

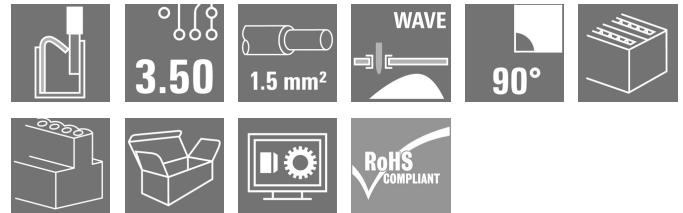
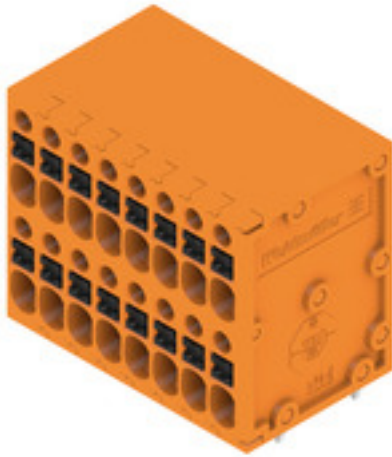
LS2HF 3.50/16/90 3.5SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

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: 16, 90°, Solder pin length (l): 3.5 mm, orange, PUSH IN with actuator, Clamping range, max.: 1.5 mm², Box
Order No.	2001000000
Type	LS2HF 3.50/16/90 3.5SN OR BX
GTIN (EAN)	4050118382747
Qty.	50 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 May 11, 2025 8:49:23 PM CEST

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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	Width	33 mm
Width (inches)	1.299 inch	Net weight	14.9 g

System parameters

Product family	OMNIMATE Signal - series LS	Wire connection method	PUSH IN with actuator
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	3.5 mm	Pitch in inches (P)	0.138 "
Number of poles	16	Pin series quantity	2
Fitted by customer	No	Number of rows	2
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 pin dimensions = d tolerance	0 / -0,05 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	24.5 mm
L1 in inches	0.965 "	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 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, min.	0.2 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm ²

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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	350 mm
VPE width	138 mm	VPE height	32 mm

Type tests

Test: Durability of markings	Standard	IEC 60947-7-4 section 7.1.4 / 08.13
	Test	mark of origin, type identification, pitch, date clock
	Evaluation	available
Test for damage to and accidental loosening of conductors	Standard	IEC 60999-1 section 9.4 / 11.99, IEC 60999-1 section 9.5 / 11.99
	Requirement	0.2 kg
	Conductor type	Type of conductor and stranded 0.2 mm ² conductor cross-section
	Evaluation	passed
	Requirement	0.3 kg
	Conductor type	Type of conductor and solid 0.5 mm ² conductor cross-section
	Evaluation	passed
	Requirement	0.4 kg
	Conductor type	Type of conductor and stranded 0.5 mm ² conductor cross-section
		Type of conductor and solid 0.5 mm ² conductor cross-section
	Evaluation	passed

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Pull-out test	Standard	IEC 60999-1 section 9.4 / 11.99, IEC 60999-1 section 9.5 / 11.99
	Requirement	≥10 N
	Conductor type	Type of conductor and stranded 0.2 mm ² conductor cross-section
	Evaluation	passed
	Requirement	≥20 N
	Conductor type	Type of conductor and solid 0.5 mm ² conductor cross-section
	Evaluation	passed
	Requirement	≥40 N
	Conductor type	Type of conductor and stranded 1.5 mm ² conductor cross-section Type of conductor and solid 1.5 mm ² conductor cross-section
	Evaluation	passed

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		

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
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.
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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
	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 maximum humidity 70%, 36 months

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Technical data

Approvals

Approvals



Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319258/-T1z1mm-S800/
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ROHS	Conform
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UL File Number Search	UL Website
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Certificate No. (cURus)	E60693
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Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
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Engineering Data	CAD data – STEP
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Catalogues	Catalogues in PDF-format
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Brochures	FL DRIVES EN FL ANALO.SIGN.CONV. EN MB DEVICE MANUF. EN FL DRIVES DE FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FL INDUSTR.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN
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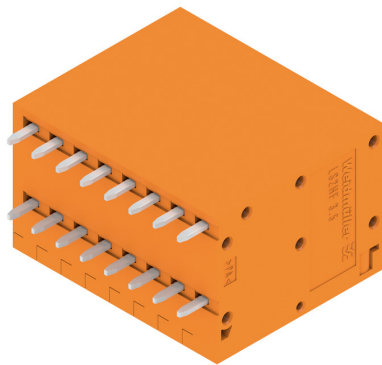
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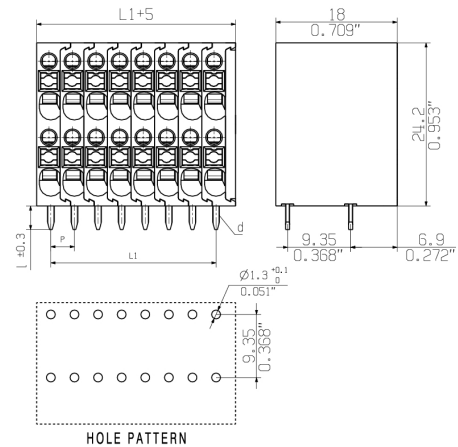
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Drawings

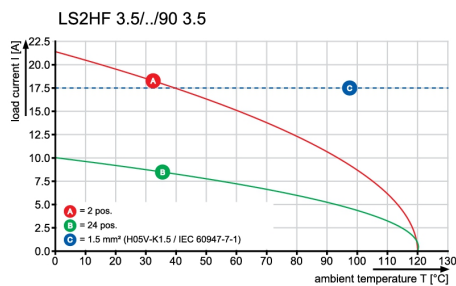
Product image



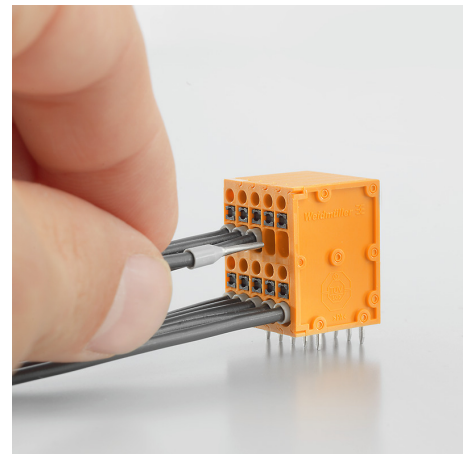
Dimensional drawing



Graph

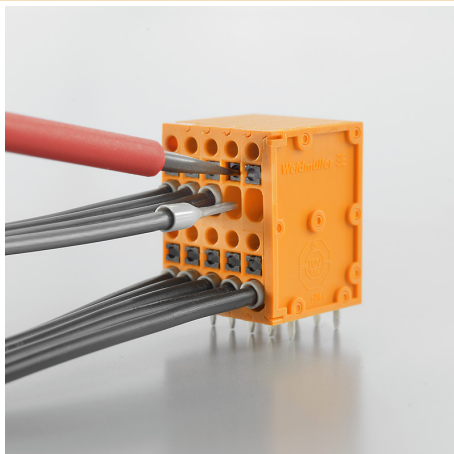


Product benefits



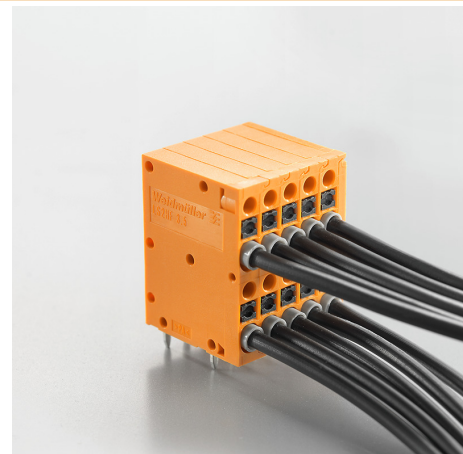
Fast conductor entry through PUSH IN

Product benefits



Simple and reliable connection

Product benefits



Compact design with 2 levels

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Accessories

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	Product data	Packaging
Order No.	0310000000	PCB plug-in connector, Accessories, Test plug, red, Number of poles: 1		Box
GTIN (EAN)	4008190000059			
Qty.	20 pc(s).			

Slotted screwdriver



VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

Type	SDIS 0.4X2.5X75	Version
Order No.	9008370000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056330	
Qty.	1 pc(s).	

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www.weidmueller.com**Accessories****Slotted screwdriver**

Slotted screwdriver with rounded blade SD DIN 5265,
ISO 2380/2, output to DIN 5264, ISO 2380/1.
ChromTop tip, SoftFinish grip

General ordering data

Type	SDS 0.4X2.5X75	Version
Order No.	9009030000	Screwdriver, Screwdriver
GTIN (EAN)	4032248266944	
Qty.	1 pc(s).	

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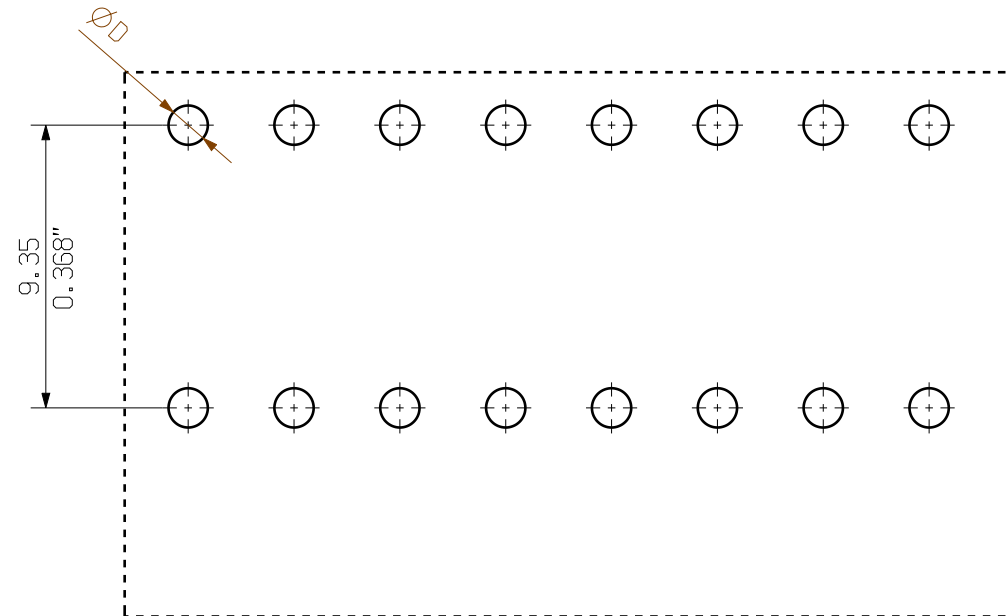
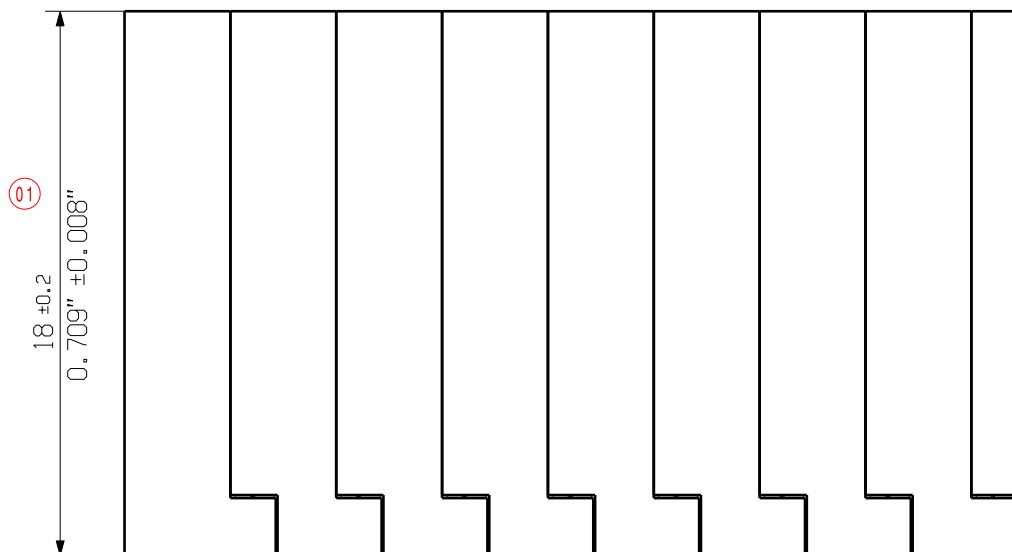
Drawings

Product benefits



Maintenance through test tap

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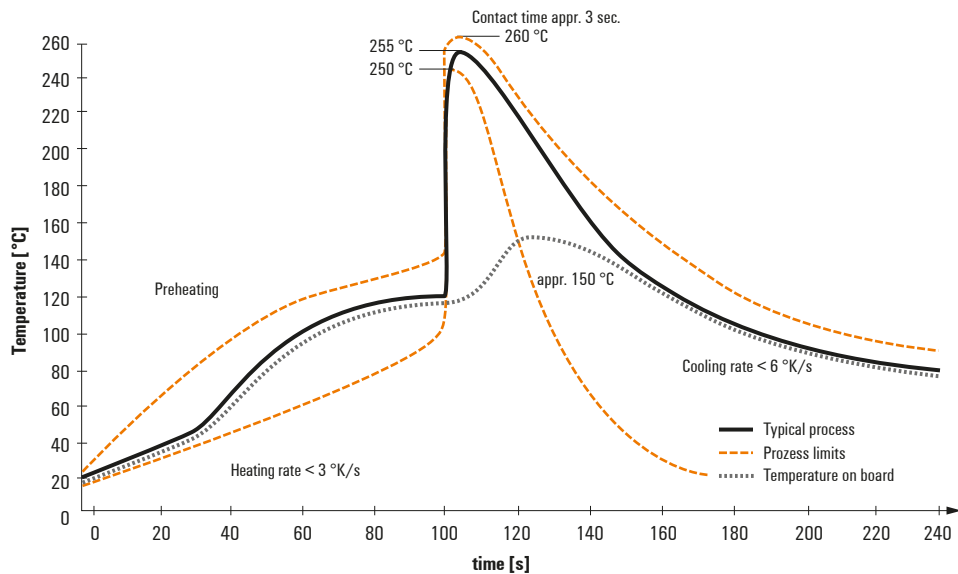
P = 3.50 RASTER
PITCH
D = $\varnothing 1.3 + 0.1$
0.051"
d = $\frac{0.6 \times 1.0}{0.024" \times 0.039"}$
I = $\frac{3.5}{0.138"}$

GENERAL TOLERANCE: DIN ISO 2768-m		83899/5 22.09.15 XIANG_K		04	CAT.NO.:1514540000		C 59281		01
		MODIFICATION					DRAWING NO.		ISSUE NO.
		DATE		NAME	SHEET 02		OF 02	SHEETS	
DRAWN		09.02.2015	ZHOU_N		LS2HF 3.5/.../90... LEITERPLATTENKLEMME PCB TERMINAL				
RESPONSIBLE			XIANG_K						
CHECKED		22.09.2015	ZHOU_N						
SCALE: 4/1		APPROVED		XU_S	PRODUCT FILE:LS2HF				
SUPERSEDES:.					7647				

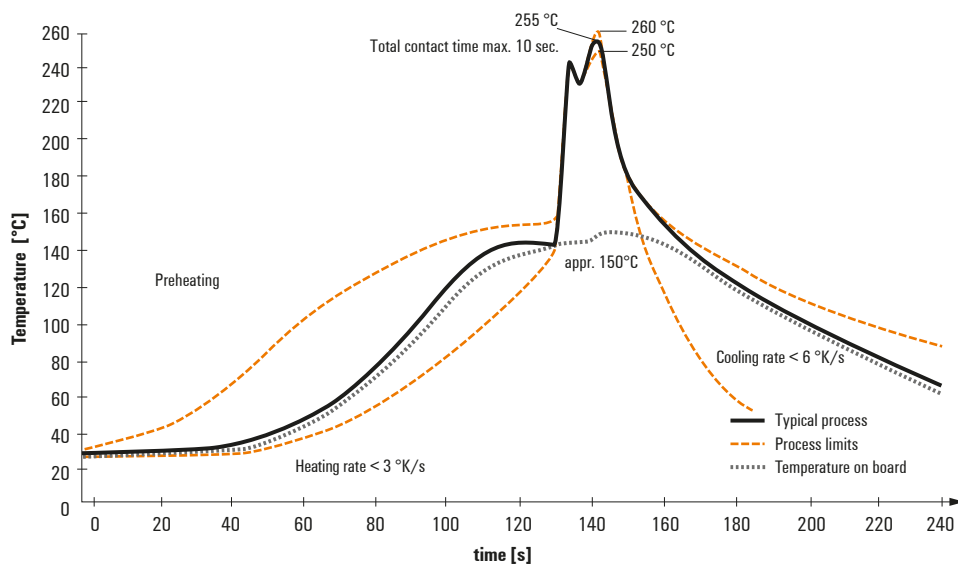
Recommended wave soldering profiles

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Fax: +49 5231 14-292083
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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.