TERMINAL BLOCKS AND CONNECTORS FOR LINE VOLTAGE CONNECTION
Table of Contents

04  Technical information for terminal blocks - Flat Connect 46.433 and 46.435
05  Overview - Terminal blocks Flat Connect 46.433 and 46.435
06  Technical information for flat terminal blocks 46.485 - Push wire / Releasable contacts
07  Overview flat terminal blocks 46.485
08 / 09  Technical information for terminal blocks Push wire / Releasable contacts 46.411 - 46.415
10 / 11  Overview - Terminal Blocks Push wire / Releasable contacts 46.411 - 46.415
12  Technical information for terminal blocks - Rast5 46.455
13  Overview terminal blocks - Rast5 - 46.455
14  Technical information for terminal blocks - Screw-/ Push wire contacts
15  Overview terminal blocks - Screw-/ Push wire contacts 3 and 4 pole
16  Technical information for connectors 2, 3, 4 and 5 pole
17  Overview connectors 2 to 5 pole and accessories
18  Technical information and overview for fused terminal blocks 1 and 3 pole
19  Technical information for terminal blocks with REC
20  About BJB and BJB World wide

Issue: 01.2020
### Terminal blocks for line voltage connection - Flat Connect - Push wire / Releaseable contacts

#### Wire insertion openings, external
- Standardised or customised marking
- Low overall height: 11 mm only

#### Wire insertion openings, internal

#### Different types of earthing:
- REC - Rapid Earth Contact
- Earth bracket for screw fixing
- Earth bracket for snap in fixing

#### Wire diameters, external:
- 2 x 0.5 - 2.5 mm²

#### Wire diameters, internal:
- 1 x 0.5 - 1.0 mm²
- 1 x 0.5 - 2.5 mm²

#### Strip length:
- 0.5 - 1.0 mm²: 8+1 mm
- 1.5 - 2.5 mm²: 12+1 mm

---

### Technical Features
- Easy and secure assembly
- High performance plastics
- Proven push wire technology
- Wire release function
- Industry leading contact design

---

### Terminal blocks for line voltage connection - Flat Connect
Push wire / Releaseable contacts

<table>
<thead>
<tr>
<th>part no.</th>
<th>number of poles</th>
<th>height</th>
<th>Snap in pins</th>
<th>Screw fixing</th>
<th>Rapid-Earth-Contact</th>
<th>Earth bracket</th>
<th>Earth bracket snap in</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.433.1180.50</td>
<td>3</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.433.1111.50</td>
<td>3</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.433.1115.50</td>
<td>3</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>46.433.1114.50</td>
<td>3</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.433.1125.50</td>
<td>3</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>46.435.1180.50</td>
<td>5</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.435.1111.50</td>
<td>5</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.435.1115.50</td>
<td>5</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.435.1114.50</td>
<td>5</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.435.1117.50</td>
<td>5</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.435.1215.50</td>
<td>5</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.435.1200.50</td>
<td>5</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.435.1211.50</td>
<td>5</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Wire diameters, external:
- 2 x 0.5 - 2.5 mm²

### Wire diameters, internal:
- 1 x 0.5 - 1.0 mm²
- 1 x 0.5 - 2.5 mm²

---

For more and detailed information visit: www.bjb.com
Technical Features
- Very flat, space-saving size
- Ideal for luminaires with very low height
- Push button for quick release of wires for upper terminal connection
- Lower terminals can be released by Twist and Pull
- Different types of earthing

Flat terminal blocks for line voltage connection
Push wire / Releaseable contacts

Push button for wire release

0.5 – 2.5 mm² solid wire ends
1.5 – 2.5 mm² stranded wire ends

0.5 – 2.5 mm² solid and flexible wire ends

Low overall height
11 mm only

Snap in pins for easy assembly

Different types of earthing
- REC - Rapid Earth Contact
- Earth bracket for screw fixing

Wire diameters, external
- 2 x 0.5 - 2.5 mm²

Wire diameters, internal
- 1 x 0.5 - 1.0 mm²
- 1 x 0.5 - 2.5 mm²

Strip length
- 0.5 - 1.0 mm²: 8+1 mm
- 1.5 - 2.5 mm²: 12+1 mm

Approvals: ÖVE Reg. Compliance with creepage distances and clearances (e.g., according to EN 60598) has to be ensured by the structural design of the luminaire.

Fixing
- Type of earthing

<table>
<thead>
<tr>
<th>part no.</th>
<th>Number of poles</th>
<th>Height</th>
<th>Snap in pins</th>
<th>Rapid-Earth-Contact</th>
<th>Earth bracket Screw fixing</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.485.1115.50</td>
<td>5</td>
<td>11 mm</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>46.485.1114.50</td>
<td>5</td>
<td>11 mm</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

For more and detailed information visit: www.bjb.com
The REC provides an electrical connection between the earth pole of the terminal block and the mounting plate, and also a mechanical connection is made in addition to the electrical connection.

### Technical Features
- Easy and secure assembly
- High performance plastics
- Wire release function
- Huge range of standard markings are available
- Customised marking on request
- Industry leading contact design

### Terminal blocks for line voltage connection - Push wire / Releaseable contacts

![Diagram of terminal blocks]

**Test openings for automatic final testing**

**Standardised or customised marking**

**Wire release facility**

**Wire insertion openings, internal**

**Suppression capacitor:** 1 x 0.5 - 0.75 mm², not releasable

**Different types of earthing**
- REC - Rapid Earth Contact
- Earth bracket for screw fixing
- Earth bracket for snap in fixing

### Technical Specifications

| Wire diameters, external | 2 x 0.5 - 2.5 mm², with release facility |
| Wire diameters, internal | 1 x 0.5 - 1.0 mm², releasable; 1 x 0.5 - 2.5 mm², releasable |

| Strip length | 0.5 - 1.0 mm²; 8 + 1 mm |
|              | 1.5 - 2.5 mm²; 12 + 1 mm |

**For more and detailed information visit:** [www.bjb.com](http://www.bjb.com)
<table>
<thead>
<tr>
<th>part no.</th>
<th>number of poles</th>
<th>height</th>
<th>Snap in pins</th>
<th>Screw- / Snap in fixing</th>
<th>Rapid Earth Contact</th>
<th>Earth bracket Snap in</th>
<th>Accessories</th>
<th>part no.</th>
<th>number of poles</th>
<th>Snap in pins</th>
<th>Screw- / Snap in fixing</th>
<th>Rapid Earth Contact</th>
<th>Earth bracket Snap in</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.411.7000.50</td>
<td>1</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46.414.1000.50</td>
<td>4</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.412.1100.50</td>
<td>2</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cable clamps see below</td>
<td>46.414.1100.50</td>
<td>4</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.412.1200.50</td>
<td>2</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cable clamps see below</td>
<td>46.414.1200.50</td>
<td>4</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.413.1100.50</td>
<td>3</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cable clamps see below</td>
<td>46.414.1214.50</td>
<td>4</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.413.1115.50</td>
<td>3</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cable clamps see below</td>
<td>46.415.1100.50</td>
<td>5</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.413.1114.50</td>
<td>3</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cable clamps see below</td>
<td>46.415.1115.50</td>
<td>5</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.413.1125.50</td>
<td>3</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cable clamps see below</td>
<td>46.415.1114.50</td>
<td>5</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.413.1200.50</td>
<td>3</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cable clamps see below</td>
<td>46.415.1117.50</td>
<td>5</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.413.1302.50</td>
<td>3</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cable clamps see below</td>
<td>46.415.1200.50</td>
<td>5</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46.415.1302.50</td>
<td>3</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cable clamps see below</td>
<td>46.415.1214.50</td>
<td>5</td>
<td>17 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Accessories for terminal blocks

- **46.412.-350.50**: For use with terminal blocks 46.412, with positioning aid
- **46.412.-371.50**: For use with terminal blocks 46.412.
- **46.413.-352.50**: For use with terminal blocks 46.413, with positioning aid

This overview shows only a small part of our program for terminals and connectors. More details and versions at: www.bjb.com
Rast5 - Terminal blocks for line voltage connection - Push wire / Releaseable contacts

Technical Features
- High performance plastics
- Wire release function
- Slim form - width only 26 mm
- Also for the luminaire connection from outside
- Industry leading contact design

For more and detailed information visit: www.bjb.com
Terminal blocks for line voltage connection - Screw-/ Push wire terminals

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Number of Poles</th>
<th>Height (mm)</th>
<th>Snap in Pins</th>
<th>Screw-/ Snap in Fixing</th>
<th>Earth Bracket</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>48.511.0311.51</td>
<td>3</td>
<td>19.7</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Cable clamps</td>
</tr>
<tr>
<td>48.112.0300.51</td>
<td>3</td>
<td>19.7</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Cable clamps</td>
</tr>
<tr>
<td>48.112.0313.51</td>
<td>3</td>
<td>19.7</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Cable clamps</td>
</tr>
<tr>
<td>48.112.0314.51</td>
<td>3</td>
<td>19.7</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Cable clamps</td>
</tr>
<tr>
<td>48.212.0300.51</td>
<td>3</td>
<td>19.7</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Cable clamps</td>
</tr>
<tr>
<td>48.212.0313.51</td>
<td>3</td>
<td>19.7</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Cable clamps</td>
</tr>
<tr>
<td>48.141.0311.51</td>
<td>3</td>
<td>21.2</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Cable clamps</td>
</tr>
<tr>
<td>48.221.0311.51</td>
<td>3</td>
<td>21.2</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Cable clamps</td>
</tr>
<tr>
<td>48.511.0411.51</td>
<td>4</td>
<td>19.7</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Cable clamps</td>
</tr>
<tr>
<td>48.121.0411.51</td>
<td>4</td>
<td>21.2</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Cable clamps</td>
</tr>
<tr>
<td>48.221.0411.51</td>
<td>4</td>
<td>21.2</td>
<td>x</td>
<td>x</td>
<td></td>
<td>Cable clamps</td>
</tr>
</tbody>
</table>

Accessories for terminal blocks

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.903.-371.50</td>
<td>For use with above shown terminal blocks without positioning aid</td>
</tr>
<tr>
<td>46.411.-371.50</td>
<td>For use with above shown terminal blocks without positioning aid</td>
</tr>
</tbody>
</table>

Technical Features:
- Wide screw terminals
- Push wire terminals
- High performance plastics
- Industry leading contact design

For more and detailed information visit: www.bjb.com
Connectors for line voltage connection

Technical Features
- Variety of x-pole versions (x=1 pole to 5 pole)
- Some versions are with leading earth
- Also versions with integrated fuse holder
- Industry leading contact design

For more and detailed information visit: www.bjb.com
Terminal blocks for line voltage connection -
Fused terminal blocks

<table>
<thead>
<tr>
<th>Fixing</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>part no.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>number of poles</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Fuse dimension</td>
<td>6 x 25 mm</td>
<td>5 x 20 mm</td>
<td>6 x 25 mm</td>
<td>5 x 20 mm</td>
</tr>
<tr>
<td>Snap in pins</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Screw/ Snap in fixing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessories</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49.112.1001.50</td>
<td>Housing: PA 6.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49.116.1000.50</td>
<td>Housing: PBT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49.132.3001.51</td>
<td>Housing: PA 6.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49.152.3001.51</td>
<td>Housing: PBT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49.152.3003.80</td>
<td>Housing: PBT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49.152.3004.51</td>
<td>Housing: PBT</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Technical Features
• Variety of x-pole versions (x=1 pole or 3 pole)
• For fine fuses: 5 x 20
• For fine fuses: 6 x 25
• High performance plastics
• Industry leading contact design

For more and detailed information visit: www.bjb.com

For the REC to provide an electrical connection between the earth pole of the terminal block and the mounting plate also a mechanical connection is made in addition to the electrical connection.

Metalwork specification
Acceptable materials: All types of steel plate in common usage (aluminium plate is not suitable, because the earth contacts are made of a copper alloy).
Permissible thickness: 0.5 - 1.0 mm
Surface: Must be protected against corrosion (e.g. steel plates may be plated, painted or plastic coated).

Cut-outs
The cut-outs must correspond with the following drawing, Rapid-Earth-Contact:

The diameter of the fixing holes allows for a finish to be applied.

The dimensions of the cut-out for the earth contact must correspond to those stated.
A maximum punching tolerance of 0.1 mm is permissible in the direction of insertion.

The REC provides an electrical connection between the earth pole of the terminal block and the mounting plate also a mechanical connection is made in addition to the electrical connection.

The terminal block must be inserted into the cut-out at right angles to the metalwork.
Pressure to snap in the terminal block should only be applied when correctly positioned above the cut-out.
Depending upon the construction of the fitting and the material used, it may be necessary to support the metalwork in the area of the cut-out during installation to eliminate the possibility of distortion, thus ensuring correct location and contact of REC.
Distortion of the snap in pins must be avoided.
It must be ensured that the snap in pins as well as the REC have located correctly.

Testing
Once fully assembled, the light fitting must undergo a full electrical final test for earth continuity according to IEC 60598.

Cut-outs
The cut-outs must correspond with the following drawing, Rapid-Earth-Contact:

Wire connection and wire release options:
• Incoming mains supply cables can be released by depressing the lever above the contact.
• Wiring may be inserted at an angle between 0° and 20° (optimal 10°)

To avoid exceeding the nominal currents steps must be taken during the design and installation of lighting systems to avoid operating conditions that require the terminal block to perform outside its design parameters.

Examples:
• Long lasting ignition procedures with resulting increase in current
• Non-symmetrical load distribution in three-phase lighting systems (compensation currents) e.g. through
• Uneven number of light fittings per phase
• Failure of phases
• Upper waves of the operating currents can add up in the neutral wire.

Especially during installation of light strips or lighting groups, large current carrying capacity is achieved through sliding through of the wires.

For more and detailed information visit: www.bjb.com
About BJB

BJB was founded in 1867 by Friedrich Wilhelm Brökelmann, Franz Jäger and Gustav Busse. The business began as a factory for petroleum lamps and developed into a company which manufactured components for establishing the connection between power supply and light. Today, BJB is a lighting technology brand which supplies innovative solutions to the lighting and domestic appliance industries worldwide.

BJB worldwide

Headquarter BJB Germany
BJB China
BJB Electric Dongguan Ltd.
Guancheng High-Tech Park Five Road (North),
Eastern Industrial Zone,
JiangNanDaDao, Qishi Town,
Dongguan
China PC: 523512
Telephone +86 769 22766 891
Telefax +86 769 22766 895
bjbchina@bjb.com . www.bjb.com

BJB Hong Kong
BJB Hong Kong Ltd.
Suite 2508, Tower 1, Lippo Centre
89 Queensway
Hong Kong
Telephone +86 769 22766 891
Telefax +86 769 22766 896
bjbchina@bjb.com . www.bjb.com

BJB Japan
BJB Co., Ltd.
4F-B El Dorado Yokohama
36-5, Chigasaki-chuo
Tsuzuki-ku
Yokohama 224-80032, Japan
Telephone +81 45 479 1110
Telefax +81 45 479 1115
sales-japan@bjb.com . www.bjb.com

BJB Procesa S.A.
C-155 De Sabadell a Granollers, km 14,2
Apartado de Correos, 8
E-08185 Liça de Vall [Barcelona]
Telephone +34 93/8445170
Telefax +34 93/8445184
procesa@bjb.com . www.bjb.com

BJB USA
BJB Electric L.P.
6375 Alabama Highway
Ringgold, GA 30736
USA
Telephone (706) 945-2526
Telefax (706) 945-2528
sales@bjb.com . www.bjb.com

BJB Sales Office Brazil
Mr. Alexandre Lozano
Av. Miro Votorazzo, 115 C. 80
09820-135 São B. do Campo - SP - Brasil
Telephone +55 11 4396-1582
Mobile +55 11 983475204
Telefax +49 2932 982 8384
alexandre.lozano@bjb.com . www.bjb.com

BJB Sales Office Italy
Franz Steinkeller
Viale Famagosta, 61
I-20142 Milano
Telephone +39 02/89 15 02 76
Telefax +39 02/89 15 90 29
bjbitalia@bjb.com . www.bjb.com

BJB Sales Office Ningbo
Ryan Hu
Room 1516
Liansheng Building [North Part]
Cultural and commercial District Cixi
315300 Ningbo - China
Mobile: +86 139 58286600
Ryan.Hu@bjb.com