

Multi-stage lifting columns

Square column in two sizes, optionally available with internal control



Highlights / Features:

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

Options:

- Synchronous control: – Multiple lifting columns can be moved in the BUS system
- Other stroke lengths and installation heights on request
- Pull force
- Specific solutions on request
- Can also be used wirelessly for mobile movement applications via MultiControl II duo accu

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Technical data

General information/operating conditions

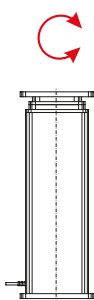
Type	Alpha Colonne for external control	Alpha Colonne with internal control	Custom
Design	Rectangular lifting column in compact design		
Guide	POM slide bearings		
Installation position	Any position/suspended with drop protection provided by the customer		
Push force	3000 N, 2000 N or 1000 N		
Pull force	0 N		on request
Self-locking	Yes		
Max. travel speed	to 14 mm/s		
Max. stroke	600 mm		
Installation dimension	Hub + 120 mm		
Voltage	36 V DC	230 V DC	
Current output	4,5 A	according to drive	
Protection class	IP 30		
Ambient temperature	-20°C to +60°C		
Displacement during synchronous operation	2 to 4 mm		
Duty cycle (Operation mode S3)	At nominal load, 20% (2 mins operating time, 8 mins rest time)		

Note:

All information refers to the standard sizes. All data of push/pull forces are referring to the individual lifting column, for combined applications a safety factor of up to 0,6 has to be considered.

Load data

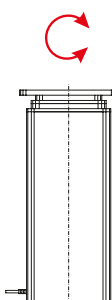
Alpha Colonne „Medium“



M= 200 Nm
static, dynamic

Fpush= 1000/2000/3000 N

Alpha Colonne „Large“



M= 450 Nm
static, dynamic

Drive	Push force [N]	Travel speed [mm/s]	Number of assigned motor channels			
			1	2	3	4
Alpha Colonne Medium	1000	14	✓	✓	✓	500 N
Alpha Colonne Medium	2000	10	✓	✓	1300 N	750 N
Alpha Colonne Medium	3000	7	✓	✓	1750 N	1000 N
			MultiControl II duo		MultiControl II quadro	

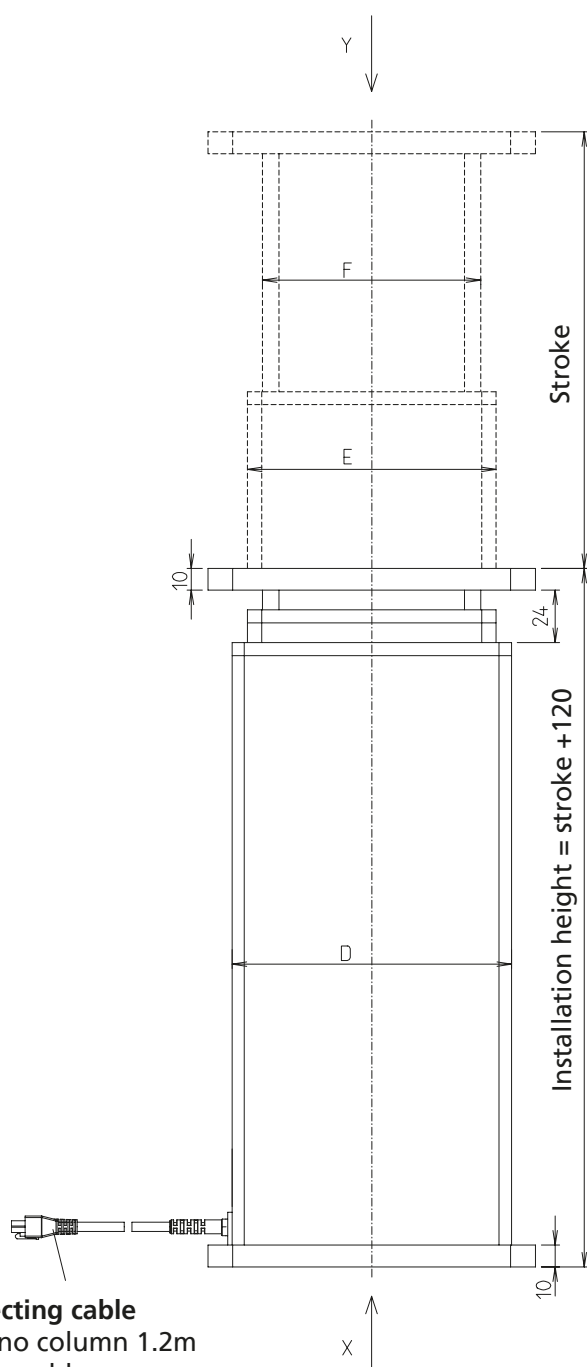
Note:

If more than 2 drives are to be operated synchronously at nominal load, BUS communication between two or more MultiControl II duo controllers is required.

The required accessories can be found on page 172.

The procedure for setting up BUS communication is described in detail in the operating manual.



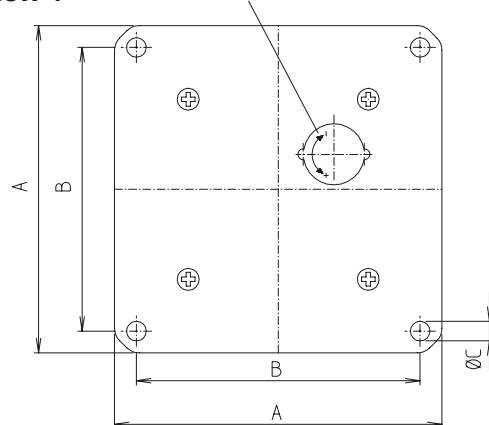


Connecting cable

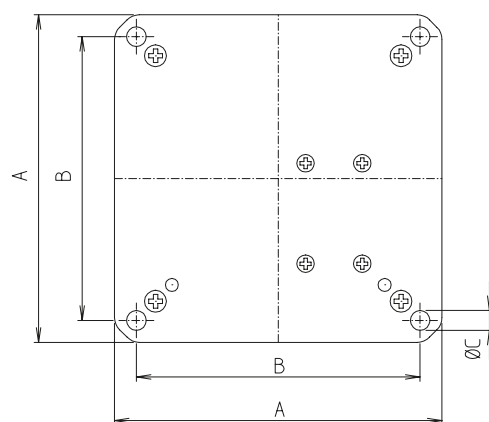
- Mono column 1.2m helix cable
- Synchro column 2.5m cable

View Y

Fine adjustment of installation dimension +3 mm



View X



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

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

Versions

Alpha Colonne – Square column in two sizes, optionally available with internal control

The three-stage lifting column is available in “Medium” or “Large” size, which makes it ideal for versatile applications. To achieve the optimal fit during the assembly process, the Alpha Colonne has a separate fine adjustment facility on the upper connecting plate. This allows the installation dimension to be increased by an additional 3 mm.

A stroke of 200 mm to 600 mm, with a compressive force of up to 3000 N can be selected as standard.

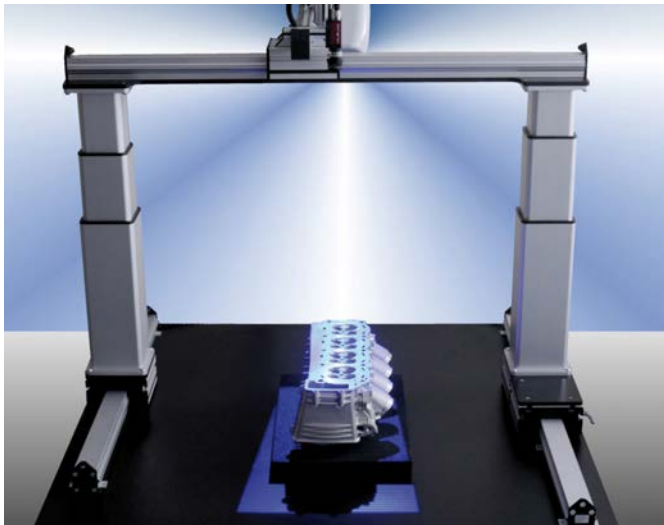


Special features:

- Adjustment of installation dimension + 3 mm
- Pre-assembled connecting plates
- Smooth surfaces for effective cleaning

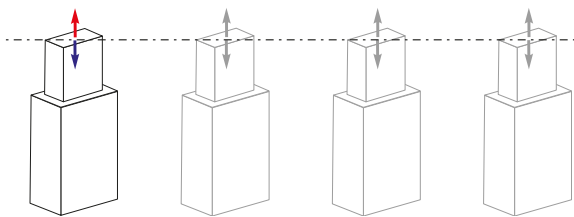
Ideal areas of application:

- Especially sitting and standing assembly workstations for production
- LEAN workstations



Lifting column and control as a single component:

Alpha Colonne only possible in combination with MultiControl II duo (see page 156) and MultiControl II quadro (see page 164)!



Features:

- Supports configuration of systems with up to 32 drives
- Wide-range input
- High duty cycle
- Simple connection to master control system
- Intuitive operation

Individual components:

Lifting column Alpha Colonne

Code No.	Type	max. push force [N]	max. lifting speed [mm/s]
QL_08BK140_ _ _	Alpha Colonne	3000	7
QK_08BK040_ _ _	Alpha Colonne internal control		
QL_12BH140_ _ _	Alpha Colonne	2000	10
QK_12BH040_ _ _	Alpha Colonne internal control		
QL_18BG140_ _ _	Alpha Colonne	1000	14
QK_18BG040	Alpha Colonne internal control		

Stroke* [mm]	Installation dimension X [mm]	Weight [kg]	
		Medium „T“	Large „V“
200	320	6,5	10
300	420	8	12,5
400	520	9,5	15
500	620	11	17,5
600	720	12,5	20

e.g. stroke [mm] = **300**

Profile version:
V = Large
T = Medium

System components

Code No.	Accessories	
Controls		
QST61H12AA000	MultiControl II duo - Basic	Alpha Colonne
QST61H12AA022	MultiControl II duo - Premium	
QST61H14AA000	MultiControl II quadro - Basic	Alpha Colonne
QST61H14AA022	MultiControl II quadro - Premium	
Hand switches		
QZB11G07AV041	Hand switch with 6 function keys and display – 1 m cable lenth	
QZB11G07AB041	Hand switch with 2 function keys – 1 m cable lenth	
QZD000074	Hand switch drawer for hand switch with 6 and 2 function keys	
IEC connector		
QZD070618	IEC cable (Europe version, earthed plug)	

Note: Further accessories (hand switches, connecting cables etc.) can be found in the chapter „Controls and accessories“ starting on page 152

Fixing / Position determination

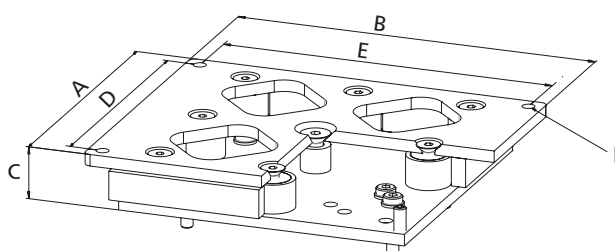
RK SyncFlex H

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	175	225	M 10
QZD140469	Alpha Colonne II medium	155	195	36	135	175	M 10

RK SyncFlex V

Vertical alignment

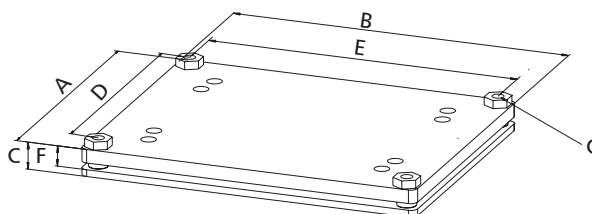
- If the lifting columns are not parallel, the distance between the two upper fixing points will change during the movement. However, a rigid connection keeps this distance constant, and this means that the lifting columns are subject to very strong forces.
- RK SyncFlex V enables the compensation of unevenness in the mounting environment.
- The lifting columns can be aligned via the vertical adjustment around the X-Y axes.

Scope of delivery:

Adjuster plate, incl. fixing material

Option:

Optionally available with or without pressure plate (see table)



[mm]

Code No.	Type	A	B	C	D	E	F	G
Without pressure plate								
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
With pressure plate								
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