



Control Box CB12 Data sheet

CB12

The CB12 product range features three standard versions, which are ideal for many medical and industrial applications. In general the CB12 can control up to 4 actuators and it has a range of built-in safety features such as battery back-up and wet alarm.

The standard product range:

- CB12
- CB12E with EAS
- CB12H with EAS

The CB12E and CB12H with EAS are specially developed for use together with the LA34 actuator.



Features:

- Mains voltage: 230 & 100 / 120 V AC 50-60 Hz
- Output voltage: 24 V DC
- Protection class: IPX1
- Colour: black
- DIN socket for handset HB40, HB70, HB80 or ACP / ACM box
- Exchangeable 3.2 m straight mains cable
- Electronic overload protection (EOP) for all channels
- Compact high-power toroidal transformer ensures low power consumption and low electromagnetic emission
- Locking mechanism for DIN, jack- and mains sockets
- CB12 has a replaceable primary fuse which protects the CB12 against overload. The transformer is protected via a non-replaceable thermal fuse

Options for CB12, CB12E and CB12H with EAS:

- Battery back-up: available with internally or externally fitted battery sets (BA18) (1.2 Ah).
The internal charging system cannot charge both internal and external batteries
- Battery alarm: indicates low battery charge with a buzzer
- Protection class: IPX6. The material used is resistant to the majority of cleaners and disinfectants used in the hospital and nursing home sector. A control box with IP66 can be used in wash tunnels - see the user manual (LINAK control boxes) for further information
- Colour: grey
- Class 1: Earth connections outside the control box and 3-wire mains cable
- Automatic mains cut-off when in standby mode
- Audio alarm: warns if there is liquid inside the control box (only possible on battery back-up versions)
- Mains cable: 0.6 m coiled mains cable
- Mains fuse: replaceable from the outside, extra fuse placed on lid

continue

Options for CB12E:

- Charging indicator circuit for the charging indicator on ACP (only possible if ch. 4 channel functions not mounted on ACP. ACM only possible if ch. 3 channel functions not mounted on ACM (only serial connection possible).
- 7A current cut-off on channel 1 up or down or channel 2 up or down or any other combination i.e. 8.000 N thrust for an LA34 with 12 mm pitch and standard motor. The current cut off in the opposite direction will be standard 5.5 A.
- The control box can be chosen with a standard 12 transformer or a high power transformer from CB14.

Options for CB12H with EAS:

- Charging indicator circuit for charging indicator on ACP (only possible if ch. 4 channel functions not mounted on ACP. ACM only possible if ch. 3 channel functions not mounted on ACM (only serial connection possible).
- 8 A current cut-off on channel 1 up or down or channel 2 up or down or any other combination i.e. 10.000 N thrust for an LA34 with 12 mm pitch standard motor. The current cut off in the opposite direction will be standard 5.5 A.
- The control box can be chosen with the standard CB12 transformer or the high power transformer from CB14.
- Special hospital versions: H (most versions demand special article, see description).
- If battery backup option is chosen, the internal charging device is always present.

Usage:

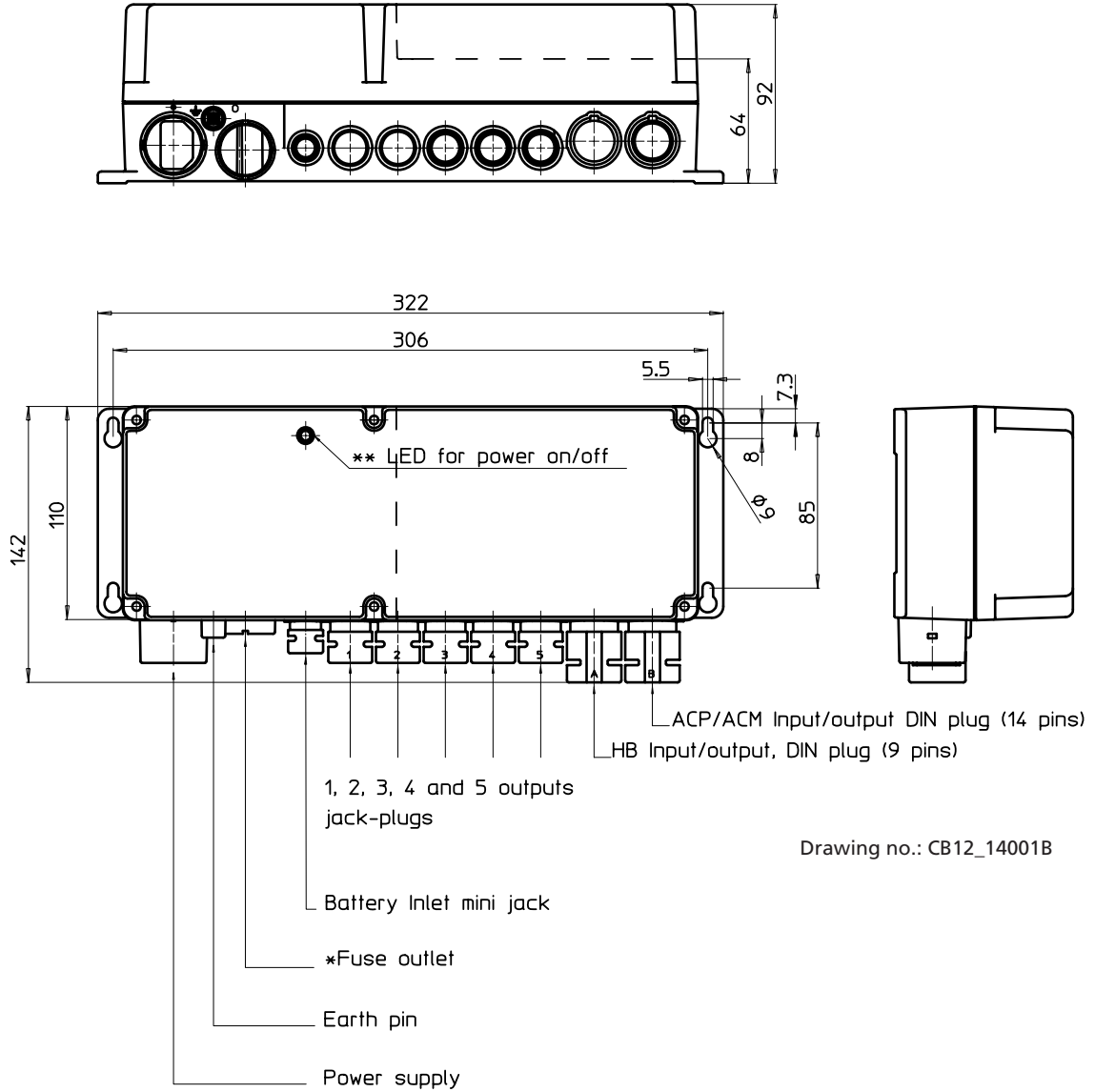
- Duty cycle: 2/18; 2 min. continuous use followed by 18 min. not in use
- Compatibility: For up to 4 actuators: types LA28S, LA30L, LA31, LA32 or LA34 (LA34 with fast motor is possible but only up to 8 amp) and BL4 (only CB12H) (all actuators must be equipped with a jack-plug)
- Ambient temperature +5° to +40° C
- Approvals: IEC60601-1:2005 3rd ed., ANSI / AAMI ES60601-1:2005, 3rd edition, CAN / CSA-22.2 No 60601-1:2008 approved

Precautions



- As standard CB12, CB12E and CB12H can be used with the ACM/ACP (only serial connection). Use of the ACP with full functions and CB12H in parallel is only possible as a special article and requires additional information.
- To ensure compatibility between the ACM/ACP and the CB12H, please always specify the type and functionality of the required ACM/ACP.

Dimensions:

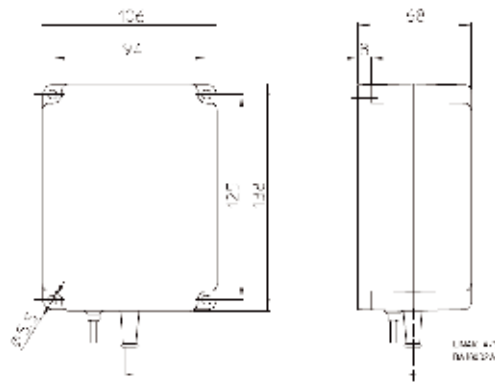


* Extra fuse placed on the lid.

** Turns off when mains cut-off is active or by removal of the power plug.

BA18

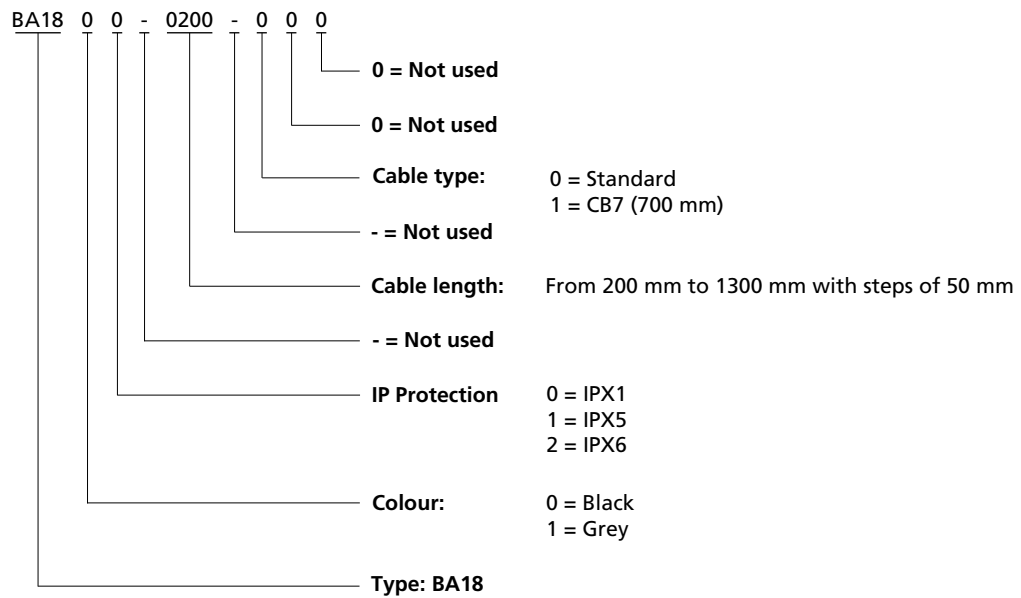
Dimensions:



Weight: 1.25 Kg

BA18 Battery box (1.2 Ah)

Ordering example:



How to choose the right transformer type: std. CB12 or high power CB14.

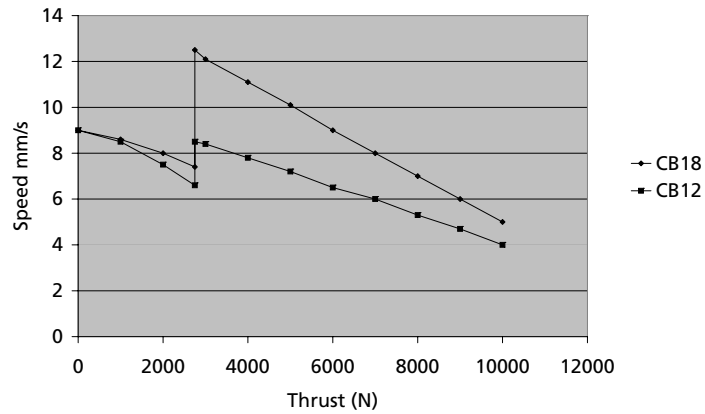
The secondary voltage in a transformer (voltage for the actuator) decreases when there is a current consumption.

The higher current consumption the more the drop in voltage.

The voltage drop depends on the size of the transformer. - a large transformer will have less voltage drop than a small transformer with the same load. When you increase the current cut-off setting the current consumption from the actuator will increase, but the voltage drop will also increase. This will result in a drop in actuator speed.

By using a larger transformer, as the one in CB14 in CB12, this can partly compensate for the increased voltage drop of an LA34 as LA34 demands more power with heavy loads.

Graph:



The measurements are made in connection with a CB12H with 8 Amp. current cut-off and LA34 with 12 mm pitch, -both randomly selected. The measurements must only be used as guidelines!

CB12

Ordering example:

CB12 0 0 0 2 0 0 0 0 0 0

<p>Mains cable 2P</p> <p>0 straight cable EU 1 coiled cable EU 2 3 straight cable UK 4 straight cable JAPAN 5 straight cable UL 6 7 straight cable AUS 8 9 without cable</p> <p>IP protection:</p> <p>0 = IPX1 2 = IPX6 Washable</p> <p>Voltage input:</p> <p>0 = 230V 1 = 120V 2 = 100V</p> <p>Colour:</p> <p>0 = Black 1 = Grey</p> <p>Option:</p> <p>0 = Standard ACM/ACP can be used in serial connection (CB120, - E, - H,) A = ACM/ACP in parallel connection (CB12H)</p> <p>Battery:</p> <p>0 = Without batteries</p> <p>Internal batteries:</p> <p>A = With internal batteries C = As A + wet alarm L = As A but with charging indicator</p> <p>External batteries:</p> <p>B = Prepared for external batteries (BA1800) E = As B + charging indicator D = As B + wet alarm F = As B + charging indicator + wet alarm</p> <p>M = As A, but the batteries are not mounted! P = As L + charging, but the batteries are not mounted! N = As C + wet alarm, but the batteries are not mounted!</p> <p>Channels:</p> <p>1 - 4</p> <p>*Standard article:</p> <p>0 = Std. current limit 1 = CH1 out 2 = CH1 in 3 = CH1 out/CH1 in 4 = CH2 out 5 = CH1 out/CH2 out</p> <p>6 = CH1 in/CH2 out 7 = CH2 in/CH1 out 8 = CH2 in/CH1 in 9 = CH1 out/CH1 in/CH2 out B = BL4 comp. ch 3/4, LA31 in ch 1 & ch 2 (only CB12H) D = Has to be chosen when running LA31/LA34 simultaneously (only CB12E/H)</p> <p>Special code no.:</p> <p>**Standard article:</p> <p>0 = CB12 Transformer 1 = CB14 Transformer</p> <p>Mains cut-off:</p> <p>0 = without mains cut-out F = mains cut-off (CB120, CB12H)</p> <p>Version:</p> <p>0 = Standard E = EAS (Electric Arc Supression) H = Hospital version + EAS (Electric Arc Supression)</p> <p>Type:</p> <p>Control box CB12</p>	<p>Mains cable 3P (with earth)</p> <p>A straight cable EU B coiled cable EU C D straight cable UK E F straight cable UL G straight cable CH H straight cable AUS I J without cable K coiled cable DK</p> <p>0 = 230V without fuse cover 3 = 230V without fuse cover 4 = 120V without fuse cover 5 = 100V without fuse cover</p>
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* By using digits 1-9 increased current cut-off can be chosen on the listed channel combinations: Version E = 7A; version H = 8A. All current limits are evaluated via common measurements.

** For E or H versions a high power transformer can be chosen (use option =1).

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