

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
- 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, 5.00 mm, Number of poles: 5, 90°, Solder pin length (I): 3.5 mm, tinned, black, PUSH IN with actuator, Clamping range, max.: 2.5 mm², Box
Order No.	<u>2787370000</u>
Туре	LMFV 5.00/05/90 3.5SN BK BX
GTIN (EAN)	4064675065210
Qty.	152 pc(s).
Product data	IEC: 630 V / 24 A / 0.2 - 2.5 mm <sup>2</sup> UL: 300 V / 15 A / AWG 24 - AWG 14
Packaging	Вох



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# **Technical data**

### **Dimensions and weights**

Depth	10 mm	Depth (inches)	0.394 inch
Height	17.3 mm	Height (inches)	0.681 inch
Width	25.5 mm	Width (inches)	1.004 inch
Net weight	7 g		

### **System parameters**

Product family	OMNIMATE Signal - series LMF	
Wire connection method	PUSH IN with actuator	
Mounting onto the PCB	THT solder connection	
Conductor outlet direction	90°	
Pitch in mm (P)	5 mm	
Pitch in inches (P)	0.197 "	
Number of poles	5	
Pin series quantity	1	
Number of rows	1	
Solder pin length (I)	3.5 mm	
Solder pin dimensions	0.95 x 0.8 mm	
Screwdriver blade	0.6 x 3.5	
Stripping length	8 mm	
Stripping length tolerance	min1	mm
	max. 0 r	mm
L1 in mm	20 mm	
L1 in inches	0.79 "	
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	PA	Colour	black
Colour chart (similar)	RAL 9011	Comparative Tracking Index (CTI)	≥ 600
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Coating	4-8 µm SN
Layer structure of solder connection	48 µm Sn matt	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-40 °C
Operating temperature, max.	115 °C		



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#### **Conductors suitable for connection**

Clamping range, min.	0.2 mm²	Clamping range, max.	2.5 mm²
Wire connection cross section AW	/G,	Wire connection cross section AV	VG,
min.	AWG 24	max.	AWG 14
Solid, min. H05(07) V-U	0.2 mm <sup>2</sup>	Solid, max. H05(07) V-U	2.5 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.2 mm <sup>2</sup>	Flexible, max. H05(07) V-K	2.5 mm <sup>2</sup>
w. plastic collar ferrule, DIN 4622	8 pt 4,	w. plastic collar ferrule, DIN 4622	.8 pt 4,
min.	0.25 mm <sup>2</sup>	max.	1.5 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt	1,	w. wire end ferrule, DIN 46228 p	t 1,
min.	0.2 mm <sup>2</sup>	max.	1.5 mm <sup>2</sup>
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)		

#### Rated data acc. to IEC

Rated current, min. number of poles		Rated current, max. number of poles	
(Tu=20°C)	24 A	(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)	23.1 A
Rated voltage for surge voltage class /		Rated voltage for surge voltage class /	20.174
pollution degree II/2	630 V	pollution degree III/2	350 V
Rated voltage for surge voltage class /		Rated impulse voltage for surge voltage	
pollution degree III/3	250 V	class/ pollution degree II/2	4 kV
Rated impulse voltage for surge voltage	•	Rated impulse voltage for surge voltage	
class/ pollution degree III/2	4 kV	class/ contamination degree III/3	4 kV

#### Rated data acc. to UL 1059

Institute (UR)	<i>717</i>	Certificate No. (UR)	
			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 24	Wire cross-section, AWG, max.	AWG 14
Reference to approval values	Specifications are maximum values, details - see		

## **Packing**

Box	VPE length	170 mm
130 mm	VPE height	50 mm

#### Classifications

ETIM 6.0	EC002643	ETIM 7.0	EC002643
ETIM 8.0	EC002643	ETIM 9.0	EC002643
ETIM 10.0	EC002643	ECLASS 9.0	27-44-04-01
ECLASS 9.1	27-44-04-01	ECLASS 10.0	27-44-04-01
ECLASS 11.0	27-46-01-01	ECLASS 12.0	27-46-01-01
ECLASS 13.0	27-46-01-01	ECLASS 14.0	27-46-01-01
ECLASS 15.0	27-46-01-01		
ECLASS 15.0	27-46-01-01		

Creation date May 11, 2025 10:19:18 PM CEST

approval certificate.



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# **Technical data**

### **Environmental Product Compliance**

RoHS Compliance Status	Compliant without exemption
	<u> </u>
REACH SVHC	No SVHC above 0.1 wt%
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 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
	<ul> <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>
	The test point can only be used as potential-pickup point.
	<ul> <li>Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>

#### **Approvals**

Approvals



Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319262/-T1z1mm-S800/
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UR)	E60693

#### **Downloads**

Engineering Data	CAD data – STEP	



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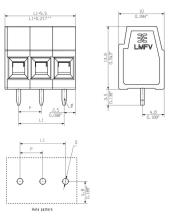
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# **Drawings**

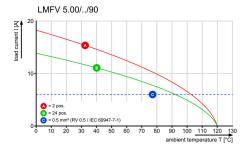
## **Product image**



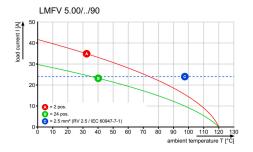
## **Dimensional drawing**



#### **Derating curve**



#### **Derating curve**





## Recommended wave solderding profiles

#### Weidmüller Interface GmbH & Co. KG

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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.