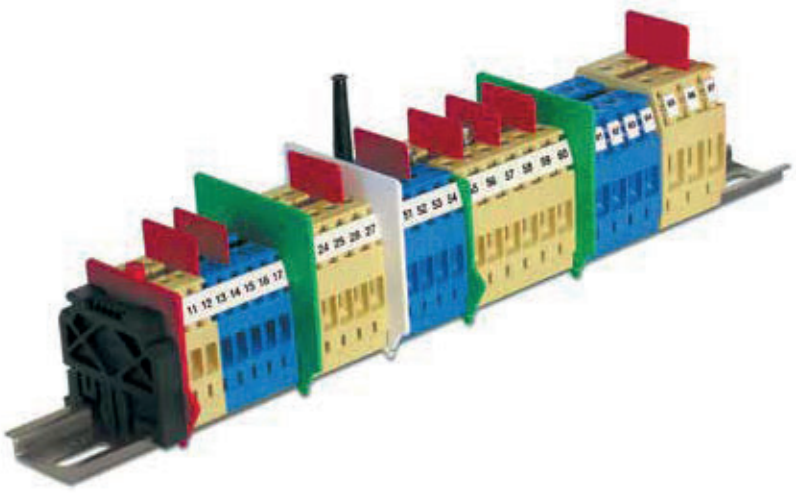
# CBD SERIES
# SCREW TERMINAL BLOCKS

cabur



CESI 01 ATEX 090 U
I M2 Ex eb I Mb
II 2 G Ex eb IIC Gb

IECEx CES 09.0009U
Ex eb I Mb
Ex eb IIC Gb

- Behaviour in flame UL94V-0
- Universal mounting on PR/DIN and PR/3 rails in accordance with IEC 60715 standard
- Maximum continual operating temperature 130°C

The CBD Series comprises eight sizes, distinguished by:

- Very small space occupied
- Large connecting capacity
- Effective current capacity higher than established reference values
- Very low contact resistance of the connection
- Materials of excellent quality and, consequently, maximum reliability over time
- Great practicality of use

Cabur has always designated each product mainly with a Code, distinguished by a part in letters (generally 3) and a number, with an interposed dot.
This number defines the **rated cross-section** of the terminal in question; which as laid down in the reference Standard is "the figure, expressed in mm², corresponding to the section of the connectable conductor, declared by the Manufacturer, to which the thermal, mechanical and electrical parameters of the product are referred".

The field of use of the terminal block is however much wider and is defined by its connecting capacity, that is the range of sections of conductors, both rigid and flexible, minimum and maximum, that the terminal block is capable of connecting, in full observance of all the parameters laid down in the reference Standards.
In the table provided below, in fact, the "classic" code of each terminal block has been supplemented with the addition, after the existing number, which still indicates the nominal size, of a second numeric value (in reduced character size and in red, separated from the first by a /) which represents the size, in mm², of the maximum flexible conductor effectively connectable to the terminal block. In the event of use of rigid conductors (with single wire or corded) it is necessary to check also what is stated in the technical specifications of each product, under the item "connecting capacity", because in many cases the size of the maximum rigid conductor connectable is even larger.

Considering precisely the confirmed large connecting capacity, some sizes of the CBD Series have been reconsidered; without changing the eight sizes of the Series, the previous CBD.25 and CBD.35 models have been revised and, after the appropriate actions and all the consequent tests, restated respectively as CBD.35 and CBD.50; this latter size, not considered in the past in the range of Cabur terminal blocks, is instead widely used.

| Type | Ratedcross section (mm²) | Flexible conductor (mm²) min. | Flexible conductor (mm²) max. | Rigid conductor (mm²) min. | Rigid conductor (mm²) max. | Gauge | Max. current (A) |
|---|---|---|---|---|---|---|---|
| **CBD.2/4** | 2.5 | 0.5 | 4 | 0.5 | 4 | A3 | 29 |
| **CBD.4/6** | 4 | 0.5 | 6 | 0.5 | 6 | A4 | 40 |
| **CBD.6/10** | 6 | 0.5 | 10 | 0.5 | 10 | A5 | 58 |
| **CBD.10/16** | 10 | 0.5 | 16 | 0.5 | 16 | B6 | 77 |
| **CBD.16/25** | 16 | 0.5 | 25 | 0.5 | 25 | B7 | 104 |
| **CBD.35/35** | 35 | 0.5 | 35 | 0.5 | 50 | B8 | 147 |
| **CBD.50/50** | 50 | 1.5 | 50 | 1.0 | 70 | B9 | 180 |
| **CBD.70/95** | 70 | 1.5 | 95 | 1.0 | 95 | B11 | 250 |

## APPROVALS

UL U.S.A.-Canada
Terna LV 27/1
KEMA - KEUR
CESI ATEX Ex e Italy
Enel DV 27/1
R.I.NA. Italy

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**Type of connection:**
It is with a screw, on both sides, indirect and self-locking. The clamping screws are accessible only with a special screwdriver and the particular shape of the head makes them impossible to lose. The screw clamping offers the best guarantees of a mechanical seal and of effective passage of the current and is suitable for the connection, with or without special preparation, of conductors of all sections. The tightening and loosening operations are extremely simple and are carried out with commonly-used tools, namely screwdrivers; it is however important, in any case, to use screwdrivers of the right characteristics and dimensions so as not to cause damage either to the screw itself or to the insulating base.

**Conducting body:**
of the sleeve type, **made entirely of copper-zinc alloy with nickel-plating treatment**; the characteristics of the material used and the manufacturing methods are such as to avoid the phenomenon of possible breakages, known as "seasoning cracks".

**Tightening reliability:**
opportune orthogonal ribs, at the bottom of the sleeve and on the lower surface of the clamping platelets, ensure in the various situations perfect electrical contact with the conductors and efficient mechanical locking. The grip on the conductor is made particularly effective by the elastic function performed by the clamping platelet; this, in particular, under the pressure of the screw, tends to bend, thus exercising a reaction applied to the head of the screw itself, which opposes unscrewing, even in the presence of dynamic stresses (vibrations).

**Ease of insertion:**
Inserting the conductor in the terminal block is facilitated:
- by the inclined invitation surfaces made on the insulating base
- by the rounded shape of the clamping platelet
- by the adequate size of the introduction hole with respect to the the diameter of the maximum insertable conductor. The conductor introduction depth is limited by a barrier fitted on the insulating base.

**Other functions:**
besides their main function of feed-through terminal blocks, the CBD terminal blocks are designed and made so as to be able to perform other functions. In fact, using a hole made in the upper part of the conducting body it is possible:
- to create a fixed or switchable transversal connection (cross connection) between two adjoining terminal blocks
- to create a multiple common bar connection between several adjoining terminal blocks
- to insert a socket for a test plug
- to insert a composable test plug for multiple signal testing.

**Marking:** all CBD terminal blocks offer the possibility of coding, on both sides, using the CNU/8, SNZ or CSC marking tags (this last system enables the composition of alphanumeric codes up to a maximum of four characters, six with the ADR/6 adapter).
Mounting: the polyamide terminal blocks of the CBD Series are made ready to be mounted indifferently on supporting rails of G32 or TH/35 type (IEC 60715 standard), with evident advantages and facilitations in procuring, managing and in general using the product.


TH/35-7.5 rail

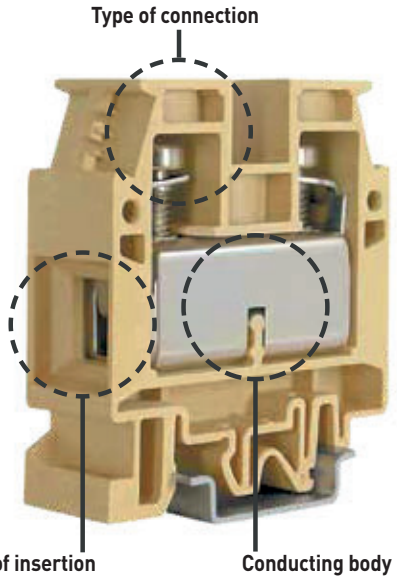

TH/35-15 rail


"G 32"-type rail

SNZ marking


CNU/8 marking


CSC marking





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CESI 01 ATEX 090 U
I M2 Ex eb I Mb
II 2 G Ex eb IIC Gb

IECEx CES 09.0009U
Ex eb I Mb
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*(1) See chapter accessories for more details*
*(2) If you need to connect shielded cable with CB009 accessory, the rated voltage is reduce to 200V*



| BEIGE VERSION | CODE | CB110 | CB240 | CB340 |
|---|---|---|---|---|
| | TYPE | CBD.2 | CBD.4 | CBD.6 |
| **BLUE VERSION** | CODE | CBX12 | CBX24 | CBX34 |
| | TYPE | CBD.2 (EX)I | CBD.4 (EX)I | CBD.6 (EX)I |
| **GREY VERSION** | CODE | | | |
| | TYPE | | | |

## TECHNICAL CHARACTERISTICS

| | | | | | |
|---|---|---|---|---|---|
| **Function/type** | | | Feed-through | Feed-through | Feed-through |
| **Rated cross-section** | | (mm²) | 2.5 | 4 | 6 |
| **Connecting capacity** | Flexible | (mm²) | 0.5 – 4 | 0.5 – 6 | 0.5 – 10 |
| | Rigid | (mm²) | 0.5 – 4 | 0.5 – 6 | 0.5 – 10 |
| | Max. flexible with ferrule - ferrule type | (mm²) | 2.5 - WP25/14 | 4 - WP40/16 | 6 - WP60/20 |
| **Electrical characteristics According to European standard IEC EN 60947-7-1** | Max AC/DC Voltage | (V) | 690 | 1000 | 1000 |
| | Max current with rated cross-section | (A) | 24 | 32 | 41 |
| | Section | Caliber | A3 | A4 | A5 |
| **Electrical characteristics According to UL** | Max AC/DC Voltage | (V) | 600 | 600 | 600 |
| | Max current with rated cross-section | (A) | 20 / 25 | 30 / 32 | 50 |
| | Section Min-Max | (AWG) | 20 - 12 | 20 - 10 | 20 - 8 |
| | Tightening torque | (lb.in) | 5.5 | 8.9 | 13.3 |
| **Electrical characteristics According to ATEX directive and IEC ex standard** | Max AC/DC voltage with G32 rail / TH35 rail | (V) | 400 / 630 | 500 / 630 | 500 / 630 |
| | Max current with rated cross-section | (A) | 24 | 32 | 41 |
| | Operating Temperature | (°C) | -40 ÷ +110 | -40 ÷ +110 | -40 ÷ +110 |
| **Rated impulse withstand voltage/pollution degree** | | | 8kV/3 | 12kV/3 | 12kV/3 |
| **Insulation stripping length** | | (mm) | 13 | 14 | 14 |
| **Tightening torque nominal/max** | | (Nm) | 0.4 / 0.8 | 0.5 / 1.2 | 0.8 / 1.4 |
| **Width** | | (mm) | 5.5 | 6.5 | 8 |
| **Length** | | (mm) | 40.5 | 44 | 44 |
| **Height mounted on TH35/7,5** | | (mm) | 47 | 52 | 52 |
| **Height mounted on TH35/15** | | (mm) | 55 | 60 | 60 |
| **Height mounted on G32** | | (mm) | 51 | 56 | 56 |
| **Insulation material temperature index (EN 60216-1)** | | (°C) | 130 | 130 | 130 |
| **Plastic material** | | | Polyamide UL94 V0 | Polyamide UL94 V0 | Polyamide UL94 V0 |

## APPROVALS

## ACCESSORIES

| | | | | | |
|---|---|---|---|---|---|
| **End section** | Grey | | - | - | - |
| | Blue | | CB2/PT (Ex)i (cod. CBX13) | CB4/6/PT (Ex)i (cod.CBX25) | CB4/6/PT (Ex)i (cod.CBX25) |
| | Beige | | CB2/PT (cod. CB111) | CB4/6/PT (cod. CB241) | CB4/6/PT (cod. CB241) |
| | Thickness | (mm) | 1.5 | 1.5 | 1.5 |
| **Cross connection** | (1) | | PM20/... (cod. PM2...) | PM/40/... (cod. PM4...) | PM/60/... (cod. PM6...) |
| | Rated current / Rated current ATEX applications | (A) | 24 / 24 | 32 / 32 | 41 / 41 |
| **Switchable cross connection** | | | POS/11 (cod.POS11) | POS/42 (cod. POS42) | POS/93 (cod. POS93) |
| **Multiple common bar** | 250 mm | | PMP/01/45 (cod. PMP01) 45 poles | PMP/42/38 (cod. PMP42) 38 poles | PMP/13/31 (cod. PMP13) 31 poles |
| **Shunting screw and sleeve (same, Ex e version)** | | | CPM/21 (cod. CPM21) - CPX/21 (cod. CPX21) | CPM/12 (cod. CPM12) - CPX/12 (cod. CPX12) | CPM/83 (cod.CPM83) - CPX/83 (cod. CPX83) |
| **Coloured partition** | red | | DFU/1/R (cod. DU01R) | DFU/4/R (cod. DU04R) | DFU/4/R (cod. DU04R) |
| **Cross connection barrier** | red | | DFM/600 (cod. DF600) | DFM/600 (cod. DF600) | DFM/600 (cod. DF600) |
| **Test plug socket** | | | PSD/D (cod. PD004) | PSD/D (cod. PD004) | PSD/N (cod. PD013) |
| **Test plug** | | | SDD/1 (cod. DD001) | SDD/1 (cod. DD001) | SDD/1 (cod. DD001) |
| **Modular test plug** | | | SDD/5 (cod. DD005) | SDD/6 (cod. DD006) | - |
| **End section for modular test plug** | | | SD5/PT (cod. DD501) | SD6/PT (cod. DD601) | - |
| **Adhesive numbering strip** | | | TMM102105AW | TMM102105AW | TMM102105AW |
| **Warning plate** | on adjacent terminal blocks | | TQM/02 on 4 (cod. TQM02) | TTM/12 on 3 and on 4 (cod. TTM12) | TTM/15 on 3 (cod. TTM15) - TQM/15 on 4 (cod. TQM15) |
| **Cover for cross-connection** | | | PRP/6 (cod. PRP06) | PRP/6 (cod. PRP06) | PRP/7 (cod. PRP07) |
| **Marking tag** | | | CNU/8/51 (cod. NU0851S) | CNU/8/51 (cod. NU0851S) | CNU/8/51 (cod. NU0851S) |
| | | | CNU/10/61 (cod. NU1061S) | CNU/10/61 (cod. NU1061S) | CNU/10/61 (cod. NU1061S) |
| **End bracket** | Snap-fit TH35 and G32 | | BTU (cod. BT005) | BTU (cod. BT005) | BTU (cod. BT005) |
| | Snap-fit TH35 | | BTO (cod. BT007) | BTO (cod. BT007) | BTO (cod. BT007) |
| | Screw TH35 | | BT/3 (cod. BT003) | BT/3 (cod. BT003) | BT/3 (cod. BT003) |
| | Screw G32 | | BT/DIN/PO (cod. BT001) | BT/DIN/PO (cod. BT001) | BT/DIN/PO (cod. BT001) |
| **Screening lug** | (2) | | CBD/SH (cod. CB009) | CBD/SH (cod. CB009) | CBD/SH (cod. CB009) |

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CESI 01 ATEX 090 U
I M2 Ex eb I Mb
II 2 G Ex eb IIC Gb

IECEx CES 09.0009U
Ex eb I Mb
Ex eb IIC Gb

*(1) See chapter accessories for more details*
*(2) If you need to connect shielded cable with CB009 accessory, the rated voltage is reduce to 250V*



| | | | | | |
|---|---|---|---|---|---|
| **BEIGE VERSION** | | **CODE** | **CB440** | **CB510** | **CB610** |
| | | **TYPE** | **CBD.10** | **CBD.16** | **CBD.35** |
| **BLUE VERSION** | | **CODE** | **CBX45** | **CBX52** | **CBX62** |
| | | **TYPE** | **CBD.10 (EX)I** | **CBD.16 (EX)I** | **CBD.35 (EX)I** |
| **GREY VERSION** | | **CODE** | | | |
| | | **TYPE** | | | |
| **TECHNICAL CHARACTERISTICS** | | | | | |
| **Function/type** | | | Feed-through | Feed-through | Feed-through |
| **Rated cross-section** | | (mm²) | 10 | 16 | 35 |
| **Connecting capacity** | Flexible | (mm²) | 0.5 – 16 | 0.5 – 25 | 0.5 – 35 |
| | Rigid | (mm²) | 0.5 – 16 | 0.5 – 25 | 0.5 – 50 |
| | Max. flexible with ferrule - ferrule type | (mm²) | 10 - WP100/21 | 16 - WP160/22 | 35 - WP350/30 |
| **Electrical characteristics According to European standard IEC EN 60947-7-1** | Max AC/DC Voltage | (V) | 1000 | 1000 | 1000 |
| | Max current with rated cross-section | (A) | 57 | 76 | 125 |
| | Section | Caliber | B6 | B7 | B8 |
| **Electrical characteristics According to UL** | Max AC/DC Voltage | (V) | 600 | 600 | 600 |
| | Max current with rated cross-section | (A) | 60 | 100 | 125 |
| | Section Min-Max | (AWG) | 20 - 6 | 20 - 3 | 16 - 1 |
| | Tightening torque | (lb.in) | 13.3 | 19.9 | 22.1 |
| **Electrical characteristics According to ATEX directive and IEC ex standard** | Max AC/DC voltage with G32 rail / TH35 rail | (V) | 500 / 630 | 630 / 630 | 630 / 630 |
| | Max current with rated cross-section | (A) | 57 | 76 | 125 |
| | Operating Temperature | (°C) | -40 ÷ +110 | -40 ÷ +110 | -40 ÷ +110 |
| **Rated impulse withstand voltage/pollution degree** | | | 12 KV / 3 | 12 KV / 3 | 12 KV / 3 |
| **Insulation stripping length** | | (mm) | 14 | 18 | 20 |
| **Tightening torque nominal/max** | | (Nm) | 1,2 / 1,9 | 1,8 / 3 | 2 / 3,5 |
| **Width** | | (mm) | 10 | 12 | 16 |
| **Length** | | (mm) | 44 | 47 | 52 |
| **Height mounted on TH35/7,5** | | (mm) | 55 | 57 | 60 |
| **Height mounted on TH35/15** | | (mm) | 63 | 65 | 68 |
| **Height mounted on G32** | | (mm) | 59 | 61 | 64 |
| **Insulation material temperature index (EN 60216-1)** | | (°C) | 130 | 130 | 130 |
| **Plastic material** | | | Polyamide UL94 V0 | Polyamide UL94 V0 | Polyamide UL94 V0 |
| **APPROVALS** | | | | | |
| **ACCESSORIES** | | | | | |
| **End section** | Grey | | - | - | - |
| | Blue | | CB10/PT (Ex)i (cod. CBX44) | CB16/PT (Ex)i (cod.CBX53) | CB35/PT (Ex)i (cod. CBX63) |
| | Beige | | CB10/PT (cod. CB431) | CB16/PT (cod.CB511) | CB35/PT (cod. CB611) |
| | Thickness | (mm) | 1.5 | 1.5 | 1.5 |
| **Cross connection** | (1) | | PM/10/... (cod. PM10...) | POF/44 (cod.POF44) - PFX/44 (cod. PFX44) | POF/06 (cod. POF06) - PFX/06 (cod. PFX06) |
| | Rated current / Rated current ATEX applications | (A) | 57 / 57 | 76 / 76 | 125 / 125 |
| **Switchable cross connection** | | | POS/44 (cod. POS44) | POS/44 (cod. POS44) | POS/66 (cod. POS66) |
| **Multiple common bar** | 250 mm | | PMP/04/25 (cod.PMP04) 25 poles | PMP/05/21 (cod. PMP05) 21 poles | PMP/06/16 (cod. PMP06) 16 poles |
| **Shunting screw and sleeve (same, Ex e version)** | | | CPM/03 (cod. CPM03) - CPX/03 (cod. CPX03) | CPM/44 (cod. CPM44) - CPX/44 (cod. CPX44) | CPM/06 (cod. CPM06) - CPX/06 (cod.CPX06) |
| **Coloured partition** | red | | DFU/4/R (cod. DU04R) | DFU/4/R (cod. DU04R) | DFU/5/R (cod. DU05R) |
| **Cross connection barrier** | red | | DFM/700 (cod. DF700) | DFM/700 (cod. DF700) | DFM/700 (cod. DF700) |
| **Test plug socket** | | | PSD/B (cod. PD002) | PSD/B (cod. PD002) | PSD/B (cod. PD002) |
| **Test plug** | | | SDD/2 (cod. DD002) | SDD/2 (cod. DD002) | SDD/2 (cod. DD002) |
| **Modular test plug** | | | - | - | - |
| **End section for modular test plug** | | | - | - | - |
| **Adhesive numbering strip** | | | TMM102105AW | TMM102105AW | TMM102105AW |
| **Warning plate** | on adjacent terminal blocks | | TTM/04 on 3 (cod. TTM04) - TQM/04 on 4 (cod. TQM04) | TUM/05 on 3 and on 4 (cod. TUM05) | TUM/06 on 3 and on 4 (cod. TUM06) |
| **Cover for cross-connection** | | | PRP/7 (cod. PRP07) | PRP/7 (cod. PRP07) | PRP/8 (cod. PRP08) |
| **Marking tag** | | | CNU/8/51 (cod. NU0851S) | CNU/8/51 (cod. NU0851S) | CNU/8/51 (cod. NU0851S) |
| | | | CNU/10/61 (cod. NU1061S) | CNU/10/61 (cod. NU1061S) | CNU/10/61 (cod. NU1061S) |
| **End bracket** | Snap-fit TH35 and G32 | | BTU (cod. BT005) | BTU (cod. BT005) | BTU (cod. BT005) |
| | Snap-fit TH35 | | BTO (cod. BT007) | BTO (cod. BT007) | BTO (cod. BT007) |
| | Screw TH35 | | BT/3 (cod. BT003) | BT/3 (cod. BT003) | BT/3 (cod. BT003) |
| | Screw G32 | | BT/DIN/PO (cod. BT001) | BT/DIN/PO (cod. BT001) | BT/DIN/PO (cod. BT001) |
| **Screening lug** | (2) | | CBD/SH (cod. CB009) | - | - |