

LS2HF 3.50/12/90 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: 12, 90°, Solder pin length (l): 3.5 mm, orange, PUSH IN with actuator, Clamping range, max.: 1.5 mm ² , Box
Order No.	2000980000
Type	LS2HF 3.50/12/90 3.5SN OR BX
GTIN (EAN)	4050118382587
Qty.	50 items
Product data	IEC: 400 V / 17.5 A / 0.2 - 1.5 mm ² UL: 150 V / 12.5 A / AWG 26 - AWG 16
Packaging	Box

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Technical data

Approvals

Approvals



ROHS Conform
UL File Number Search [UL Website](#)
Certificate No. (cURus) E60693

Dimensions and weights

Depth	18 mm	Depth (inches)	0.7087 inch
Height	27.7 mm	Height (inches)	1.0905 inch
Height of lowest version	24.2 mm	Width	26 mm
Width (inches)	1.0236 inch	Net weight	11.18 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 LS	Wire connection method	PUSH IN with actuator
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	3.50 mm	Pitch in inches (P)	0.138 "
Number of poles	12	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	17.50 mm
L1 in inches	0.689 "	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
Moisture Level (MSL)		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

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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

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
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

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 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)	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	258.00 mm
VPE width	139.00 mm	VPE height	29.00 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 conductor cross-section	stranded 0.2 mm ²
	Evaluation	passed	
	Requirement	0.3 kg	
	Conductor type	Type of conductor and conductor cross-section	solid 0.5 mm ²
	Evaluation	passed	
	Requirement	0.4 kg	
	Conductor type	Type of conductor and conductor cross-section	stranded 0.5 mm ²
		Type of conductor and conductor cross-section	solid 0.5 mm ²
	Evaluation	passed	
	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 conductor cross-section	stranded 0.2 mm ²
Evaluation		passed	
Requirement		≥20 N	
Conductor type		Type of conductor and conductor cross-section	solid 0.5 mm ²
		Type of conductor and conductor cross-section	solid 0.5 mm ²
Evaluation		passed	
Requirement		≥40 N	
Conductor type		Type of conductor and conductor cross-section	stranded 1.5 mm ²
		Type of conductor and conductor cross-section	solid 1.5 mm ²
Evaluation		passed	

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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. • 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

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		

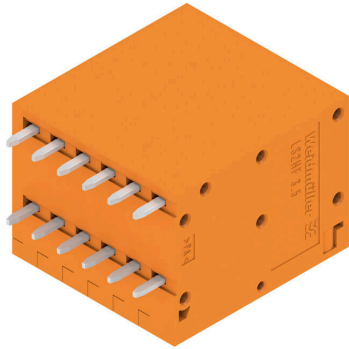
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Drawings

Product image



Dimensional drawing



Graph

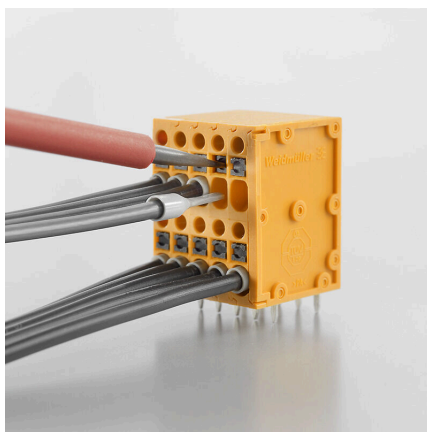


Product benefits



Fast conductor entry through PUSH IN

Product benefits



Simple and reliable connection

Product benefits



Compact design with 2 levels

Product benefits



Maintenance through test tap

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Accessories

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