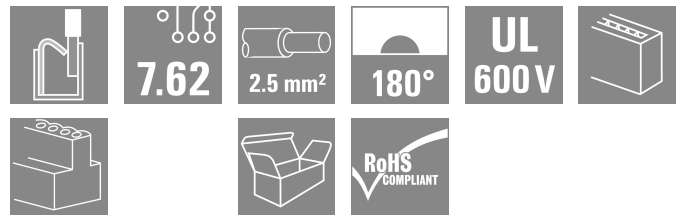
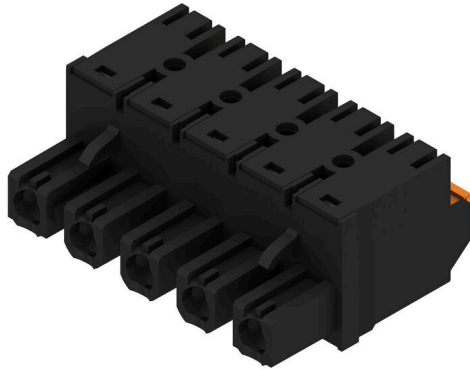


BLF 7.62HP/05/180 SN BK BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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 Germany

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Product image



180° female header with PUSH-IN connection technology for field wiring in 2.5 mm² with a 7.62 pitch.

Meets the requirements as per UL1059 600 V class C and IEC 61800-5-1

Variants: without flange, external flange, release latch.

General ordering data

| | |
|--------------|--|
| Version | PCB plug-in connector, female plug, 7.62 mm, Number of poles: 5, 180°, PUSH IN with actuator, Clamping range, max. : 2.5 mm ² , Box |
| Order No. | 1043860000 |
| Type | BLF 7.62HP/05/180 SN BK BX |
| GTIN (EAN) | 4032248774807 |
| Qty. | 48 items |
| Product data | IEC: 1000 V / 29 A / 0.5 - 2.5 mm ² UL: 600 V / 20 A / AWG 20 - AWG 12 |
| Packaging | Box |

BLF 7.62HP/05/180 SN BK BX

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Technical data

Approvals

Approvals



| | |
|-------------------------|----------------------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (cURus) | E60693 |

Dimensions and weights

| | | | |
|------------|----------|-----------------|-------------|
| Depth | 28.1 mm | Depth (inches) | 1.1063 inch |
| Height | 15.1 mm | Height (inches) | 0.5945 inch |
| Width | 37.38 mm | Width (inches) | 1.4717 inch |
| Net weight | 12.5 g | | |

Environmental Product Compliance

| | | | |
|--------------------------|-----------------------------|------------------|--|
| RoHS Compliance Status | Compliant without exemption | | |
| REACH SVHC | No SVHC above 0.1 wt% | | |
| Product Carbon Footprint | Cradle to gate | 0,832 kg CO2 eq. | |

System Parameters

| | | | |
|--|--------------------------------------|--|---------------------|
| Product family | OMNIMATE Power - series BL/SL 7.62HP | Type of connection | Field connection |
| Wire connection method | PUSH IN with actuator | Pitch in mm (P) | 7.62 mm |
| Pitch in inches (P) | 0.300 " | Conductor outlet direction | 180° |
| Number of poles | 5 | L1 in mm | 30.48 mm |
| L1 in inches | 1.200 " | Number of rows | 1 |
| Pin series quantity | 1 | Rated cross-section | 2.5 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 |
| Protection degree | IP20 | Can be coded | Yes |
| Stripping length | 10 mm | Screwdriver blade | 0.6 x 3.5 |
| Plugging cycles | 25 | Plugging force/pole, max. | 8.5 N |
| Pulling force/pole, max. | 6 N | | |

Material data

| | | | |
|---------------------------------------|---------|---------------------------------------|----------------------------|
| Insulating material | PBT | Colour | black |
| Colour of operational elements | orange | Colour chart (similar) | RAL 9011 |
| Insulating material group | IIIa | Comparative Tracking Index (CTI) | ≥ 200 |
| Insulation resistance | ≥ 108 Ω | Moisture Level (MSL) | |
| UL 94 flammability rating | V-0 | Contact material | Cu-alloy |
| Contact surface | tinned | Layer structure of plug contact | 4...8 μm Sn hot-dip tinned |
| Storage temperature, min. | -40 °C | Storage temperature, max. | 70 °C |
| Operating temperature, min. | -50 °C | Operating temperature, max. | 100 °C |
| Temperature range, installation, min. | -25 °C | Temperature range, installation, max. | 100 °C |

Conductors suitable for connection

| | |
|---|----------------------|
| Clamping range, min. | 0.08 mm ² |
| Clamping range, max. | 2.5 mm ² |
| Wire connection cross section AWG, min. | AWG 20 |

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Technical data

| | |
|---|---------------------|
| Wire connection cross section AWG, max. | AWG 12 |
| Solid, min. H05(07) V-U | 0.5 mm ² |
| Solid, max. H05(07) V-U | 1.5 mm ² |
| Flexible, min. H05(07) V-K | 0.5 mm ² |
| Flexible, max. H05(07) V-K | 2.5 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm ² min. | |
| w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² max. | |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.5 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, max. | 2.5 mm ² |
| Plug gauge in accordance with EN 60999 a x b; ø | 2.8 mm x 2.0 mm |

| Clampable conductor | Cross-section for conductor connection | Type | fine-wired |
|--|--|------------------------------|----------------------------|
| | | nominal | 0.5 mm ² |
| wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H0.5/16 OR |
| | | nominal | 10 mm |
| | | Recommended wire-end ferrule | H0.5/10 |
| Cross-section for conductor connection | Stripping length | Type | fine-wired |
| | | nominal | 0.75 mm ² |
| | | nominal | 12 mm |
| | | Recommended wire-end ferrule | H0.75/16 W |
| wire end ferrule | Stripping length | nominal | 10 mm |
| | | Recommended wire-end ferrule | H0.75/10 |
| | | Type | fine-wired |
| | | nominal | 1 mm ² |
| Cross-section for conductor connection | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H1.0/16D R |
| | | nominal | 10 mm |
| | | Recommended wire-end ferrule | H1.0/10 |
| wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H1.5/10 |
| | | nominal | 10 mm |
| | | Recommended wire-end ferrule | H1.5/16 R |
| Cross-section for conductor connection | Stripping length | Type | fine-wired |
| | | nominal | 1.5 mm ² |
| | | nominal | 10 mm |
| | | Recommended wire-end ferrule | H1.5/10 |
| wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H1.5/16 R |
| | | Type | fine-wired |
| | | nominal | 2.5 mm ² |
| Cross-section for conductor connection | Stripping length | nominal | 10 mm |
| | | Recommended wire-end ferrule | H2.5/10 |

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 voltage.

BLF 7.62HP/05/180 SN BK BX

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Technical data

Rated data acc. to IEC

| | | | |
|---|------------------------|---|-------------------|
| tested acc. to standard | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C) | 29 A |
| Rated current, max. number of poles (Tu=20°C) | 24 A | Rated current, min. number of poles (Tu=40°C) | 23.8 A |
| Rated current, max. number of poles (Tu=40°C) | 23 A | Rated voltage for surge voltage class / pollution degree II/2 | 1000 V |
| Rated voltage for surge voltage class / pollution degree III/2 | 1000 V | Rated voltage for surge voltage class / pollution degree III/3 | 630 V |
| Rated impulse voltage for surge voltage class/ pollution degree II/2 | 6 kV | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 8 kV |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 6 kV | Short-time withstand current resistance | 3 x 1s with 180 A |
| Creepage distance, min. | 11.4 mm | Clearance, min. | 11.4 mm |

Rated data acc. to CSA

| | | | |
|-----------------------------------|--|-----------------------------------|----------------|
| Institute (CSA) | CSA | Certificate No. (CSA) | 200039-1121690 |
| Rated voltage (Use group B / CSA) | 600 V | Rated voltage (Use group C / CSA) | 600 V |
| Rated voltage (Use group D / CSA) | 600 V | Rated current (Use group B / CSA) | 20 A |
| Rated current (Use group C / CSA) | 20 A | Rated current (Use group D / CSA) | 5 A |
| Wire cross-section, AWG, min. | AWG 20 | Wire cross-section, AWG, max. | AWG 12 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Rated data acc. to UL 1059

| | | | |
|---------------------------------------|--|---------------------------------------|--------|
| Institute (cURus) | CURUS | Certificate No. (cURus) | E60693 |
| Rated voltage (Use group B / UL 1059) | 600 V | Rated voltage (Use group C / UL 1059) | 600 V |
| Rated voltage (Use group D / UL 1059) | 600 V | Rated current (Use group B / UL 1059) | 20 A |
| Rated current (Use group C / UL 1059) | 20 A | Rated current (Use group D / UL 1059) | 5 A |
| Wire cross-section, AWG, min. | AWG 20 | Wire cross-section, AWG, max. | AWG 12 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Packing

| | | | |
|-----------|-----------|------------|-----------|
| Packaging | Box | VPE length | 350.00 mm |
| VPE width | 135.00 mm | VPE height | 38.00 mm |

Type tests

| | | |
|--|------------|--|
| Test: Durability of markings | Standard | DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96 |
| | Test | mark of origin, type identification, pitch, type of material, date clock |
| | Evaluation | available |
| | Test | durability |
| Test: Misengagement (Non-interchangeability) | Standard | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.08 |
| | Test | 180° turned with coding elements |
| | Evaluation | passed |
| | Test | 180° turned without coding elements |
| Test: Clampable cross section | Standard | DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 04.08 |

BLF 7.62HP/05/180 SN BK BX

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Technical data

| | | | | |
|---|---|---|------------------------------|--|
| | Conductor type | Type of conductor and conductor cross-section | solid 0.5 mm ² | |
| | | Type of conductor and conductor cross-section | stranded 0.5 mm ² | |
| | | Type of conductor and conductor cross-section | solid 2.5 mm ² | |
| | | Type of conductor and conductor cross-section | stranded 2.5 mm ² | |
| | | Type of conductor and conductor cross-section | AWG 20/1 | |
| | | Type of conductor and conductor cross-section | AWG 20/19 | |
| | | Type of conductor and conductor cross-section | AWG 14/1 | |
| | | Type of conductor and conductor cross-section | AWG 12/19 | |
| | | Evaluation | passed | |
| Test for damage to and accidental loosening of conductors | Standard | DIN EN 60999-1 section 9.4 / 12.00 | | |
| | Requirement | 0.3 kg | | |
| | Conductor type | Type of conductor and conductor cross-section | H05V-U0.5 | |
| | | Type of conductor and conductor cross-section | H05V-K0.5 | |
| | | Type of conductor and conductor cross-section | AWG 20/1 | |
| | | Type of conductor and conductor cross-section | AWG 20/19 | |
| | | Evaluation | passed | |
| | Requirement | 0.7 kg | | |
| | Conductor type | Type of conductor and conductor cross-section | H07V-U2.5 | |
| | Type of conductor and conductor cross-section | H07V-K2.5 | | |
| | Type of conductor and conductor cross-section | AWG 14/1 | | |
| | Evaluation | passed | | |
| Requirement | 0.9 kg | | | |
| Conductor type | Type of conductor and conductor cross-section | AWG 12/19 | | |
| Pull-out test | Evaluation | passed | | |
| | Standard | DIN EN 60999-1 section 9.5 / 12.00 | | |
| | Requirement | ≥20 N | | |
| | Conductor type | Type of conductor and conductor cross-section | H05V-U0.5 | |
| | | Type of conductor and conductor cross-section | H05V-K0.5 | |

Technical data

| | | |
|----------------|---|-----------|
| | Type of conductor and conductor cross-section | AWG 20/1 |
| | Type of conductor and conductor cross-section | AWG 20/19 |
| Evaluation | passed | |
| Requirement | ≥50 N | |
| Conductor type | Type of conductor and conductor cross-section | H07V-U2.5 |
| | Type of conductor and conductor cross-section | H07V-K2.5 |
| | Type of conductor and conductor cross-section | AWG 14/1 |
| Evaluation | passed | |
| Requirement | ≥60 N | |
| Conductor type | Type of conductor and conductor cross-section | AWG 12/19 |
| | passed | |

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 variants on request
 - Gold-plated contact surfaces on request
 - Rated current related to rated cross-section & min. No. of poles.
 - Wire end ferrule without plastic collar to DIN 46228/1
 - Wire end ferrule with plastic collar to DIN 46228/4
 - 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.
 - Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended.
 - In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load
 - Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 8.0 | EC002638 | ETIM 9.0 | EC002638 |
| ETIM 10.0 | EC002638 | ECLASS 14.0 | 27-46-02-02 |
| ECLASS 15.0 | 27-46-02-02 | | |

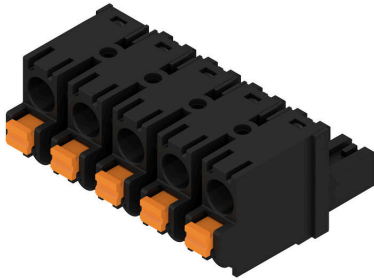
BLF 7.62HP/05/180 SN BK BX

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Drawings

Product image



Dimensional drawing



Graph



Graph



Product benefits



Vibration-proof connection

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Accessories

Coding elements



Only connects what is supposed to be connected: the right connection at the right place.
 Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation
 The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase.
 The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.
 Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible.
 The advantage: no troubleshooting during manufacture and no operational errors by the user.

General ordering data

| | | |
|------------|----------------------------|--|
| Type | BLZ/SL KO OR BX | Version |
| Order No. | 1573010000 | PCB plug-in connector, Accessories, Coding element, orange, Number |
| GTIN (EAN) | 4008190048396 | of poles: 1 |
| Qty. | 100 ST | |
| Type | BLZ/SL KO BK BX | Version |
| Order No. | 1545710000 | PCB plug-in connector, Accessories, Coding element, black, Number |
| GTIN (EAN) | 4008190087142 | of poles: 1 |
| Qty. | 50 ST | |

Slotted screwdriver



Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1.
 ChromTop tip, SoftFinish grip

General ordering data

| | | |
|------------|----------------------------|--------------------------|
| Type | SDS 0.6X3.5X100 | Version |
| Order No. | 9008330000 | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056286 | |
| Qty. | 1 ST | |
| Type | SDIS 0.6X3.5X100 | Version |
| Order No. | 9008390000 | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056354 | |
| Qty. | 1 ST | |

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Accessories

Crimping tools



Crimping tools for wire end ferrules, with and without plastic collars

- Ratchet guarantees precise crimping
- Release option in the event of incorrect operation

General ordering data

| | | | |
|------------|----------------------------|--|--|
| Type | PZ 6/5 | Version | |
| Order No. | 9011460000 | Pressing tool, Crimping tool for wire-end ferrules, 0.25mm ² , 6mm ² , | |
| GTIN (EAN) | 4008190165352 | Trapezoidal indentation crimp | |
| Qty. | 1 ST | | |

BLF 7.62HP/05/180 SN BK BX

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Counterpart

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SL 7.62HP/180G



Power on board - 100% safety, 100% integration, 100% cost-effectiveness:

The compact, efficient solution for UL-600V applications in the lower performance range.

High-performance male header for applications up to 12 kVA:

- 29 A at 400 V (IEC)
- 20 A at 600 V (UL)
- Single compartment mating profile

Assisting in device approval:

- Meets the requirements for 600 V according to UL 508 / UL840.
- Meets the increased requirements on touch safety as per IEC68100-5-1 when combined with female header BLZ 7.62 HP

The slimming diet for multiple-stage device series:

Reduce the size and cut costs in the high-volume lower performance range without compromising device approval!

Male header, 180° outlet direction, without flange

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SL 7.62HP/05/180G 3.2SN... | Version |
| Order No. | 1048980000 | PCB plug-in connector, male header, closed side, THT solder |
| GTIN (EAN) | 4032248786954 | connection, 7.62 mm, Number of poles: 5, 180°, Solder pin length (l): |
| Qty. | 50 ST | 3.2 mm, tinned, black, Box |
| Type | SL 7.62HP/05/180G 3.2SN... | Version |
| Order No. | 1048900000 | PCB plug-in connector, male header, closed side, THT solder |
| GTIN (EAN) | 4032248786879 | connection, 7.62 mm, Number of poles: 5, 180°, Solder pin length (l): |
| Qty. | 50 ST | 3.2 mm, tinned, orange, Box |

SL 7.62HP/270G



Power on board - 100% safety, 100% integration, 100% cost-effectiveness:

The compact, efficient solution for UL-600V applications in the lower performance range up to 12 kVA

- 29 A at 400 V (IEC)
- 20 A at 300 V (UL)
- Single compartment mating profile
- Clamping range: 0.08 - 4 mm² / AWG 28 - 12

Assisting in device approval:

- Meets the requirements for 600 V according to UL 508 / UL840.
- Meets the increased requirements on touch safety as per IEC68100-5-1

The slimming diet for multiple-stage device series:

Reduce the size and cut costs in the high-volume lower performance range without compromising device approval!

Male header, 270° outlet angle

BLF 7.62HP/05/180 SN BK BX

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Counterpart

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General ordering data

| | | |
|------------|----------------------------|---|
| Type | SL 7.62HP/05/270G 3.2SN... | Version |
| Order No. | 1472270000 | PCB plug-in connector, male header, closed side, THT solder |
| GTIN (EAN) | 4050118317435 | connection, 7.62 mm, Number of poles: 5, 270°, Solder pin length (l): |
| Qty. | 50 ST | 3.2 mm, tinned, black, Box |
| Type | SL 7.62HP/05/270G 3.2SN... | Version |
| Order No. | 1472520000 | PCB plug-in connector, male header, closed side, THT solder |
| GTIN (EAN) | 4050118317657 | connection, 7.62 mm, Number of poles: 5, 270°, Solder pin length (l): |
| Qty. | 50 ST | 3.2 mm, tinned, orange, Box |

SL 7.62HP/90G



Power on board - 100% safety, 100% integration, 100% cost-effectiveness:

The compact, efficient solution for UL-600V applications in the lower performance range up to 12 kVA

- 29 A at 400 V (IEC)
- 20 A at 300 V (UL)
- Single compartment mating profile
- Clamping range: 0.08 - 4 mm² / AWG 28 - 12

Assisting in device approval:

- Meets the requirements for 600 V according to UL 508 / UL840.
- Meets the increased requirements on touch safety as per IEC68100-5-1

The slimming diet for multiple-stage device series:

Reduce the size and cut costs in the high-volume lower performance range without compromising device approval!

Male header, 90° outlet angle

General ordering data

| | | |
|------------|----------------------------|--|
| Type | SL 7.62HP/05/90G 3.2SN ... | Version |
| Order No. | 1026790000 | PCB plug-in connector, male header, closed side, THT solder |
| GTIN (EAN) | 4032248752195 | connection, 7.62 mm, Number of poles: 5, 90°, Solder pin length (l): |
| Qty. | 50 ST | 3.2 mm, tinned, black, Box |
| Type | SL 7.62HP/05/90G 3.2SN ... | Version |
| Order No. | 1980400000 | PCB plug-in connector, male header, closed side, THT solder |
| GTIN (EAN) | 4032248675456 | connection, 7.62 mm, Number of poles: 5, 90°, Solder pin length (l): |
| Qty. | 50 ST | 3.2 mm, tinned, orange, Box |

SL-SMT 7.62HP/180G SN Box

BLF 7.62HP/05/180 SN BK BX

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Counterpart

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SL-SMT 7.62HP/05/180G 2... | Version |
| Order No. | 3114290000 | PCB plug-in connector, male header, closed side, THT solder |
| GTIN (EAN) | 4099987204095 | connection, 7.62 mm, Number of poles: 5, 180°, Solder pin length (l): |
| Qty. | ST | 2.1 mm, tinned, black, Box |

SL-SMT 7.62HP/180G SN Tape

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SL-SMT 7.62HP/05/180G 2... | Version |
| Order No. | 3114340000 | PCB plug-in connector, male header, closed side, THT solder |
| GTIN (EAN) | 4099987204149 | connection, 7.62 mm, Number of poles: 5, 180°, Solder pin length (l): |
| Qty. | ST | 2.1 mm, tinned, black, Reel |

SL-SMT 7.62HP/90G SN Box

General ordering data

| | | |
|------------|----------------------------|--|
| Type | SL-SMT 7.62HP/05/90G 2.... | Version |
| Order No. | 3114140000 | PCB plug-in connector, male header, closed side, THT solder |
| GTIN (EAN) | 4099987203944 | connection, 7.62 mm, Number of poles: 5, 90°, Solder pin length (l): |
| Qty. | 50 ST | 2.1 mm, tinned, black, Box |

BLF 7.62HP/05/180 SN BK BX

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Counterpart

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SL-SMT 7.62HP/90G Tape

General ordering data

| | | |
|------------|----------------------------|--|
| Type | SL-SMT 7.62HP/05/90G 2.... | Version |
| Order No. | 3114120000 | PCB plug-in connector, male header, closed side, THT solder |
| GTIN (EAN) | 4099987203920 | connection, 7.62 mm, Number of poles: 5, 90°, Solder pin length (l): |
| Qty. | 300 ST | 2.1 mm, tinned, black, Reel |