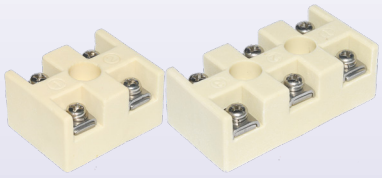
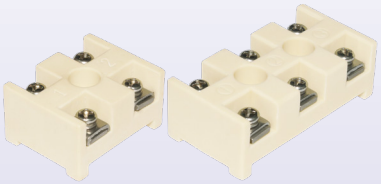
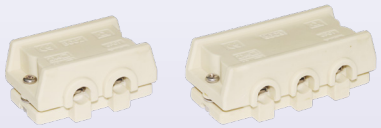
Type BC
Main features



Type BCA (flat backside).
Basic model for general applications in electrothermics.



Type BCB (elevated backside)
Includes a 4 feet base to allow a remote mounting of the mounting surface and avoid the heat conduction from the support. Suitable for mounting on furnace walls.



Type BCC (with ceramic lid).
Includes a ceramic protective cap secured by two M4 screws. It protects against hand contacts, and also prevents short circuits due to the fall of conductive materials in case of fire. Developed for road and railway tunnels for use with fire resistant cables upon IEC60331.

GWFI 960°C
Non-flammable

C221 unglazed ceramic

Applications: These terminal blocks have been developed to meet the specific needs of connections that must withstand very high temperatures, up to 500°C (930°F) permanently and 750°C (1290°F) peak. They also ensure the continuity of the connection in case of fire up to 900°C (1650°F) (Their subsequent replacement is then necessary). They are particularly intended for road tunnels, public transport tunnels (trains, subways), boat and submarine parts that must withstand a fire, but also for furnace connections when the ambient temperature is permanently very high. Because of their construction, they are non-flammable and resistant to moisture. Although standards IEC (EN) 60998-1 and IEC (EN) 60998-2 have not provided for the special temperature holding conditions of these terminal blocks, their construction meets their specifications (where applicable), for a maximum voltage of 750V.
At 700°C, in 230V, the leakage current to earth is about 0.1milliampere; The IEC 60331-21 and IEC 60331-11 standards for fire resistance of cables require a maximum leakage current of 2A at 850°C. It is reached only around 900°C in these terminals, for a voltage of 230V
Not protected against accidental electrical contact, they must be installed inside protection boxes.

Typical insulation resistance between two terminals:
at 100°C (212°F): 1500 MΩ
at 500°C (900°F): 1000 MΩ
at 700°C (1290°F): 650 MΩ
at 900°C (1650°F): 10 MΩ
Dielectric strength: Higher than 6000V at 20°C
Screws: M4x8, 304 stainless steel, with spring washer against loosening at high temperature. Recommended torque 13~20 DaN.cm
Two possible types of screw heads: Phillips or slot upon DIN84
Terminals: 304 Stainless steel
Saddles: 304 Stainless Steel, with or without safety tab against wire shearing
Max wire gauges (per terminal, wires inserted between saddle and connector plate):
- 1 single flexible conductor in 10 mm² (AWG8) or 6mm² (AWG10) whose strands must then be divided into two on either side of the screw.
- One or two flexible conductors in 4mm² (AWG 12), 2.5mm² (AWG14), 1.5mm² (AWG16)
- One or two solid conductors in 6mm² (AWG10), 4mm² (AWG 12), 2.5mm² (AWG14), 1.5mm² (AWG16).
Current carrying capacity: 32A per terminal
Maximum operating voltage: 750V, in pollution class 3. (Pollution class 3 defines micro environmental conditions causing conductive pollution, or when a non-conductive pollution can become it in case of condensation).
Insulation distances: Greater than 10mm between mounting face and terminals, between terminals, and 6.4mm between two connection blocks mounted side by side.
Live parts: Not protected against accidental electrical contact.
Important note: These terminal blocks must imperatively be fixed in order to prevent their movement for any reason in the box in which they are mounted, and consequently put them in a position where the insulation distances are no longer respected.
Maximum ambient temperature:
- Permanent: 500°C (900°F)
- In peak short duration: 700°C (1292°F)
- Fire: 900°C (1650°F) for two hours (Afterwards equipment must be replaced, but it retains its main characteristics during the fire)
The temperature resistance values of the stainless-steel terminals were validated by wire pull tests according to EN 60998, performed after 48H at 500°C (930°F) and 90 minutes at 700°C (1290°F).
Partially applicable standards: (IEC) EN 60998-1; (IEC) EN 60998-2-1
Caution: Special care must be taken to avoid electric shock. These terminal blocks are not usable in places accessible without tools. They must be mounted in protective boxes. Respect the distances in the air of at least 6mm between the parts under tension and the walls of the protective case. Other rules may apply according to local safety regulations.
Options: These terminal blocks can be made with brass or nickel terminals and saddles (MOQ apply and references on request). In these two configurations, the maximum permissible intensity per terminal rises from 37A to 53A, and the temperature resistance conditions are modified as follows:

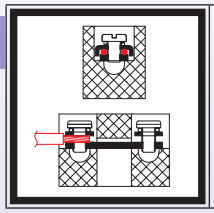
Material	Permanent temperature	Peak Temperature	Fire conditions Temperature
Brass	230°C (450°F)	450°C (840°F)	Not resistant
Nickel	500°C (930°F)	700°C (1290°F)	120 min at 950°C (1740°F)

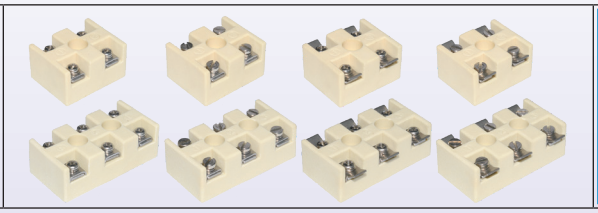
Very high temperature steatite connection blocks, 750V range
Terminals and screws in stainless steel.

Halogens FREE

RoHS REACH

Not protected against accidental electric contact, indirect pressure clamping by saddle, flat backside.





GWFI 960°C

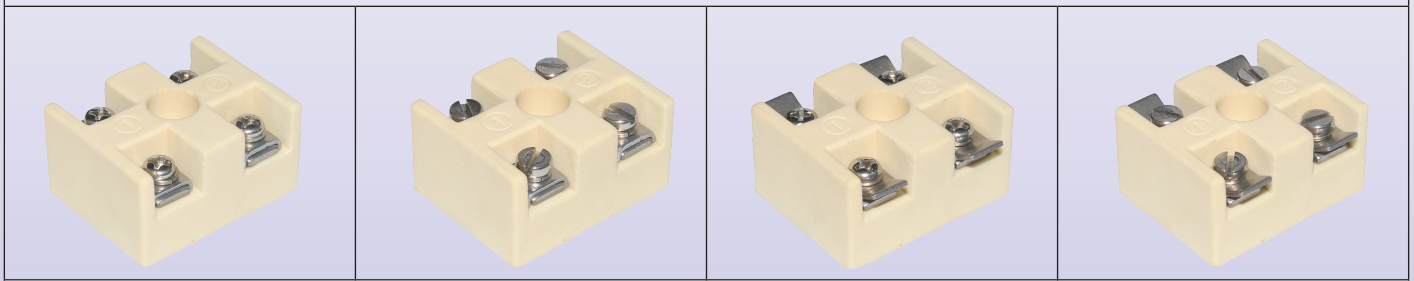
Non-flammable

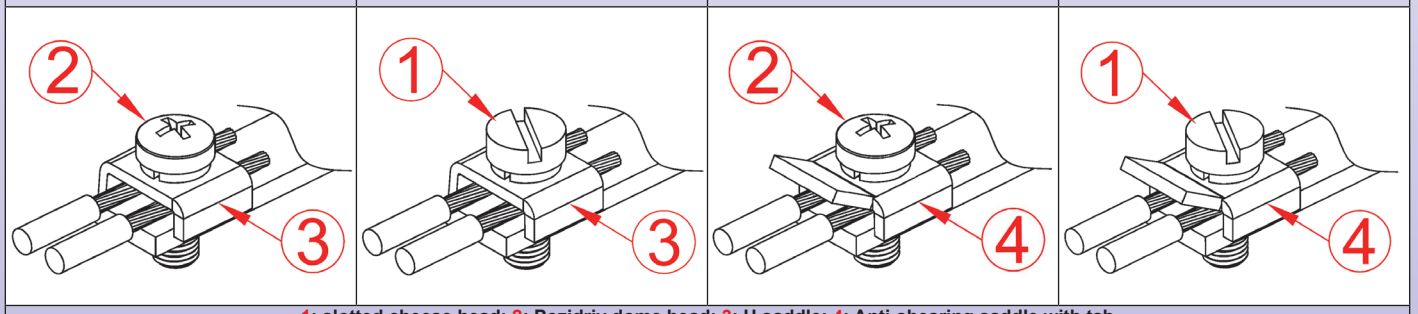
Not protected

750V BCA

2 x 1.5mm², 2 x 2.5mm²
2 x 4mm², 1 x 6mm²
1 x 10mm²

The different terminal models

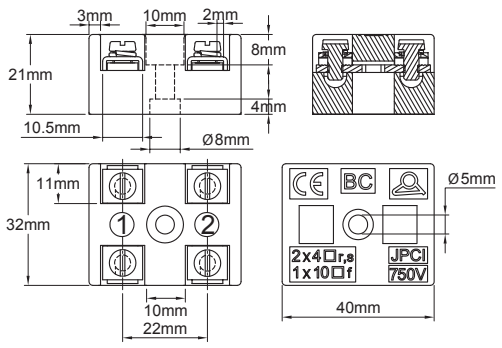




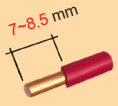
1: slotted cheese head; 2: Pozidriv dome head; 3: U saddle; 4: Anti-shearing saddle with tab

Models with U saddle type 3

BCA2C3U0 (Screw type 1) — 56 gr.



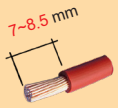
SOLID CONDUCTOR



1 x 6mm² / 2 x 4mm² / 2 x 2.5mm² / 2 x 1.5mm²

1 x AWG10 / 2 x AWG12/ 2 x AWG14 / 2 x AWG16

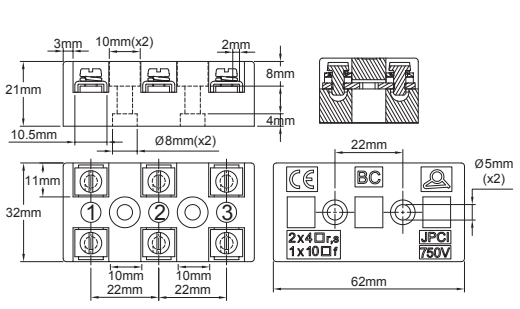
STRANDED CONDUCTOR



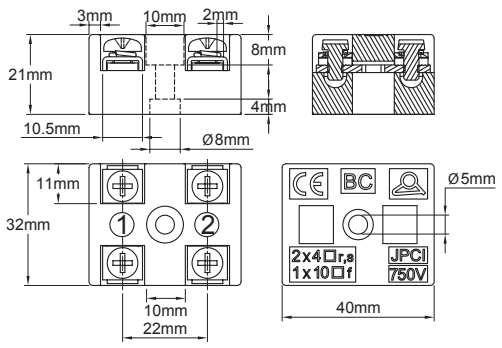
1 x 10mm² / 1 x 6mm² / 2 x 4mm² / 2 x 2.5mm² / 2 x 1.5mm²

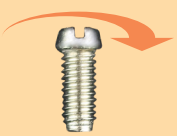
1 x AWG8 / 1 x AWG10 / 2 x AWG12 / 2 x AWG14 / 2 x AWG16

BCA3C3U0 (Screw type 1) — 90 gr.



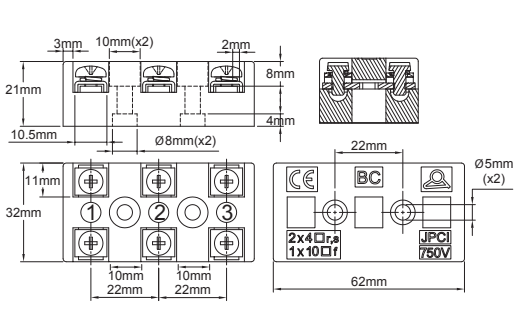
BCA2C2U0 (Screw type 2) — 50 gr.





1.2 N.m	M4
750V	32A*
Permanent	500°C/930°F
Peak	700°C/1290°F

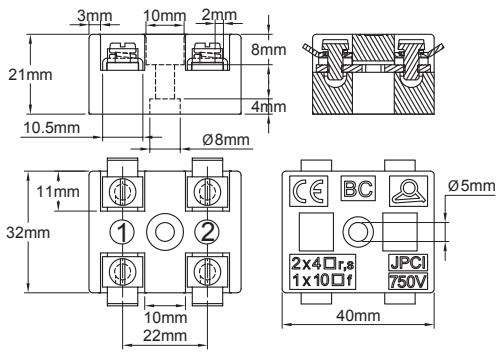
BCA3C2U0 (Screw type 2) — 80 gr.



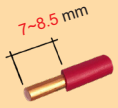
Very high temperature steatite connection blocks, 750V range
Terminals and screws in stainless steel.

Models with anti-shearing saddle type 4

BCA2C3B0 (Screw type 1) — 56 gr.



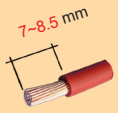
SOLID CONDUCTOR



1 x 6mm² / 2 x 4mm² / 2 x 2.5mm² / 2 x 1.5mm²

1 x AWG10 / 2 x AWG12 / 2 x AWG14 / 2 x AWG16

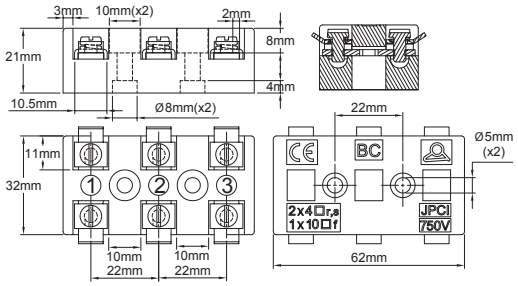
SOLID CONDUCTOR



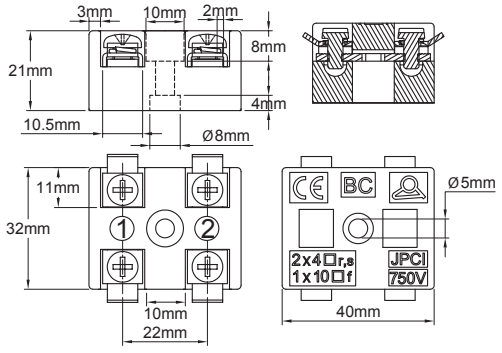
1 x 10mm² / 1 x 6mm² / 2 x 4mm² / 2 x 2.5mm² / 2 x 1.5mm²

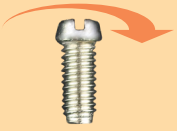
1 x AWG8 / 1 x AWG10 / 2 x AWG12 / 2 x AWG14 / 2 x AWG16

BCA3C3B0 (Screw type 1) — 90 gr.



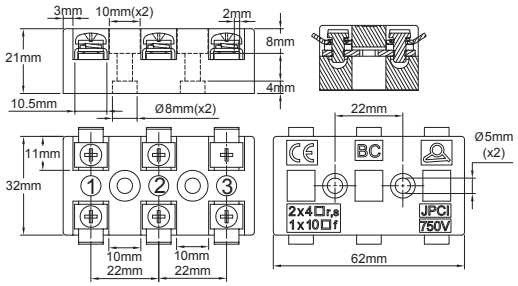
BCA2C2B0 (Screw type 2) — 50 gr.





1.2 N.m	M4
750V	32A*
Permanent	500°C/930°F
Peak	700°C/1290°F

BCA3C2B0 (Screw type 2) — 80 gr.



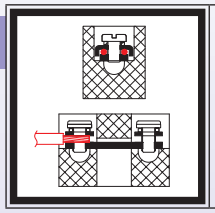
* : Ampacity limited to 32A as a result of the self-heating of the stainless-steel terminal by Joule effect.

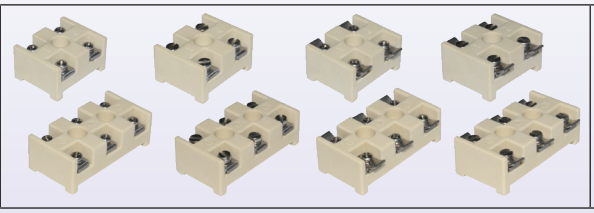
Very high temperature steatite connection blocks, 750V range
Terminals and screws in stainless steel.

Halogens FREE

RoHS REACH

Not protected against accidental electric contact, indirect pressure clamping by saddle, elevated thermal insulating backside.





GWFI 960°C

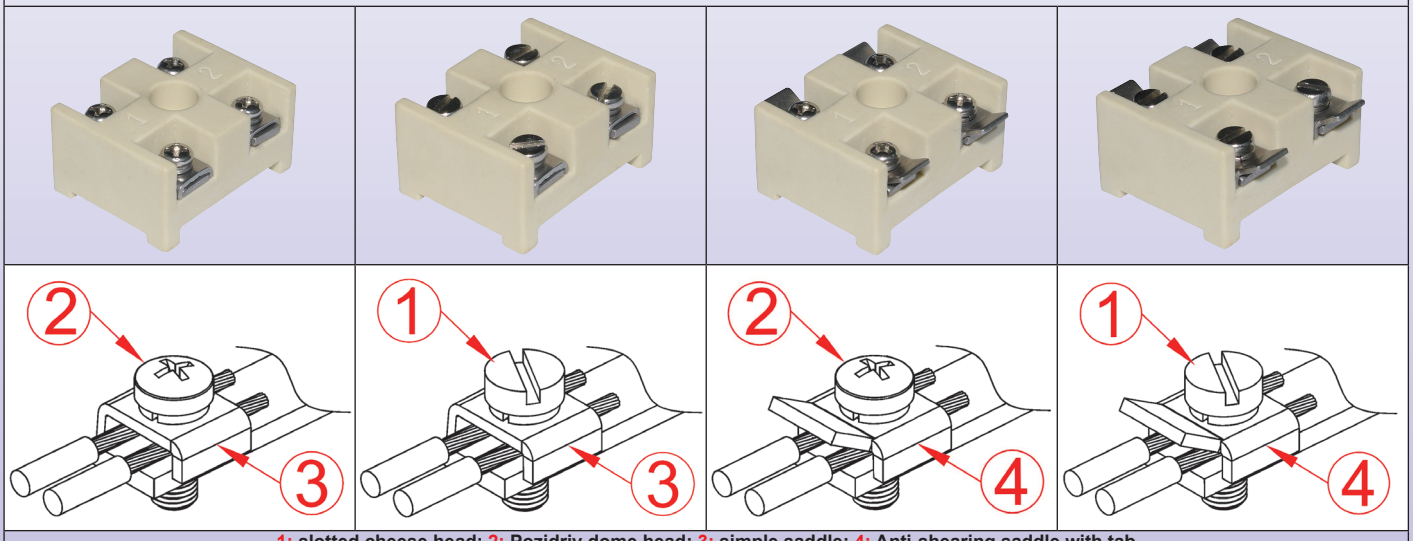
Non-flammable

Not protected

750V BCB

2 x 1.5mm², 2 x 2.5mm²
2 x 4mm², 1 x 6mm²
1 x 10mm²

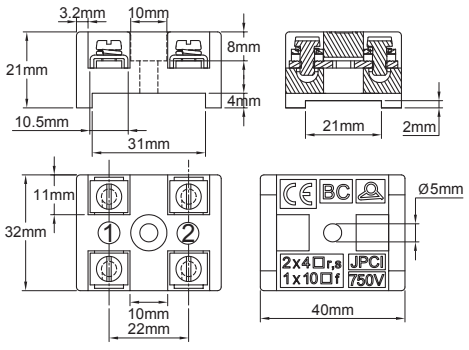
The different terminal models



1: slotted cheese head; **2:** Pozidriv dome head; **3:** simple saddle; **4:** Anti-shearing saddle with tab
The 4-foot backside is used to thermally isolate the terminal block when it is mounted on a very hot surface; It also avoids the rotation of the terminal block if it is fixed on a rail with a single screw.

Models with U saddle type 3

BCB2C3U0 (Screw type 1) — 56 gr.

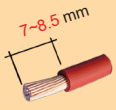


SOLID CONDUCTOR

1 x 6mm² / 2 x 4mm² / 2 x 2.5mm² / 2 x 1.5mm²

1 x AWG10 / 2 x AWG12 / 2 x AWG14 / 2 x AWG16

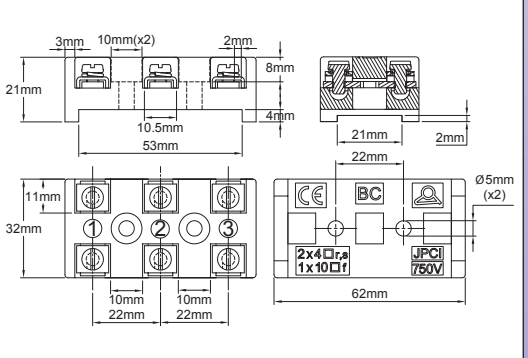
STRANDED CONDUCTOR



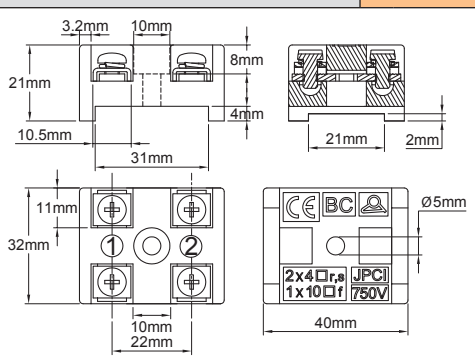
1 x 10mm² / 1 x 6mm² / 2 x 4mm² / 2 x 2.5mm² / 2 x 1.5mm²

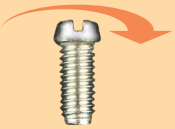
1 x AWG8 / 1 x AWG10 / 2 x AWG12 / 2 x AWG14 / 2 x AWG16

BCB3C3U0 (Screw type 1) — 90 gr.



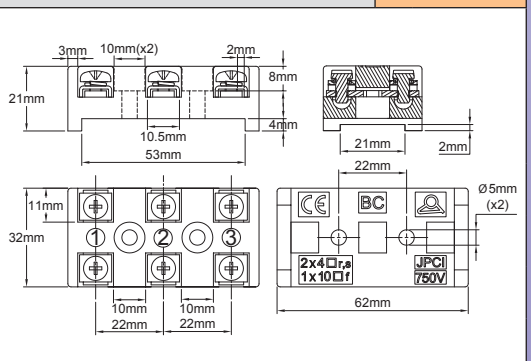
BCB2C2U0 (Screw type 2) — 50 gr.





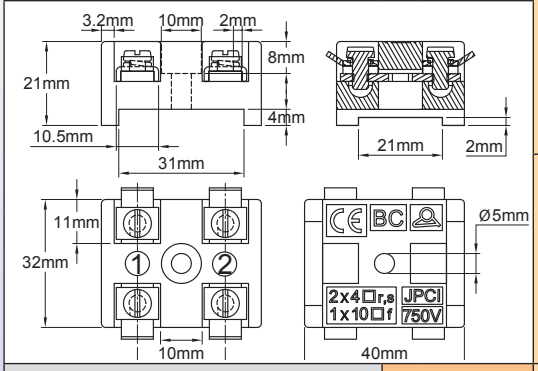
1.2 N.m	M4
750V	32A*
Permanent	500°C/930°F
Peak	700°C/1290°F

BCB3C2U0 (Screw type 2) — 80 gr.

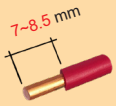


Models with anti-shearing saddle type 4

BCB2C3B0 (Screw type 1) — 56 gr.



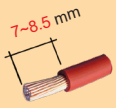
SOLID CONDUCTOR



1 x 6mm² / 2 x 4mm² / 2 x 2.5mm² / 2 x 1.5mm²

1 x AWG10 / 2 x AWG12 / 2 x AWG14 / 2 x AWG16

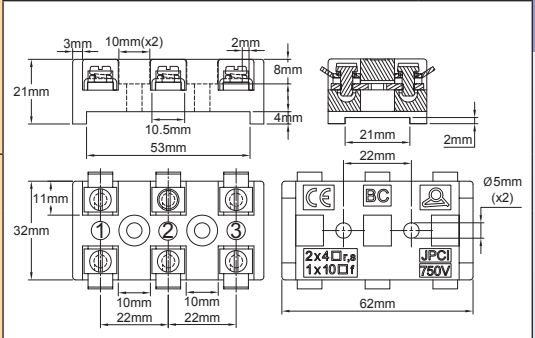
STRANDED CONDUCTOR



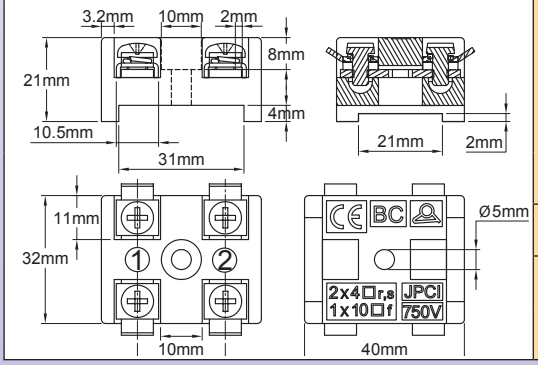
1 x 10mm² / 1 x 6mm² / 2 x 4mm² / 2 x 2.5mm² / 2 x 1.5mm²

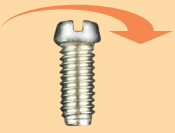
1 x AWG8 / 1 x AWG10 / 2 x AWG12 / 2 x AWG14 / 2 x AWG16

BCB3C3B0 (Screw type 1) — 90 gr.



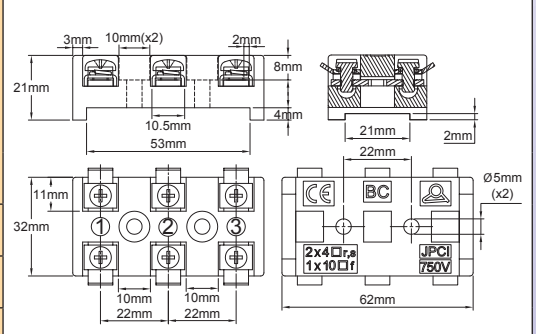
BCB2C2B0 (Screw type 2) — 50 gr.





1.2 N.m	M4
750V	32A*
Permanent	500°C/930°F
Peak	700°C/1290°F

BCB3C2B0 (Screw type 2) — 80 gr.



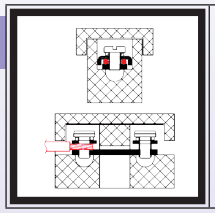
* : Ampacity limited to 32A as a result of the self-heating of the stainless-steel terminal by Joule effect.

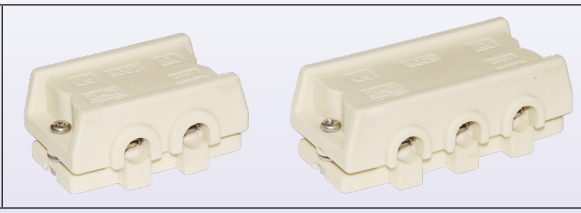
Very high temperature steatite connection blocks, 750V range
Terminals and screws in stainless steel.

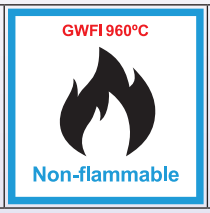
Halogens FREE

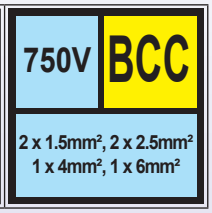
RoHS REACH

Protected against accidental electric contact, indirect pressure clamping by saddle, with steatite protection cover
SPECIAL MODEL FOR FIRE RESISTANT CABLES









Flexible mineral-insulated cables are designed to provide optimum fire resistance. They generally use mica-based insulation and special silicones, and they are designed to give the ultimate fire performance. Used in power and control circuits, they are providing circuit integrity during a 15 to 180 minutes fire depending of models. They usually have a continuous operating temperature up to 200°C (390°F). They are used in places where it is important to have an interrupted power supply in case of fire. These applications are found in railway stations and underground rail systems, road and rail tunnels, airports, public lighting, car parks, public service buildings, shopping malls, schools, hospitals, hotels, theatres, churches, power distribution and sub circuits, fire alarms and emergency, lifts and escalators lighting. They also have some applications in high temperature situations like foundries, power stations, boiler houses, iron and steel industries, marine and ship buildings, offshore installations.

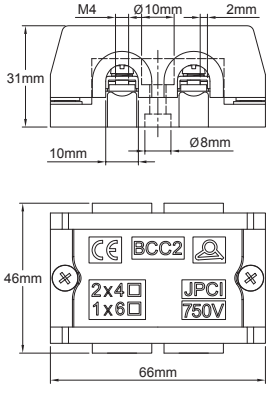
These terminal blocks provide an economical solution for fire-resistant connection of mineral-insulated flexible cables with an outside diameter of less than 8.5mm and greater than 3.7mm. In sections 1.5mm² and 2.5mm² two cables can be connected to the same terminal. Only one can be connected in 4mm² and 6mm²

- They don't require special termination of the cable, but simply the stripping of the conductor on 8 to 10mm.
- They can be used inside buildings, under pollution conditions 3
- They provide protection against accidental electrical contact.
- They ensure the integrity of the electrical circuit for 3 hours at 950°C (1740°F).
- With and ingress protection class IP31, they are not intended for outdoor connections, or in areas where there is a risk of falling or splashing water or liquids.
-They are not usable in explosive areas.

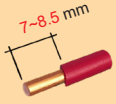
Their other specs are the same than models BCA.

BCC2C3U1

65 gr.



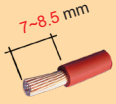
SOLID CONDUCTOR



1 x 6mm² / 2 x 4mm² / 2 x 2.5mm² / 2 x 1.5mm²

1 x AWG10 / 2 x AWG12 / 2 x AWG14 / 2 x AWG 16

STRANDED CONDUCTOR



1 x 6mm² / 2 x 4mm² / 2 x 2.5mm² / 2 x 1.5mm²

1 x AWG10 / 2 x AWG12 / 2 x AWG14 / 2 x AWG 16

1.2 N.m

M4

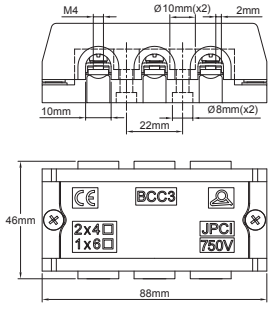
750V

32A*

Permanent	500°C/930°F
Peak	700°C/1290°F

BCC3C3U1

100 gr.



* : Ampacity limited to 32A as a result of the self-heating of the stainless-steel terminal by Joule effect.