

LPP 5.08/02/90 4.5SN OR BX

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

www.weidmueller.com

Product image



Similar to illustration

This PCB terminal provides connections for 32 A and 6 mm² conductor cross-section with proven clamping yoke connection at 5.00 and 5.08 mm pitch, conductor outlet direction in 90°, 135° and 180° design, with extensive auxiliary functions.

General ordering data

Version	Printed circuit board terminals, 5.08 mm, Number of poles: 2, 90°, Solder pin length (l): 4.5 mm, tinned, orange, Clamping yoke connection, Clamping range, max. : 6 mm ² , Box
Order No.	1594600000
Type	LPP 5.08/02/90 4.5SN OR BX
GTIN (EAN)	4008190115296
Qty.	100 items
Product data	IEC: 500 V / 32 A / 0.5 - 6 mm ² UL: 300 V / 20 A / AWG 26 - AWG 12
Packaging	Box

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Technical data

Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate No. (UR) E60693

Dimensions and weights

Depth	13.4 mm	Depth (inches)	0.5276 inch
Height	21.5 mm	Height (inches)	0.8465 inch
Height of lowest version	17 mm	Width	10.76 mm
Width (inches)	0.4236 inch	Net weight	2.92 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 LP	Wire connection method	Clamping yoke connection
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	5.08 mm	Pitch in inches (P)	0.200 "
Number of poles	2	Pin series quantity	1
Fitted by customer	Yes	Number of rows	1
Max. adjacent poles per row	24	Solder pin length (l)	4.5 mm
Solder pin dimensions	0.75 x 0.9 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.	0.5 Nm	Tightening torque, max.	0.6 Nm
Clamping screw	M 3	Stripping length	6 mm
L1 in mm	5.08 mm	L1 in inches	0.200 "
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	Volume resistance	1.20 mΩ

Material data

Insulating material	PA	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	Moisture Level (MSL)	
UL 94 flammability rating	V-2	Contact material	Cu-alloy
Contact surface	tinned	Coating	1-3 μm Ni, 4-6 μm SN
Tinning type	matt	Layer structure of solder connection	4...6 μm Ni / 4...6 μm Sn
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	100 °C
Temperature range, installation, min.	-25 °C	Temperature range, installation, max.	100 °C

Conductors suitable for connection

Clamping range, min.	0.13 mm ²
Clamping range, max.	6 mm ²

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Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.5 mm ²
Solid, max. H05(07) V-U	6 mm ²
Flexible, min. H05(07) V-K	0.5 mm ²
Flexible, max. H05(07) V-K	4 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 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	2.8 mm x 2.4 mm; 3.0 mm

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm ²
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 mm ²
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 mm ²
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

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

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	32 A
Rated current, max. number of poles (Tu=20°C)	30.5 A	Rated current, min. number of poles (Tu=40°C)	32 A
Rated current, max. number of poles (Tu=40°C)	25 A	Rated voltage for surge voltage class / pollution degree II/2	500 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

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Technical data

Rated data acc. to CSA

Institute (CSA)	CSA	Certificate No. (CSA)	200039-1202191
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 26	Wire cross-section, AWG, max.	AWG 12
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (UR)	UR	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)	20 A	Rated current (Use group D / UL 1059)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 12
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	155.00 mm
VPE width	61.00 mm	VPE height	58.00 mm

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. • It is necessary to hold the insulating body of the one or two pole terminal when tightening the screw • Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

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		

Dimensional drawing



Graph



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Accessories

Intermediate plates



The maximum voltage is based on the minimum distance. Intermediate plates increase the creepage and clearance distances between different potentials and permit higher rated voltages or a clear separation, e.g. between mains and low voltages or different protection zones.

The dovetail joint enables easy installation and guarantees a secure fit. Other characteristics include:

- Pitch extended by 1.27 or 2.54mm - all other combinations possible
- Colour coding ensures visual differentiation
- Different geometries for standard designs.

Incomplete individual assemblies avoided because separate terminal blocks combine to form a single holistic unit. Ready-assembled on request.

The advantages: efficient processing, increased stability, improved reliability.

General ordering data

Type	LPZP 2.54/90 OR	Version
Order No.	1747480000	Printed circuit board terminals, Accessories, Intermediate plate,
GTIN (EAN)	4008190992163	orange, Number of poles: 1
Qty.	100 ST	
Type	LPZP 1.27/90 OR	Version
Order No.	1747490000	Printed circuit board terminals, Accessories, Intermediate plate,
GTIN (EAN)	4008190992170	orange, Number of poles: 1
Qty.	100 ST	
Type	LPZP 2.54/90 SW	Version
Order No.	1747500000	Printed circuit board terminals, Accessories, Intermediate plate, black,
GTIN (EAN)	4008190992187	Number of poles: 1
Qty.	100 ST	
Type	LPZP 1.27/90 SW	Version
Order No.	1747510000	Printed circuit board terminals, Accessories, Intermediate plate, black,
GTIN (EAN)	4008190992194	Number of poles: 1
Qty.	100 ST	

Mounting blocks



Minor component, major effect:

Clip-on attachment elements increase the mechanical resilience of the circuit board terminals.

Clip-on or pre-assembled - always the right solution:

- Hard-wearing, precise fitting dovetail joint
- Hard-wearing metal threaded inserts
- Suitable for all outlet directions

Maximum stability, minimum effort:

- Extremely resilient for frequent fastening operations
- Complete set for easy selection

The result: soldering points, contacts and overall module are more resilient against mechanical stress such as vibrations and tensile loads.

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Accessories

General ordering data

Type	LPBB MU OR	Version
Order No.	1747530000	Printed circuit board terminals, Accessories, Mounting block, orange,
GTIN (EAN)	4008190992217	Number of poles: 1
Qty.	100 ST	
Type	LPBB OR	Version
Order No.	1747540000	Printed circuit board terminals, Accessories, Mounting block, orange,
GTIN (EAN)	4008190992224	Number of poles: 1
Qty.	100 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:

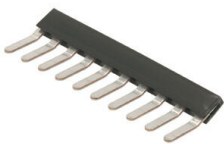
- Test plugs ensure reliable pick-up from diagnostic sockets

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	1
Qty.	20 ST	

Cross-connections



Large potential for small terminals.

For efficient electrical distribution directly at the connection:

- Isolated comb rail
- Available with the most standard pole numbers
- Easy to shorten

Simply reduce in size to match the number of poles and connect with the conductor in a single working procedure.

For retrofitting or deliberate reduction of the thermal load on the PCB.

General ordering data

Type	LPA QB 2	Version
Order No.	1472200000	Printed circuit board terminals, Accessories, Cross-connector, Number
GTIN (EAN)	4008190096298	of poles: 2
Qty.	50 ST	

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Accessories

Fuse cartridges



Convenient protection for technicians and technology: The fuse holder protects the current circuits directly at the clamping point and is easy to retrofit - one of the most versatile and efficient terminal printing systems with 5mm pitch: the LP-series by Weidmüller.

Suitable for direct installation on the back of terminals.

- Enclosed, safe from finger touch
- 2 in 1 - marking holder for labelling circuit numbers and fuses
- Attachment profile for Dekafix markers

Clear assignment of safety elements to the correct conductor outlet enables easy maintenance and troubleshooting.

Safety in compact form - for the service technician and application components.

General ordering data

Type	LPA SI STI3.2 OR	Version
Order No.	1495060000	Printed circuit board terminals, Accessories, Fuse cartridge, orange,
GTIN (EAN)	4008190095536	Number of poles: 1
Qty.	50 ST	
Type	LPA SI STI4.5 OR	Version
Order No.	1495160000	Printed circuit board terminals, Accessories, Fuse cartridge, orange,
GTIN (EAN)	4008190153359	Number of poles: 1
Qty.	50 ST	

Isolating elements



Efficient isolation - safe inspections:

The isolating element isolates the current circuits directly at the clamping point and is easy to retrofit - one of the most versatile and efficient terminal printing systems with 5mm pitch: the LP-series by Weidmüller.

Suitable for direct installation on the back of terminals.

- Enclosed safe from finger touch
- 2 in 1 - marking holder for labelling circuit numbers and fuses
- Attachment profile for Dekafix markers

Clear assignment of isolating elements to the correct conductor outlet enables thorough maintenance and inspections.

Safety in compact form - for the service technician and application components.

General ordering data

Type	LPA TR STI3.2 OR	Version
Order No.	1495460000	Printed circuit board terminals, Accessories, Spacer, orange, Number
GTIN (EAN)	4008190044688	of poles: 1
Qty.	100 ST	
Type	LPA TR STI4.5 OR	Version
Order No.	1495560000	Printed circuit board terminals, Accessories, Spacer, orange, Number
GTIN (EAN)	4008190156732	of poles: 1
Qty.	100 ST	

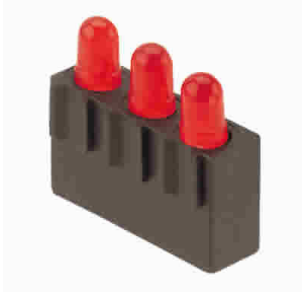
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Accessories

Function indicators



Everything under control:

The function indicator is easy to retrofit and clearly indicates the switching state at the clamping point - also available with large format marking holder. One of the most versatile and efficient terminal printing systems with 5mm pitch: the Weidmüller LP series.

- Holder for 3mm standard LEDs
- Simple installation on the back of SP series terminals.
- Optional marking holder for advanced marking options (WS10/5 and WS12/5, see markings)

The easiest, most reliable way of monitoring switching states.

In brief: minimum effort, maximum reliability.

General ordering data

Type	LPA FA2	Version
Order No.	1495960000	Printed circuit board terminals, Accessories, Function indicator, black,
GTIN (EAN)	4008190173500	Number of poles: 2
Qty.	50 ST	
Type	LPA FA3	Version
Order No.	1496060000	Printed circuit board terminals, Accessories, Function indicator, black,
GTIN (EAN)	4008190062330	Number of poles: 3
Qty.	50 ST	
Type	LPA FA2 BZ	Version
Order No.	1496160000	Printed circuit board terminals, Accessories, Function indicator, black,
GTIN (EAN)	4008190100988	Number of poles: 2
Qty.	50 ST	
Type	LPA FA3 BZ	Version
Order No.	1496260000	Printed circuit board terminals, Accessories, Function indicator, black,
GTIN (EAN)	4008190101862	Number of poles: 3
Qty.	50 ST	

Marker holder



Finds space on the smallest terminal:

The marking holder is easy to retrofit and provides a large additional labelling space - the Weidmüller LP series is one of the most versatile and efficient terminal printing systems with 5mm pitch.

3 steps to clear, legible labels:

Mark "dekafix" designation strips manually or automatically Reduce designation strips in size and insert in the "dekafix" rail profile Simply clip the marking holder onto the terminal!

The most professional, convenient method of marking clamping points direct on the module - no confusion between clamping points and no incorrect wiring connections.

Minimum effort, maximum effect.

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Accessories

General ordering data

Type	LPA BZ2	Version	
Order No.	1497260000	Printed circuit board terminals, Accessories, Marker holder, black,	
GTIN (EAN)	4008190027902	Number of poles: 2	
Qty.	100 ST		
Type	LPA BZ3	Version	
Order No.	1497360000	Printed circuit board terminals, Accessories, Marker holder, black,	
GTIN (EAN)	4008190127022	Number of poles: 3	
Qty.	100 ST		