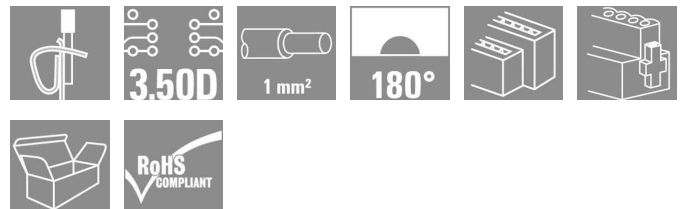


OMNIMATE Signal - series B2L/S2L 3.50 - 2-row B2L 3.50/30/180F SN BK BX

Weidmüller Interface GmbH & Co. KG
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www.weidmueller.com



Component density redefined: the future standard for signal connection

Maximum connection density in the smallest of spaces - the 2-row B2L raises the bar higher for standard sensor cables up to 1 mm² and bridges the gap between insufficient space and more functions.

The result is a connecting solution for standard industrial cables with 1.75 pitch - 30% smaller than an equivalent solution with 2.5 pitch and with 140% the robustness of 3.5 pitch

Dimensions: double the connection density with 3.5 mm pitch size

Connection system: tried and tested maintenance-free Weidmüller tension clamp connection

Connection data / Performance:

- 0.20 - 1.0 mm² (IEC) / 28 - 18 AWG (UL)
- 80 V / 10 A (IEC) / 150 V / 10 A (UL)
- No. of poles: 4 to 36

The basic application advantages:

Efficient - maximum component density on the PCB

Suitable for industrial use - minimum dimensions, maximum robustness

Process-optimised - automatic configuration and reflow solders, rapid connection

User-friendly - patented release lever for the easy release of larger numbers of poles

Application-oriented: easy labelling and reliable coding despite compact dimensions

Miniaturisation is more than just a larger number of functions within a small space:

Every reduction in size decreases space requirements and the overall system costs less for the end customer.

Weidmüller fulfils a growing demand in the engineering and industrial automation sectors.

General ordering data

Type	B2L 3.50/30/180F SN BK BX
Order No.	1748290000
Version	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 30, 180°, Tension clamp connection, Clamping range, rated connection, max.: 1 mm ² , Box
GTIN (EAN)	4032248198580
Qty.	20 pc(s).
Product data	IEC: 250 V / 10.3 A / 0.2 - 1 mm ² UL: 300 V / 10 A / AWG 28 - AWG 16
Packaging	Box

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Technical data
Dimensions and weights

Net weight 17.5 g

System parameters

Product family	OMNIMATE Signal - series B2L/S2L 3.50 - 2-row	Wire connection method	Tension clamp connection
Conductor outlet direction	180°	Pitch in mm (P)	3.5 mm
Pitch in inches (P)	0.138 inch	No. of poles	30
Stripping length	7 mm	L1 in mm	49 mm
L1 in inches	1.929 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	PBT	Colour	Black
Colour chart (similar)	RAL 9011	UL 94 flammability rating	V-0
Contact material	Cu-Leg	Contact surface	tinned
Operating temperature, min.	-50 °C	Operating temperature, max.	100 °C
Temperature range, installation, min.	-30 °C	Temperature range, installation, max.	100 °C

Connectable conductors

Clamping range, rated connection, min.	0.08 mm ²	Clamping range, rated connection, max.	1 mm ²
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 ²	Solid, max. H05(07) V-U	1 mm ²
Flexible, min. H05(07) V-K	0.2 mm ²	Flexible, max. H05(07) V-K	1 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	0.13 mm ²	w. wire end ferrule, DIN 46228 pt 1, max.	0.34 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.13 mm ²	w. plastic collar ferrule, DIN 46228 pt 4, max.	0.34 mm ²

DIN IEC rating data

Rated current, min. no. of poles (Tu=20°C)	10.3 A	Rated current, max. no. of poles (Tu=20°C)	8.7 A
Rated current, number of poles (Tu=40°C), min	8.9 A	Rated current, number of poles (Tu=40°C), 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

Institute (CSA)		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		

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Technical data**UL 1059 rating data**

Institute (UR)



Rated voltage (use group B)

300 V

Rated current (use group B) 10 A

Rated voltage (use group C) 50 V

Rated current (use group C) 10 A

Wire cross-section, AWG, min. AWG 28

Wire cross-section, AWG, max. AWG 16

Classifications

UNSPSC	30-21-18-10	eClass 5.1	27-26-07-01
eClass 6.2	27-26-07-04	eClass 7.1	27-44-04-02

Notes

Notes

- Additional colours on request
- Gold-plated contact surfaces on request
- Rated current related to rated cross-section & 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 drawing = pitch
- Crimp shape A for wire-end ferrules with crimping tools PZ 1,5 (order no. 9005990000) or PZ 6/5 (order no. 9011460000) for larger wire cross-sections recommended.
- 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.

Approvals

Approvals



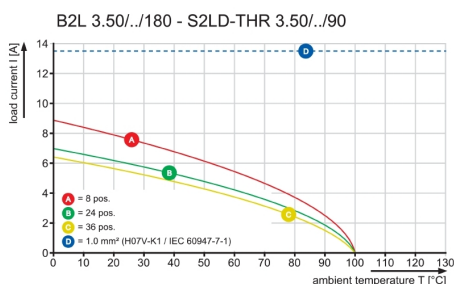
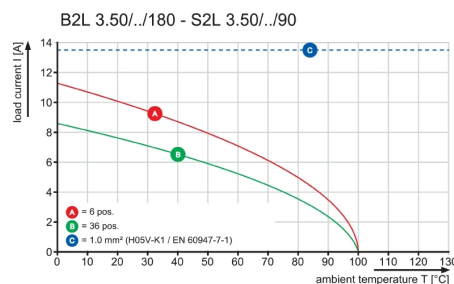
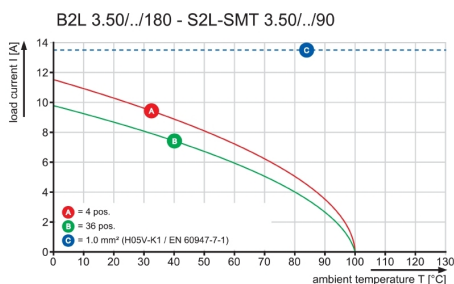
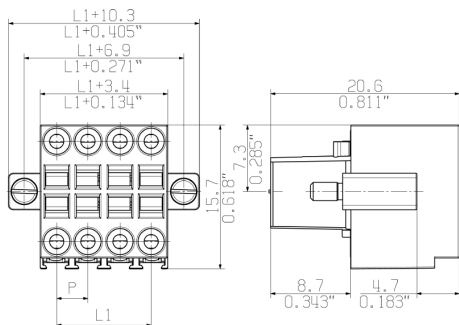
ROHS

Conform

OMNIMATE Signal - series B2L/S2L 3.50 - 2-row B2L 3.50/30/180F SN BK BX

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Drawings



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Mating connector (fully pluggable)

S2L 3.50/180F



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)

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
S2L	1729550000	PCB plug-in connector,	4032248040957	20 pc(s).	IEC: 250 V / 10 A	Box
3.50/30/180F		male header, Flange, Solder			UL: 150 V / 10 A	
3.5SN OR BX		connection, 3.50 mm, No. of poles: 30, 180°, Solder pin length (l): 3.5 mm, tinned, Orange, Box				

S2L 3.50/90F



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

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
S2L	1728590000	PCB plug-in connector,	4032248040056	20 pc(s).	IEC: 250 V / 10 A	Box
3.50/30/90F		male header, Flange, Solder			UL: 150 V / 10 A	
3.5SN OR BX		connection, 3.50 mm, No. of poles: 30, 90°, Solder pin length (l): 3.5 mm, tinned, Orange, Box				

OMNIMATE Signal - series B2L/S2L 3.50 - 2-row B2L 3.50/30/180F SN BK BX

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Mating connector (fully pluggable)

S2L-SMT 3.50/90LF 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)

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
S2L-SMT 3.50/30/90LF 3.2SN BK BX	1794980000	PCB plug-in connector, male header, Solder flange, Reflow solder connection, 3.50 mm, No. of poles: 30, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248232437 20 pc(s).		IEC: 160 V / 10 A UL: 150 V / 10 A	Box

S2L-SMT 3.50/180LF 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)

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
S2L-SMT 3.50/30/180LF 3.5SN BK BX	1795320000	PCB plug-in connector, male header, Solder flange, Reflow solder connection, 3.50 mm, No. of poles: 30, 180°, Solder pin length (l): 3.5 mm, tinned, Black, Box	4032248232833 20 pc(s).		IEC: 160 V / 10 A UL: 150 V / 10 A	Box

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B2L 3.50/30/180F SN BK BX**

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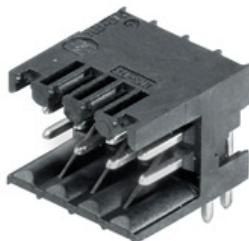
Mating connector (conditionally pluggable)
S2L-SMT 3.50/180G Box


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)

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
S2L-SMT	1794650000	PCB plug-in connector, male	4032248231836	20 pc(s).	IEC: 160 V / 10 A	Box
3.50/30/180G		header, closed side, Reflow			UL: 150 V / 10 A	
3.5SN BK BX		solder connection, 3.50 mm, No. of poles: 30, 180°, Solder pin length (l): 3.5 mm, tinned, Black, Box				

S2L-SMT 3.50/90 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

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
S2L-SMT	1794490000	PCB plug-in connector, male	4032248231676	20 pc(s).	IEC: 160 V / 10 A	Box
3.50/30/90		header, open side, Reflow			UL: 150 V / 10 A	
3.2SN BK BX		solder connection, 3.50 mm, No. of poles: 30, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box				

OMNIMATE Signal - series B2L/S2L 3.50 - 2-row B2L 3.50/30/180F SN BK BX

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Mating connector (conditionally pluggable)

S2L 3.50/90G



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)

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
S2L 3.50/30/90G 3.5SN BK BX	1728110000	PCB plug-in connector, male header, closed side, Solder connection, 3.50 mm, No. of poles: 30, 90°, Solder pin length (l): 3.5 mm, tinned, Black, Box	4032248039609	20 pc(s).	IEC: 250 V / 10 A UL: 150 V / 10 A	Box
S2L 3.50/30/90G 3.5SN OR BX	1727950000	PCB plug-in connector, male header, closed side, Solder connection, 3.50 mm, No. of poles: 30, 90°, Solder pin length (l): 3.5 mm, tinned, Orange, Box	4032248039449	20 pc(s).	IEC: 250 V / 10 A UL: 150 V / 10 A	Box

S2L-SMT 3.50/90G 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)

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
S2L-SMT 3.50/30/90G 3.2SN BK BX	1794330000	PCB plug-in connector, male header, closed side, Reflow solder connection, 3.50 mm, No. of poles: 30, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248231508	20 pc(s).	IEC: 160 V / 10 A UL: 150 V / 10 A	Box

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Mating connector (conditionally pluggable)

S2L-SMT 3.50/180 Box



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

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
S2L-SMT 3.50/30/180 3.5SN BK BX	1794810000	PCB plug-in connector, male header, open side, Reflow solder connection, 3.50 mm, No. of poles: 30, 180°, Solder pin length (l): 3.5 mm, tinned, Black, Box	4032248231997	20 pc(s).	IEC: 160 V / 10 A UL: 150 V / 10 A	Box

S2L 3.50/180G



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

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
S2L 3.50/30/180G 3.5SN BK BX	1729070000	PCB plug-in connector, male header, closed side, Solder connection, 3.50 mm, No. of poles: 30, 180°, Solder pin length (l): 3.5 mm, tinned, Black, Box	4032248040506	20 pc(s).	IEC: 250 V / 10 A UL: 150 V / 10 A	Box
S2L 3.50/30/180G 3.5SN OR BX	1728910000	PCB plug-in connector, male header, closed side, Solder connection, 3.50 mm, No. of poles: 30, 180°, Solder pin length (l): 3.5 mm, tinned, Orange, Box	4032248040346	20 pc(s).	IEC: 250 V / 10 A UL: 150 V / 10 A	Box

