

**System pitch 3.50 mm (0.138 inch)  
SL-SMT 3.50/06/90G 3.2SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
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High-temperature-resistant male connector with 3.50 mm pitch for all customary 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 have space for labelling and can be coded.

- 250 V (IEC) / 300 V (UL)
- 15 A (IEC) / 10 A (UL)

**General ordering data**

|                  |                                                                                                                                            |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Order No.        | <a href="#">1841670000</a>                                                                                                                 |
| Part designation | SL-SMT 3.50/06/90G 3.2SN BK BX                                                                                                             |
| Version          | PCB plug-in connector, male header, 3.50 mm, No. of poles: 6, 90°, Solder pin length: 3.2 mm, tinned, black, Reflow solder connection, Box |
| GTIN (EAN)       | 4032248353026                                                                                                                              |
| Qty.             | 50 pc(s).                                                                                                                                  |
| Packaging        | Box                                                                                                                                        |

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## Technical data

### System parameters

|                                                |                          |                                             |                              |
|------------------------------------------------|--------------------------|---------------------------------------------|------------------------------|
| Fitted to PCB                                  | Reflow solder connection | Outgoing elbow                              | 90°                          |
| Pitch in mm                                    | 3.5 mm                   | Pitch in inch                               | 0.138 inch                   |
| No. of poles                                   | 6                        | Solder pin length                           | 3.2 mm                       |
| Can be coded                                   | Yes                      | No. of rows                                 | 1                            |
| Number of solder pins per pole                 | 1                        | Diameter of solder eyelet                   | 1.4 mm                       |
| Tolerance of the diameter of the solder eyelet | + 0,1 mm                 | L1 in mm                                    | 17.5 mm                      |
| L1 in inch                                     | 0.689 inch               | Insulation resistance                       | 10 <sup>3</sup> Ω            |
| Electric shock protection to DIN VDE 0470      | IP 10                    | Electric shock protection to DIN VDE 57 106 | Safe from back-of-hand touch |

### Material data

|                                                |        |                                                |        |
|------------------------------------------------|--------|------------------------------------------------|--------|
| Insulating material                            | LCP GF | Colour                                         | black  |
| Insulating material group                      | IIIa   | Flammability class UL 94                       | V-0    |
| CTI                                            | ≥ 175  | Temperature of glow-wire test                  | 960 °C |
| Duration of glow-wire test                     | 30 s   | Contact material                               | CuSn   |
| Contact surface                                | tinned | Highest continuous operating temperature, min. | -25 °C |
| Highest continuous operating temperature, max. | 100 °C | Max. relative humidity during storage          | 80 %   |

### DIN IEC rating data

|                                                              |                   |                                                                                |        |
|--------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------|--------|
| Rated current, min. No. of poles (Tu=20°C)                   | 15 A              | Rated current, max. No. of poles (Tu=20°C)                                     | 12 A   |
| Rated current, no. of poles (Tu=40°C), min.                  | 13 A              | Rated current, no. of poles (Tu=40°C), max.                                    | 10 A   |
| Rated voltage at overvoltage category/pollution degree III/3 | 160 V             | Rated impulse withstand voltage for overvoltage class/pollution severity III/3 | 2.5 kV |
| Rated voltage for overvoltage class/pollution severity III/2 | 160 V             | Rated impulse withstand voltage for overvoltage class/pollution severity III/2 | 2.5 kV |
| Rated voltage for overvoltage class/pollution severity II/2  | 320 V             | Rated impulse withstand voltage for overvoltage class/pollution severity II/2  | 2.5 kV |
| Short-time withstand current resistance                      | 3 x 1s with 100 A |                                                                                |        |

### CSA 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 |

### 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 |

### Approvals

|                      |                         |
|----------------------|-------------------------|
| Approvals institutes | CSA; GOSTME25; UR; ROHS |
|----------------------|-------------------------|

### Classifications

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 3.0   | EC001284    | eClass 5.1 | 27-26-07-04 |
| eClass 6.0 | 27-26-07-04 |            |             |

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## Technical data

### Notes

#### Notes

- Additional colours on request
- Gold-plated contact surfaces on request
- Rated current related to rated cross-section and min. No. of poles.
- Diameter of solder eyelet D = 1.4+0.1 mm
- Diameter of solder eyelet D = 1.5+0.1mm from 9-pole
- P on drg. = 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.

### Downloads

CAD Library (P-CAD Format - ASCII) [SL-SMT.LIA](#)

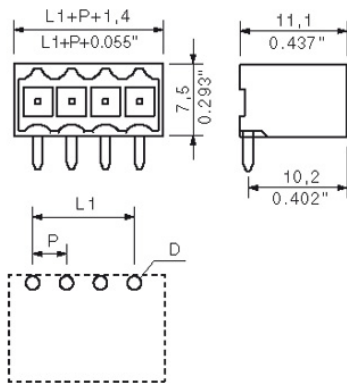
CAD Library (P-CAD Format - Standard) [SL-SMT.LIB](#)

[3D model](#)

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## Drawings



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## Counterpart

### BL 3.5/270



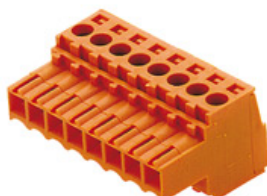
Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They include space for labelling and can be coded.

- 0.20 - 1.5 mm<sup>2</sup> (IEC) / 28 - 14 AWG (UL)
- 250 V (IEC) / 300 V (UL)
- 17 A (IEC) / 10 A (UL)

#### General ordering data

| Order No.                  | Part designation        | Version                                                                                                                                                   | GTIN (EAN)    | Qty.      | Packaging |
|----------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|
| <a href="#">1639740000</a> | BL 3.50/06/270 SN BK BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 270°, Clamping yoke<br>connection, Clamping range,<br>max.: 1.5 mm <sup>2</sup> , Box | 4008190277291 | 50 pc(s). | Box       |
| <a href="#">1639510000</a> | BL 3.50/06/270 SN OR BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 270°, Clamping yoke<br>connection, Clamping range,<br>max.: 1.5 mm <sup>2</sup> , Box | 4008190277062 | 50 pc(s). | Box       |

### BL 3.5/180



Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They include space for labelling and can be coded.

- 0.20 - 1.5 mm<sup>2</sup> (IEC) / 28 - 14 AWG (UL)
- 250 V (IEC) / 300 V (UL)
- 17 A (IEC) / 10 A (UL)

#### General ordering data

| Order No.                  | Part designation            | Version                                                                                                                                                   | GTIN (EAN)    | Qty.      | Packaging |
|----------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|
| <a href="#">1740661001</a> | BL 3.50/06/180 SN OR BX PRT | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 180°, Clamping yoke<br>connection, Clamping range,<br>max.: 1.5 mm <sup>2</sup> , Box | 4008190961596 | 50 pc(s). | Box       |
| <a href="#">1599430000</a> | BL 3.50/06/180 SN DKGN BX   | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 180°, Clamping yoke<br>connection, Clamping range,<br>max.: 1.5 mm <sup>2</sup> , Box | 4008190155179 | 50 pc(s). | Box       |
| <a href="#">1610180000</a> | BL 3.50/06/180 SN BK BX     | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 180°, Clamping yoke                                                                   | 4008190083458 | 50 pc(s). | Box       |

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## Counterpart

|                            |                         |                                                                                                                                              |               |           |     |
|----------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----|
|                            |                         | connection, Clamping range,<br>max.: 1.5 mm², Box                                                                                            |               |           |     |
| <a href="#">1597400000</a> | BL 3.50/06/180 SN OR BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 180°, Clamping yoke<br>connection, Clamping range,<br>max.: 1.5 mm², Box | 4008190119058 | 50 pc(s). | Box |
| <a href="#">1620490000</a> | BL 3.50/06/180 SN GY BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 180°, Clamping yoke<br>connection, Clamping range,<br>max.: 1.5 mm², Box | 4008190157791 | 50 pc(s). | Box |

## BLIDC 3.5 SN



Female connectors for fast wiring with IDC system for connecting conductors at 3.50 mm pitch. They include space for labelling and can be coded.

- 0.35 - 0.5 mm² (IEC) / 22 - 20 AWG (UL)
- 250 V (IEC) / 300 V (UL)
- 6 A (IEC) / 7 A (UL)

### General ordering data

| Order No.                  | Part designation           | Version                                                                                                                              | GTIN (EAN)    | Qty.      | Packaging |
|----------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|
| <a href="#">1750830000</a> | BLIDC 3.50/06/180 SN OR BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 90°/180°, IDC terminal,<br>Clamping range, max.: 0.5<br>mm², Box | 4032248146123 | 50 pc(s). | Box       |

## BL 3.5/90



Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They include space for labelling and can be coded.

- 0.20 - 1.5 mm² (IEC) / 28 - 14 AWG (UL)
- 250 V (IEC) / 300 V (UL)
- 17 A (IEC) / 10 A (UL)

### General ordering data

| Order No.                  | Part designation       | Version                                                                                                                                     | GTIN (EAN)    | Qty.      | Packaging |
|----------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|
| <a href="#">1638820000</a> | BL 3.50/06/90 SN BK BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles: 6,<br>90°, Clamping yoke connection,<br>Clamping range, max.: 1.5<br>mm², Box | 4008190276362 | 50 pc(s). | Box       |

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## Counterpart

|                            |                        |                                                                                                                                             |               |           |     |
|----------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----|
| <a href="#">1638590000</a> | BL 3.50/06/90 SN OR BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles: 6,<br>90°, Clamping yoke connection,<br>Clamping range, max.: 1.5<br>mm², Box | 4008190276133 | 50 pc(s). | Box |
|----------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----|

## BLIDCB 3.5



Female connectors for fast wiring with IDC system for connecting conductors at 3.50 mm pitch. They include space for labelling and can be coded.

- 0.35 - 0.5 mm² (IEC) / 22 - 20 AWG (UL)
- 250 V (IEC) / 300 V (UL)
- 6 A (IEC) / 7 A (UL)

## General ordering data

| Order No.                  | Part designation          | Version                                                                                                                              | GTIN (EAN)    | Qty.      | Packaging |
|----------------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|
| <a href="#">1770710000</a> | BLIDCB 3.50/06/- SN BK BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 90°/270°, IDC terminal,<br>Clamping range, max.: 0.5<br>mm², Box | 4032248174492 | 10 pc(s). | Box       |
| <a href="#">1751420000</a> | BLIDCB 3.50/06/- SN OR BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 90°/270°, IDC terminal,<br>Clamping range, max.: 0.5<br>mm², Box | 4032248174355 | 10 pc(s). | Box       |

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## Counterpart

### BLDZ 3.5/180



#### General ordering data

| Order No.                  | Part designation           | Version                                                                                                                                       | GTIN (EAN)    | Qty.      | Packaging |
|----------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|
| <a href="#">1766510000</a> | BLDZ 3.50/06/180F SN OR BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 180°, Clamping yoke<br>connection, Clamping range,<br>max.: 2.08 mm², Box | 4032248179817 | 50 pc(s). | Box       |

### BL 3.5/180LH



Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They include space for labelling and can be coded.

- 0.20 - 1.5 mm² (IEC) / 28 - 14 AWG (UL)
- 250 V (IEC) / 300 V (UL)
- 17 A (IEC) / 10 A (UL)

#### General ordering data

| Order No.                  | Part designation          | Version                                                                                                                                      | GTIN (EAN)    | Qty.      | Packaging |
|----------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|
| <a href="#">1687690000</a> | BL 3.50/06/180LH SN OR BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 180°, Clamping yoke<br>connection, Clamping range,<br>max.: 1.5 mm², Box | 4008190853242 | 50 pc(s). | Box       |
| <a href="#">1687920000</a> | BL 3.50/06/180LH SN BK BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 180°, Clamping yoke<br>connection, Clamping range,<br>max.: 1.5 mm², Box | 4008190853471 | 50 pc(s). | Box       |

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## Counterpart

### BL 3.5/90F



Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They include space for labelling and can be coded.

- 0.20 - 1.5 mm<sup>2</sup> (IEC) / 28 - 14 AWG (UL)
- 250 V (IEC) / 300 V (UL)
- 17 A (IEC) / 10 A (UL)

### General ordering data

| Order No.                  | Part designation        | Version                                                                                                                                      | GTIN (EAN)    | Qty.      | Packaging |
|----------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|
| <a href="#">1639280000</a> | BL 3.50/06/90F SN BK BX | PCB plug-in connector, female plug, 3.50 mm, No. of poles: 6, 90°, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Box | 4008190276829 | 50 pc(s). | Box       |
| <a href="#">1639050000</a> | BL 3.50/06/90F SN OR BX | PCB plug-in connector, female plug, 3.50 mm, No. of poles: 6, 90°, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Box | 4008190276591 | 50 pc(s). | Box       |

### BL 3.5/270F



Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They include space for labelling and can be coded.

- 0.20 - 1.5 mm<sup>2</sup> (IEC) / 28 - 14 AWG (UL)
- 250 V (IEC) / 300 V (UL)
- 17 A (IEC) / 10 A (UL)

### General ordering data

| Order No.                  | Part designation         | Version                                                                                                                                       | GTIN (EAN)    | Qty.      | Packaging |
|----------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|
| <a href="#">1639970000</a> | BL 3.50/06/270F SN OR BX | PCB plug-in connector, female plug, 3.50 mm, No. of poles: 6, 270°, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Box | 4008190277529 | 50 pc(s). | Box       |
| <a href="#">1640200000</a> | BL 3.50/06/270F SN BK BX | PCB plug-in connector, female plug, 3.50 mm, No. of poles: 6, 270°, Clamping yoke connection, Clamping range, max.: 1.5 mm <sup>2</sup> , Box | 4008190277765 | 50 pc(s). | Box       |

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## Counterpart

### BL 3.5/180F



Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They include space for labelling and can be coded.

- 0.20 - 1.5 mm<sup>2</sup> (IEC) / 28 - 14 AWG (UL)
- 250 V (IEC) / 300 V (UL)
- 17 A (IEC) / 10 A (UL)

### General ordering data

| Order No.                  | Part designation             | Version                                                                                                                                                   | GTIN (EAN)    | Qty.      | Packaging |
|----------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|
| <a href="#">1615820000</a> | BL 3.50/06/180F SN BK BX     | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 180°, Clamping yoke<br>connection, Clamping range,<br>max.: 1.5 mm <sup>2</sup> , Box | 4008190062538 | 50 pc(s). | Box       |
| <a href="#">1606680000</a> | BL 3.50/06/180F SN OR BX     | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 180°, Clamping yoke<br>connection, Clamping range,<br>max.: 1.5 mm <sup>2</sup> , Box | 4008190026165 | 50 pc(s). | Box       |
| <a href="#">1740751001</a> | BL 3.50/06/180F SN OR BX PRT | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 180°, Clamping yoke<br>connection, Clamping range,<br>max.: 1.5 mm <sup>2</sup> , Box | 4008190961770 | 50 pc(s). | Box       |

### BLIDCB 3.5F



Female connectors for fast wiring with IDC system for connecting conductors at 3.50 mm pitch. They include space for labelling and can be coded.

- 0.35 - 0.5 mm<sup>2</sup> (IEC) / 22 - 20 AWG (UL)
- 250 V (IEC) / 300 V (UL)
- 6 A (IEC) / 7 A (UL)

### General ordering data

| Order No.                  | Part designation           | Version                                                                                                                                           | GTIN (EAN)    | Qty.      | Packaging |
|----------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|
| <a href="#">1751490000</a> | BLIDCB 3.50/06/-F SN OR BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 90°/270°, IDC terminal,<br>Clamping range, max.: 0.5<br>mm <sup>2</sup> , Box | 4032248174423 | 10 pc(s). | Box       |
| <a href="#">1770780000</a> | BLIDCB 3.50/06/-F SN BK BX | PCB plug-in connector, female<br>plug, 3.50 mm, No. of poles:<br>6, 90°/270°, IDC terminal,                                                       | 4032248174560 | 10 pc(s). | Box       |

**Datasheet**

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**Counterpart**

Clamping range, max.: 0.5  
mm², Box