PRODUCT DATA SHEET

CONTROL BOX CB12

Features:

- *Mains voltage: 230 & 100/120 V AC 50-60 Hz*
- *Output voltage: 24 V DC*
- *Protection class: IP51*
- *Colour: black*
- *DIN socket for handset HB40, HB70 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:

- *Battery back-up: available with internally or externally fitted battery sets (BA18) (1.2Ah). The internal charging system cannot charge both internal and external batteries.*
- *Battery alarm indicates low battery charge with a buzzer.*
- *Protection class: IP66. The material used is resistent 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 AT/BT version)*
- *0.6 m coiled mains cable*
- *Mains fuse replaceable from the outside, extra fuse placed on lid*

Usage:

- *Duty cycle: 2/18; 2 min. continuous use followed by 18 min. not in use*
- *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*
- *Medically approved according to EN 60601-1*

The CB12 product range features three standard versions, which are ideal for a vast number of medical and industrial applications.

In general the CB12 is a transformer operated control unit, which can control up to 4 acutators. The control box features a range of built-in safety devices, increased current cut-off, EAS (Electronic Arc Suppression) and other options such as battery back-up, earth out-let, wet alarm etc.

The standard product range:
CB12, CB12E with EAS and CB12H with EAS.
The CB12E and CB12H with EAS are specially developed for use together with the LA34 actuator.

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Options for CB12E:

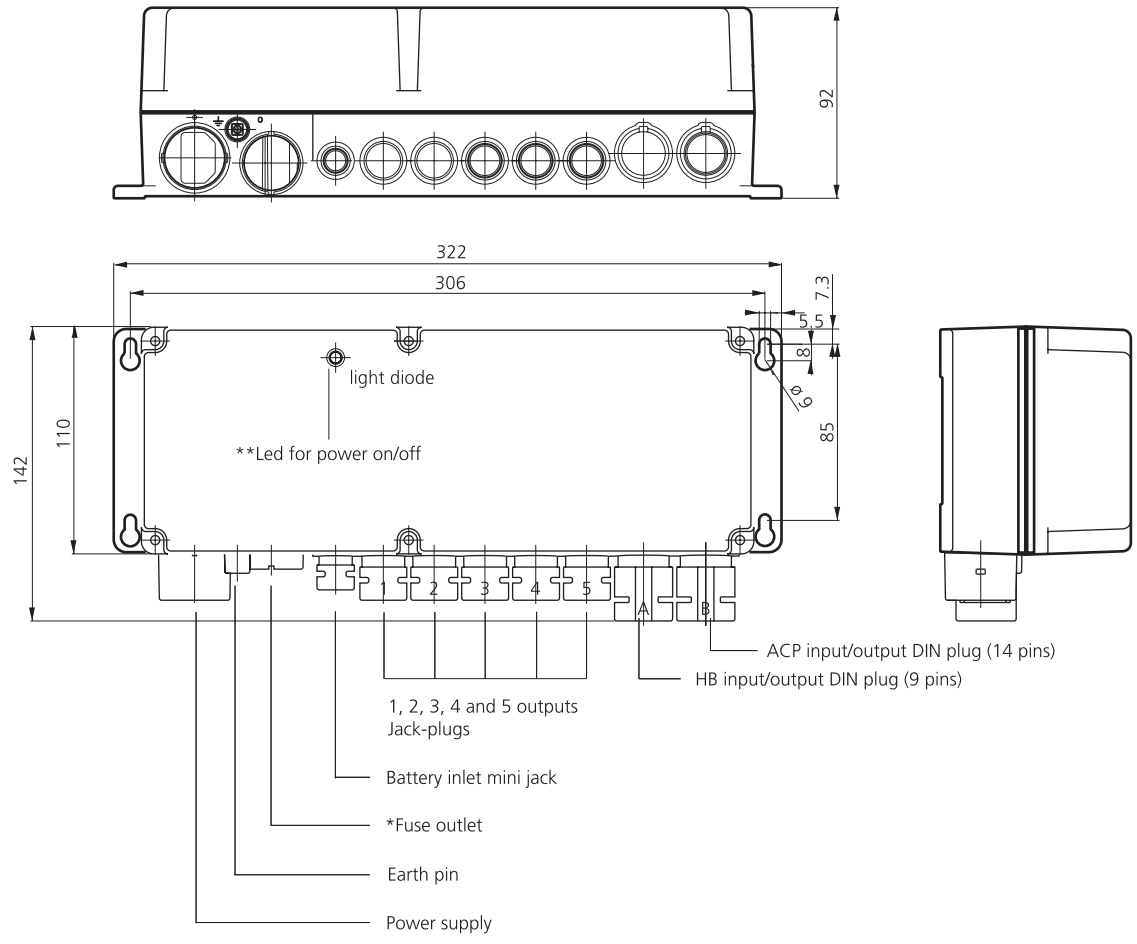
- *Charging indicator circuit for the charging indicator on ACP/ACM (only possible if ch.4 not mounted, (only serial connection possible).*
- *7A current cut-off on channel 1 up or down or channel 2 up or down or any other combination i.e. 8.000 N thrust for an LA34 wtih 12 mm pitch and standard motor. The current cut off in the opposite direction will be standard 5.5 A.*
- *The control box can be chosen with a standard CB12 transformer or a high power transformer from CB14/18.*

Options for CB12H with EAS:

- *Charging indicator circuit for charging indicator on ACP / ACM (only possible if ch. 4 not mounted, must be specified parallel or serial connection).*
- *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 CB14/18*
- *Special hospital versions: H (most versions demand special article, see description).*
- *If battery backup option is chosen, the internal charging device is always present.*

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

Dimensions:

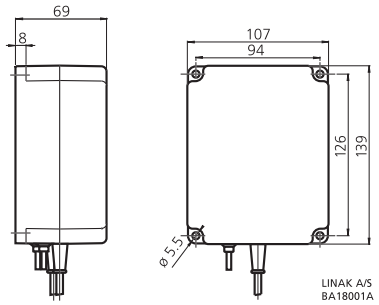


*Ekstra fuse place on the lid
** Turns off when mains cut-off is active or by removal of the power plug

LINAK A/S
CB12_14001A

BA18

Dimensions:



BA18 Battery box (1.2 Ah)

Ordering example:

BA18 0 0 - 0200 - 0 0 0

0 = Not used		
0 = Not used		
0 = Not used		
- = Not used		
Cable length:	From 200 mm to 1300 mm with steps of 50 mm	
- = Not used		
IP Protection	0 = IP51 1 = IP65 2 = IP66	
Colour:	0 = Black 1 = Grey	
Type: BA18		

How to choose the right transformer type: std. CB12 or high power CB14/18.

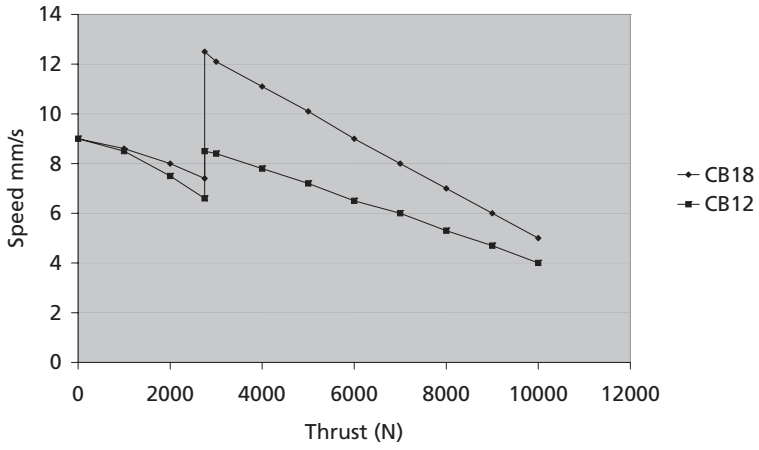
The secondary voltage in a transformer (voltage for the actuator) decreases when there is a current consumption.

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.

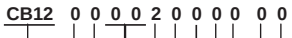
By using a larger transformer, as the one in CB14/18 in CB12, this can partly compensate for the increased voltage drop of an LA34 as LA34 demands more power with heavy loads.

Graph:



The measurements are made in connection with a CB12H with 8 Amp. current cut-off and LA34 with12 mm pitch, -both randomly selected. The measurements must only be used as guidelines!

CB12
Ordering example:



Mains cable 2P

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

Mains cable 3P (with earth)

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

IP protection:
0 = IP51
2 = IP66 Washable

Voltage input:
0 = 230V **3** = 230V without fuse cover
1 = 120V **4** = 120V without fuse cover
2 = 100V **5** = 100V without fuse cover

Colour:
0 = Black
1 = Grey

Option:
0 = Standard ACM/ACP can be used in serial connection (CB12, - E, - H,)
A = ACM/ACP in parallel connection (CB12H)

Battery:
0 = Without batteries
Internal batteries mounted
A = With internal batteries
B = Prepared for external batteries (BA1800)
C = As A + wet alarm
D = As B + wet alarm.
E = As B + charging indicator
F = As B + charging indicator + wet alarm.
*** Prepared for internal batteries
L = As A but with charging indicator
M = As A, but the batteries are not mounted!
N = As C + wet alarm, but the batteries are not mounted!
P = As A + charging, but the batteries are not mounted!

Channels:
1 - 4

***Standard article:**
0 = Standard current limit
1 = CH1 out
2 = CH1 in
3 = CH1 out/CH1 in
4 = CH2 out
5 = CH1 out/CH2 out
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.ch3/4, LA31 in ch1 & ch2 (only CB12H)
D = Has to be chosen when running LA31/LA34 simultaneously (only CB12E/H)
B and D versions with CB12H are first available from 1. Sept. 2006

Special code no.:

****Standard article:**
0 = CB12 Transformer
1 = CB14 Transformer

Mains cut-off:
0 = without mains cut-out
F = mains cut-out

Version:
0 = Standard
E = EAS (Electric Arc Supression)
H = Hospital version + EAS (Electric Arc Supression)

Type:
Control box CB12

* 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).
*** Battery BA1201 has to be ordered separately for M,P and N versions.The battery is not mounted at LINAK A/S.