

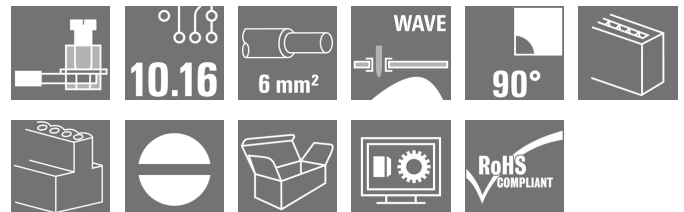
LP 10.16/03/90 3.2SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

PCB terminal with proven clamping-yoke connection in 10 and 10.16 mm pitches, with 90° wire outlet angle. Suitable for conductor cross-sections up to 6.0 mm².

General ordering data

Version	Printed circuit board terminals, 10.16 mm, Number of poles: 3, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Clamping yoke connection, Clamping range, max. : 6 mm ² , Box
Order No.	1845020000
Type	LP 10.16/03/90 3.2SN OR BX
GTIN (EAN)	4032248357826
Qty.	50 pc(s).
Product data	IEC: 1000 V / 32 A / 0.5 - 6 mm ² UL: 300 V / 20 A / AWG 26 - AWG 12
Packaging	Box

Delivery status **Discontinued** Creation date March 25, 2021 7:43:55 PM CET

Available until 2018-12-31

Alternative product [2613370000](#)

Catalogue status 12.03.2021 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

Depth	11 mm	Depth (inches)	0.433 inch
Height	20.2 mm	Height (inches)	0.795 inch
Height of lowest version	17 mm	Net weight	5.4 g
Width	25.4 mm	Width (inches)	1 inch

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)	10.16 mm	Pitch in inches (P)	0.4 inch
Number of poles	3	Pin series quantity	1
Fitted by customer	Yes	Max. adjacent poles per row	8
Solder pin length (l)	3.2 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-A	Tightening torque, min.	0.5 Nm
Tightening torque, max.	0.6 Nm	Clamping screw	M 3
Stripping length	6 mm	L1 in mm	20.32 mm
L1 in inches	0.8 inch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	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	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-2	Contact material	Copper 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
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, min.	0.5 mm ²	w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 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		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)
	2.8 mm x 2.4 mm; 3.0 mm		

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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)	32 A	Rated current, min. number of poles (Tu=40°C)	32 A
Rated current, max. number of poles (Tu=40°C)	30.5 A	Rated voltage for surge voltage class / pollution degree II/2	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	1,000 V	Rated voltage for surge voltage class / pollution degree III/3	630 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	8 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	8 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	8 kV	Short-time withstand current resistance	3 x 1s with 120 A

Rated data acc. to CSA

Institute (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)		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 C / 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	61 mm
VPE width	100 mm	VPE height	115 mm

Classifications

ETIM 6.0	EC002643	ETIM 7.0	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

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	• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months		

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Technical data

Approvals

Approvals



ROHS	Conform
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UL File Number Search	E60693
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Downloads

Approval/Certificate/Document of
Conformity

[Declaration of the Manufacturer](#)

Engineering Data

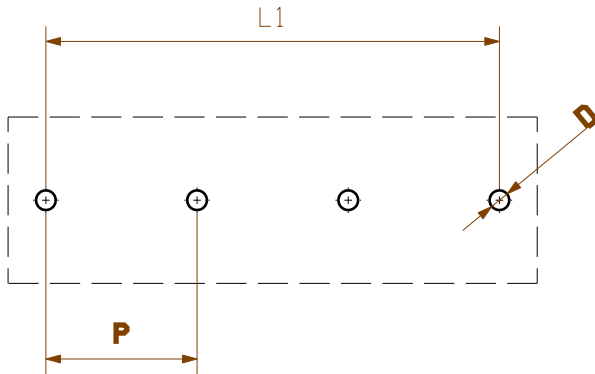
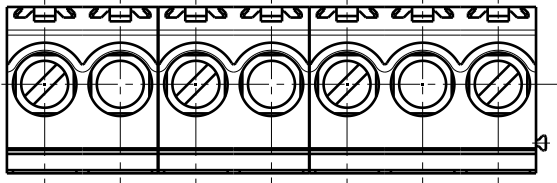
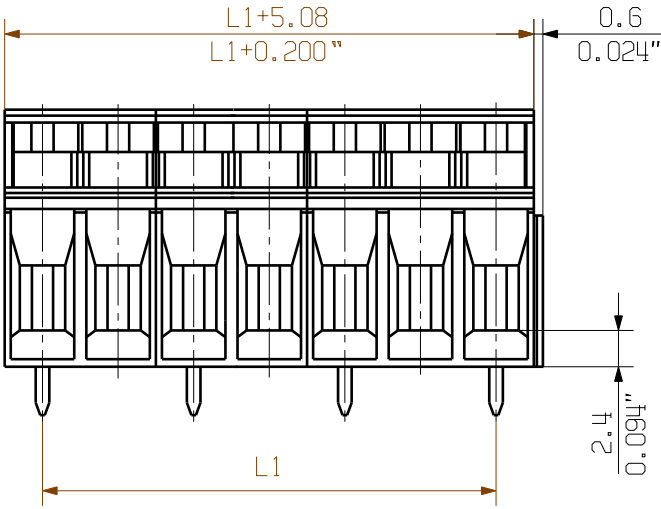
[EPLAN, WSCAD](#)

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WEIDMÜLLER INTERFACE GmbH & Co. KG

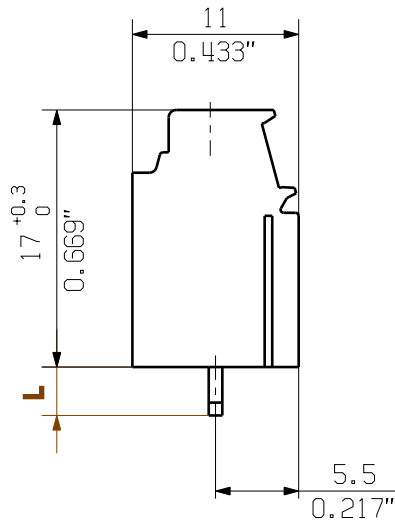
Technical Data

Rev.	Material data	
	Insulation material type	PA 66
	Insulation material colours	orange
	Insulation material flammability class	UL94
	Insulation resistance	MOhm
	Conatct base material	Cu - alloy
	Contact plating	tin - plated
System characteristic values		
Pitch P	mm/inch	10.16/0.400
Number of rows		1
Dielectric strength (r.m.s withstand voltage)	kV	2.5
Through resistance (typical)	mOhm	0.7
Operating temperature range	°C	-55 ... +100
Degree of protection acc. to VDE 0106		finger safe
Degree of protection acc. to DIN EN 60529		IP20
Conductor connection method		clamping yoke
Screw size		M3
Screw torque max. acc. to EN 60999	Nm	0.5
Screw driver type		SD 0.6x3.5
Solder pin length L	mm/inch	3.2/0.126
PCB hole diameter D (wave soldering)	mm/inch	1.3+0.1/0.051+0.004
PCB hole diameter D (reflow soldering)	mm/inch	n.a.
Resistance to soldering heat acc. to DIN IEC 60512-6	°C/sec	260/10
Resistance to soldering heat acc. to EN 61760-1	°C/sec	n.a.
Solderability classification acc. to EN 61760-1		n.a.
Solder connection type		wave soldering
Solder pin diameter d (max.)	mm/inch	1.27/0.05
Application notes		
Coding possibility	yes/no	no
Joinable without loss of pitch	yes/no	no
Manual assembly of modules	yes/no	yes
Max. number of poles	n	12
Conductor		
Clamping range	mm ²	0.12...6.0
"e" solid H05(07) V-U	mm ²	0.12...6.0
"f" flexible H05(07) V-K	mm ²	0.12...4.0
"f" with ferrule acc. to DIN 46228/1	mm ²	0.5...2.5
... with plastic collar acc. to DIN 46228/4	mm ²	0.5...2.5
Conductor insulation stripping length	mm/inch	6/0.236
Conductor insulation diameter max.	mm/inch	n.a.
Two wire clamping range	mm ²	0.5...1.5
Gauge to EN 60999 (a x b ; Ø)	mm	2.8x2.4; 3
IEC 664-1 / VDE0110 (4.97) rated data		
Rated cross section acc. to EN 60999	mm ²	4.0
Rated current @ 20°C ambient	A	32
Rated current @ 40°C ambient	A	32
Overvoltage category / Pollution degree		
Rated voltage	V	630 1000 1000
Rated impulse voltage	kV	8 8 8
UL 1059 rated data		
Rated voltage		B C D
Rated current		300 - 300
AWG wire range (field wiring / factory wiring)		20 - 10
		26...12
CSA C22.2 rated data		
Rated voltage		B C D
Rated current		300 - 300
AWG wire range (field wiring / factory wiring)		20 - 10
		26...12
Packaging		
		carton
Downloads		
		www.weidmueller.de
1) Sum of ambient temperature and temperature rise		
2) Recommendation for manual assembly		
3) Recommendation for automatic assembly		
4) Recommendation for wave soldering		
5) Recommendation for reflow soldering		
6) Referred to rated cross section and minimum pole number		
n.a. = not applicable		
Subject to technical changes		

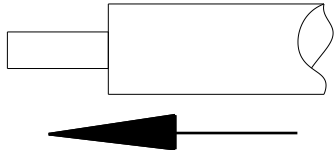


LAYOUT FINISHED HOLES

SCREWDRIVER



CONDUCTOR



DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING

12	111,76	4,400
11	101,60	4,000
10	91,44	3,600
9	81,28	3,200
8	71,12	2,800
7	60,96	2,400
6	50,80	2,000
5	40,64	1,600
4	30,48	1,200
3	20,32	0,800
2	10,16	0,400
n	L1 [mm]	L1 [Inch]

 METRIC TOLERANCES X. = ±0.3 X.X = ±0.1 X.XX = ±0.05	39336/5 18.01.08 HELIS_MA 00		Weidmüller 		CAT.NO.: .	
	MODIFICATION				C 34180 01	
		DATE	NAME	LP 10.16/.../90 LEITERPLATTENKLEMME PCB TERMINAL		
DRAWN		17.01.2008 HELIS_MA				
RESPONSIBLE		KRUG_M				
SCALE: None	CHECKED	18.01.2008 HECKERT_M	PRODUCT FILE: LP../90			
SUPERSEDES: .	APPROVED	HECKERT_M				
					7360	▪

Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 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.

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