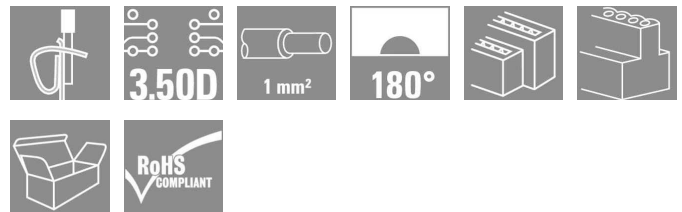


**OMNIMATE Signal - series B2L/S2L 3.50 - 2-row
B2L 3.50/28/180 SN BK BX**

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 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 3.50/28/180 SN BK BX
Order No.	1747960000
Version	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 28, 180°, Tension clamp connection, Clamping range, rated connection, max.: 1 mm ² , Box
GTIN (EAN)	4032248198443
Qty.	20 pc(s).
Product data	IEC: 200 V / 10.3 A / 0.2 - 1 mm ² UL: 300 V / 10 A / AWG 28 - AWG 16
Packaging	Box

Creation date October 22, 2013 6:29:24 PM CEST

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Technical data
Dimensions and weights

Net weight 15.8 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	28
Stripping length	7 mm	L1 in mm	45.5 mm
L1 in inches	1.791 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


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	200 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		

Data sheet

**OMNIMATE Signal - series B2L/S2L 3.50 - 2-row
B2L 3.50/28/180 SN BK BX**

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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



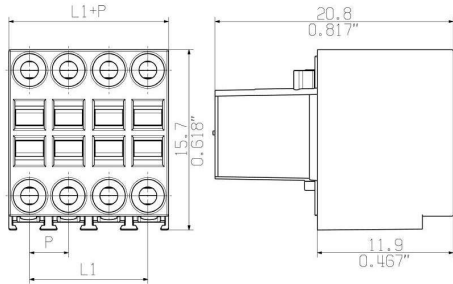
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Conform

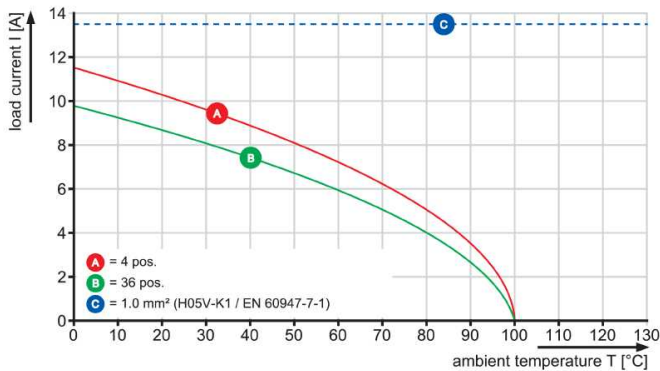
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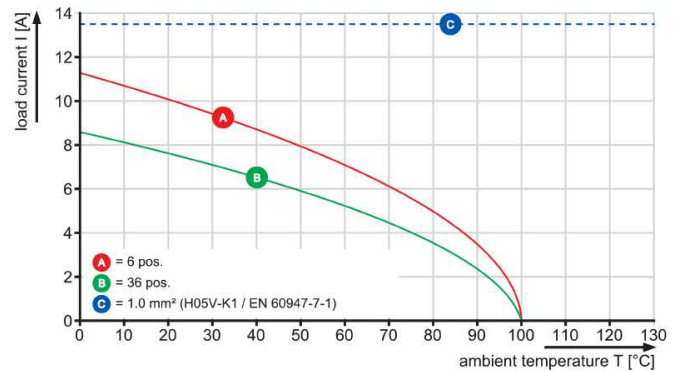
Drawings



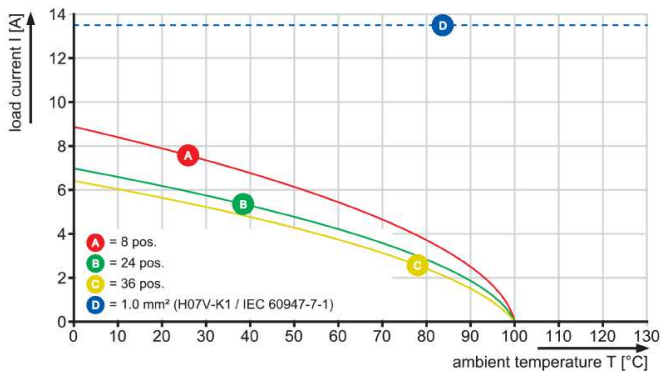
B2L 3.50/./180 - S2L-SMT 3.50/./90



B2L 3.50/./180 - S2L 3.50/./90



B2L 3.50/./180 - S2LD-THR 3.50/./90



**OMNIMATE Signal - series B2L/S2L 3.50 - 2-row
B2L 3.50/28/180 SN BK BX**

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Mating connector (conditionally pluggable)
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 3.50/28/180LF 3.5SN BK BX	1795310000	PCB plug-in connector, male header, Solder flange, Reflow solder connection, 3.50 mm, No. of poles: 28, 180°, Solder pin length (l): 3.5 mm, tinned, Black, Box	4032248232826	20 pc(s).	IEC: 160 V / 10 A UL: 150 V / 10 A	Box

S2LD-THR 3.50/90LF

The new benchmark for component density: the virtual 0.875mm pitch - for 1mm² I/O connections

The only 4-row double level male connectors for standard IP20 sensor interfaces with 3.5 pitch

The S2L in a double pack - a standard has surpassed itself:

- Each 3.5mm wide, 4 I/O contacts for 1mm² connection cross-section
- Force-fit enclosure geometry guarantees maximum stability
- Solder flange eliminates the need for a screw fastening

Less is more - basic advantages for your applications:

- 75% space savings on the circuit board
- Solder flange reduces process costs
- Less mechanical load on the soldering points
- More space for displays in the front panel, for example

A "small" contribution to greater competitiveness: additional features in the same installation space or a more compact device with the same range of functions.

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
S2LD-THR 3.50/28/90LF 3.2SN BK BX	1028430000	PCB plug-in connector, male header, open side, Reflow solder connection, 3.50 mm, No. of poles: 28, 90°	4032248756926	20 pc(s).	IEC: 200 V / 8 A UL: 150 V / 7 A	Box

**OMNIMATE Signal - series B2L/S2L 3.50 - 2-row
B2L 3.50/28/180 SN BK BX**

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Mating connector (conditionally pluggable)

Solder pin length (l): 3.2
mm, tinned, Black, 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 3.50/28/90F 3.5SN BK BX	1728740000	PCB plug-in connector, male header, Flange, Solder connection, 3.50 mm, No. of poles: 28, 90°, Solder pin length (l): 3.5 mm, tinned, Black, Box	4032248040209	20 pc(s).	IEC: 250 V / 10 A UL: 150 V / 10 A	Box
S2L 3.50/28/90F 3.5SN OR BX	1728580000	PCB plug-in connector, male header, Flange, Solder connection, 3.50 mm, No. of poles: 28, 90°, Solder pin length (l): 3.5 mm, tinned, Orange, Box	4032248040049	20 pc(s).	IEC: 250 V / 10 A UL: 150 V / 10 A	Box

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 3.50/28/90LF 3.2SN BK BX	1794970000	PCB plug-in connector, male header, Solder flange, Reflow solder connection, 3.50 mm, No. of poles: 28, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248232420	20 pc(s).	IEC: 160 V / 10 A UL: 150 V / 10 A	Box

**OMNIMATE Signal - series B2L/S2L 3.50 - 2-row
B2L 3.50/28/180 SN BK BX**

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 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmuller.com

Mating connector (conditionally 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 3.50/28/180F 3.5SN BK BX	1729700000	PCB plug-in connector, male header, Flange, Solder connection, 3.50 mm, No. of poles: 28, 180°, Solder pin length (l): 3.5 mm, tinned, Black, Box	4032248041107 20 pc(s).		IEC: 250 V / 10 A UL: 150 V / 10 A	Box
S2L 3.50/28/180F 3.5SN OR BX	1729540000	PCB plug-in connector, male header, Flange, Solder connection, 3.50 mm, No. of poles: 28, 180°, Solder pin length (l): 3.5 mm, tinned, Orange, Box	4032248040940 20 pc(s).		IEC: 250 V / 10 A UL: 150 V / 10 A	Box

**OMNIMATE Signal - series B2L/S2L 3.50 - 2-row
B2L 3.50/28/180 SN BK BX**

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Mating connector (fully pluggable)
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 3.50/28/90 3.2SN BK BX	1794480000	PCB plug-in connector, male header, open side, Reflow solder connection, 3.50 mm, No. of poles: 28, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248231669	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.

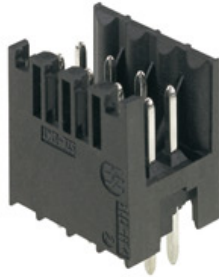
- 80 V (IEC) / 150 V (UL)
- 9 A (IEC) / 8 A (UL)

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
S2L 3.50/28/180G 3.5SN BK BX	1729060000	PCB plug-in connector, male header, closed side, Solder connection, 3.50 mm, No. of poles: 28, 180°, Solder pin length (l): 3.5 mm, tinned, Black, Box	4032248040490	20 pc(s).	IEC: 250 V / 10 A UL: 150 V / 10 A	Box
S2L 3.50/28/180G 3.5SN OR BX	1728900000	PCB plug-in connector, male header, closed side, Solder connection, 3.50 mm, No. of poles: 28, 180°, Solder pin length (l): 3.5 mm, tinned, Orange, Box	4032248040339	20 pc(s).	IEC: 250 V / 10 A UL: 150 V / 10 A	Box

**OMNIMATE Signal - series B2L/S2L 3.50 - 2-row
B2L 3.50/28/180 SN BK BX**

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Mating connector (fully 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 3.50/28/180 3.5SN BK BX	1794800000	PCB plug-in connector, male header, open side, Reflow solder connection, 3.50 mm, No. of poles: 28, 180°, Solder pin length (l): 3.5 mm, tinned, Black, Box	4032248231980	20 pc(s).	IEC: 160 V / 10 A UL: 150 V / 10 A	Box

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 3.50/28/90G 3.5SN BK BX	1728100000	PCB plug-in connector, male header, closed side, Solder connection, 3.50 mm, No. of poles: 28, 90°, Solder pin length (l): 3.5 mm, tinned, Black, Box	4032248039593	20 pc(s).	IEC: 250 V / 10 A UL: 150 V / 10 A	Box
S2L 3.50/28/90G 3.5SN OR BX	1727940000	PCB plug-in connector, male header, closed side, Solder connection, 3.50 mm, No. of poles: 28, 90°, Solder pin length (l): 3.5 mm, tinned, Orange, Box	4032248039432	20 pc(s).	IEC: 250 V / 10 A UL: 150 V / 10 A	Box

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Mating connector (fully 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 3.50/28/180G 3.5SN BK BX	1794640000	PCB plug-in connector, male header, closed side, Reflow solder connection, 3.50 mm, No. of poles: 28, 180°, Solder pin length (l): 3.5 mm, tinned, Black, Box	4032248231829	20 pc(s).	IEC: 160 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 3.50/28/90G 3.2SN BK BX	1794320000	PCB plug-in connector, male header, closed side, Reflow solder connection, 3.50 mm, No. of poles: 28, 90°, Solder pin length (l): 3.2 mm, tinned, Black, Box	4032248231492	20 pc(s).	IEC: 160 V / 10 A UL: 150 V / 10 A	Box

