

# Multi-stage lifting columns - Alpha Colonne

Square column in two sizes, optionally available with integrated control system



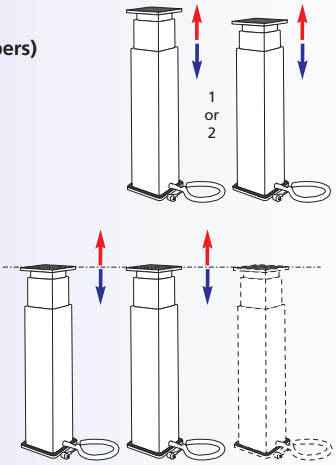
## Features:

- Two sizes available: "medium" and "large"
- Suitable for both tensile and compressive loads
- Self-locking, even at max. load
- Pre-set slider units ensure zero play, even after many years of operation
- Integrated limit switches
- Optional internal control

## Options:

- Special lengths

## Alpha Colonne - Table of contents

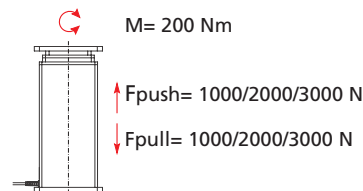
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# Alpha Colonne – Technical data

## General information/operating conditions

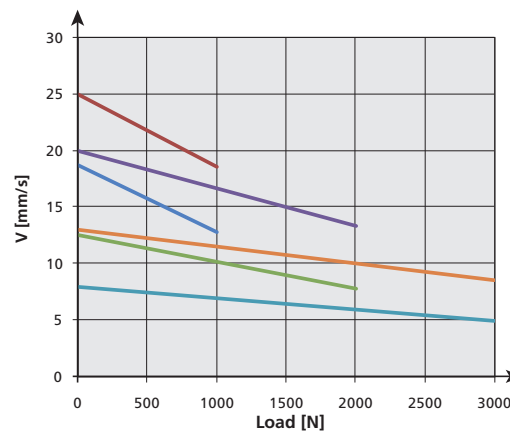
Type	Alpha Colonne with external control	Alpha Colonne with internal control
Design	Lifting column with integrated DC motor	
Guide	Slide guides made of POM	
Installation position	Any position	
Push force/pull force	Up to 3000 N	
Self-locking	Up to 3000 N	
Ambient temperature	-20°C to +60°C	
Duty cycle (at max. load)	20% at nominal load (max. 2 mins operating time, 8 mins rest time)	
Displacement during synchronous operation	2-4 mm	
Voltage	24 V DC	230 V AC
Current consumption	Max. 5.5 A	according to drive
Power input	Max. 130 W	according to drive
Protection class	IP 30	IP 30

## Load data



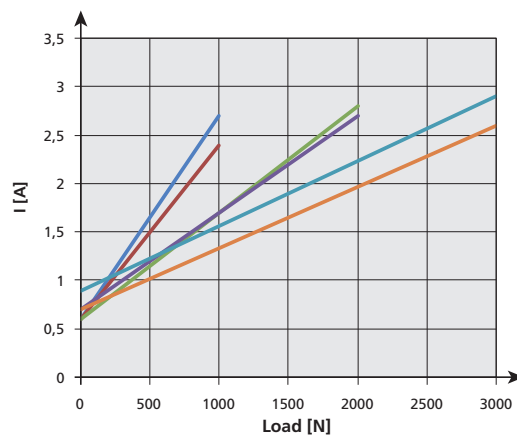
## Speed/Force diagram

Alpha Colonne with external control



## Current consumption/Force diagram

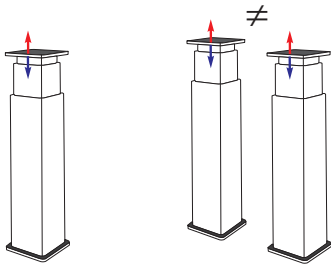
Alpha Colonne with internal control



24 V\*1 determined with a transformer control 120 VA

36 V\*2 determined with a MultiControl duo

## Alpha Colonne mono

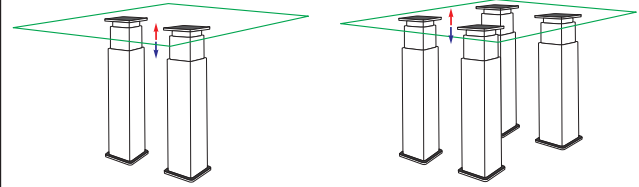


1-2 Alpha Colonne in single or parallel operation

### Parallel operation

The standard version also supports parallel operation of two Alpha Colonne (no synchronisation). This may produce different lifting positions during operation, which can be levelled out by moving to the end positions.

## Alpha Colonne synchro



2-4 Alpha Colonne in synchronous operation

### Synchronous operation

Synchronous operation of two or more columns. In conjunction with the integrated sensors, the control (see page 640) ensures synchronisation, and thus constant alignment of all the columns in both directions of travel, even if subject to different loads. The synchronous operation tolerance is max. 4 mm. A memory function is also available.

# Alpha Colonne - Versions

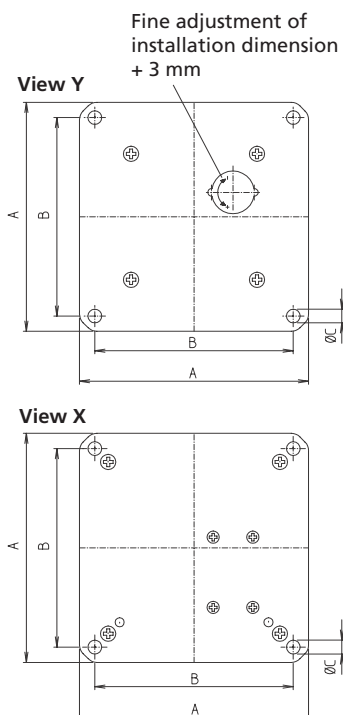
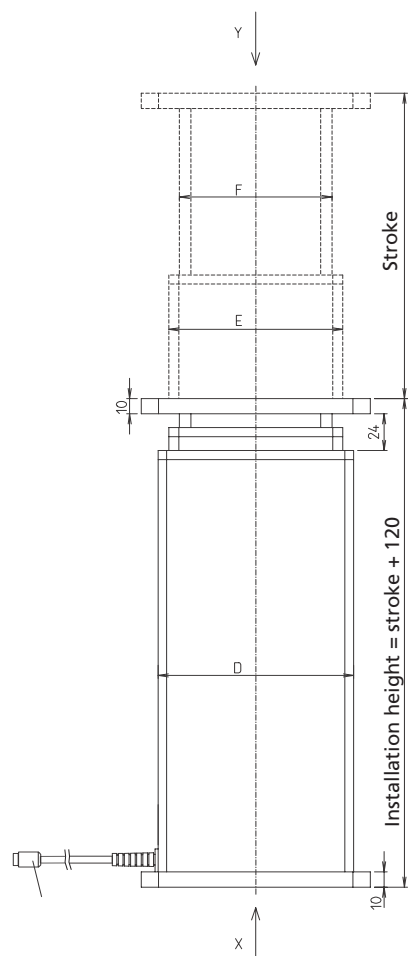
## Dimensions

Dimension	ACM "Medium"	ACL "Large"
A	150	190
B	130	170
C	9	11
D	128	163
E	114	145
F	100	128

## Weight

Standard [mm]	Alpha Colonne Medium	Alpha Colonne Large
Stroke 200	6,5	10,0
Stroke 300	8,0	12,5
Stroke 400	9,5	15,0
Stroke 500	11,0	17,5
Stroke 600	12,5	20,0
Stroke 700	14,0	22,5

In the case of the version with internal control; additional weight = 1kg

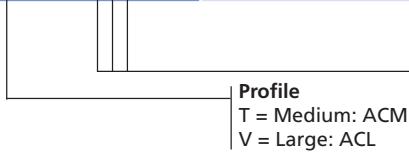


### Connecting cable

- Mono column 1,2m spiral cable
- Synchro column 2,5m spiral cable

Alpha Colonne version

Code No.	Type	Max. force F [N]	Max. speed [mm/s]
QL_08BC010_ _ _	Alpha Colonne mono	3,000	8
QL_08BC030_ _ _	Alpha Colonne Synchronous	3,000	8
QK_08BC040_ _ _	Alpha Colonne Internal transformer control	3,000	8
QL_12BB010_ _ _	Alpha Colonne mono	2,000	12
QL_12BB030_ _ _	Alpha Colonne Synchronous	2,000	12
QK_12BB040_ _ _	Alpha Colonne Internal transformer control	2,000	12
QL_18BA010_ _ _	Alpha Colonne mono	1,000	18
QL_18BA030_ _ _	Alpha Colonne Synchronous	1,000	18
QK_18BA040_ _ _	Alpha Colonne Internal transformer control	1,000	18



Stroke [mm]	Installation length [mm]	Weight [kg]	
		ACMedium	ACLarge
200	320	6.5	10.0
300	420	8.0	12.5
400	520	9.5	15.0
500	620	11.0	17.5
600	720	12.5	20.0
700	820	14.0	22.5

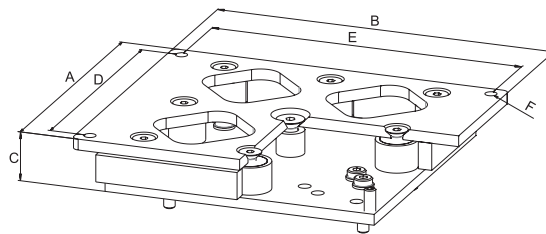
Alpha Colonne – Fixing

RK SyncFlex H

**Scope of delivery:**  
Adjuster plate, incl. fixing material

Horizontal alignment

- To prevent locked-up stress in mechanically overdefined bearing systems (more than one fixed bearing) around the horizontal axis. With RK SyncFlex H defined loose bearings supplement the application.
- The horizontal compensation in the Z-axis enables the freedom of movement required when moving the lifting columns.



[mm]

Code No.	Type	A	B	C	D	E	F
QZD140470	Alpha Colonne II large	195	245	36	225	175	M 10
QZD140469	Alpha Colonne II medium	155	195	36	175	135	M 10

# Alpha Colonne – Fixing/Position determination

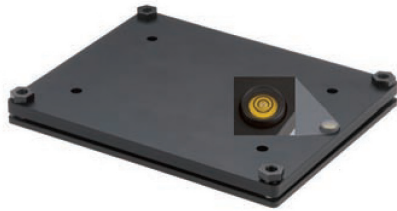
## RK SyncFlex V

### Scope of delivery:

Adjuster plate, incl. fixing material

### Option:

Optionally available with or without pressure plate (see table)

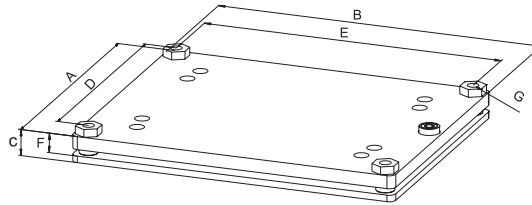


## Vertical alignment

■ If the lifting columns are not parallel, the distance between the two upper fixing points will change during the movement. However, a rigid connection keeps this distance constant, and this means that the lift-

ing columns are subject to very strong forces. RK SyncFlex V enables the compensation of unevenness in the mounting environment.

- The lifting columns can be aligned via the vertical adjustment around the X-Y axes.



[mm]

Code No.	Type	A	B	C	D	E	F	G
<b>Without pressure plate</b>								
QZD140467	Alpha Colonne II large	195	245	-	175	225	10-15	M 10
QZD140468	Alpha Colonne II medium	155	195	-	135	175	10-15	M 10
<b>With pressure plate</b>								
QZD140461	Alpha Colonne II large	195	245	15-20	175	225	10-15	M 10
QZD140460	Alpha Colonne II medium	155	195	15-20	135	175	10-15	M 10

## Controls

Transformer control 120 VA



approx. 24 V DC

MultiControl mono



24/36 V DC

- Input voltage 230 V AC
- Output voltage 24/36 V AC
- For battery operated controls, please see page 652

For dimensions and other technical data, please refer to the chapter "Motors and controls"

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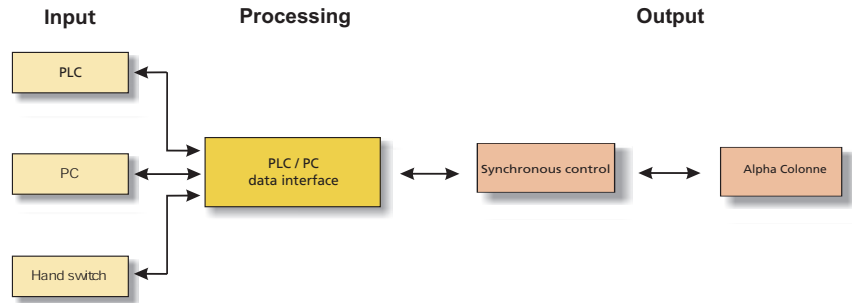
Code No.	Version	
<b>Controls for Alpha Colonne mono</b>		
QZA07C13BQ021	Transformer control 120 VA connection A, up to max. 3 A current output, 24 V DC	Controls up to 2 drives
QSTAACA1AA000	MultiControl mono connection A, up to max. I= 10 A current consumption, 24 V DC	Controls up to 2 drives
<b>Controls for Alpha Colonne synchro</b>		
QSTACCA1AA000	MultiControl mono connection C, up to max. I= 12 A current consumption, 36 V DC	Controls up to 2 drives
QST61C02AA000	MultiControl duo connection C, up to max. 12 A current output, 36 V DC	Controls up to 2 drives
QST61C04AA000	MultiControl quadro connection C, up to max. 12 A current output, 36 V DC	Controls up to 4 drives
<b>Accessories</b>		
QZD020083	Fixing plate 120 VA, control is pushed onto the plate	
QZD100093	6 m bus cable for the networking of up to 8 synchronous controls	
QZD0702844000*	Straight connecting cable (4 m) with 5-pin connector and open cable end	
QZD070525	Extension cable 2,5 m drive for connector A/2-pin DIN socket	
QZD070526	Extension cable 2,5 m drive for connector C/8-pin DIN socket	

\*for the connection of a parallel hand switch or an external potentiometer (in the case of the MultiControl mono)

**PLC/PC data interface**

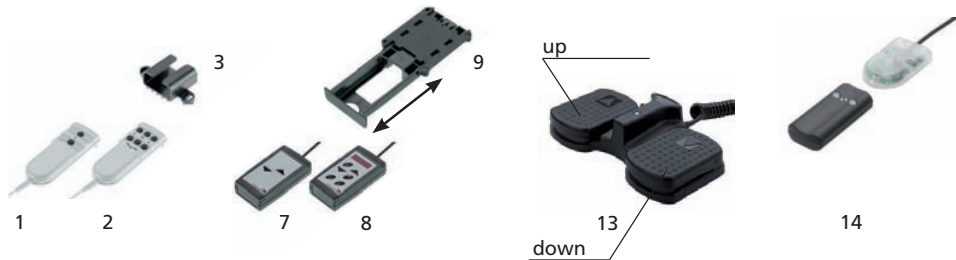
- This interface enables actuation of the synchronous control system via different input devices (PLC, PC and hand switch)

You will find further product information on page 662



Code No.	Type
QZD100108	PLC/PC data interface
QZD100110	Wall strap for mounting in a control cabinet

**Hand switches/accessories**



Code No.	Version	Fig.
<b>Hand switch for transformer control/internal control</b>		
QZB02C03AD031	Hand switch with 1 m spiral cable – 6 function keys	2
<b>Hand switch for transformer or synchronous control</b>		
QZB02C03AB031	Hand switch with 1 m spiral cable – 2 function keys	1
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	7
QZB02C01AE114	Foot switch – 2 function keys	13
QZB00D07BK141	Func hand switch – 2 function keys	14
<b>Hand switch for synchronous control</b>		
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys	8
<b>Accessories for hand switches</b>		
QZD000072	Bracket for hand switch: Fig. 1 + 2	3
QZD000074	Hand switch drawer: Fig. 7 + 8	9

**Note:**  
For further hand switch versions, please refer to the chapter "Controls" on page 640