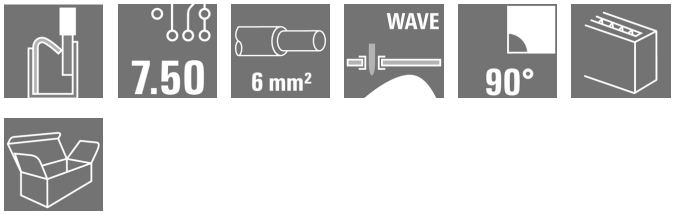
OMNIMATE Power - series LL
LLFS 7.50/01/90 5.0SN BK BX

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





The sturdy, direct connection for extreme current and voltage requirements in all power electronics applications such as solar inverters, frequency converters, servo-controllers and power supplies.

General ordering data

Type	LLFS 7.50/01/90 5.0SN BK BX
Order No.	2473420000
Version	Printed circuit board terminals, 7.50 mm, No. of poles: 1, 90°, Solder pin length (l): 5 mm, tinned, black, PUSH IN without actuator, Clamping range, max. : 6 mm², Box
GTIN (EAN)	4050118579406
Qty.	200 pc(s).
Product data	IEC: 1000 V / 41 A / 0.5 - 6 mm² UL: 300 V / 37 A / AWG 24 - AWG 8
Packaging	Box

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Technical data

Dimensions and weights

Width	8.5 mm	Width (inches)	0.335 inch
Height	30.56 mm	Height (inches)	1.203 inch
Height of lowest version	25.56 mm	Depth	20.05 mm
Depth (inches)	0.789 inch	Net weight	4.925 g

System parameters

Product family	OMNIMATE Power - series LL	Wire connection method	PUSH IN without actuator
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	7.5 mm	Pitch in inches (P)	0.295 inch
No. of poles	1	Fitted by customer	No
Solder pin length (l)	5 mm	Solder pin dimensions	d = 1.5 mm
Solder eyelet hole diameter (D)	2 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
Number of solder pins per pole	2	Stripping length	12 mm
L1 in mm	0 mm	L1 in inches	0 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	black
Colour chart (similar)	RAL 9011	Insulating material group	I
Insulation strength	≥ 10^8 Ω	UL 94 flammability rating	V-0
Contact material	E-Cu	Contact surface	tinned
Layer structure of solder connection	4-10 µ Sn matt	Storage temperature, min.	-40 °C
Storage temperature, max.	85 °C	Max. relative humidity during storage	80 %
Operating temperature, min.	-40 °C	Operating temperature, max.	120 °C

Conductors suitable for connection

Clamping range, min.	0.25 mm²
Clamping range, max.	6 mm²
Solid, min. H05(07) V-U	0.5 mm²
Solid, max. H05(07) V-U	4 mm²
Flexible, min. H05(07) V-K	0.5 mm²
Flexible, max. H05(07) V-K	6 mm²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.25 mm²
w. plastic collar ferrule, DIN 46228 pt 4, max.	6 mm²
w. wire end ferrule, DIN 46228 pt 1, min	0.25 mm²
w. wire end ferrule, DIN 46228 pt 1, max.	6 mm²

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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 14 mm
		Recommended wire-end ferrule	1076980000
	Cross-section for conductor connection	Type	fine-wired
		nominal	1 mm²
	wire end ferrule	Stripping length	nominal 15 mm
		Recommended wire-end ferrule	9025930000
	Cross-section for conductor connection	Type	fine-wired
		nominal	1.5 mm²
	wire end ferrule	Stripping length	nominal 15 mm
		Recommended wire-end ferrule	9019140000
		Stripping length	nominal 12 mm
		Recommended wire-end ferrule	9004060000
	Cross-section for conductor connection	Type	fine-wired
		nominal	0.75 mm²
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire-end ferrule	9025910000
	Cross-section for conductor connection	Type	fine-wired
		nominal	2.5 mm²
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire-end ferrule	9019170000
		Stripping length	nominal 12 mm
		Recommended wire-end ferrule	0186100000
	Cross-section for conductor connection	Type	fine-wired
		nominal	4 mm²
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	0244100000
		Stripping length	nominal 14 mm
		Recommended wire-end ferrule	9019200000
	Cross-section for conductor connection	Type	fine-wired
		nominal	6 mm²
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire-end ferrule	0533500000
		Stripping length	nominal 12 mm
		Recommended wire-end ferrule	0191900000
	Cross-section for conductor connection	Type	fine-wired
		nominal	10 mm²
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	0282900000
Max. clamping range	6 mm²		

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Technical data

Rated data acc. to IEC

tested acc. to standard	In accordance with IEC 60947-7-1	Rated current, min. no. of poles (Tu=20°C)	41 A
Rated current, max. no. of poles (Tu=20°C)	41 A	Rated current, min. no. of poles (Tu=40°C)	41 A
Rated current, max. no. of poles (Tu=40°C)	41 A	Rated voltage for surge voltage class / pollution degree II/2	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	600 V	Rated voltage for surge voltage class / pollution degree III/3	600 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	6 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV		

Rated data acc. to CSA

Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group C / CSA)	1,000 V
Rated voltage (Use group D / CSA)	300 V	Rated current (Use group B / CSA)	37 A
Rated current (Use group C / CSA)	37 A	Rated current (Use group D / CSA)	10 A

Rated data acc. to UL 1059

Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group C / UL 1059)	150 V
Rated voltage (Use group D / UL 1059)	300 V	Rated voltage (Use group E / UL 1059)	1,000 V
Rated current (Use group B / UL 1059)	37 A	Rated current (Use group C / UL 1059)	37 A
Rated current (Use group D / UL 1059)	10 A	Rated current (Use group E / UL 1059)	37 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 8

Packing

Packaging	Box	VPE length	0.22 m
VPE width	0.21 m	VPE height	0.043 m

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 9.0	27-44-04-01
eClass 9.1	27-44-04-01		

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Technical data

Notes

Notes	• Additional colours 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.
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.

Downloads

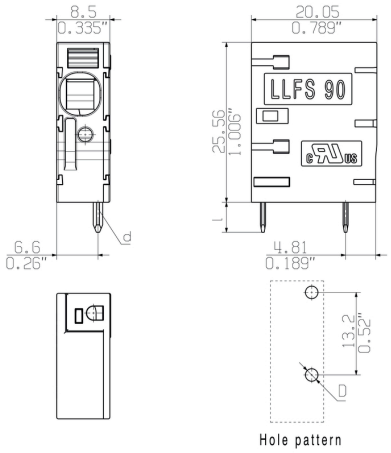
Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	STEP STEP
Motion controllers white paper	Download Whitepaper
White Paper UL 600 V	Download Whitepaper

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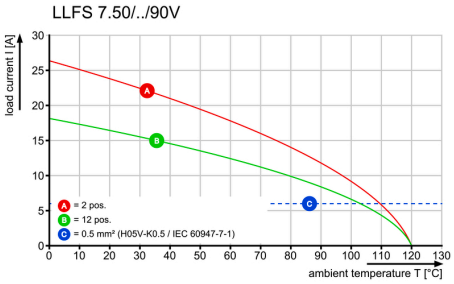
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Drawings

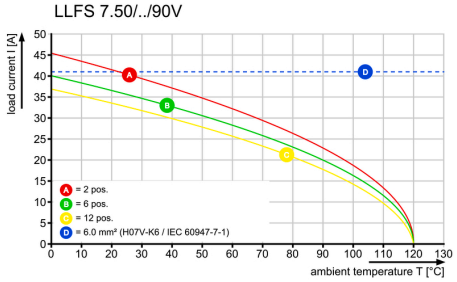
Dimensional drawing



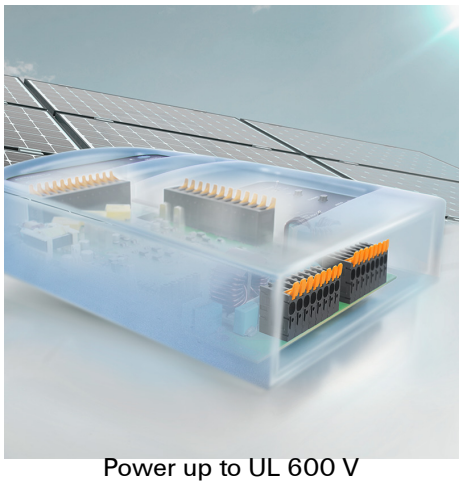
Derating curve



Derating curve



Product benefits



Power up to UL 600 V
Offset solder pins

Product benefits

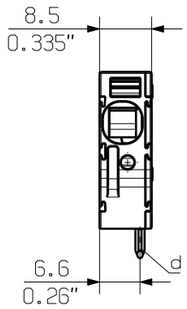


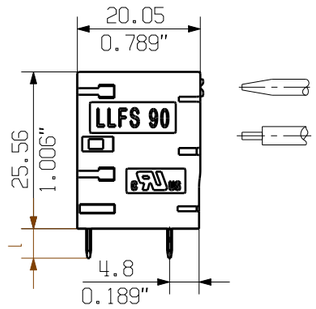
Tool-free wiring
Top contact security

Dimensions without tolerances are no check dimensions

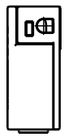
The English version is binding

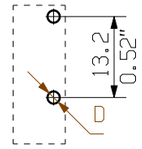
General customer drawing, topical version only if required



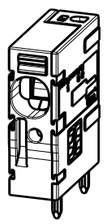


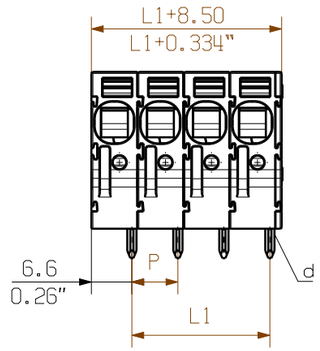
Screwdriver and conductor direction

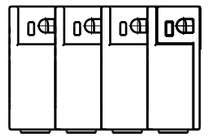


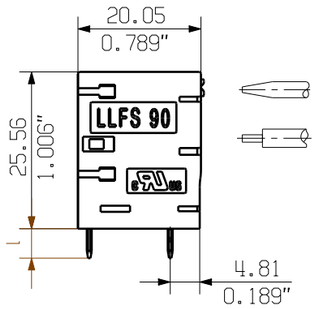


Hole pattern

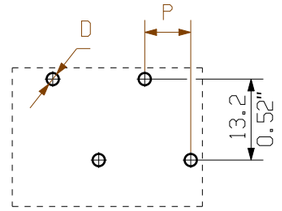




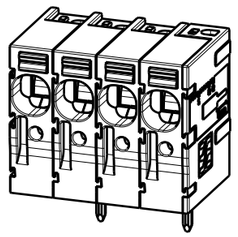




Screwdriver and conductor direction



Hole pattern



P = 7.50 / 0.295" (Pitch)

D = Ø2 +0.1 / 0.079"

d = 1.5x0.8 / 0.059"x0.031"

l = 5.0 +0.2 -0.6 / 0.197"

n Poles	L1 [mm]	L1 [inch]
12	82.50	3.248
11	75.00	2.953
10	67.50	2.657
9	60.00	2.362
8	52.50	2.067
7	45.00	1.772
6	37.50	1.476
5	30.00	1.181
4	22.50	0.886
3	15.00	0.591
2	7.50	0.295

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone. The neccessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 60664-1 (VDE 0110).
The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 60326-3 very fine.

Weidmüller PCB components are tested to the IEC 60947-7-4 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 occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

General tolerance: DIN ISO 2768-mK

RoHS COMPLIANT

104820/4
10.07.18 WU_M
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00
Modification

. .

Cat.no.: .

Weidmüller

3 61340 04
Drawing no. Issue no.

Sheet 01 of 01 sheets

	Date	Name
Drawn	04.07.2016	KRECHT_M
Responsible		WRIGHT_ST
Checked	16.07.2018	ZHOU_N
Approved		XU_S

Scale: 1/1

Supersedes: .

LLFS 7.50/.../90 ...

LEITERPLATTENKLEMME
PCB TERMINAL

Product file: LLF 7.50 7416

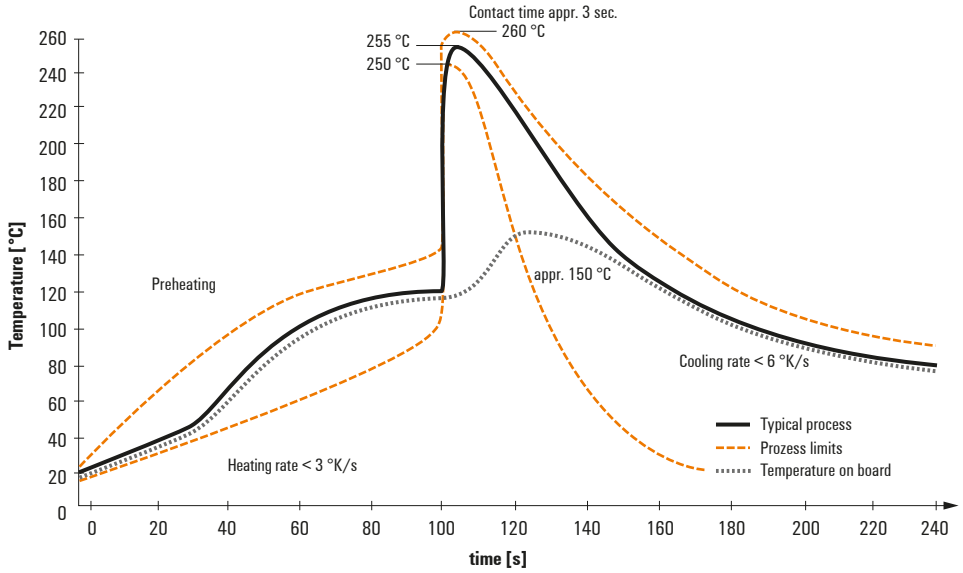
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Wave Solder Profile

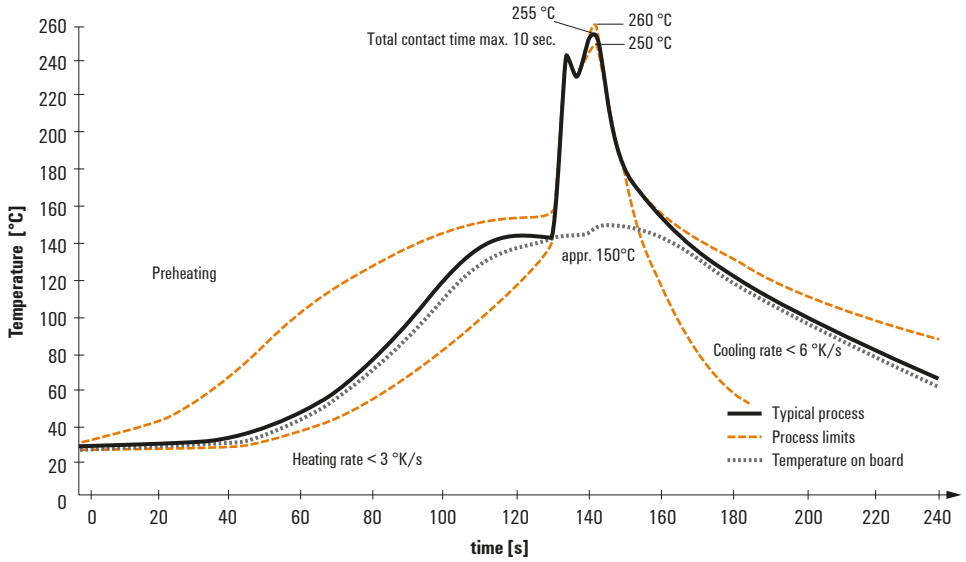
Recommended wave solderding profiles

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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.

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

WeidmÃ¼ller:

1124150000 1608830000 8951460000 1784180000 2535780000 024892 SAKS3 0303620000 1031470000
1121990000 1221360000 1760040000 1779950000 1906650000 1013450000 1607520000 1786450000
1804580000 8690200000 9037380000 9456650000 1608570000 1609820000 1950200000 1289470000
1890260000 1622940000 2642470000 1127570000 1649300000 1818090500