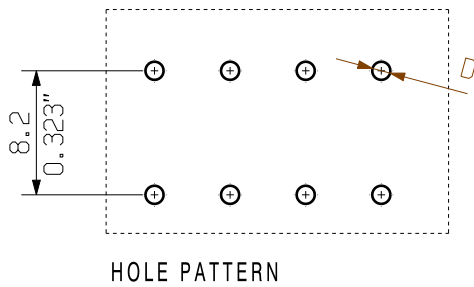
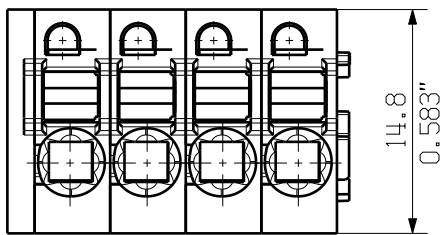
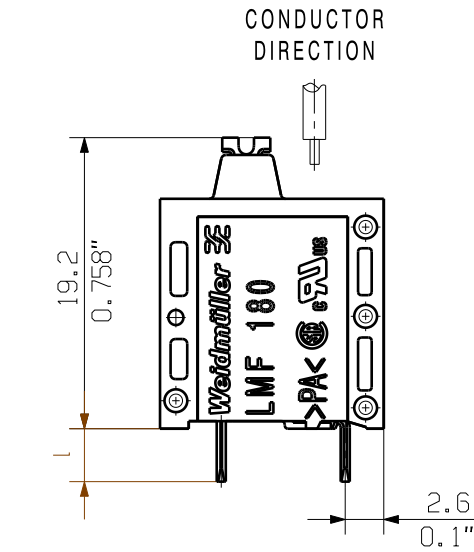
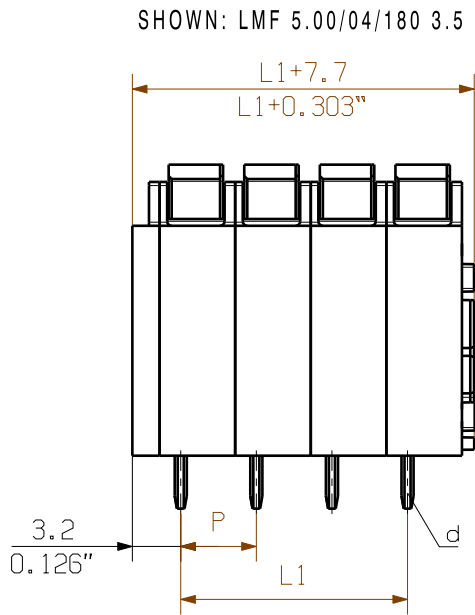
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MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING

ALLGEMEINGUELTIGE KUNDENZEICHNUNG, AKTUELLER STAND NUR AUF ANFRAGE
GENERAL CUSTOMER DRAWING, TOPICAL VERSION ONLY IF REQUIRED



P = 5.00 RASTER PITCH
D = $\varnothing 1.1 +0.1$
0.043"
d = 0.6×0.8
 0.024×0.031 "
l = 3.5
0.138"

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone.
The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110.
The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.
Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application.
Provided that the components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

	24	115.00	4.528
	23	110.00	4.331
	22	105.00	4.134
	21	100.00	3.937
	20	95.00	3.740
	19	90.00	3.543
	18	85.00	3.346
	17	80.00	3.150
	16	75.00	2.953
	15	70.00	2.756
	14	65.00	2.559
	13	60.00	2.362
	12	55.00	2.165
	11	50.00	1.969
	10	45.00	1.772
	9	40.00	1.575
	8	35.00	1.378
	7	30.00	1.181
	6	25.00	0.984
	5	20.00	0.787
	4	15.00	0.591
	3	10.00	0.394
	2	5.00	0.197
n	POLZAHL POLES	L1 [mm]	L1 [inch]

GENERAL TOLERANCE: DIN ISO 2768-m		70657/4 26.06.13 TIELKER_S 01		CAT.NO.: . . .	
RoHS COMPLIANT		MODIFICATION		Weidmüller	
DRAWN		DATE	NAME	C 55662 03	
RESPONSIBLE		25.01.2012	REGLIN_A	DRAWING NO. SHEET 01 OF 01 SHEETS	
CHECKED		26.06.2013	SCHMITZ_T	ISSUE NO.	
APPROVED		26.06.2013	HECKERT_M	PRODUCT FILE: LMF 5.0X 7403	
SCALE: 2/1		HANKE_D		LMF... 5.00/.../180 ... LEITERPLATTENKLEMME PCB TERMINAL	
SUPERSEDES: .					

Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
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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.