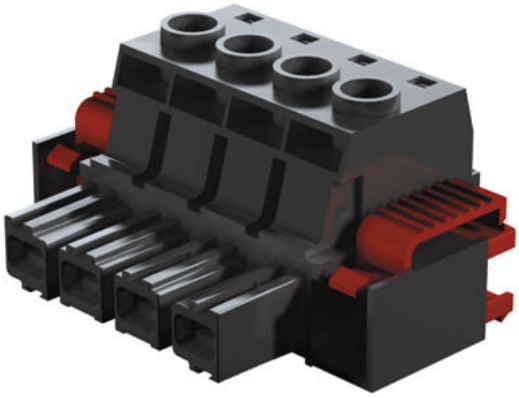
Data sheet

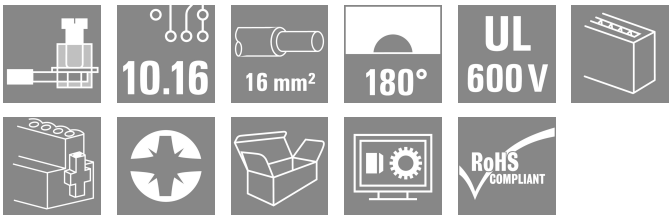
# BUZ 10.16HP/04/180F AG BK BX PRT

**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

## Product image






Similar to illustration

High-performance female header with the proven, 100% maintenance-free Weidmüller steel clamping yoke. Side-by-side mounting without sacrificing any poles or with patented multifunction flange for secure, fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity, protection against incorrect wiring and 4-point silver contact.

### General ordering data

| | |
|---|---|
| Version | PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4, 180°, Clamping yoke connection, Clamping range, max. : 16 mm², Box |
| Order No. | 1254970000 |
| Type | BUZ 10.16HP/04/180F AG BK BX PRT |
| GTIN (EAN) | 4050118047660 |
| Qty. | 20 items |
| Product data | IEC: 1000 V / 78.3 A / 0.2 - 16 mm²<br>UL: 600 V / 60 A / AWG 22 - AWG 4 |
| Packaging | Box |

# Data sheet

## BUZ 10.16HP/04/180F AG BK BX PRT

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# Technical data

### Approvals

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

### Dimensions and weights

| | |
|---|---|
| Net weight | 50.8 g |

### Environmental Product Compliance

| | |
|---|---|
| RoHS Compliance Status | Compliant without exemption |
| REACH SVHC | No SVHC above 0.1 wt% |

### System Parameters

| | | | |
|---|---|---|---|
| Product family | OMNIMATE Power - series BU/SU 10.16HP | Type of connection | Field connection |
| Wire connection method | Clamping yoke connection | Pitch in mm (P) | 10.16 mm |
| Pitch in inches (P) | 0.400 " | Conductor outlet direction | 180° |
| Number of poles | 4 | L1 in mm | 30.48 mm |
| L1 in inches | 1.200 " | Number of rows | 1 |
| Pin series quantity | 1 | Rated cross-section | 16 mm² |
| 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 | 4.50 mΩ | Can be coded | Yes |
| Stripping length | 12 mm | Tightening torque, min. | 1.2 Nm |
| Tightening torque, max. | 2 Nm | Clamping screw | M 4 |
| Screwdriver blade | 1.0 x 5.5, PZ 2 | Screwdriver blade standard | DIN 5264, ISO 8764/2-PZ |
| Plugging cycles | 25 | Plugging force/pole, max. | 15.5 N |
| Pulling force/pole, max. | 14.5 N | | |

### Material data

| | | | |
|---|---|---|---|
| Insulating material | PA GF | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | I |
| Comparative Tracking Index (CTI) | ≥ 600 | Moisture Level (MSL) | |
| UL 94 flammability rating | V-0 | Contact material | Cu-alloy |
| Layer structure of plug contact | ≥ 3 µm Ag | Storage temperature, min. | -40 °C |
| Storage temperature, max. | 70 °C | Operating temperature, min. | -50 °C |
| Operating temperature, max. | 130 °C | Temperature range, installation, min. | -25 °C |
| Temperature range, installation, max. | 130 °C | | |

### Conductors suitable for connection

| | |
|---|---|
| Clamping range, min. | 0.2 mm² |
| Clamping range, max. | 16 mm² |
| Wire connection cross section AWG, min. | AWG 22 |
| Wire connection cross section AWG, max. | AWG 4 |
| Solid, min. H05(07) V-U | 0.2 mm² |
| Solid, max. H05(07) V-U | 16 mm² |
| Stranded, min. H07V-R | 6 mm² |

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## Technical data

| | | | | |
|---|---|---|---|---|
| Stranded, max. H07V-R | 16 mm² | | | |
| Flexible, min. H05(07) V-K | 0.5 mm² | | | |
| Flexible, max. H05(07) V-K | 16 mm² | | | |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.25 mm² | | | |
| w. plastic collar ferrule, DIN 46228 pt 4, max. | 16 mm² | | | |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.25 mm² | | | |
| w. wire end ferrule, DIN 46228 pt 1, max. | 16 mm² | | | |
| Plug gauge in accordance with EN 60999 a x b; ø | 5.3mm (B6) | | | |
| Clampable conductor | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 0.5 mm² | |
| | wire end ferrule | Stripping length | nominal | 14 mm |
| | | Recommended wire-end ferrule | H0,5/18 OR | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 1 mm² | |
| | wire end ferrule | Stripping length | nominal | 15 mm |
| | | Recommended wire-end ferrule | H1,0/18 GE | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 1.5 mm² | |
| | wire end ferrule | Stripping length | nominal | 15 mm |
| | | Recommended wire-end ferrule | H1,5/18D SW | |
| | | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H1,5/12 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 0.75 mm² | |
| | wire end ferrule | Stripping length | nominal | 14 mm |
| | | Recommended wire-end ferrule | H0,75/18 W | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 2.5 mm² | |
| | wire end ferrule | Stripping length | nominal | 14 mm |
| | | Recommended wire-end ferrule | H2,5/19D BL | |
| | | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H2,5/12 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 4 mm² | |
| | wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H4,0/12 | |
| | | Stripping length | nominal | 14 mm |
| | | Recommended wire-end ferrule | H4,0/20D GR | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 6 mm² | |
| | wire end ferrule | Stripping length | nominal | 14 mm |
| | | Recommended wire-end ferrule | H6,0/20 SW | |
| | | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H6,0/12 | |

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## Technical data

| | | | | |
|---|---|---|---|---|
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 10 mm² | |
| | wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H10,0/12 | |
| | | Stripping length | nominal | 15 mm |
| | | Recommended wire-end ferrule | H10,0/22 EB | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 16 mm² | |
| | wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H16,0/12 | |
| | | Stripping length | nominal | 15 mm |
| | | Recommended wire-end ferrule | H16,0/22 GN | |
| Reference text | Length of ferrules is to be chosen depending on the product and the rated voltage. | | | |

### Rated data acc. to IEC

| | | | |
|---|---|---|---|
| tested acc. to standard | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C) | 78.3 A |
| Rated current, max. number of poles (Tu=20°C) | 67.9 A | Rated current, min. number of poles (Tu=40°C) | 70.6 A |
| Rated current, max. number of poles (Tu=40°C) | 61.3 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 | 1000 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 | 8 kV | Short-time withstand current resistance | 3 x 1s mit 1000 A |
| Creepage distance, min. | 15.1 mm | Clearance, min. | 15.1 mm |

### Rated data acc. to CSA

| | | | |
|---|---|---|---|
| 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) | 60 A |
| Rated current (Use group C / CSA) | 60 A | Rated current (Use group D / CSA) | 5 A |
| Wire cross-section, AWG, min. | AWG 22 | Wire cross-section, AWG, max. | AWG 4 |

### 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) | 60 A |
| Rated current (Use group C / UL 1059) | 60 A | Rated current (Use group D / UL 1059) | 5 A |
| Wire cross-section, AWG, min. | AWG 22 | Wire cross-section, AWG, max. | AWG 4 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

### Packing

| | | | |
|---|---|---|---|
| Packaging | Box | VPE length | 352.00 mm |
| VPE width | 138.00 mm | VPE height | 50.00 mm |

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## Technical data

### Type tests

| | | | |
|---|---|---|---|
| Test: Durability of markings | Standard | taking pattern from DIN EN 61984 section 7.3.2 / 04.02 DIN EN 60068-2-70 / 07.96 | |
| | Test | mark of origin, type identification, pitch, approval marking cULus, type of material, durability | |
| | Evaluation | available | |
| 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 / 12.99 | |
| | Conductor type | Type of conductor and conductor cross-section | solid 0.5 mm² |
| | | Type of conductor and conductor cross-section | stranded 0.5 mm² |
| | | Type of conductor and conductor cross-section | solid 16 mm² |
| | | Type of conductor and conductor cross-section | stranded 16 mm² |
| | | Type of conductor and conductor cross-section | AWG 22/1 |
| | | Type of conductor and conductor cross-section | AWG 22/19 |
| | | Type of conductor and conductor cross-section | AWG 6/1 |
| | | Type of conductor and conductor cross-section | AWG 6/19 |
| | Evaluation | passed | |
| Test for damage to and accidental loosening of conductors | Standard | DIN EN 60999-1 section 9.4 / 12.00 | |
| | Requirement | 0.2 kg | |
| | Conductor type | Type of conductor and conductor cross-section | solid 0.2 mm² |
| | Evaluation | passed | |
| | Requirement | 0.3 kg | |
| | Conductor type | Type of conductor and conductor cross-section | stranded 0.5 mm² |
| | | Type of conductor and conductor cross-section | AWG 22/1 |
| | | Type of conductor and conductor cross-section | AWG 22/19 |
| | Evaluation | passed | |
| | Requirement | 2.9 kg | |
| | Conductor type | Type of conductor and conductor cross-section | solid 16 mm² |
| | | Type of conductor and conductor cross-section | stranded 16 mm² |
| | | Type of conductor and conductor cross-section | AWG 6/7 |
| | Evaluation | passed | |
| Pull-out test | Standard | DIN EN 60999-1 section 9.5 / 12.00 | |

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## Technical data

| | | |
|---|---|---|
| Requirement | ≥10 N | |
| Conductor type | Type of conductor and conductor cross-section | solid 0.2 mm² |
| Evaluation | passed | |
| Requirement | ≥15 N | |
| Conductor type | Type of conductor and conductor cross-section | AWG 22/1 |
| | Type of conductor and conductor cross-section | AWG 22/19 |
| Evaluation | passed | |
| Requirement | ≥20 N | |
| Conductor type | Type of conductor and conductor cross-section | H05V-K0.5 |
| Evaluation | passed | |
| Requirement | ≥100 N | |
| Conductor type | Type of conductor and conductor cross-section | H07V-U16 |
| | Type of conductor and conductor cross-section | H07V-K16 |
| | Type of conductor and conductor cross-section | AWG 6/7 |
| Evaluation | 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<br>• Rated current related to rated cross-section & min. No. of poles.<br>• Wire end ferrule with plastic collar to DIN 46228/4<br>• Wire end ferrule without plastic collar to DIN 46228/1<br>• P on drawing = pitch<br>• 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.<br>• For all applications with flange we recommend to fix the pin header with the help of the soldering flange or a self-tapping screw on the board.<br>• 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<br>• 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 | | |

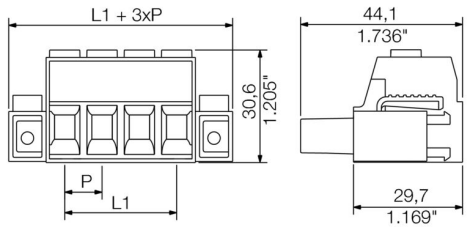
# BUZ 10.16HP/04/180F AG BK BX PRT

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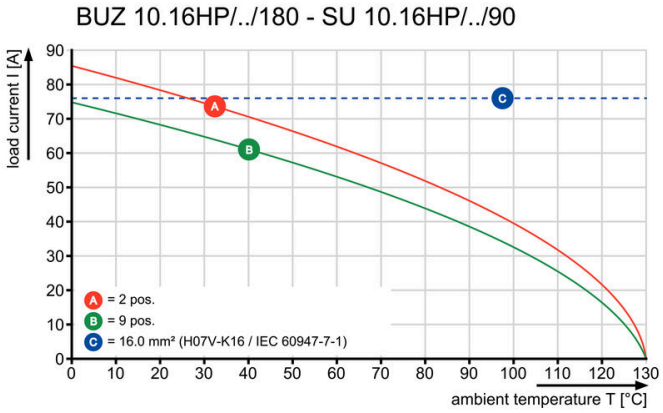
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## Drawings

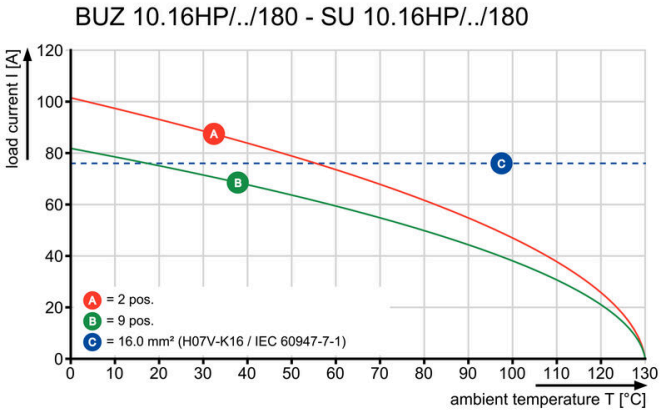
### Dimensional drawing



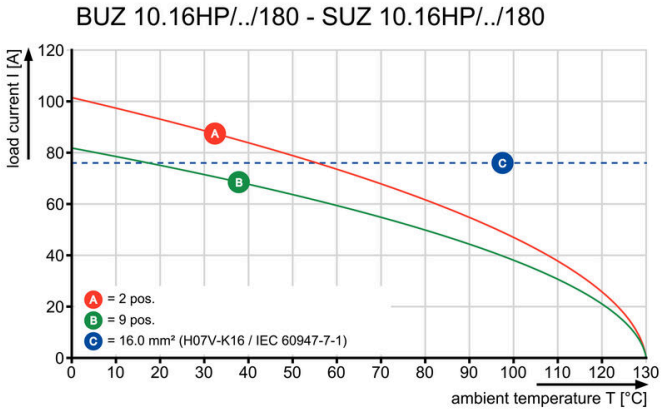

### Graph




### Graph




### Graph



# BUZ 10.16HP/04/180F AG BK BX PRT

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## Accessories

### Coding elements



The pluggable connections for power electronics - optimised for modern drive technologies, e.g. motor starters, frequency converters and servo-controllers. OMNIMATE Power sets the new standard – with increased safety and innovative solutions such as the pluggable shield, integrated signal contacts and one-handed operation.
The three product lines offer you further advantages:
- Application-oriented scalability: from the compact 4 mm² connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm² connector for 76 A (IEC) or 54 A (UL)
- Unlimited usage up to 1,000 V (IEC) or 600 V (UL)
- A variety of application optimised mounting options

Our service:
Design your individual connectors simply by using the product configurator.

#### General ordering data

| | | |
|---|---|---|
| Type | KO BU/SU10.16HP BK | Version |
| Order No. | 1824410000 | PCB plug-in connector, Accessories, Coding element, black, Number |
| GTIN (EAN) | 4032248326716 | of poles: 1 |
| Qty. | 50 ST | |

| | | |
|---|---|---|
| Type | KO BU/SU10.16HP WT | Version |
| Order No. | 2592600000 | PCB plug-in connector, Accessories, Coding element, Natural, Number |
| GTIN (EAN) | 4050118717389 | 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 0.8X4.5X125 | Version |
| Order No. | 9009020000 | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248266883 | |
| Qty. | 1 ST | |

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## Accessories

### Crosshead screwdriver Phillips



Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

### General ordering data

| | | |
|---|---|---|
| Type | SDK PH1 | Version |
| Order No. | 9008480000 | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056477 | |
| Qty. | 1 ST | |

# BUZ 10.16HP/04/180F AG BK BX PRT

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## Counterpart

### SU 10.16HP/180F

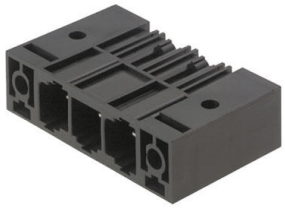


Single-row, high-current male header, for side-by-side mounting without sacrificing any poles, or with patented flange for fast locking without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, with unique coding diversity, additional fastening and integrable positioning aid. 3.5 mm pin length is optimised for wave soldering, plug-in direction 180° to solder pins.

#### General ordering data

| | | |
|---|---|---|
| Type | SU 10.16HP/04/180F 3.5A... | Version |
| Order No. | 1813670000 | PCB plug-in connector, male header, Clip-on flange, THT solder |
| GTIN (EAN) | 4032248297894 | connection, 10.16 mm, Number of poles: 4, 180°, Solder pin length |
| Qty. | 30 ST | (l): 3.5 mm, silver-plated, black, Box |

### SU 10.16HP/270F

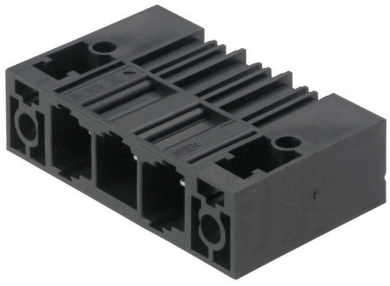


Single-row, high-performance male header for side-by-side mounting without sacrificing any poles or with patented flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, with unique coding diversity and additional fastening in the flange. 3.5 mm pin length is optimised for wave soldering, plug-in direction 270° to solder pins.

#### General ordering data

| | | |
|---|---|---|
| Type | SU 10.16HP/04/270F 3.5A... | Version |
| Order No. | 1813750000 | PCB plug-in connector, male header, Clip-on flange, THT solder |
| GTIN (EAN) | 4032248297979 | connection, 10.16 mm, Number of poles: 4, 270°, Solder pin length |
| Qty. | 30 ST | (l): 3.5 mm, silver-plated, black, Box |

### SU 10.16HP/90F



Single-row, high-current male header, for side-by-side mounting without sacrificing any poles, or with patented flange for fast locking without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, with unique coding diversity and additional fastening in the flange. 3.5 mm pin length is optimised for wave soldering, plug-in direction 90° to solder pins.

#### General ordering data

| | | |
|---|---|---|
| Type | SU 10.16HP/04/90F 3.5AG... | Version |
| Order No. | 1813590000 | PCB plug-in connector, male header, Clip-on flange, THT solder |
| GTIN (EAN) | 4032248297818 | connection, 10.16 mm, Number of poles: 4, 90°, Solder pin length (l): |
| Qty. | 30 ST | 3.5 mm, silver-plated, black, Box |