

## Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-2083 www.weidmueller.com





Female connectors with tension clamp connection system enable quick and simple wiring. These female header can be mounted side by side and therefore have a high connection density. The release lever simplifies the separation of the connection in confined spaces. The socket blocks provide space for labelling and can be coded.

- 0.20 1.0mm<sup>2</sup> (IEC) / 28 18 AWG (UL)
- 80 V (IEC) / 150 V (UL)
- 10 A (IEC) / 10 A (UL)

## General ordering data

Order No.	<u>1748580000</u>
Туре	B2L 3.50/24/180LH SN BK BX
Version	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 24, 180°, Tension clamp connection, Clamping range, rated connection, max.: 1 mm <sup>2</sup> , Box
Product data	IEC: 250 V / 10.3 A / 0.2 - 1 mm² UL: 300 V / 10 A / AWG 28 - AWG 16
EAN	4032248038299
Qty.	20 pc(s).
Packaging	Box

Creation date November 7, 2011 2:10:08 PM CET

# **Technical data**



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Product family	B2L/S2L 3.50 - 2-row series	Conductor connection system	Tension clamp connection
Outgoing direction of conductor	180°	Pitch, in mm	3.5 mm
Pitch, in inches	0.138 inch	No. of poles	24
Number of rows	1	Stripping length	7 mm
L1 in mm	38.5 mm	L1 in inches	1.516 inch
Touch-safe protection acc. to DIN VDE	E 0470	Touch-safe protection acc. to DIN VDB	E 57
	IP 20	106	Safe from finger touch

## Material data

Insulating material	PBT	Colour	black
Colour chart	Similar to RAL 9011	Flammability class UL 94	V-0
СТІ	≥ 200	Contact material	Copper alloy
Contact surface	tinned	Continuous operating temp., min.	-25 °C
Continuous operating temp., max.	100 °C		

## **Connectable conductors**

Clamping range, rated connection, min.	0.08 mm²	Clamping range, rated connection, max.	1 mm²
Wire connection cross section AWG, min.	AWG 28	Wire connection cross section AWG, max.	AWG 18
Solid, min. H05(07) V-U	0.2 mm <sup>2</sup>	Solid, max. H05(07) V-U	1 mm²
Flexible, min. H05(07) V-K	0.2 mm <sup>2</sup>	Flexible, max. H05(07) V-K	1 mm²
w. wire end ferrule, DIN 46228 pt 1, min	0.13 mm²	w. wire end ferrule, DIN 46228 pt 1, max.	0.34 mm²
w. plastic collar ferrule, DIN 46228 pt 4, min. 0.13 mm <sup>2</sup>		w. plastic collar ferrule, DIN 46228 pt 4, max	x.0.34 mm <sup>2</sup>

## **DIN IEC rating data**

Rated current, min. no. of poles (TU=20°C	c) 10.3 A	Rated current, max. no. of poles (Tu=20°C	) 8.7 A
Rated current, number of poles (Tu=40°C)	),	Rated current, number of poles (Tu=40°C)	,
min	8.9 A	max.	7.4 A
Rated voltage for surge voltage class / pollution degree II/2	250 V	Rated voltage for surge voltage class / pollution degree III/2	160 V
Rated voltage for surge voltage class / pollution degree III/3	80 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
Short-time withstand current resistance	3 x 1s with 77 A		

## CSA rating data

Rated voltage (Use group B)	300 V	Rated current (use group B)	5 A	
Wire cross-section, AWG, min.	AWG 28	Wire cross-section, AWG, max.	AWG 18	

## UL 1059 rating data

Rated voltage (use group B)	300 V	Rated current (use group B)	10 A	
Rated voltage (use group D)	300 V	Rated current (use group D)	10 A	
Wire cross-section, AWG, min.	AWG 28	Wire cross-section, AWG, max.	AWG 16	

#### Classifications

ETIM 4.0	EC002637	UNSPSC	30-21-18-10
eClass 4.1	27-26-07-01	eClass 5.1	27-26-07-01
eClass 6.0	27-26-07-04		

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# **Technical data**



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Approvals	
Approvals	CSA; UR; ROHS
Notes	
Notes	Additional colours on request
	Gold-plated contact surfaces on request
	Rated current related to rated cross-section and min. No. of poles.
	Wire end ferrule with plastic collar to DIN 46228/4
	Wire end ferrule without plastic collar to DIN 46228/1
	• P on drg. = pitch
	<ul> <li>We recommend crimp shape A for wire-end ferrules with crimping tools PZ 1,5 (order no. 9005990000) or PZ 6/5 (order no. 9011460000) for the larger wire cross-sections.</li> </ul>
	<ul> <li>Rated data refer only to the component itself. Clearance and creepage distances to other components a to be designed in accordance with the relevant application standards.</li> </ul>

# Drawings









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# Mating connector (conditionally pluggable)

## S2L 3.5/180G



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### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-2083 www.weidmueller.com

Straight two-tier pin header available as closed-sided or with flange (open-sided pin headers on request). Pin headers with 3.5mm pins are designed for wave soldering and are packaged in a box. They can be screwed on to the PCB. The pin headers provide space for labelling and can be coded. • 80 V (IEC) / 150 V (UL)

• 9 A (IEC / 8 A (UL)

#### General ordering data

Order No.	Туре	Version	Product data	EAN	Qty.	Packagir
<u>1729040000</u>	S2L 3.50/24/180G 3.5SN BK BX	PCB plug-in connector, male	IEC: 250 V / 10 A	4032248040476	20 pc(s).	Box
		header, closed side, Solder	UL: 150 V / 10 A			
		connection, 3.50 mm, No. of				
		poles: 24, 180°, Solder pin				
		length: 3.5 mm, tinned, black,				
		Box				
1728880000	S2L 3.50/24/180G 3.5SN OR BX	PCB plug-in connector, male	IEC: 250 V / 10 A	4032248040315	20 pc(s).	Box
		header, closed side, Solder	UL: 150 V / 10 A			
		connection, 3.50 mm, No. of				
		poles: 24, 180°, Solder pin				
		length: 3.5 mm, tinned, orange	e,			
		Box				

#### S2L-SMT 3.5/90G Tape



High-temperature-resistant, straight, 2-tier male connector for all common soldering methods. Optimised for automatic assembly. Packed in box or tape. 3.2 mm solder pin suitable for reflow and wave soldering. These male connectors can be labelled and coded.

- 50 V (IEC) / 150 V (UL)
- 10 A (IEC) / 10 A (UL)

Order No.	Туре	Version	Product data	EAN	Qty.	Packaging
1802190000	S2L-SMT 3.50/24/90G 3.2SN BK RL	PCB plug-in connector, male	IEC: 160 V / 10 A	4032248255528	235 pc(s).	Таре
		header, closed side, Reflow	UL: 150 V / 10 A			
		solder connection, 3.50 mm,				
		No. of poles: 24, 90°, Solder p	in			
		length: 3.2 mm, tinned, black,				
		Таре				

# Mating connector (conditionally pluggable)

## S2L-SMT 3.5/180 Box



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### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-2083 www.weidmueller.com

High-temperature-resistant, straight, 2-tier male connector for all common soldering methods. Optimized for automatic assembly. Packed in box or tape. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers can be labelled and coded. (Packaging in tape on request)

- 50 V (IEC) / 150 V (UL)
- 10 A (IEC) / 10 A (UL)

### General ordering data

Order No.	Туре	Version	Product data	EAN	Qty.	Packaging
1794780000	S2L-SMT 3.50/24/180 3.5SN BK BX	PCB plug-in connector, male	IEC: 160 V / 10 A	4032248231966	20 pc(s).	Box
		header, open side, Reflow	UL: 150 V / 10 A			
		solder connection, 3.50 mm,				
		No. of poles: 24, 180°, Solder				
		pin length: 3.5 mm, tinned, Bo	x			

### S2L-SMT 3.5/90 BOX



High-temperature-resistant, straight, 2-tier pin header for all common soldering methods. Optimized for automatic assembly. Packed in box or tape. 3.2 mm solder pin suitable for reflow and wave soldering. These pin headers can be labelled and coded. (Packaging in tape on request)

- 50 V (IEC) / 150 V (UL)
- 10 A (IEC) / 10 A (UL)

#### General ordering data

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Order No.	Туре	Version	Product data	EAN	Qty.	Packaging
1794460000	S2L-SMT 3.50/24/90 3.2SN BK BX	PCB plug-in connector, male	IEC: 160 V / 10 A	4032248231645	20 pc(s).	Box
		header, open side, Reflow	UL: 150 V / 10 A			
		solder connection, 3.50 mm,				
		No. of poles: 24, 90°, Solder pin				
		length: 3.2 mm, tinned, black,				

Box

# Mating connector (conditionally pluggable)

## S2L-SMT 3.5/180G Tape





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High-temperature-resistant, straight, 2-tier male connector for all common soldering methods. Optimised for automatic assembly. Packed in box or tape. 3.2 mm solder pin suitable for reflow and wave soldering. These male connectors can be labelled and coded.

- 50 V (IEC) / 150 V (UL)
- 10 A (IEC) / 10 A (UL)

### General ordering data

Order No.	Туре	Version	Product data	EAN	Qty.	Packaging
1802220000	S2L-SMT 3.50/24/180G 3.5SN BK RL	PCB plug-in connector, male	IEC: 160 V / 10 A	4032248255542	175 pc(s).	Таре
		header, closed side, Reflow	UL: 150 V / 10 A			
		solder connection, 3.50 mm,				
		No. of poles: 24, 180°, Solder				
		pin length: 3.5 mm, tinned,				
		black, Tape				

## S2L-SMT 3.5/90G Box



High-temperature-resistant, straight, 2-tier male connector for all common soldering methods. Optimised for automatic assembly. Packed in box or tape. 3.2 mm solder pin suitable for reflow and wave soldering. These male connectors can be labelled and coded.

- 50 V (IEC) / 150 V (UL)
- 10 A (IEC) / 10 A (UL)

Order No.	Туре	Version	Product data	EAN	Qty.	Packaging
1794300000	S2L-SMT 3.50/24/90G 3.2SN BK BX	PCB plug-in connector, male	IEC: 160 V / 10 A	4032248231461	20 pc(s).	Box
		header, closed side, Reflow	UL: 150 V / 10 A			
		solder connection, 3.50 mm,				
		No. of poles: 24, 90°, Solder p	in			
		length: 3.2 mm, tinned, black,				
		Box				

# Mating connector (conditionally pluggable)

## S2L-SMT 3.5/180G Box





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High-temperature-resistant, straight, 2-tier male connector for all common soldering methods. Optimised for automatic assembly. Packed in box or tape. 3.2 mm solder pin suitable for reflow and wave soldering. These male connectors can be labelled and coded.

- 50 V (IEC) / 150 V (UL)
- 10 A (IEC) / 10 A (UL)

## General ordering data

	<u> </u>					
Order No.	Туре	Version	Product data	EAN	Qty.	Packaging
1794620000	S2L-SMT 3.50/24/180G 3.5SN BK BX	PCB plug-in connector, male	IEC: 160 V / 10 A	4032248231805	20 pc(s).	Box
		header, closed side, Reflow	UL: 150 V / 10 A			
		solder connection, 3.50 mm,				
		No. of poles: 24, 180°, Solder				
		pin length: 3.5 mm, tinned,				
		black, Box				

### S2L 3.5/180F



Straight two-tier pin header available as closed-sided or with flange (open-sided pin headers on request). Pin headers with 3.5mm pins are designed for wave soldering and are packaged in a box. They can be screwed on to the PCB. The pin headers provide space for labelling and can be coded. • 80 V (IEC) / 150 V (UL)

• 9 A (IEC / 8 A (UL)

Order No.	Туре	Version	Product data	EAN	Qty.	Packag
1729520000	S2L 3.50/24/180F 3.5SN OR BX	PCB plug-in connector,	IEC: 250 V / 10 A	4032248040926	20 pc(s).	Box
		male header, Flange, Solder	UL: 150 V / 10 A			
		connection, 3.50 mm, No. of				
		poles: 24, 180°, Solder pin				
		length: 3.5 mm, tinned, orange	<u>,</u>			
		Box				
1729680000	S2L 3.50/24/180F 3.5SN BK BX	PCB plug-in connector,	IEC: 250 V / 10 A	4032248041084	20 pc(s).	Box
		male header, Flange, Solder	UL: 150 V / 10 A			
		connection, 3.50 mm, No. of				
		poles: 24, 180°, Solder pin				
		length: 3.5 mm, tinned, black,				
		Box				

# Mating connector (conditionally pluggable)

### S2L 3.5/90F



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Angled, two-tier pin header available as closed-sided or with flange (open-sided pin headers on request). Pin headers with 3.5mm pins are designed for wave soldering and are packaged in a box. They can be screwed on to the PCB. The pin headers provide space for labelling and can be coded. • 80 V (IEC) / 150 V (UL)

- 9 A (IEC / 8 A (UL)

#### General ordering data

Order No.	Туре	Version	Product data	EAN	Qty.	Packag
1728560000	S2L 3.50/24/90F 3.5SN OR BX	PCB plug-in connector,	IEC: 250 V / 10 A	4032248040025	20 pc(s).	Box
		male header, Flange, Solder	UL: 150 V / 10 A			
		connection, 3.50 mm, No.				
		of poles: 24, 90°, Solder pin				
		length: 3.5 mm, tinned, orange	9,			
		Box				
1728720000	S2L 3.50/24/90F 3.5SN BK BX	PCB plug-in connector,	IEC: 250 V / 10 A	4032248040186	20 pc(s).	Box
		male header, Flange, Solder	UL: 150 V / 10 A			
		connection, 3.50 mm, No.				
		of poles: 24, 90°, Solder pin				
		length: 3.5 mm, tinned, black,				
		Box				

### S2L 3.5/90G



Angled, two-tier pin header available as closed-sided or with flange (open-sided pin headers on request). Pin headers with 3.5mm pins are designed for wave soldering and are packaged in a box. They can be screwed on to the PCB. The pin headers provide space for labelling and can be coded. • 80 V (IEC) / 150 V (UL)

• 9 A (IEC / 8 A (UL)

Order No.	Туре	Version	Product data	EAN	Qty.	Packa
<u>1728080000</u>	S2L 3.50/24/90G 3.5SN BK BX	PCB plug-in connector, male	IEC: 250 V / 10 A	4032248039579	20 pc(s).	Box
		header, closed side, Solder	UL: 150 V / 10 A			
		connection, 3.50 mm, No.				
		of poles: 24, 90°, Solder pin				
		length: 3.5 mm, tinned, black,				
		Box				
27920000	S2L 3.50/24/90G 3.5SN OR BX	PCB plug-in connector, male	IEC: 250 V / 10 A	4032248039418	20 pc(s).	Box
		header, closed side, Solder	UL: 150 V / 10 A			
		connection, 3.50 mm, No.				
		of poles: 24, 90°, Solder pin				

# Mating connector (conditionally pluggable)

length: 3.5 mm, tinned, orange, Box



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# Mating connector (fully pluggable)

## S2L-SMT 3.5/180LF Box



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High-temperature-resistant, straight, 2-tier male connector for all common soldering methods. Optimised for automatic assembly. Packed in box or tape. 3.2 mm solder pin suitable for reflow and wave soldering. These male connectors can be labelled and coded.

- 50 V (IEC) / 150 V (UL)
- 10 A (IEC) / 10 A (UL)

### General ordering data

Order No.	Туре	Version	Product data	EAN	Qty.	Packaging
1795290000	S2L-SMT 3.50/24/180LF 3.5SN BK BX	PCB plug-in connector, male	IEC: 160 V / 10 A	4032248232802	20 pc(s).	Box
		header, Solder flange, Reflow	UL: 150 V / 10 A			
		solder connection, 3.50 mm,				
		No. of poles: 24, 180°, Solder				
		pin length: 3.5 mm, tinned,				
		black, Box				

## S2L-SMT 3.5/90LF Box



High-temperature-resistant, straight, 2-tier male connector for all common soldering methods. Optimised for automatic assembly. Packed in box or tape. 3.2 mm solder pin suitable for reflow and wave soldering. These male connectors can be labelled and coded.

- 50 V (IEC) / 150 V (UL)
- 10 A (IEC) / 10 A (UL)

Order No.	Туре	Version	Product data	EAN	Qty.	Packaging
1794950000	S2L-SMT 3.50/24/90LF 3.2SN BK BX	PCB plug-in connector, male	IEC: 160 V / 10 A	4032248232406	20 pc(s).	Box
		header, Solder flange, Reflow	UL: 150 V / 10 A			
		solder connection, 3.50 mm,				
		No. of poles: 24, 90°, Solder pin				
		length: 3.2 mm, tinned, Box				

