

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

Product image



















Similar to illustration

Female connectors for fast processing with insulation displacement connectors (IDC) for connecting wires at 3.50 pitch. They provide space for labelling and can be coded.

General ordering data

| Version | PCB plug-in connector, female plug, 3.50 mm, Number of poles: 6, 90°/270°, IDC terminal, Clamping range, max. : 0.5 mm², Box |
|--------------|--|
| Order No. | <u>1751420000</u> |
| Туре | BLIDCB 3.50/06/- SN OR BX |
| GTIN (EAN) | 4032248174355 |
| Qty. | 10 pc(s). |
| Product data | IEC: 250 V / 6 A / 0.35 - 0.5 mm² UL: 300 V / 7 A / AWG 22 - AWG 20 |
| Packaging | Вох |

Creation date March 25, 2021 2:33:46 AM CET



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Technical data

Dimensions and weights

| Depth | 21.2 mm | Depth (inches) | 0.835 inch |
|------------|---------|-----------------|------------|
| Height | 12.5 mm | Height (inches) | 0.492 inch |
| Net weight | 6.6 a | | |

System Parameters

| Product family | OMNIMATE Signal - series BL/SL 3.50 | Type of connection | Field connection |
|--|--|--|---------------------|
| Wire connection method | IDC terminal | Pitch in mm (P) | 3.5 mm |
| Pitch in inches (P) | 0.138 inch | Conductor outlet direction | 90°/270° |
| Number of poles | 6 | L1 in mm | 17.5 mm |
| L1 in inches | 0.689 inch | Number of rows | 1 |
| Pin series quantity | 1 | Rated cross-section | 0.5 mm ² |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch | Touch-safe protection acc. to DIN VDE 0470 | IP 20 |
| Volume resistance | ≤5 mΩ | Can be coded | Yes |
| Screwdriver blade | 0.4 x 2.5 | Screwdriver blade standard | DIN 5264-A |
| Plugging cycles | 25 | Plugging force/pole, max. | 7.5 N |
| Pulling force/pole, max. | 5.5 N | | |

Material data

| Insulating material | PBT | Colour | orange |
|---------------------------------------|----------|---------------------------------------|--------|
| Colour chart (similar) | RAL 2000 | Insulating material group | Illa |
| Comparative Tracking Index (CTI) | ≥ 200 | UL 94 flammability rating | V-0 |
| Contact material | CuSn | Contact surface | tinned |
| Storage temperature, min. | -40 °C | Storage temperature, max. | 70 °C |
| Operating temperature, min. | -50 °C | Operating temperature, max. | 80 °C |
| Temperature range, installation, min. | -25 ℃ | Temperature range, installation, max. | 80 °C |

Conductors suitable for connection

| Clamping range, min. | 0.32 mm ² | Clamping range, max. | 0.5 mm ² |
|-----------------------------------|----------------------|----------------------------------|--|
| Wire connection cross section AV | VG, | Wire connection cross section AW | VG, |
| min. | AWG 22 | max. | AWG 20 |
| Solid, min. H05(07) V-U | 0.35 mm ² | Solid, max. H05(07) V-U | 0.5 mm ² |
| Flexible, min. H05(07) V-K | 0.35 mm ² | Flexible, max. H05(07) V-K | 0.5 mm ² |
| Outer diameter of insulation, max | | Reference text | The outside diameter of the plastic collar should not be larger than the pitch (P), Length of ferrules is to be chosen depending on the product and the rated |
| | 2.1 mm | | voltage. |



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Rated data acc. to IEC

| tested acc. to standard | | Rated current, min. number of poles | |
|---|------------------------|---|------------------|
| tested dec. to standard | IEC 60664-1, IEC 61984 | (Tu=20°C) | 6 A |
| Rated current, max. number of poles | | Rated current, min. number of poles | |
| (Tu=20°C) | 6 A | (Tu=40°C) | 6 A |
| Rated current, max. number of poles | | Rated voltage for surge voltage class / | |
| (Tu=40°C) | 5 A | pollution degree II/2 | 250 V |
| Rated voltage for surge voltage class / | | Rated voltage for surge voltage class / | |
| pollution degree III/2 | 160 V | pollution degree III/3 | 160 V |
| Rated impulse voltage for surge voltage | | Rated impulse voltage for surge voltage | |
| class/ pollution degree II/2 | 2.5 kV | class/ pollution degree III/2 | 2.5 kV |
| Rated impulse voltage for surge voltage | | Short-time withstand current resistance | |
| class/ contamination degree III/3 | 2.5 kV | | 3 x 1s with 60 A |

Rated data acc. to CSA

| Institute (CSA) | ⊕ | Certificate No. (CSA) | 200039-1068660 |
|-----------------------------------|----------|-----------------------------------|----------------|
| Rated voltage (Use group B / CSA) | 300 V | Rated voltage (Use group D / CSA) | 300 V |
| Rated current (Use group B / CSA) | 7 A | Rated current (Use group D / CSA) | 7 A |
| Wire cross-section, AWG, min. | AWG 22 | Wire cross-section, AWG, max | AWG 20 |

| Rated current (Use group B / CSA) | 7 A |
|-----------------------------------|--|
| Wire cross-section, AWG, min. | AWG 22 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. |

Rated data acc. to UL 1059

Institute (UR) Certificate No. (UR)

see approval certificate.

| Rated voltage (Use group B / UL 1059) | 300 V |
|---------------------------------------|--|
| Rated current (Use group B / UL 1059) | 7 A |
| Wire cross-section, AWG, min. | AWG 22 |
| Reference to approval values | Specifications are maximum values, details - |

| | E60693 |
|---------------------------------------|--------|
| Rated voltage (Use group D / UL 1059) | 300 V |
| Rated current (Use group D / UL 1059) | 7 A |
| Wire cross-section, AWG, max. | AWG 20 |
| | |

Packing

| Packaging | Box | VPE length | 42 mm |
|-----------|-------|------------|-------|
| VPE width | 72 mm | VPE height | 88 mm |

Type tests

| Test: Durability of markings | Standard | draft DIN VDE 0627 section 6.2.2 / 09.91 |
|------------------------------|------------|--|
| | Test | mark of origin, type identification, type of |
| | | material |
| | Evaluation | available |
| | Test | durability |
| | Evaluation | passed |



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Technical data

Classifications

| ETIM 6.0 | EC002638 | ETIM 7.0 | EC002638 |
|-------------|-------------|-------------|-------------|
| ECLASS 9.0 | 27-44-03-09 | ECLASS 9.1 | 27-44-03-09 |
| ECLASS 10.0 | 27-44-03-09 | ECLASS 11.0 | 27-46-02-02 |

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 | Additional colours on request |

- · Additional colours on request
- · Rated current related to rated cross-section & min. No. of poles.
- For IDC contact 0.5: cable acc. to DIN EN 60352-4
- · AWG conductor: solid, 7 or 19 strands only
- Temperature range -20 to +80 °C
- BLIDC 3.5 and BLIDCB 3.5 conductors "solid"/"flexible" to DIN 47726
- 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.
- Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

Approvals

Approvals



| ROHS | Conform |
|-----------------------|---------|
| UL File Number Search | E60693 |

Downloads

| Approval/Certificate/Document of | |
|----------------------------------|---------------------------------|
| Conformity | Declaration of the Manufacturer |
| Engineering Data | STEP |



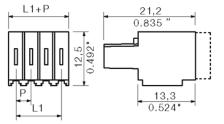
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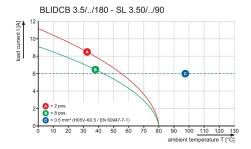
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Drawings

Dimensional drawing



Graph



Technical Data

Rev.

| Material data | | | | | |
|--|---------------------|------------------|---------------|--------------|--------------------|
| Material data Insulation material type | | PBT | | | _ |
| Insulation material colours | | orang | 10 | | _ |
| Insulation material flammability class | UL94 | V-0 | je | | _ |
| Insulation resistance | MOhm | >10 ⁵ | | | _ |
| Contact base material | WOTHIT | Cu-al | lov | | |
| Contact plating | | tin pla | | | |
| System sharastaristic values | | | | | |
| System characteristic values Pitch P | with counterpart | 2.5/0 | 100 | | _ |
| Number of rows | mm/inch | 3.5/0. 1 | 130 | | _ |
| Dielectric strength (r.m.s withstand voltage) | kV | >1.39 | | | |
| Mechanical operating cycles | acc. to IEC 512 | >50 | , | | _ |
| Plug in force (max.) | N/pole | 10 | | | — 1) |
| Pull out force (max.) | N/pole | 10 | | | — ' <i>'</i> 1) |
| Through resistance (typical) | mOhm | <5,0 | | | — ' <i>'</i> |
| Operating temperature range | °C | -20 | +80 | | 2) |
| Degree of protection acc. to VDE 0106 (plugge | | | | ck of har | _ ′ |
| Degree of protection acc. to DIN EN 60529 (plug | | IP20/I | | | |
| Conductor connection method | ggou, ap.a.ggou, | | onnection | on | _ |
| Screw size | | n.a. | | | _ |
| Screw torque max. acc. to EN 60999 | Nm | n.a. | | | |
| Screw driver type | | 0.4 x | 2.5 | | |
| Application notes | | | | | |
| Application notes Coding possibility | voe/no | VOC (2 | accesso | nv) | _ |
| Joinable without loss of pitch | yes/no yes/no | yes | 1000330 | · y) | _ |
| Manual assembly of modules | yes/no | no | | | _ |
| Max. number of poles | <u>yes/ilo</u> n | 12 | | | _ |
| | <u> </u> | | | | |
| Clamping range | mm ² | 0.05 | 0.5 | | |
| Clamping range "e" solid H05(07) V-U | mm ² | 0.35 . 0.5 | 0.5 | | _ |
| "f" flexible H05(07) V-K | mm ² | 0.5 | | | |
| "f" with ferrule acc. to DIN 46228/1 | mm ² | n.a. | | | _ |
| with plastic collar acc. to DIN 46228/4 | mm ² | n.a. | | | |
| Conductor insulation stripping length | mm/inch | n.a. | | | _ |
| Conductor insulation diameter max. | mm/inch | 2.1 | | | |
| Two wire clamping range | mm ² | n.a. | | | _ |
| Gauge to EN 60999 (a x b ; Ø) | mm | n.a. | | | _ |
| and go to an according to the control of the contro | | | | | _ |
| Detect over a certific and to EN COOCO | mm ² | 0.5 | | | _ |
| Rated cross section acc. to EN 60999 Rated current @ 20°C ambient (together with) | A | 6 (SL | 3.5) | | — ₃₎ |
| Rated current @ 40°C ambient (together with) | A | 6 (SL | | | $-\frac{3}{3}$ |
| Overvoltage category / Pollution degree | A | III/3 | 3.3) III/2 | II/2 | _ 3 |
| Rated voltage | | 160 | 250 | 320 | _ |
| Rated impulse voltage | kV | 2.5 | 2.5 | 2.5 | _ |
| | | _ | _ | | |
| UL 1059 rated data Rated voltage | o.: E60693 | B 300 | С | D | |
| Rated current | A | 7 | | | _ |
| AWG wire range (field wiring / factory wiring) | | 22 | 20 | | |
| CSA C22 2 voted data | o.: LR12400 | В | _ | n | |
| CSA C22.2 rated data File No Rated voltage | V V | B 300 | С | D | _ |
| Rated current | v | 7 | | | _ |
| AWG wire range (field wiring / factory wiring) | | 22 | 20 | | _ |
| | | | | | |
| Packaging | | card I | xoc | | _ |
| | | | | | |

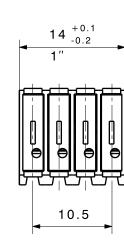
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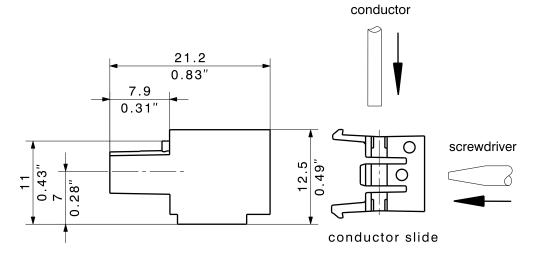
- 2) Sum of ambient temperature and temperature rise
- 3) Referred to rated cross section and minimum pole number

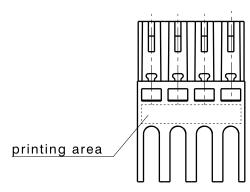
n.a. = not applicable

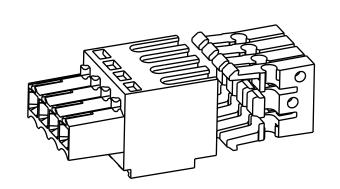
Downloads

Subject to technical changes









| п | L1 [mm] | L1 [inch] |
|----|---------|-----------|
| 2 | 3,50 | 0,138 |
| 3 | 7,00 | 0,276 |
| 4 | 10,50 | 0,413 |
| 5 | 14,00 | 0,551 |
| 6 | 17,50 | 0,689 |
| 7 | 21,00 | 0,827 |
| 8 | 24,50 | 0,965 |
| 9 | 28,00 | 1,102 |
| 10 | 31,50 | 1,240 |
| 11 | 35,00 | 1,378 |
| 12 | 38,50 | 1,516 |
| 13 | 42,00 | 1,654 |
| 14 | 45,50 | 1,791 |
| 15 | 49,00 | 1,929 |
| 16 | 52,50 | 2,067 |

(0)

ISSUE NO

For the mounting of PCBs, it should be noted that the rated data stated here relates only to the PCB components

The neccessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110.

The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

| shown: | BLIDCB 3.5/4 |
|--------|--------------|

| METRIC TOLERANCES: $X. = \pm 0.3$ $X.X = \pm 0.1$ $X.XX = \pm 0.05$ | ③ : | | We | eidmüll |
|--|-------------|----------|----------|--------------|
| METRIC/INCH | | DATE | NAME | |
| DIMENSIONS TO | DRAWN | 17.12.02 | Lux | |
| SCALE: 2:1 | RESPONSIBLE | 17.12.02 | Lux | |
| SUPERSEDES: . | CHECKED | 25.09.03 | Phillips | |
| SUPERSEDED BY: . | APPROVED | 26.09.03 | Endres | PRODUCT FILE |

C 27649

SHEET: 1 OF 2 SHEETS

BLIDCB 3.5/2...12

Socket Block

E: BLIDCB 3.5 Customer Drawing

| 1) | Without locking latches | |
|----|-------------------------|--|

V5 1002