

Technical information for the electrically adjustable, aluminium lifting columns 85300

Note:

Electrically operated lifting columns with four different lifting stages up to 500 mm, which can be traversed at a speed of up to 8 mm/s, are available. The lifting columns have a fully integrated technology which can be operated maintenance-free.

Application:

The lifting columns can be used wherever workplaces are designed ergonomically, where machines are moved or in media technology where recording equipment needs to be positioned precisely. The Plug & Work principle ensures easy operation and commissioning.

Features:

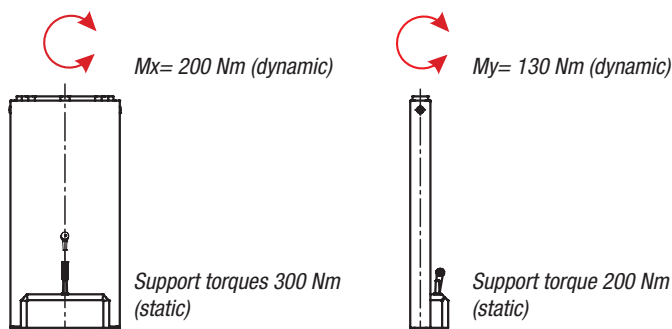
The lifting columns are equipped with a baseplate which is suitable for both tractive and compressive loading. The lifting columns are fitted with caps in places where dirt could accumulate or where there is a risk of crushing.

General information:

| Types | Lifting columns |
|----------------------------------|---|
| Structural design | Narrow lifting columns |
| Guidance | Slide guide POM |
| Assembly position | Arbitrary |
| Max. compressive force | 3000 N |
| Max. tractive force | 3000 N |
| Self-locking | yes |
| Max. speed | 8 mm/s |
| Max. travel | 500 mm |
| Installation height | Travel + 203 mm |
| Voltage | 24 V DC |
| Power consumption | 4 A |
| Safety rating | IP 30 |
| Ambient temperature | +5°C to +40°C |
| Offset for synchronous operation | 0-2 mm |
| Duty cycle (operating mode S 3) | Under nominal load 10% (2 min. operating time, 18 min. rest time) |

Note: All data applies to the standard sizes. All data on compressive and tractive forces refer to the individual lifting columns; for composite applications, a safety factor of up to 0.6 must be taken into account. In addition, in medical applications the max. tractive force of 500 N and, by the version with a lifting speed of 8 mm/s the max. compressive force of 2500 N must not be exceeded.

Lifting column loading data:



Control unit 85300-10

Note:

With the help of the control unit, up to two lifting columns (85300) can be controlled and traversed. The control unit can only be operated with the manual switch 85300-15-1. Two control units can be linked with the connecting cable 85300-10-91X1000. This enables up to 4 lifting columns to be traversed synchronously with one manual switch.

When laying the electrical cables, care must be taken to ensure that the cables are not pinched, that no mechanical strain is exerted on the cables and that the cables do not constitute a stumbling risk for persons.

Features:

- Dynamic duty cycle calculation.
- Standard duty cycle, excess current and temperature monitoring as overload protection.
- The manual switch with LCD display (85300-15-1) can be used to store positions and alternate between users.
- Synchronous control of two drives, expandable up to 16 drives.
- Powerful and energy-efficient switched-mode power supply.
- Visual status indication by LED display.
- Wide-range input for worldwide use.
- SPP – Smart Product Protection (Integrated collision detection)

General information:

| Types | Control |
|---|---|
| Compatible | Lifting columns (85300) |
| Input voltage | 100 - 240 V ~ 50 / 60 Hz |
| Output voltage | 28 V DC |
| Power output | max. 10 A |
| Power | 285 W |
| Standby power | ≤ 0,5 W |
| Ambient temperature during operation | +5°C to +40°C |
| Air humidity (during storage) | 30% to 75% |
| Safety rating (with earthing terminal) | I |
| Safety rating | IP 20 |
| Weight | 880 g |
| Duty cycle (operating mode S 3) | Under nominal load 20% (4 min. operating time, 16 min. rest time) |

Manual switch 85300-15

Note:

A manual switch with six function keys and LCD display is available. The manual switch can be used to operate the control and traverse the lifting columns.

Application:

Manual switch with six function keys and LCD display:

The function keys are not only for moving the lifting columns manually, they can also be used to move the columns to a preset position at the touch of a button. Multiple positions and users can be saved.

1. LCD display
2. Function key 1
3. Function key 2
4. UP key
5. DOWN key
6. M key -> Menu
7. F key -> Short menu



User selection:

It is possible to alternate between two different users.

- Press the „F“ key to access the short menu.
- Press function key 2 to access the user selection.
- The user can be selected using the UP and DOWN keys.
- Press function key 1 to confirm the selection.
- Press function key 2 to cancel the action.

Saving positions:

A user defined position can be saved as follows:

- Press the „F“ key to access the short menu.
- Press function key 1 to access the selection of the position to be saved.
- Press function key 1 or 2 to save the position under I or II.
- Saved positions can be moved to by keeping the function key pressed.

Manual switch main menu:

The main menu of the manual switch is accessed by pressing the „M“ key. In the main menu you can select between three points.

- Manual switch
- Control
- Info

Settings can be made using the function keys and the UP and DOWN keys. The function key to confirm and the UP and DOWN keys to navigate.

Manual switch:

In the submenu „Manual switch“ settings can be made to the display.

- Premium Functions
- Contrast
- Brightness
- Backlighting Time
- Language

Control:

Changes to the control can only be made after the password „13121“ has been entered.

Info:

The „Info“ menu is used to view information about the equipment and manufacturer.

Commissioning the lifting columns

Step 1:

- Check the package contents:

The following items should be present for initial commissioning:

- Electrically adjustable aluminium lifting column (85300)
- Lifting column control (85300-10-90)
- Power cable (85300-10-92X1800)
- Manual switch for lifting column (85300-15-1)

Optional:

- Connection cable (85300-10-91X1000)
- Mounting bracket (85300-930040)

Step 2:

- Connect the manual switch and the lifting column to the control.

Step 3:

- Plug the power cable into the control and switch on.

Step 4:

- Select and confirm the language on the manual switch.

Step 5:

- Start the initialisation cycle by pressing function key 1.

Step 6:

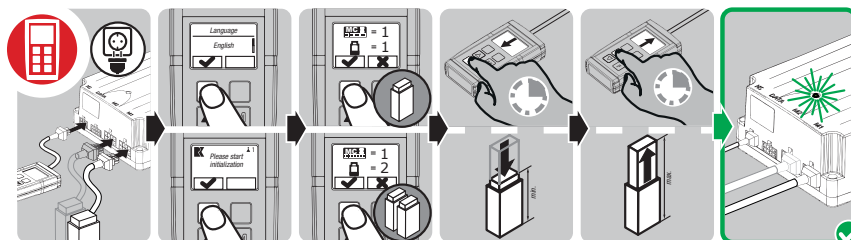
- Check the connected system components (No. of controls, No. of lifting columns).

Step 7:

- Follow the menu instructions for initialisation.

An initialisation cycle must be carried out when:

- Initial commissioning
- Changes are made to the number of controls
- Resetting the control to default settings
- The control requests it as a result of an error code



Connecting multiple controls:

Two controls can be connected together with connection cable 85300-10-91X1000 so that 4 lifting columns can be driven synchronously.

Step 1:

- Check the package contents.

The following items should be present for initial commissioning:

- Electrically adjustable aluminium lifting column (85300)
- Lifting column control (85300-10-90)
- Power cable (85300-10-92X1800)
- Manual switch for lifting column (85300-15-1)
- Connection cable (85300.10.91X1000)

Optional:

- Mounting bracket (85300-930040)

Step 2:

- Connect the manual switch and the lifting column to the control.
- Link the controls using the connection cable (85300-10-91X1000).

Step 3:

- Connect both power cables to the controls and plug them in.

Step 4:

- Select and confirm the language on the manual switch.

Step 5:

- Start the initialisation cycle by pressing function key 1.

Step 6:

- Check the connected system components (No. of controls, No. of lifting columns).

Step 7:

- Follow the menu instructions for initialisation.

Reset to default settings:

With this function, all settings can be reset to their default settings.

- Open the „Control“ menu.
- Select the submenu „Reset to default“.-> The default setting will be loaded.
- You will now be requested to carry out an initialisation cycle.