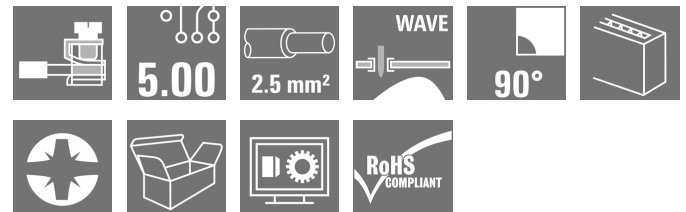


## OMNIMATE Signal - series PM PM 5.00/05/90 3.5SN OR BX

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

### Product image



Similar to illustration

PCB terminal with leaf spring connection at 5.00 and 5.08 mm pitch. Conductor outlet direction 90°. Suitable for conductor cross-sections up to 2.5 mm<sup>2</sup>.

### General ordering data

Type	PM 5.00/05/90 3.5SN OR BX
Order No.	<a href="#">1234670000</a>
Version	PCB terminal, 5.00 mm, No. of poles: 5, 90°, Solder pin length (l): 3.5 mm, tinned, Orange, Pressure clamp connection, Clamping range, max.: 2.5 mm <sup>2</sup> , Box
GTIN (EAN)	4050118019100
Qty.	100 pc(s).
Product data	IEC: 600 V / 24 A / 0.13 - 2.5 mm <sup>2</sup> UL: 300 V / 15 A / AWG 26 - AWG 14
Packaging	Box



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**Technical data****Dimensions and weights**

Width	25.6 mm	Width (inches)	1.008 inch
Height	13.5 mm	Height (inches)	0.531 inch
Height of lowest version	10 mm	Depth	8 mm
Depth (inches)	0.315 inch	Net weight	4.36 g

**Environmental Product Compliance**

REACH SVHC Lead 7439-92-1

**System parameters**

Product family	OMNIMATE Signal - series PM	Wire connection method	Pressure clamp connection
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	5 mm	Pitch in inches (P)	0.197 inch
No. of poles	5	Fitted by customer	Yes
Max. adjacent poles per row	24	Solder pin length (l)	3.5 mm
Solder pin dimensions	d = 1.0 mm	Solder eyelet hole diameter (D)	1.3 mm
Solder eyelet hole diameter tolerance (D)	+ 0,1 mm	Number of solder pins per pole	1
Screwdriver blade	0.6 x 3.5	Screwdriver blade standard	DIN 5264
Tightening torque, min.	0.4 Nm	Tightening torque, max.	0.5 Nm
Clamping screw	M 2.5	Stripping length	6 mm
L1 in mm	20 mm	L1 in inches	0.787 inch
Touch-safe protection acc. to DIN VDE 0470	IP 20, above the PCB; with conductor connected	Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch

**Material data**

Insulating material	Wemid (PA)	Colour	Orange
Colour chart (similar)	RAL 2000	Insulating material group	I
CTI	≥ 600	Insulation resistance	≥ 10 <sup>8</sup> Ω
UL 94 flammability rating	V-0	Contact material	Copper alloy
Contact surface	tinned	Coating	1-3 μm Ni, 4-6 μm SN
Tinning type	matt	Layer structure of solder connection	1.5-3.5 μm Ni / 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.	0.13 mm <sup>2</sup>	Clamping range, max.	2.5 mm <sup>2</sup>
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 <sup>2</sup>	Solid, max. H05(07) V-U	2.5 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.13 mm <sup>2</sup>	Flexible, max. H05(07) V-K	2.5 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.	1.5 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>

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## Technical data


### Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. no. of poles (Tu=20°C)	24 A
Rated current, max. no. of poles (Tu=20°C)	24 A	Rated current, min. no. of poles (Tu=40°C)	24 A
Rated current, max. no. of poles (Tu=40°C)	24 A	Rated voltage for surge voltage class / pollution degree II/2	600 V
Rated voltage for surge voltage class / pollution degree III/2	250 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	Short-time withstand current resistance	3 x 1s with 120 A

### Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1815154
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	15 A	Rated current (Use group D / CSA)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 14
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

### Rated data acc. to UL 1059

Institute (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)	15 A	Rated current (Use group D / UL 1059)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 14
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

### Packaging

Packaging	Box	VPE length	45 mm
VPE width	135 mm	VPE height	230 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		

**Data sheet**

**OMNIMATE Signal - series PM  
PM 5.00/05/90 3.5SN OR BX**

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**Technical data**

**Notes**

- |       |  |
|-------|--|
| Notes | <ul style="list-style-type: none"> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• The data given under CSA relates to a cUL approval - E60693</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> </ul> |
|-------|--|

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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**Approvals**

Approvals



ROHS	Conform
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**Downloads**

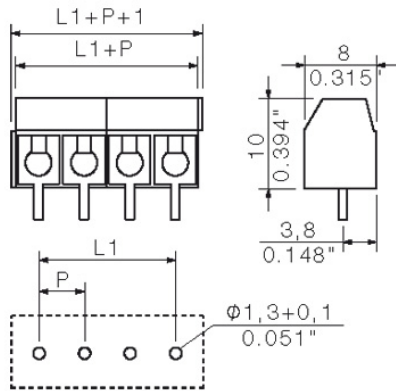
Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Brochure/Catalogue	<a href="#">FL DRIVES EN</a> <a href="#">FL ANALO.SIGN.CONV. EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL DRIVES DE</a> <a href="#">CAT 2 PORTFOLIOGUIDE EN</a> <a href="#">FL BUILDING SAFETY EN</a> <a href="#">FL APPL LED LIGHTING EN</a> <a href="#">FLIndustr.CONTROLS EN</a> <a href="#">FL MACHINE SAFETY EN</a> <a href="#">FL HEATING ELECTR EN</a> <a href="#">FL APPL INVERTER EN</a> <a href="#">FL_BASE_STATION EN</a> <a href="#">FL ELEVATOR EN</a> <a href="#">FL POWER SUPPLY EN</a> <a href="#">FL 72H SAMPLE SER EN</a> <a href="#">PO OMNIMATE EN</a>
Engineering Data	<a href="#">EPLAN_WSCAD</a>

**OMNIMATE Signal - series PM  
PM 5.00/05/90 3.5SN OR BX**

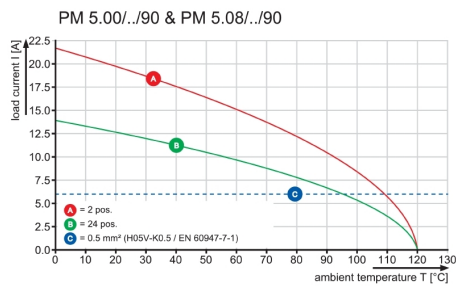
**Weidmüller Interface GmbH & Co. KG**  
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**Drawings**

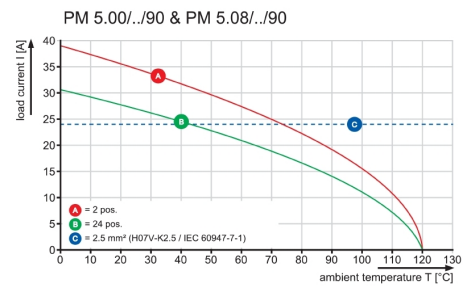
**Dimensional drawing**



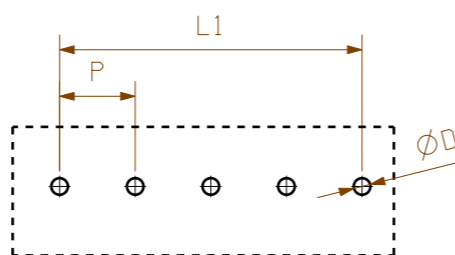
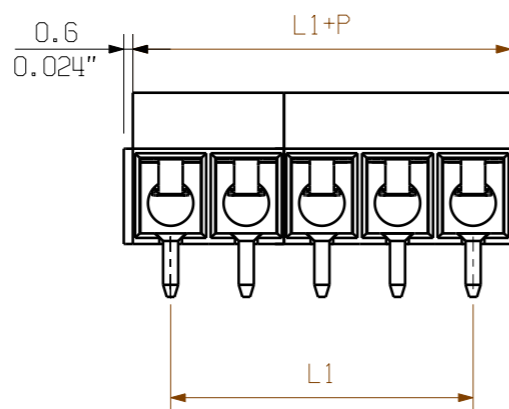
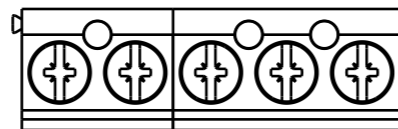
**Graph**



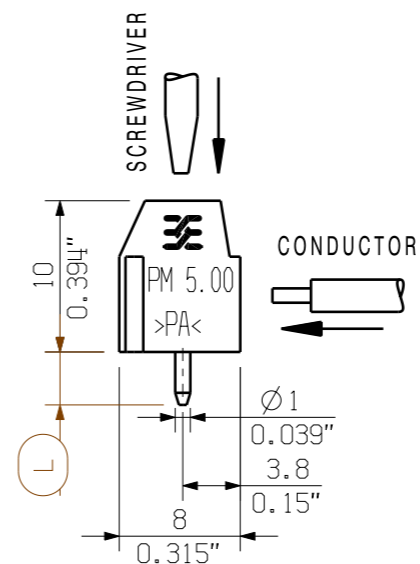
**Graph**



09



PCB LAYOUT



L = 3.5 +/- 0.2  
 P = 5.00  
 L1 = (N-1)XP

KUNDENZEICHNUNG  
 CUSTOMER DRAWING

For the mounting of PCBs, it should be noted that the rated data stated in the catalog 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.

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	L1 [mm]	L1 [inch]

<b>GENERAL TOLERANCE:</b> DIN ISO 2768-m		91688/5 20.01.17 MA_J		01	<b>Weidmüller</b>	<b>C 41698</b> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">09</span>	Cat.no.: .	
RoHS COMPLIANT	Max. nos.	Modification		Drawing no. Issue no.			Sheet 01 of 01 sheets	
	Drawn	Date	Name		<b>PM 5.00/.../90 ...</b> LEITERPLATTENKLEMME PCB TERMINAL			
Scale: 5/1	Responsible	23.01.2017	MA_J					
Supersedes: .	Checked	23.01.2017	ZHOU_N					
	Approved		XU_S		Product file: PM 5.00		7062	

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## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
 Klängenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

### 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.