Control Box CB16 OpenBus™
Data sheet
CB16 is part of the LINAK OpenBus™ product range. It is a powerful control box with either traditional transformer solution or Switch Mode Power Supply. The universal Switch Mode Power Supply makes the control box adaptable to the worldwide market irrespective of the input voltage. The flexible OpenBus™ solutions are software based control boxes which make it easy to customize the actuator movement. Furthermore, it is possible to add value-adding accessories to your application. The CB16 control box is designed for the hospital and care segment for applications such as hospital beds, treatment and examination couches, treatment chairs and gynaecology tables etc.

The CB16 has the following benefits:

- Unique OpenBus safety concept which prevents unintended actuator movement.
- Possibility of special software to achieve desired functionality, movement pattern and safety level in the application.
- Possibility of add on OpenBus™ accessories such as light, wireless hand control or nurse call via hand control and Gateway.

SMPS version:
Universal Switch Mode Power Supply covering from 100 - 240 VAC
- 270W powerful SMPS enabling maximum use of actuator capacity
- SMPS saves weight

Features & Options

CB16 OBF SMPS

- Mains Voltage: 100 - 240 V AC (50/60 Hz)
- Power Supply: 270 W - take care to specify the proper Power Characteristic (software)
- Standby Power Consumption: approx. 0.8 W (230 V)
- Channels: 5
- Duty Cycle Guard: Yes
- Weight: 2.4 kg with battery and 1.19 kg without battery
- Speed control: Supported
- Max. current, total: 8 A
- Max. current per channel: 5.5 A - 8 A
- Electronic Overload Protection: Supported
- Housing Colour: Light Grey (RAL 7035)
- IP rating: IPX4, IPX6 and IPX6 washable
- Battery internal: Yes, 1.3 Ah
- Software: Predefined or customised
- Flammability rating: UL94 V-0
- Operation: Parallel (feedback possible)
- μ-processor: 64 Kb
- OpenBus accessories
  - max. 200 mA (Vbus)
  - max. 200 mA (Vpermanent)
- Power Management: Not supported
- Service monitor: Supported
- Connection to Service Data Tool: Yes
- Soft start/stop
- HB back light: Supported (Vpermanent)

For other CB16 OpenBus variants, see next page
### Features and Options:

<table>
<thead>
<tr>
<th>Feature</th>
<th>OBL</th>
<th>OBF</th>
<th>OBF SMPS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mains Voltage</strong></td>
<td>100, 120 or 230 V AC (50/60 Hz)</td>
<td>100, 120 or 230 V AC (50/60 Hz)</td>
<td>100 - 240 V AC (50/60 Hz)</td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td>Transformer toroidal: 270 W</td>
<td>Transformer toroidal: 270 W</td>
<td>270 W</td>
</tr>
<tr>
<td><strong>Standby Power Consumption</strong></td>
<td>Transformer: approx. 2.5 W (230 V)</td>
<td>Transformer: approx. 2.5 W (230 V)</td>
<td>SMPS: approx. 0.8 W (230 V)</td>
</tr>
<tr>
<td><strong>Channels</strong></td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Duty Cycle Guard</strong></td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>3.42 kg with battery 2.12 kg without battery</td>
<td>3.36 kg with battery 2.06 kg without battery</td>
<td>2.40 kg with battery 1.19 kg without battery</td>
</tr>
<tr>
<td><strong>Speed control</strong></td>
<td>Not supported</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>Max. current, total</strong></td>
<td>8 A</td>
<td>8 A</td>
<td>8 A</td>
</tr>
<tr>
<td><strong>Max. current per channel</strong></td>
<td>5.5 A - 8 A</td>
<td>5.5 A - 8 A</td>
<td>5.5 A - 8 A</td>
</tr>
<tr>
<td><strong>Electronic Overload Protection</strong></td>
<td>Supported</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>Housing Colour</strong></td>
<td>Light Grey (RAL 7035)</td>
<td>Light Grey (RAL 7035)</td>
<td>Light Grey (RAL 7035)</td>
</tr>
<tr>
<td><strong>IP rating</strong></td>
<td>IPX4, IPX6 and IPX6 washable</td>
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</tr>
<tr>
<td><strong>Battery internal</strong></td>
<td>Yes, 1.3 Ah</td>
<td>Yes, 1.3 Ah</td>
<td>Yes, 1.3 Ah</td>
</tr>
<tr>
<td><strong>Software</strong></td>
<td>Predefined or customised</td>
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</tr>
<tr>
<td><strong>Flammability rating</strong></td>
<td>UL94 V-0</td>
<td>UL94 V-0</td>
<td>UL94 V-0</td>
</tr>
<tr>
<td><strong>Operation</strong></td>
<td>Simultaneous</td>
<td>Parallel (feedback possible)</td>
<td>Parallel (feedback possible)</td>
</tr>
<tr>
<td><strong>µ-processor</strong></td>
<td>4 Kb</td>
<td>64 Kb</td>
<td>64 Kb</td>
</tr>
<tr>
<td><strong>OpenBus accessories</strong></td>
<td>max. 200 mA (Vbus)</td>
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</tr>
<tr>
<td><strong>Power Management</strong></td>
<td>Not supported</td>
<td>Not supported</td>
<td>Not supported</td>
</tr>
<tr>
<td><strong>Service monitor</strong></td>
<td>Not supported</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>Connection to Service Data Tool</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Start/stop</strong></td>
<td>Direct start/stop</td>
<td>Soft start/stop</td>
<td>Soft start/stop</td>
</tr>
<tr>
<td><strong>HB back light</strong></td>
<td>Supported (Vpermanent)</td>
<td>Supported (Vpermanent)</td>
<td>Supported (Vpermanent)</td>
</tr>
</tbody>
</table>

### Usage:
- **Compatibility:** LA27 (no feedback/encoded feedback), LA31, LA34, LA43, LA44, BL1, and BL4
- **Duty cycle:** 10%, 2 minutes continuous use followed by 18 minutes not in use
- **Usage temperature:** 5ºC to 40ºC
- **Storage temperature:** -10ºC to 50ºC
CB16

Ordering example:

<table>
<thead>
<tr>
<th>CB16</th>
<th>6</th>
<th>3</th>
<th>5</th>
<th>+</th>
<th>4999</th>
<th>2</th>
<th>0</th>
<th>9</th>
</tr>
</thead>
</table>

**Cable connection:**
- 9 = Cable socket without GND
- J = Cable socket with GND

**Note:** Cables must be ordered separately

**Voltage input:**
- 0 = 230 V (EU)
- 1 = 120 V (US)
- 2 = 100 V (Japan)
- 4 = 100 - 240 V Universal (SMPS)

**Effect:**
- 0 = 170W transformer version (only OBL)
- 1 = 200W transformer version (only OBL)
- 2 = 270W transformer version
- 3 = 270W SMPS (Only OBF)

**Software:**
- 0000 - 4999 = Standard SW
- 0000 = OBL std. software package A
- 0001 = OBL std. software package B
- 0002 = OBL std. software package C
- 4999 = OBF std. software
- 7999 = OBF SMPS std. software

- 5000 - 7998 = Customised OBF SW
- 8000 - 9999 = Customised OBF SMPS SW

**Colour:**
- + = Plastics RAL 7035 (light grey)

**Configuration of CH:**
- 3 = CH 1, 2, 3
- 4 = CH 1, 2, 3, 4
- 5 = CH 1 - 5

**PCB type:**
- 0 = OBL
- 1 = OBF
- 2 = OBL with battery back-up
- 3 = OBF with battery back-up
- F = OBF SMPS
- G = OBF SMPS with battery back-up

**Protection class:**
- 4 = IPx4
- 6 = IPx6
- 9 = IPx6 Washable

**Type:** Control box CB16
Dimensions: