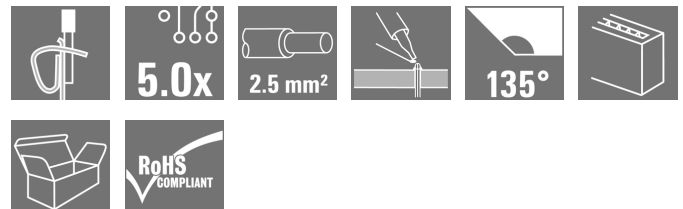


OMNIMATE Signal - series LMZF

LMZF 5/20/135 3.5GR

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
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Product image



Similar to illustration

The compact installation terminal for the standard wire cross-section size of 2.5mm².

Tension clamp connection with a 135° outlet direction, in variable pitch: 5.00 - 5.08 mm (1 part with 2 pitches).

Rated data:

- 24A at 40°C / 630V (IEC) or 15A / 300V (UL)
- 0.13 - 2.5 mm² (IEC) / 26 - 14 AWG (UL)
- Flammability class according to UL 94: V0

Application benefits:

- Safe: ATEX certification Ex II 2GD / Ex e II (KEMA07 ATAEX0047U) optional
- Temperature resistant: long-term resistance up to 120°C provided by high-performance Wemid insulation material
- Adaptable: simple pitch adaptation from 5.00 to 5.08 mm (0.200 inch)
- Convenient: optional lever for simple opening of terminal point

General ordering data

Delivery status	Discontinued
Type	LMZF 5/20/135 3.5GR
Order No.	1960090000
Version	Printed circuit board terminals, 5.00 mm, Number of poles: 20, 135°, Solder pin length (l): 3.5 mm, tinned, Pebble grey, Clamping range, max.: 2.5 mm ² , Box
GTIN (EAN)	4032248651016
Qty.	50 pc(s).
Product data	IEC: 630 V / 24 A / 0.13 - 2.5 mm ² UL: 300 V / 15 A / AWG 26 - AWG 14
Packaging	Box

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Technical data

Dimensions and weights

Width	102.5	Width (inches)	4.035 inch
Height	16.4 mm	Height (inches)	0.646 inch
Height of lowest version	12.9 mm	Depth	14.5 mm
Depth (inches)	0.571 inch	Net weight	21.95 g

System parameters

Product family	OMNIMATE Signal - series LMZF	Mounting onto the PCB	THT solder connection
Conductor outlet direction	135°	Pitch in mm (P)	5 mm
Pitch in inches (P)	0.197 inch	Number of poles	20
Fitted by customer	No	Max. adjacent poles per row	48
Solder pin length (l)	3.5 mm	Solder pin dimensions	0.8 x 0.8 mm
Solder eyelet hole diameter (D)	1.3 mm	Solder eyelet hole diameter tolerance (D)+	0, 1 mm
Number of solder pins per pole	2	Screwdriver blade	0.4 x 2.5
Screwdriver blade standard	DIN 5264-A	Stripping length	6 mm
L1 in mm	95 mm	L1 in inches	3.74 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	Pebble grey
Colour chart (similar)	RAL 7032	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	Copper alloy	Contact surface	tinned
Coating	5-8 µm SN	Tinning type	matt
Layer structure of solder connection	4...6 µm Sn matt	Storage temperature, min.	-25 °C
Storage temperature, max.	50 °C	Max. relative humidity during storage	70 %
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.	0.13 mm ²
Clamping range, max.	2.5 mm ²
Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 14
Solid, min. H05(07) V-U	0.13 mm ²
Solid, max. H05(07) V-U	2.5 mm ²
Flexible, min. H05(07) V-K	0.13 mm ²
Flexible, max. H05(07) V-K	2.5 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 0.25 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 1.5 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, min.	0.25 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm ²

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Technical data

Clampable conductor	Cross-section for conductor connection	Type	fine-wired		
		nominal	0.5 mm²		
	wire end ferrule	Stripping length	nominal	8 mm	
		Recommended wire-end ferrule	H0.5/12 OR		
		Stripping length	nominal	6 mm	
		Recommended wire-end ferrule	H0.5/6		
	Cross-section for conductor connection	Type	fine-wired		
		nominal	0.75 mm²		
	wire end ferrule	Stripping length	nominal	8 mm	
		Recommended wire-end ferrule	H0.75/12 W		
		Stripping length	nominal	6 mm	
		Recommended wire-end ferrule	H0.75/6		
	Cross-section for conductor connection	Type	fine-wired		
		nominal	1 mm²		
	wire end ferrule	Stripping length	nominal	8 mm	
		Recommended wire-end ferrule	H1.0/12 GE		
		Stripping length	nominal	6 mm	
		Recommended wire-end ferrule	H1.0/6		
	Cross-section for conductor connection	Type	fine-wired		
		nominal	0.25 mm²		
	wire end ferrule	Stripping length	nominal	8 mm	
		Recommended wire-end ferrule	H0.25/10 HBL		
		Stripping length	nominal	5 mm	
		Recommended wire-end ferrule	H0.25/5		
	Cross-section for conductor connection	Type	fine-wired		
		nominal	0.34 mm²		
	wire end ferrule	Stripping length	nominal	8 mm	
		Recommended wire-end ferrule	H0.34/10 TK		
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)				
Max. clamping range	2.5 mm²				

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984		Rated current, min. number of poles (Tu=20°C)	24 A
Rated current, max. number of poles (Tu=20°C)	24 A		Rated current, min. number of poles (Tu=40°C)	24 A
Rated current, max. number of poles (Tu=40°C)	24 A		Rated voltage for surge voltage class / pollution degree II/2	630 V
Rated voltage for surge voltage class / pollution degree III/2	320 V		Rated voltage for surge voltage class / pollution degree III/3	250 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV		Rated impulse voltage for surge voltage class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	4 kV			

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Technical data**Rated data acc. to CSA**

Institute (CSA)



Certificate No. (CSA)

200039-1815154

Rated voltage (Use group B / CSA) 300 V

Rated current (Use group B / CSA) 10 A

Wire cross-section, AWG, min. AWG 26

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 14

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) 15 A

Wire cross-section, AWG, min. AWG 26

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 14

Packing

Packaging Box

VPE width 0

VPE length 0

VPE height 0

Classifications

UNSPSC 30-21-18-11

Notes

Notes

- 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.

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.

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Technical data

Approvals

Approvals



ROHS

Conform

Downloads

Approval/Certificate/Document of
Conformity

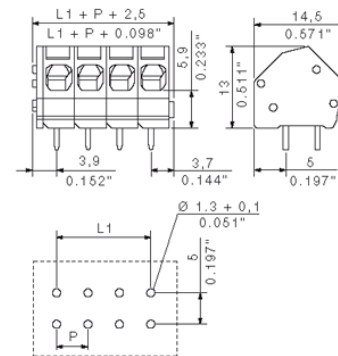
[Declaration of the Manufacturer](#)

OMNIMATE Signal - series LMZF LMZF 5/20/135 3.5GR

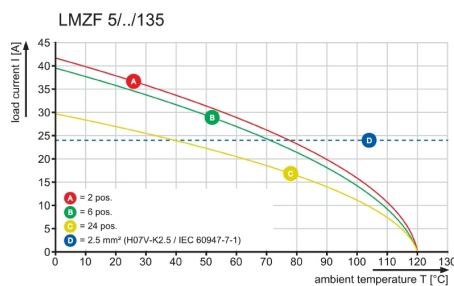
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Drawings

Dimensional drawing



Graph



Recommended wave soldering profiles

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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.