

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:

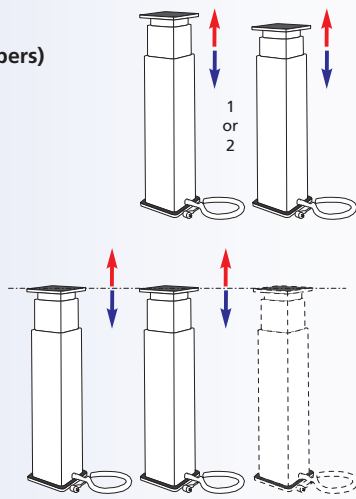
- Special lengths

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Alpha Colonne – Technical data

General information/operating conditions

	Drive	Internal/external 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)	10% at nominal load (max. 2 mins operating time, 18 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

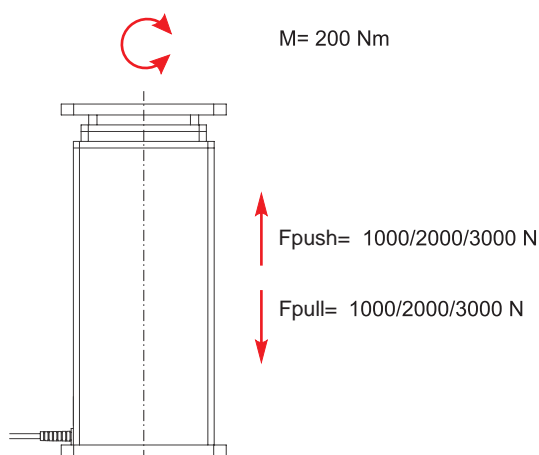
Weights

[kg]

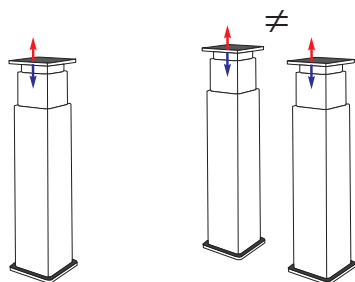
Standard [mm]	Alpha Colonne Medium	Alpha Colonne Large
Stroke 200	6.5	10.0
Stroke 300	8.0	12.5
Stroke 400	9.5	15.0
Stroke 500	11.0	17.5
Stroke 600	12.5	20.0
Stroke 700	14.0	22.5

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

Load data



Alpha Colonne mono

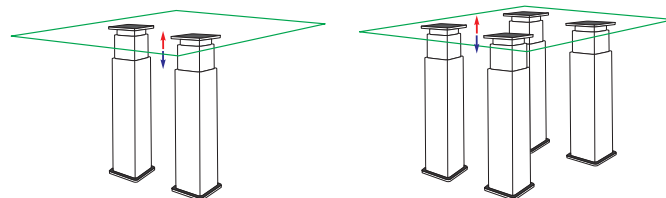


1-2 Alpha Colonne in single or parallel operation

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

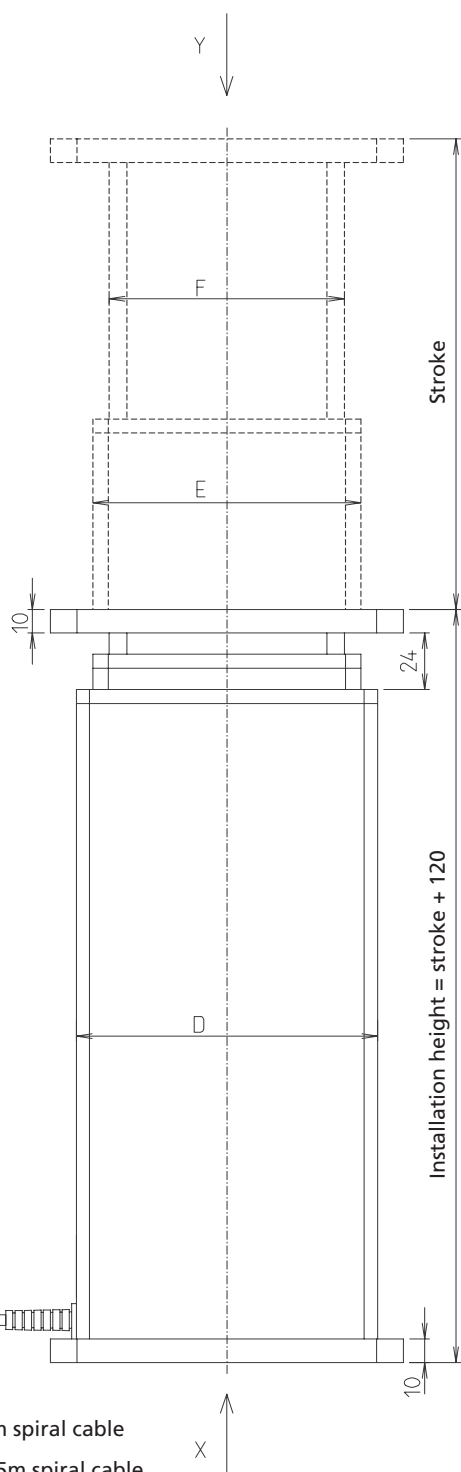
Synchronous operation

Synchronous operation of two or more columns. In conjunction with the integrated sensors, the control (see page 612) 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



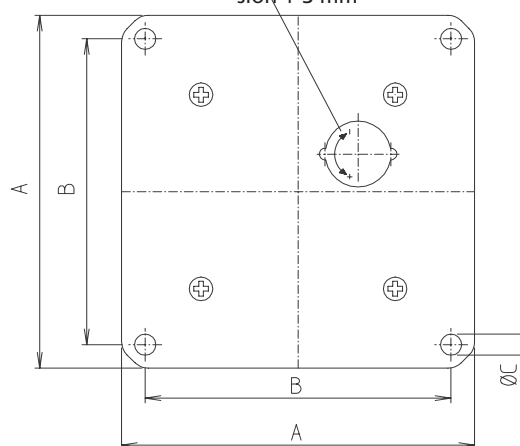
Connecting cable

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

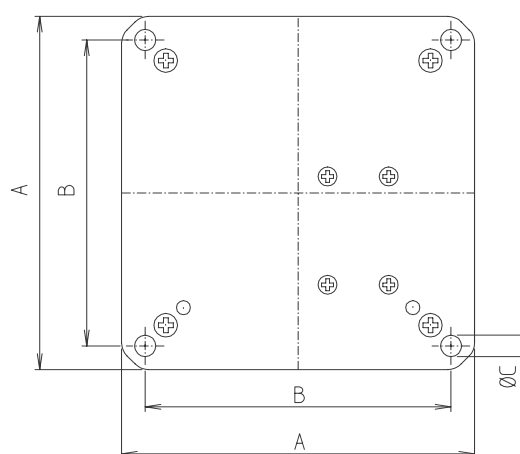


Fine adjustment of installation dimension + 3 mm

View Y

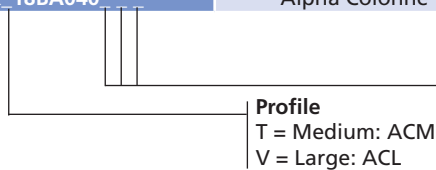


View X



Alpha Colonne version

Code No.	Type	Max. force F [N]	Max. speed [mm/s]
QL_08BC010_ _ _	Alpha Colonne Standard	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 Standard	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 Standard	1,000	18
QL_18BA030_ _ _	Alpha Colonne Synchronous	1,000	18
QK_18BA040_ _ _	Alpha Colonne Internal transformer control	1,000	18



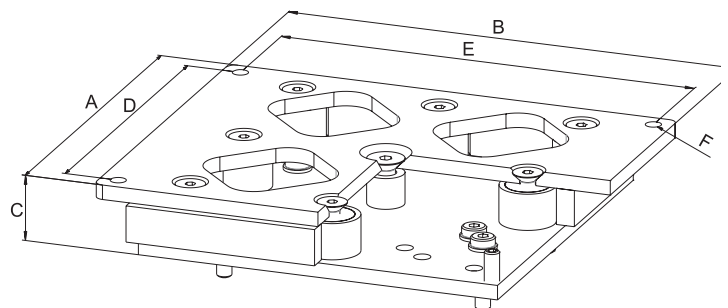
Stroke [mm]	Installation length [mm]	Weight [kg]	
		ACMedium	ACLarge
200	320	6.5	10.0
300	420	8.0	12.5
400	520	9.5	15.0
500	620	11.0	17.5
600	720	12.5	20.0
700	820	14.0	22.5

Alpha Colonne – Fixing
RK SyncFlex H
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.



Scope of delivery:
 Adjuster plate, incl. fixing material

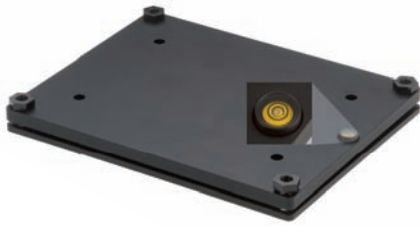


[mm]

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

Alpha Colonne – Fixing/Position determination

RK SyncFlex V



Scope of delivery:
Adjuster plate, incl. fixing material

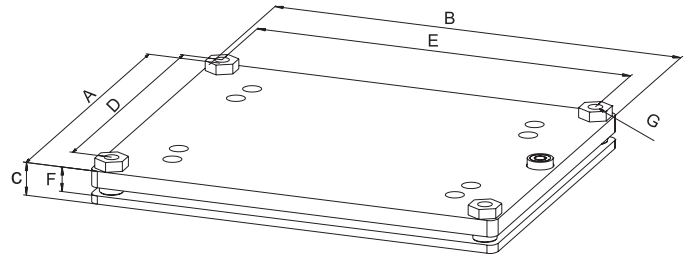
Option:
Optionally available with or without pressure plate (see table)

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
Without pressure plate								
QZD140467	Alpha Colonne II large	195	245	-	175	235	10-15	10
QZD140468	Alpha Colonne II medium	155	195	-	135	175	10-15	10
With pressure plate								
QZD140461	Alpha Colonne II large	200	250	15-20	180	230	10-15	10
QZD140460	Alpha Colonne II medium	195	245	15-20	175	235	10-15	10

Controls

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

- Input voltage 230 V AC
- Output voltage 24/36 V AC
- For battery operated controls, please see page 624

Transformer control 120 VA

MultiControl mono

approx. 24 V DC



approx. 36 V DC

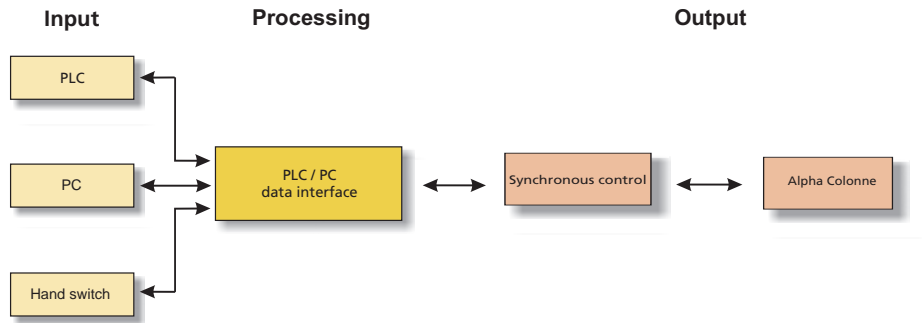


Code No.	Version	
Controls for Alpha Colonne mono		
QZA07C13BQ021	Transformer control 120 VA, up to max. 3 A current output/1,500 N at 10% duty cycle	Controls up to 2 drives
QST61C01AA000	MultiControl mono, up to max. 10 A current output/5,000 N at 20% duty cycle, 24/36 V DC	Controls up to 2 drives
Controls for Alpha Colonne synchro		
QST61C02AA000	MultiControl duo, up to max. 12 A current output/6,000 N at 20% duty cycle	1-2 drives synchronised
QST61C04AA000	MultiControl quadro, up to max. 12 A current output/6,000 N at 20% duty cycle	3-4 drives synchronised
Accessories		
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	

PLC/PC data interface

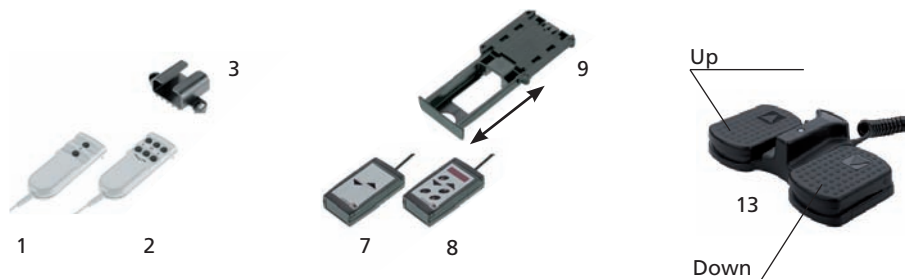
■ This interface enables actuation of the synchronous control system via different input devices (PLC, PC and hand switch)

You will find further product information on page 634



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

Hand switches/accessories



Code No.	Version	Fig.
Hand switch for transformer control/internal control		
QZB02C03AD031	Hand switch with 1 m spiral cable – 6 function keys	2
Hand switch for transformer or synchronous control		
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
Hand switch for synchronous control		
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys	8
Accessories for hand switches		
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 612ff.