

LS2HF 3.50/42/90 3.5SN OR BX

Weidmüller Interface GmbH & Co. KG

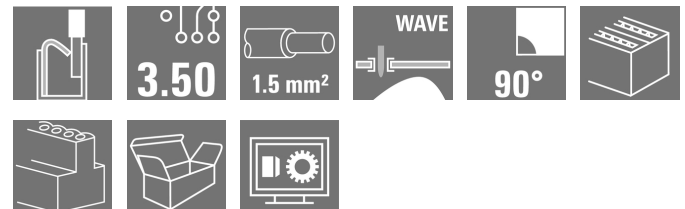
Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



Similar to illustration

Double-level PCB terminal for the wave soldering process, with PUSH IN wire connection system. Conductor insertion and slider operation from the same direction (TOP).

- Solid and flexible conductors with wire-end ferrules can just be inserted - done
- When connecting flexible wires without wire-end ferrules, the actuating element is used to open the clamping point
- Intuitive handling thanks to the clear distinction between wire entry and actuating element
- Packed in a box
- Conductor outlet direction 90°

General ordering data

Version	Printed circuit board terminals, 3.50 mm, Number of poles: 42, 90°, Solder pin length (l): 3.5 mm, orange, PUSH IN, Clamping range, max.: 1.5 mm², Box
Order No.	2001130000
Type	LS2HF 3.50/42/90 3.5SN OR BX
GTIN (EAN)	4050118382884
Qty.	20 pc(s).
Product data	IEC: 400 V / 17.5 A / 0.2 - 1.5 mm² UL: 150 V / 12.5 A / AWG 26 - AWG 16
Packaging	Box

Creation date March 26, 2021 8:06:17 PM CET

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Technical data

Dimensions and weights

Depth	18 mm	Depth (inches)	0.709 inch
Height	27.7 mm	Height (inches)	1.091 inch
Height of lowest version	24.2 mm	Net weight	39.113 g
Width	78.5 mm	Width (inches)	3.091 inch

System parameters

Product family	OMNIMATE Signal - series LS	Wire connection method	PUSH IN
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	3.5 mm	Pitch in inches (P)	0.138 inch
Number of poles	42	Pin series quantity	2
Fitted by customer	No	Solder pin length (l)	3.5 mm
Solder pin length tolerance	-0.1 / 0 mm	Solder pin dimensions	1.0 x 0.6 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	0.4 x 2.5
Stripping length	8 mm	L1 in mm	70 mm
L1 in inches	2.756 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	PA 66/6	Colour	orange
Colour chart (similar)	RAL 2000	Comparative Tracking Index (CTI)	≥ 600
UL 94 flammability rating	V-0	Contact material	Copper alloy
Layer structure of solder connection	4...7 µm Sn matt	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	120 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	100 °C		

Conductors suitable for connection

Clamping range, min.	0.2 mm ²
Clamping range, max.	1.5 mm ²
Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 16
Solid, min. H05(07) V-U	0.2 mm ²
Solid, max. H05(07) V-U	1.5 mm ²
Flexible, min. H05(07) V-K	0.2 mm ²
Flexible, max. H05(07) V-K	1.5 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 0.75 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, 0.2 mm ² min.	
w. wire end ferrule, DIN 46228 pt 1, 1.5 mm ² max.	

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Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.25 mm ²
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0.25/12 HBL
	Cross-section for conductor connection	Type	fine-wired
		nominal	0.34 mm ²
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0.34/12 TK
	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm ²
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0.5/14 OR
Reference text	Cross-section for conductor connection	Type	fine-wired
		nominal	0.75 mm ²
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0.75/14T HBL
	Cross-section for conductor connection	Type	fine-wired
		nominal	1.5 mm ²
	wire end ferrule	Stripping length	nominal 7 mm
		Recommended wire-end ferrule	H1.5/7
	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 60947-7-4	Rated current, min. number of poles (Tu=20°C)	17.5 A
Rated current, max. number of poles (Tu=20°C)	9 A	Rated current, min. number of poles (Tu=40°C)	17.5 A
Rated current, max. number of poles (Tu=40°C)	8 A	Rated voltage for surge voltage class / pollution degree II/2	400 V
Rated voltage for surge voltage class / pollution degree III/2	200 V	Rated voltage for surge voltage class / pollution degree III/3	160 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	2.5 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	2.5 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	2.5 kV		

Rated data acc. to CSA

Rated voltage (Use group B / CSA)	150 V	Rated voltage (Use group D / CSA)	150 V
Rated current (Use group B / CSA)	12.5 A	Rated current (Use group D / CSA)	12.5 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 16

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Technical data

Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059) 150 V

Rated voltage (Use group D / UL 1059) 150 V

Rated current (Use group B / UL 1059) 12.5 A

Rated current (Use group D / UL 1059) 12.5 A

Wire cross-section, AWG, min.

AWG 26

Wire cross-section, AWG, max.

AWG 16

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Packing

Packaging Box

VPE length 0

VPE width 0

VPE height 0

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

- 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.
- Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended.
- Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

Approvals

Approvals



UL File Number Search

E60693

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Technical data

Downloads

Approval/Certificate/Document of
Conformity

[Declaration of the Manufacturer](#)

Engineering Data

[STEP](#)

Engineering Data

[EPLAN, WSCAD](#)

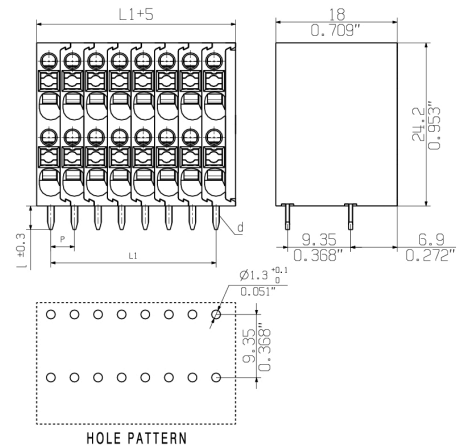
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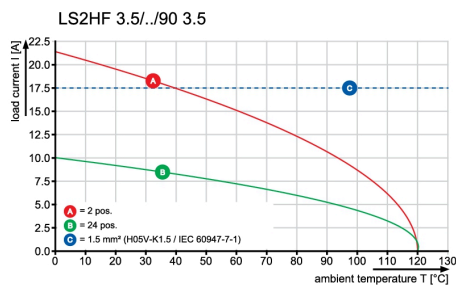
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Drawings

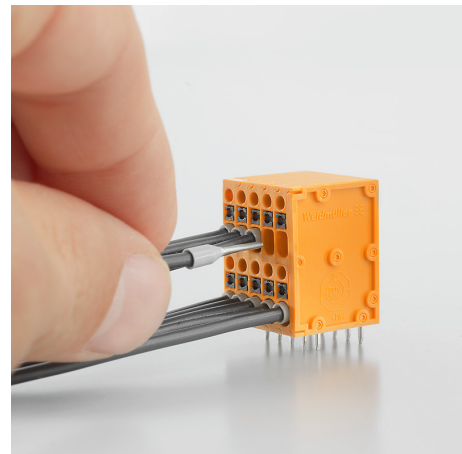
Dimensional drawing



Graph

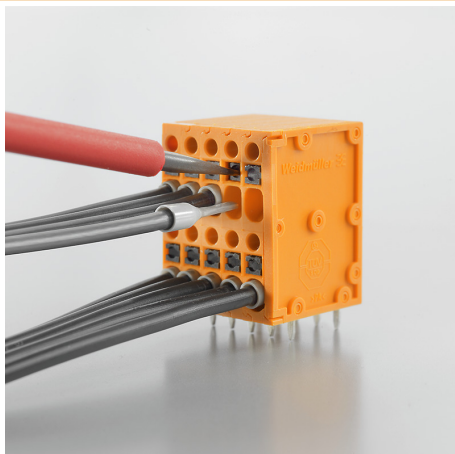


Product benefits



Fast conductor entry through PUSH IN

Product benefits



Simple and reliable connection

Product benefits



Compact design with 2 levels

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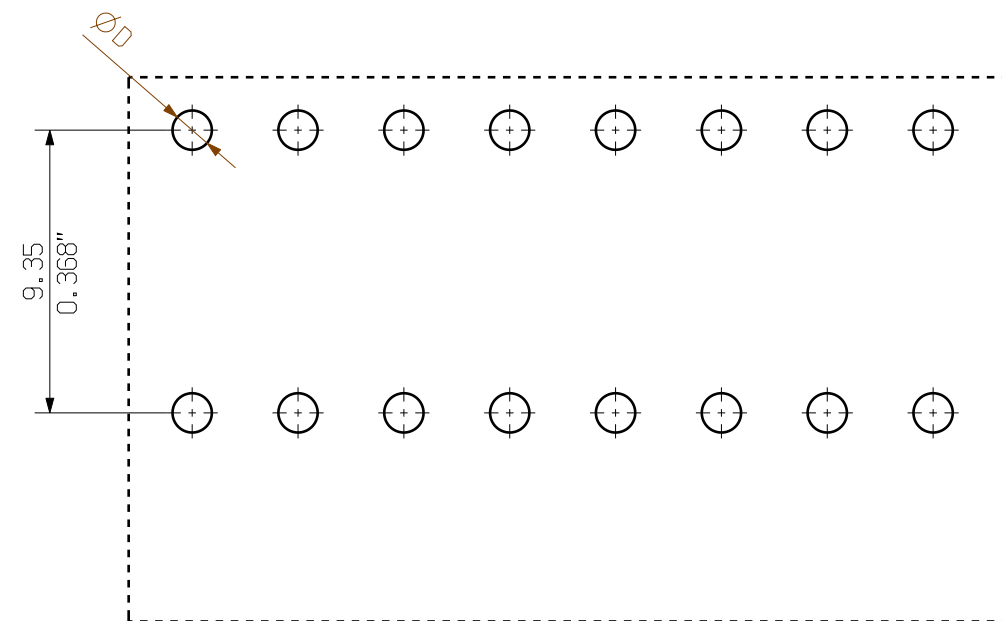
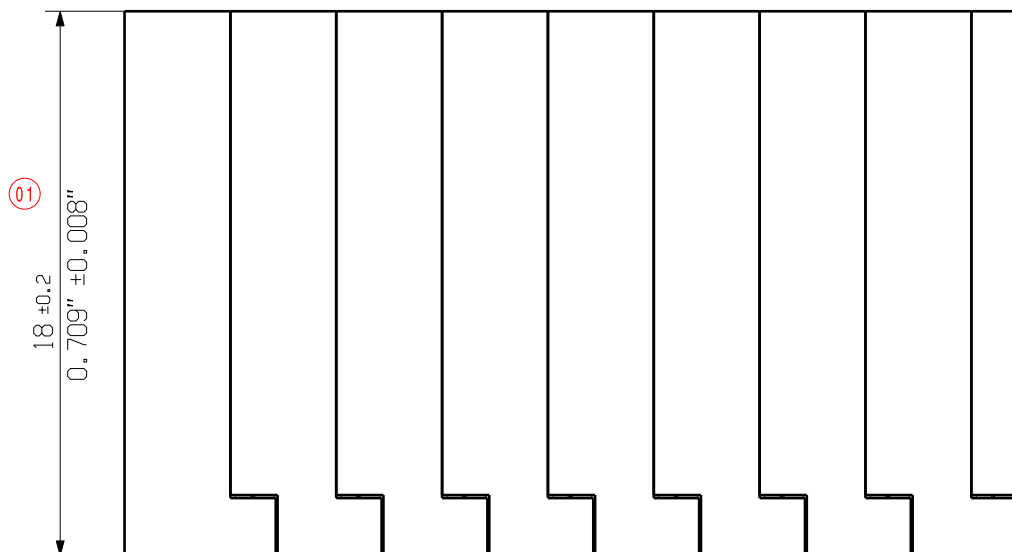
Drawings

Product benefits



Maintenance through test tap

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P = 3.50 RASTER
PITCH
D = $\varnothing 1.3 + 0.1$
0.051"
d = $\frac{0.6 \times 1.0}{0.024'' \times 0.039''}$
I = $\frac{3.5}{0.138''}$

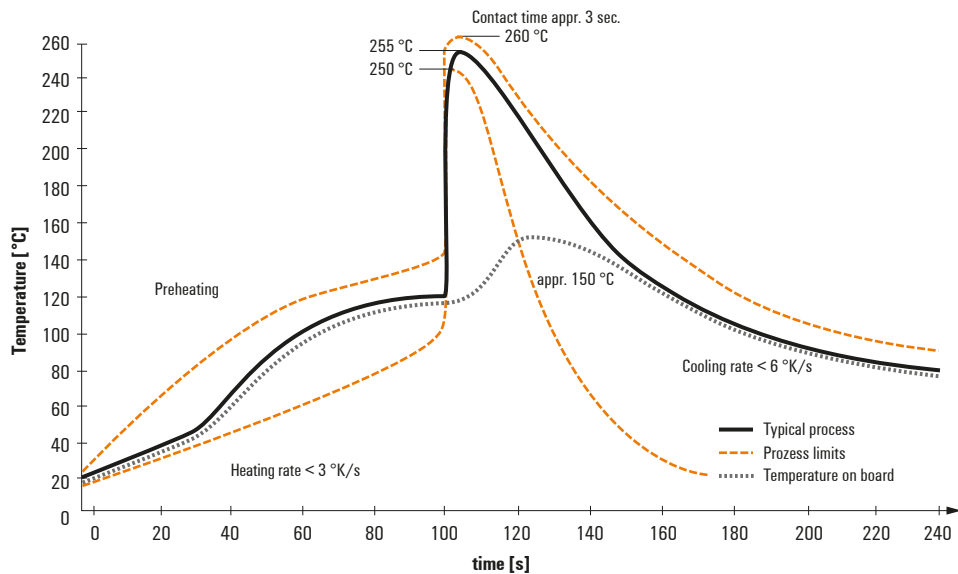
CAT.NO.: 1514540000	
C 59281	01
DRAWING NO.	ISSUE NO.
SHEET 02	OF 02 SHEETS

GENERAL TOLERANCE: DIN ISO 2768-m		83899/5 22.09.15 XIANG_K		04	CAT.NO.: 1514540000	
		MODIFICATION				C 59281
		DATE	NAME	DRAWING NO		ISSUE NO
SCALE: 4/1		DRAWN	ZHOU_N	SHEET 02		OF 02 SHEETS
SUPERSEDES: .		CHECKED	ZHOU_N	LS2HF 3.5/.../90... LEITERPLATTENKLEMME PCB TERMINAL		
		APPROVED	XU_S	PRODUCT FILE: LS2HF		7647

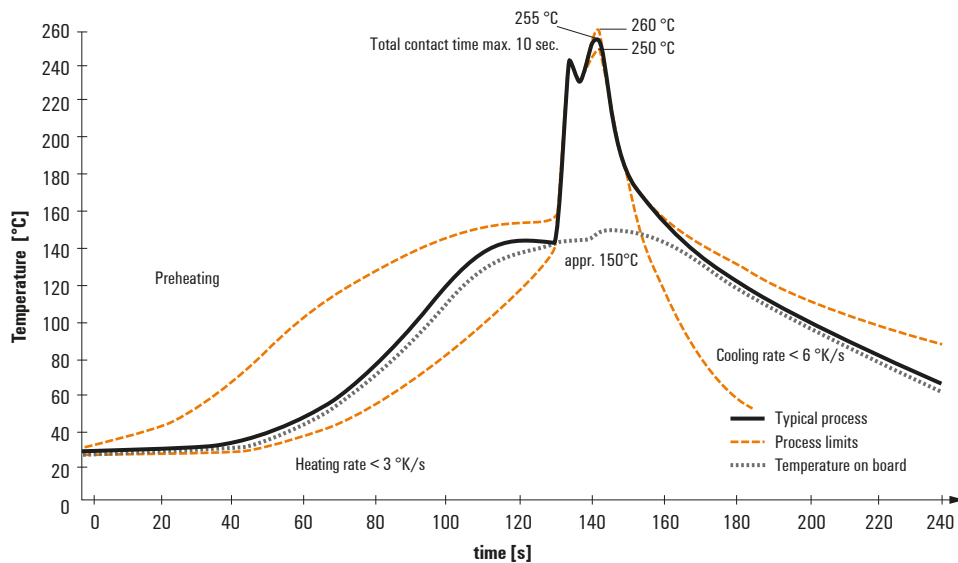
Recommended wave soldering profiles

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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.