



Control Box CB9 CARELINE®  
Data sheet

# CB9 CARELINE®

The CB9 CARELINE® has been developed for use together with LA31/LA31R, LA34/LA34R\* in the Care & Rehab industry. CB9 and LA31 can be fully integrated which saves mounting and wiring or be installed separately.

Exchangeable mains cables, Electronic Overload Protection (EOP), EAS, earth connection (Class 1) and exchangeable mains fuse makes CB9 a good choice for the simple hospital and care beds.

\* The combination of LA34R/CB9 "PX" is only available as a special article.



## Features and options:

- Connection of max. 4 actuators, type LA31/LA31R and LA34/LA34R, via 4-pole DIN sockets.
- Extremely compact design.
- Mains voltage: 100/120/230V AC 50-60 Hz
- Output voltage 24V DC
- Protection class: IPX4 or IPX6 (not for wash tunnels)
- Colour: Grey or black
- DIN-socket for handsets:
  - Ax types : HB40, HB60, HB70, DP or FS
  - Px types : HB4XE, HB5XE, HB60M (PM/PN versions), HB7XE/W, DPXE or DP1M
- 3.2 m exchangeable straight mains cable
- EOP = Electronic Overload Protection.
  - AJ and AL types CH1 + 2 (3.4A) and CH3 + 4 (7A) common current cut off.
  - AS type via individual current cut off.
- Px type via pulse measurement.
- Locking mechanism for DIN plugs and mains cable.
- Electronic protection of the relays for extended lifetime, EAS (simple EAS); available on AC, AJ, AK, AF, AL, AM and Px (not PM and PN) types.
- Double power control (FET + relay) monitoring on all AC, AJ, AK, AF, AL & AM types
- Class 1 or 2 protection

- Power supply indication via an LED. Not available with mains cut-off.
- Exchangeable mains fuse from outside
- External battery back up and internal charger (only AC, AJ, AK, AF, AL and AM types; use notation A for ordering)
- External battery back-up (no internal charger) (only AC, AJ, AK, AF, AL and AM types; use notation B for ordering)
- External battery back-up alarm (only AC, AJ, AK, AF, AF and AM).
- Short cut protection: only AC, AJ, AK, AF, AL and AM (15A)

## Only available in Px types:

- Choice of 8 different standard software packages. All standard software packages have either impulse memory or memory. To use memory in general a handset with memory has to be chosen.
- Energy saving function (the control box restores to power down when not operated)
- Compact high power toroidal transformer with low power consumption and low electromagnetic emission
- All actuators, which are used together with Px types, must be equipped with reed switch and connected with a DIN-plug.

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**AC and AF:** Means common measurement on CH1, CH2, CH3 and CH4. If the total current exceeds 5A all channels will be cut off.

**AJ and AL:** Means a common current measurement on CH1+2. The current will be cut off when the total current on both channels reaches approx. 3.4A and 7A on CH3+4.  
Note: CH1+2 = LA31 connection and CH3+4 = LA31/LA34 connection.

**AK and AM:** Means common measurement on CH1, CH2, CH3 and CH4. If the total current exceeds 7A all channels will be cut off.

**AS:** Means an individual current measurement on CH1, CH2, CH3 and CH4.  
The current will be cut off only when the current on one channel reaches approx. 4A.  
Max. current available from the CB9 transformer is approx. 7A.

**Px:** Means Electronic Overload Protection via a pulse measurement.

- Can be mounted on the LA31
- Customised software may be ordered. Please see the guidelines for design of special software!

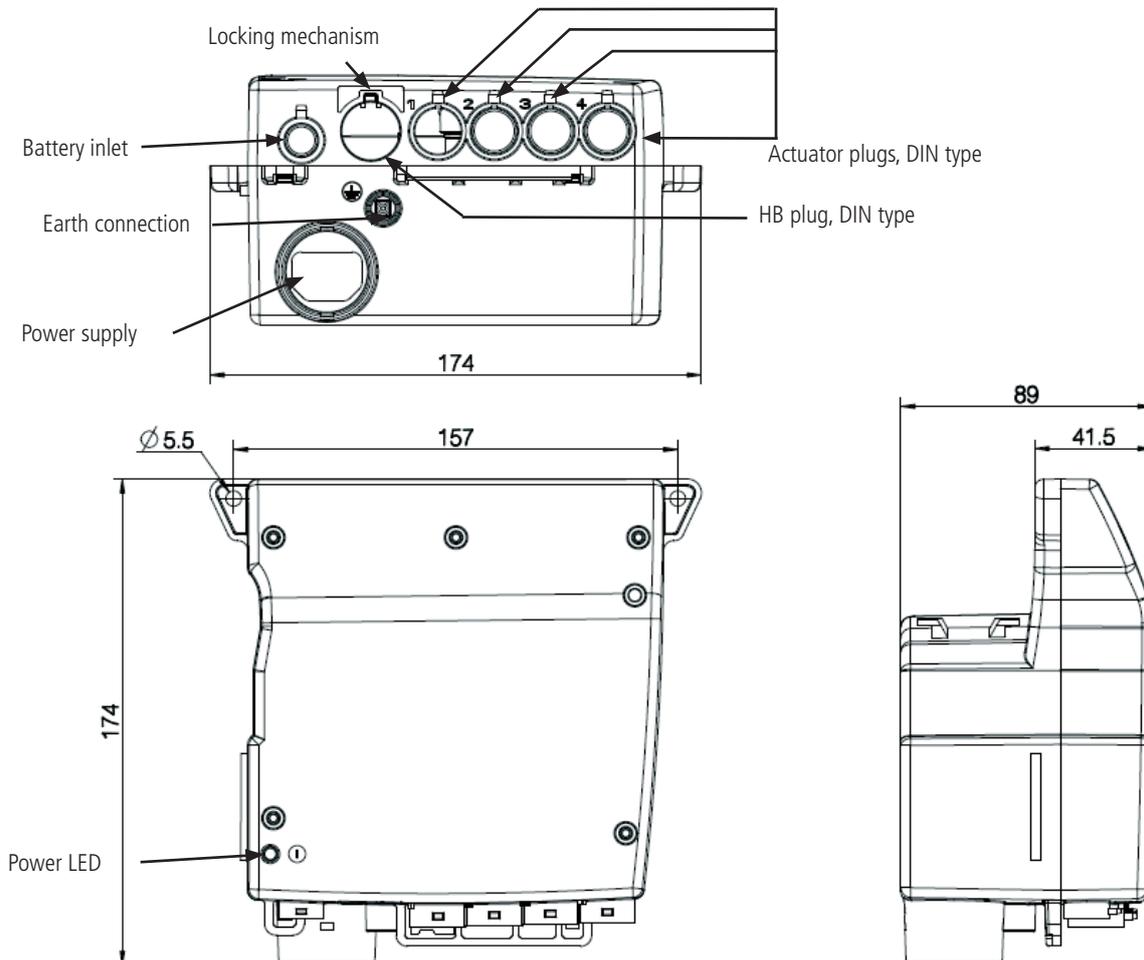
**Usage:**

- Duty cycle: Max. 10% or 2 min. continuous use followed by 18 min. not in use
- Ambient temperature: +5° to +40°C
- Compatible with up to 4 actuators, type LA31/LA31R and LA34/LA34R, via 4-pole DIN sockets
- Compatible with BA18.
- Medically approved according to EN 60601-1/UL 60601-1

**Various information:**

- It is possible to order blind plugs for CB9 CARELINE IPx66.
- It is also possible to order blind plugs for the external battery box outlet (for BA1800)

**Dimensions:**



Note: The tolerance between the mounting holes is +/- 0.5 mm.

# CB9 CARELINE®

## Ordering example:

CB9 1 6 0 AS 4 + 0 0 0 1A

### Mains cable

#### CARELINE, LINAK connector, without earth:

- 10 = Straight, EU, straight mains-plug-end and straight CB-end
- 11 = Coiled, EU, straight mains-plug-end and straight CB-end
- 13 = Straight, UK, angled mains-plug-end and straight CB-end
- 14 = Straight, Japan, straight mains-plug-end and straight CB-end
- 15 = Straight, USA, straight mains-plug-end and straight CB-end
- 17 = Straight, Aus, straight mains-plug-end and straight CB-end
- 19 = Without cable

#### Black

- SML912036
- 0015186
- SML912049
- SML912060
- SML912050
- SML912061

#### Grey

- SML912051
- SML912062
- SML912101
- 0015264

#### CARELINE, LINAK connector, with earth:

- 1A = Straight, EU, angled mains-plug-end and straight CB-end
- 1B = Coiled, EU, angled mains-plug-end and straight CB-end
- 1D = Straight, UK, angled mains-plug-end and straight CB-end
- 1F = Straight, USA, straight mains-plug-end and straight CB-end
- 1G = Straight, CH, straight mains-plug-end and straight CB-end
- 1H = Straight, Aus, straight mains-plug-end and straight CB-end
- 1J = Without cable

#### Black

- SML912098
- 0015191
- SML912099
- SML912065
- SML912066
- 0015241

#### Grey

- SML912100
- SML912068

#### CARELINE, mains cut-off, non-detachable, without earth:

- F0 = Straight, EU (only CB9-trafo)

#### Black

- 00WP039C00-00

#### Grey

#### CARELINE, mains cut-off, non-detachable, with earth:

- FA = Straight, EU (only CB9-trafo)

#### Black

- 00WP039C00-0A

#### Grey

### Mains voltage

- 0 = CB9 transformer 230 V
- 1 = CB9 transformer 120 V
- 2 = CB9 transformer 100 V
- 3 = CB18 transformer 230 V (only AF, AL, AM or AS-functionality)
- 4 = CB18 transformer 120 V (only AF, AL, AM or AS-functionality)
- 5 = CB18 transformer 100 V (only AF, AL, AM or AS-functionality)

### Fuse cover

- 0 = No
- 1 = Yes

### Battery

- 0 = No battery
- A = Con. for ext. 24V bat. and internal charger (only AC, AJ, AK, AF, AL or AM func. and not with mains cut-off)
- B = Con. for ext. 24V bat. (no internal charger) (only AC, AJ, AK, AF, AL or AM functionality)
- C = Con. for ext. 24V bat. internal charger and alarm (only AC, AJ, AK, AF, AL or AM func. and not with mains cut-off)

### Colour

- + = Grey
- = Black

### No. of channels 1 - 4

### Functionality

N.B. CB9Px functionality is not available for new projects!

#### Without microprocessor (analog)

	Current cut-off	Compatible with rotary actuator	EAS	Only with CB18 transformer
AS	4,1A at all ch.			X
AC	5,0A at all ch.		X	
AJ	3,4A at ch.1 & 2; 7A at ch. 3 & 4	X	X	
AK	7,0A at all ch.		X	
AF	5,0A at all ch.		X	X
AL	3,4A at ch.1 & 2; 7A at ch. 3 & 4		X	X
AM	7,0A at all ch.		X	X

AS-func. is not for new designs. Please use AC-func. instead!

The newer versions AJ, AK, AL, AM replace earlier versions AD, AG, AG. In comparison to earlier versions all new versions have a current limit.

#### With microprocessor (with memory) Not available for new projects.

		Impuls drive	EAS
PM	Single		
PN	Single, alternative funct.	X	
PA	Parallel on ch 1/2	X	X
PB	Single	X	X
PC	Parallel on ch 1/2/3		X
PD	Parallel on ch 1/2/3	X	X
PH	Single		X
PI	Parallel on ch 1/3 and 2/4		X
PJ	Parallel on ch 1/3 and 2/4	X	X
PP	Parallel on ch 1/2		X

### Flame Classifications

- 0 = HB
- 1 = V0

CB9 CARELINE is available in two types of plast. HB plast and fire retarding V0 plast. V0 plast is recommended for applicationer where there is a high demand for protection against fire.

### IP degree

- 4 = IPX4
- 6 = IPX6

### Plastic housing

- 1 = CARELINE (no mains-indicator and no fuse-cover if mains cut-off)

### Type CB9



## NOTE:

State separately if CB9 and LA31 are to be mounted together.