

**R** RENOWNED  
KNOW-HOW

Automation Technology



**RK ROSE+KRIEGER**

A Phoenix Mecano Company



# *Linear Technology*

Lifting columns and electric cylinders

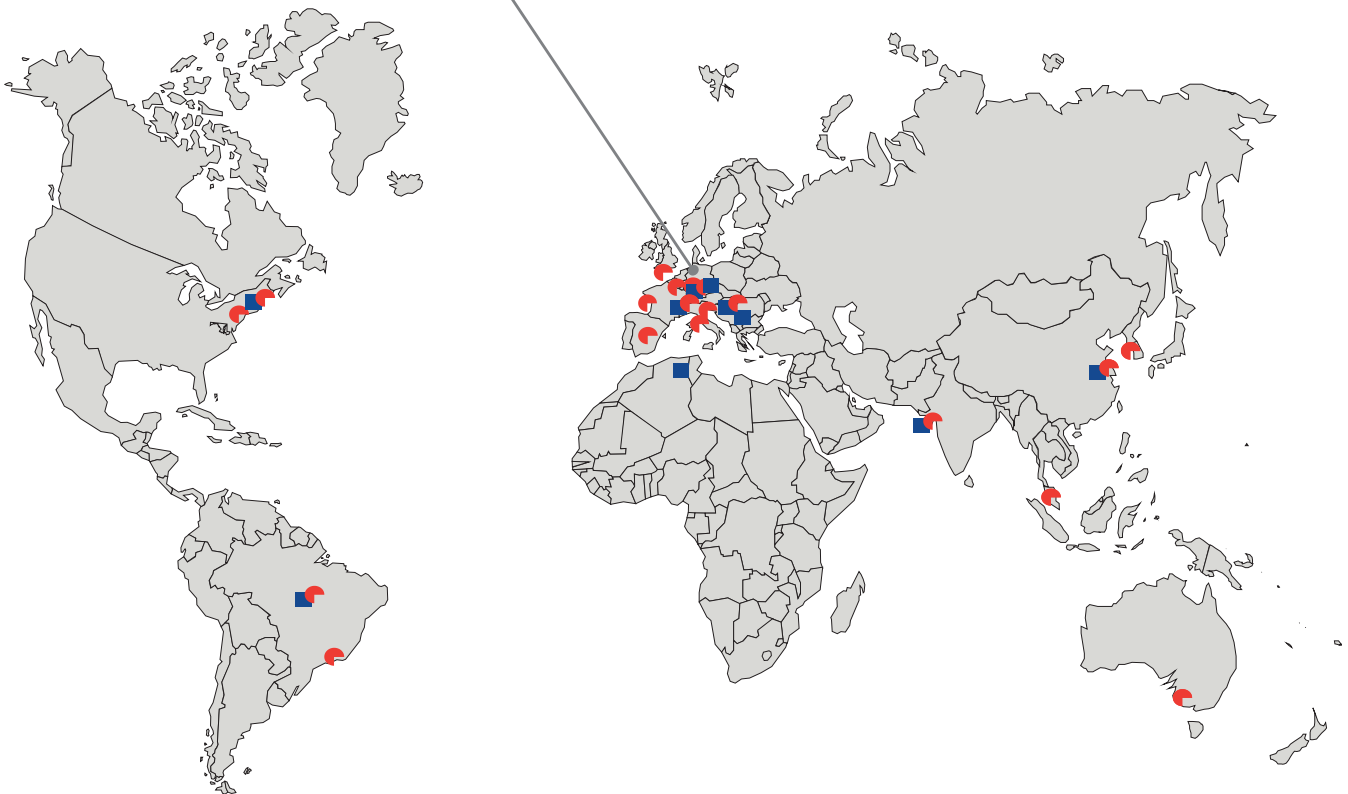
# About Us

As a subsidiary of the global Phoenix Mecano AG, we offer an unrivalled range of products in the fields of linear, profile, connecting and module technology. With decades of experience and expertise in a huge range of industrial applications, you need look no further for a highly competent partner. From the first point of contact through to delivery, we focus entirely on your requirements. Individual advice and short delivery periods are two central priorities in our customer-focused corporate philosophy. Our aim is your success, and we look forward to being your strategic partner.



**Head Office:** Germany, Minden/Westph.

- ✓ Company sales representatives
- ✓ Distributors and system partners



## Available around the globe.

- ✓ Profit Centre within Phoenix Mecano
- ✓ Sales and system partners

■ = Production facilities

● = Distribution companies

RK Rose+Krieger GmbH • Connecting and positioning systems • [www.rk-rose-krieger.com](http://www.rk-rose-krieger.com)

# Our product range

## LINEAR TECHNOLOGY

- ✓ Linear actuators
- ✓ Manual guide units
- ✓ Electric cylinders
- ✓ Lifting columns
- ✓ We can move loads for you of up to 3 t and up to 12 m dynamically, reliably and with great precision

### Movement and positioning



## CONNECTING TECHNOLOGY

- ✓ Fittings for the secure clamp connection of round and square profiles
- ✓ Elements made of aluminium, stainless steel and plastic
- ✓ Sizes from 8 mm to 80 mm

### Clamp and release solutions



## PROFILE TECHNOLOGY

- ✓ The proven and tested BLOCAN® aluminium assembly system, with profiles offering cross-sections from 20 mm to 320 mm, for a broad spectrum of applications
- ✓ Connection techniques with an unsurpassed combination of flexibility and reliability

### Mix'n'match



## MODULE TECHNOLOGY

- ✓ We develop, manufacture and assemble
- ✓ Machine frames
- ✓ Workstations
- ✓ Machine guards
- ✓ Multidimensional linear actuator modules
- ✓ Complete drive solutions

### Consultancy services and optimisation



# How to use this catalogue

Depending on your level of experience, we suggest you proceed as follows

## **If you are new to linear technology**

Please use our selection guide from page 9 onwards.  
We will guide you to the right product for your particular application.

## **If you know all about linear technology**

You know exactly what you require and can go straight to the right product category, where you will find a product overview on the first pages.

## **Specific search**

...if you are looking for a specific product, we suggest you start in our index on the last pages of this catalogue.

**If you have any questions, do not hesitate to contact one of our product consultants.**

## The RK linear circle

Page 6

- Lifting columns
- Electric cylinders
- Controls & Accessories

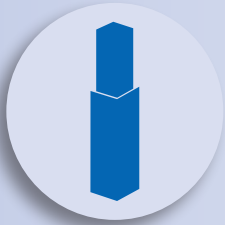
## Areas of application

Page 10–25

- Workplace ergonomics
- Industrial technology
- Medical technology
- Media technology

## Lifting columns

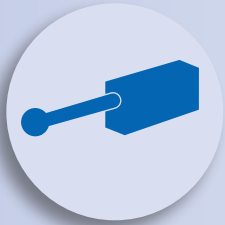
Page 26 – 109



- Product selection
- *RK* Multilift
- *RK* Slimlift
- *RK* Powerlift
- Alpha Colonne
- Lambda Colonne

## Electric cylinder

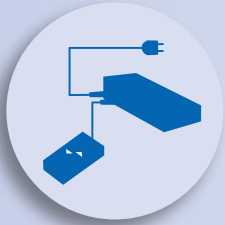
Page 110–145



- Product selection
- Series M9
- Series 010
- Series 015
- Lambda
- LZ 60 P/S

## Controls & Accessories

Page 146–185



- Product selection
- Mono
- Synchro
- Optional accessories

## Appendix

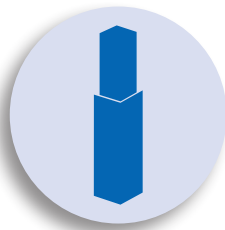
Page 187–195

- Inquiry form
- Glossary
- Index



#### Features:

- ✓ Fully integrated technology / maintenance-free
- ✓ Self-locking, even under max. load
- ✓ Withstands torsional and bending moments
- ✓ Clear anodised aluminium profile surface
- ✓ Special versions available on request



## Lifting columns

from page 26

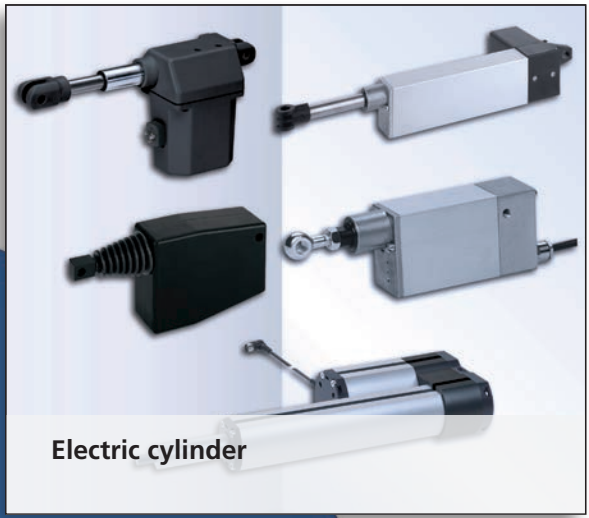
## Electric cylinder

from page 110

Your application  
takes  
centre stage

## Controls & Accessories

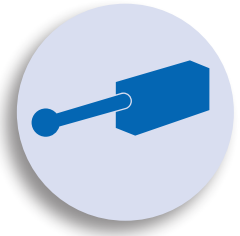
from page 146



Electric cylinder

**Features:**

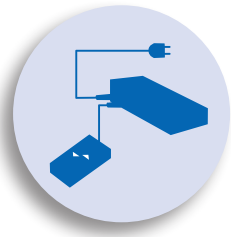
- ✓ Fully integrated technology / maintenance-free
- ✓ Self-locking, even under max. load
- ✓ Can be installed in any position
- ✓ Various stroke lengths and speeds
- ✓ Special versions available on request



Controls & Accessories

**Features:**

- ✓ Connection for up to 32 drives (bus system)
- ✓ Duty cycle monitoring as overload protection (can be activated as standard)
- ✓ Memory function
- ✓ Mains-independent battery mode
- ✓ Wide-range input



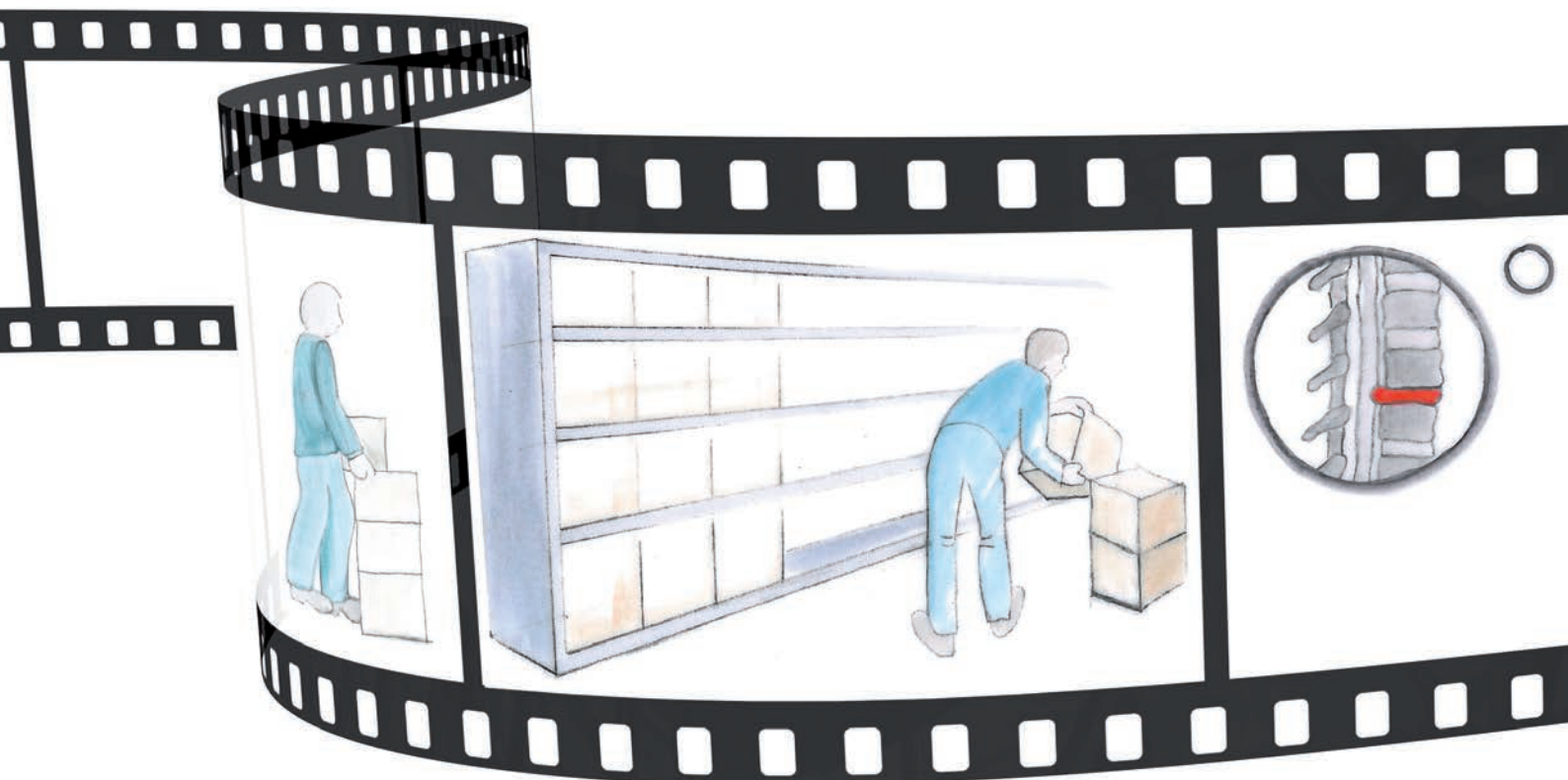
# Preface

Electromotive modules for height adjustment are both contemporary and efficient.

## Technology that adapts to your needs

- ✓ As assembly aids that assist with heavy loads
- ✓ As height adjustable standing or sitting workstations
- ✓ As an effective support that enables greater independence for the physically challenged
- ✓ Application options in the field of medical technology
- ✓ For the adjustment of audio/video devices in the business and luxury segment for the sophisticated demands of your customers

Reliable technology and easy installation in your application are essential. In the pages that follow, we would like to inspire you and introduce you to the individual lifting column modules. Entrust your individual and unique applications to our experienced specialists.





## Overview / fields of application

The applications on the following pages show a selection of customer applications which were achieved with our products.

Compliance with applicable standards and safety requirements for the end product were ensured by our customers.

### Workplace ergonomics

from page 11

- ✓ Control rooms (power plant, police, fire service, radio, locks)
- ✓ Assembly workstations
- ✓ Laboratory workstations
- ✓ Control cabinet installation
- ✓ RK *LEAN* assembly workstation systems
- ✓ Office workstations

### Industrial technology

from page 15

- ✓ Table press machine
- ✓ Polishing machines
- ✓ Equipment carrier systems
- ✓ Scissor lift adjustment
- ✓ Conveyor adjustment
- ✓ Mobile transfer system
- ✓ Industrial scanner

### Medical technology

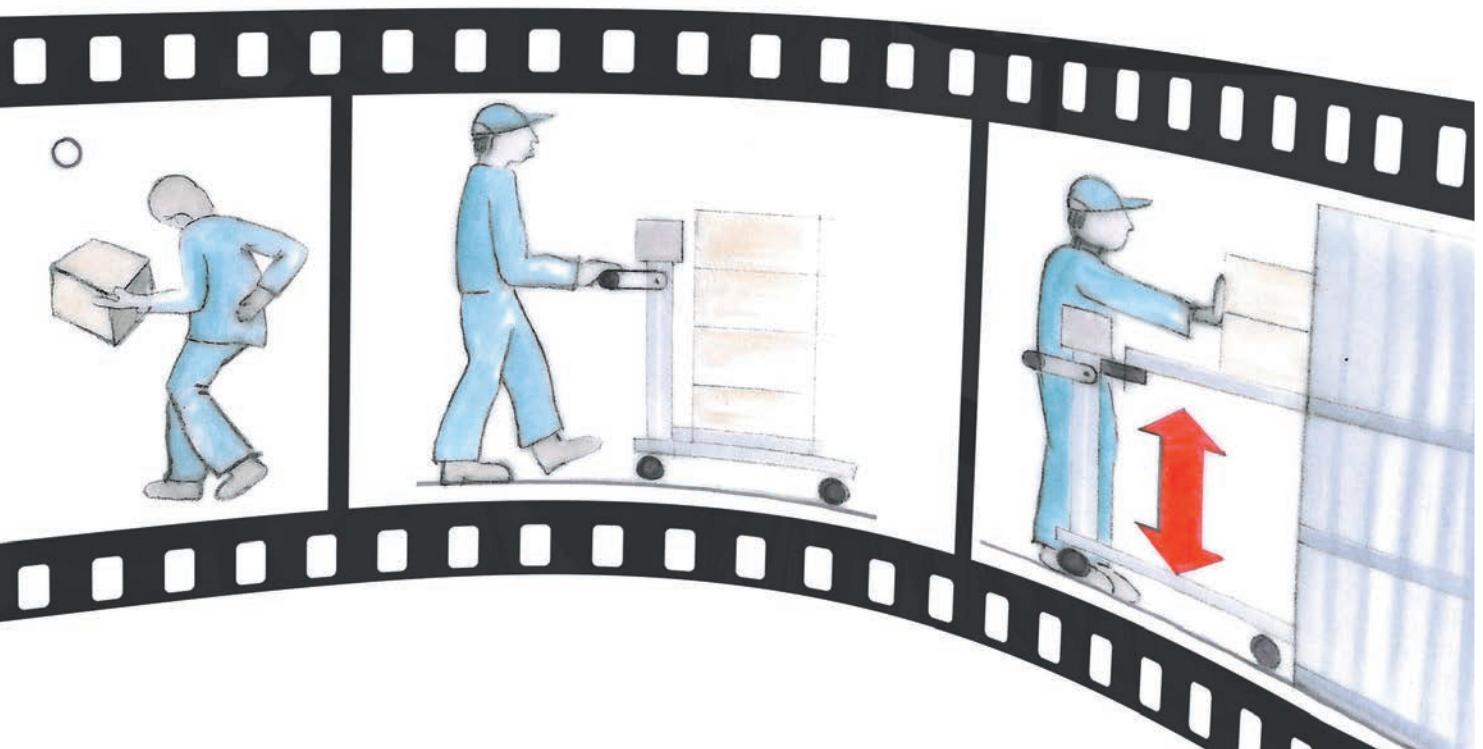
from page 19

- ✓ Wellness couches
- ✓ Incubators
- ✓ X-ray couches
- ✓ Rehabilitation technology
- ✓ Mammography
- ✓ Chair applications
- ✓ Instrument tables

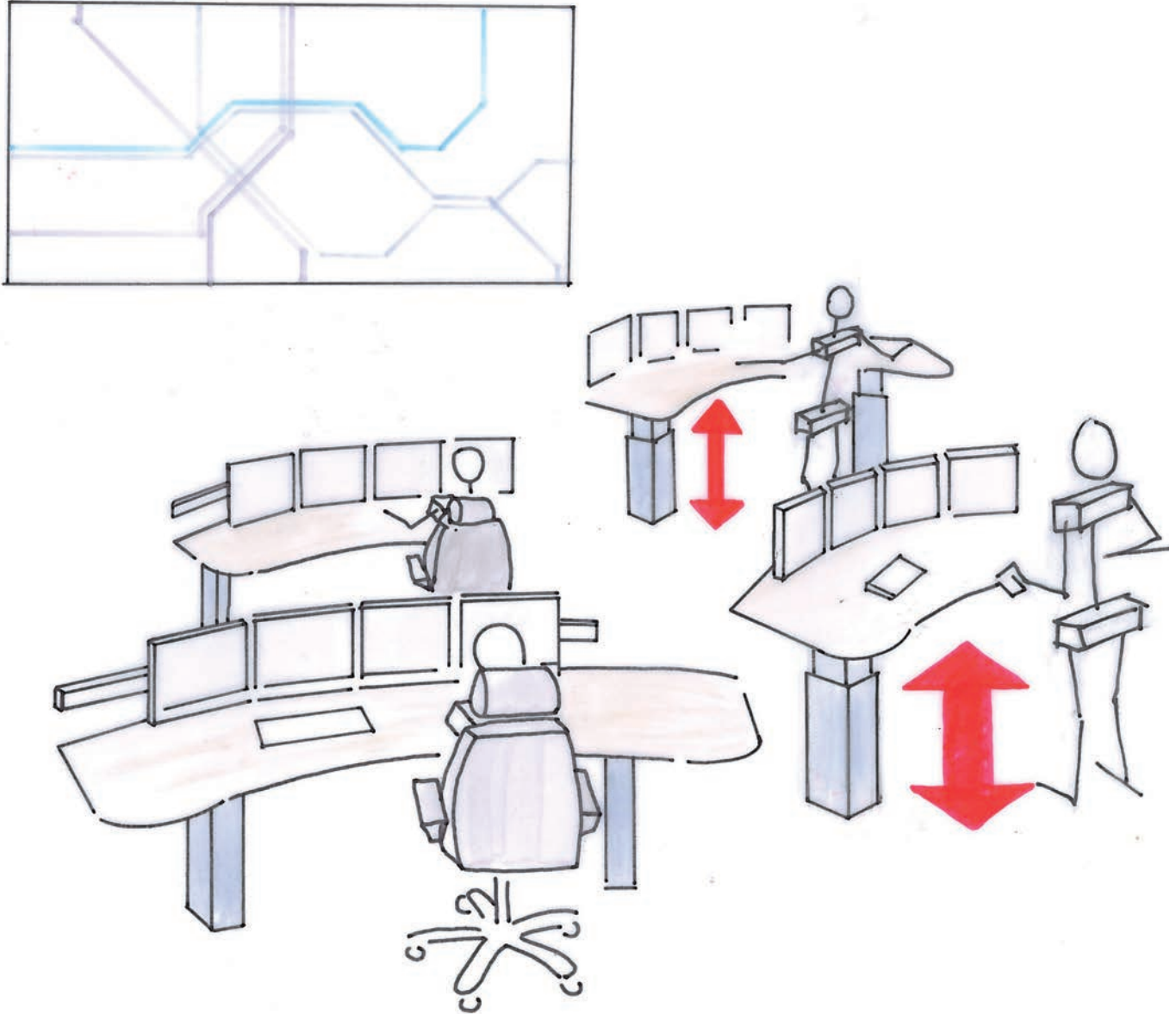
### Media technology

from page 23

- ✓ Media screen
- ✓ TV height adjustment
- ✓ Presentation technology
- ✓ Projector adjustment
- ✓ Information board
- ✓ Lectern



# Areas of application



## Advantages

- ✓ Fewer absences due to illness
- ✓ Mobilises the locomotor system
- ✓ Increases concentration
- ✓ Dynamic working helps prevent work fatigue

Control system (radio)



Lifting column: RK Powerlift

## Alternating between standing and sitting

When asked which is the best working posture, orthopaedists generally answer: "The one you're about to switch to." Cardiologists constantly criticise the sedentary nature of most people's working days, stating we need to move more. Varying the burden on the locomotor and cardiovascular system and increasing activity has proven to be extremely effective.

Our modular lifting columns are extremely convenient and easy to use. Depending on the application, they can be implemented as single-column or two-leg table concepts. Extremely quiet operation and fast movement characterise the high quality of our lifting columns. The simple operation via manual push-button encourages frequent use of the functions.

## Assembly workstations

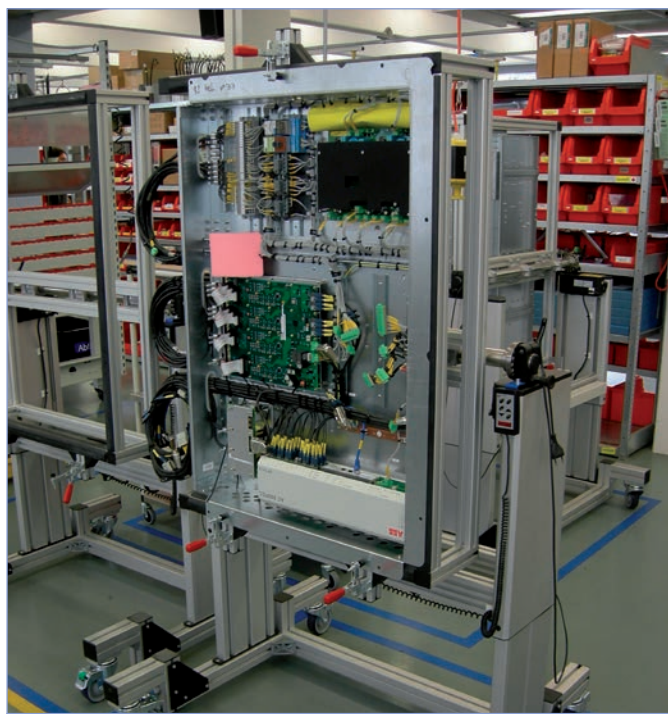


Lifting column: RK Multilift

# Areas of application

Multi-shift operation in particular calls for great adaptability and durability.

## Control cabinet installation



Lifting column: RK Multilift

Production processes are arranged section by section in so-called islands. Where the operator changes frequently (e.g. in shift operation), individual adjustment of the working height makes good ergonomic sense and increases productivity.

## Laboratory workstation



Lifting column: RK Powerlift

## LEAN assembly workstation systems



Lifting column: RK Powerlift

With the RK modular system, almost any workstation design can be realised and subsequent extensions or modifications can be easily implemented.

## Laboratory workstation



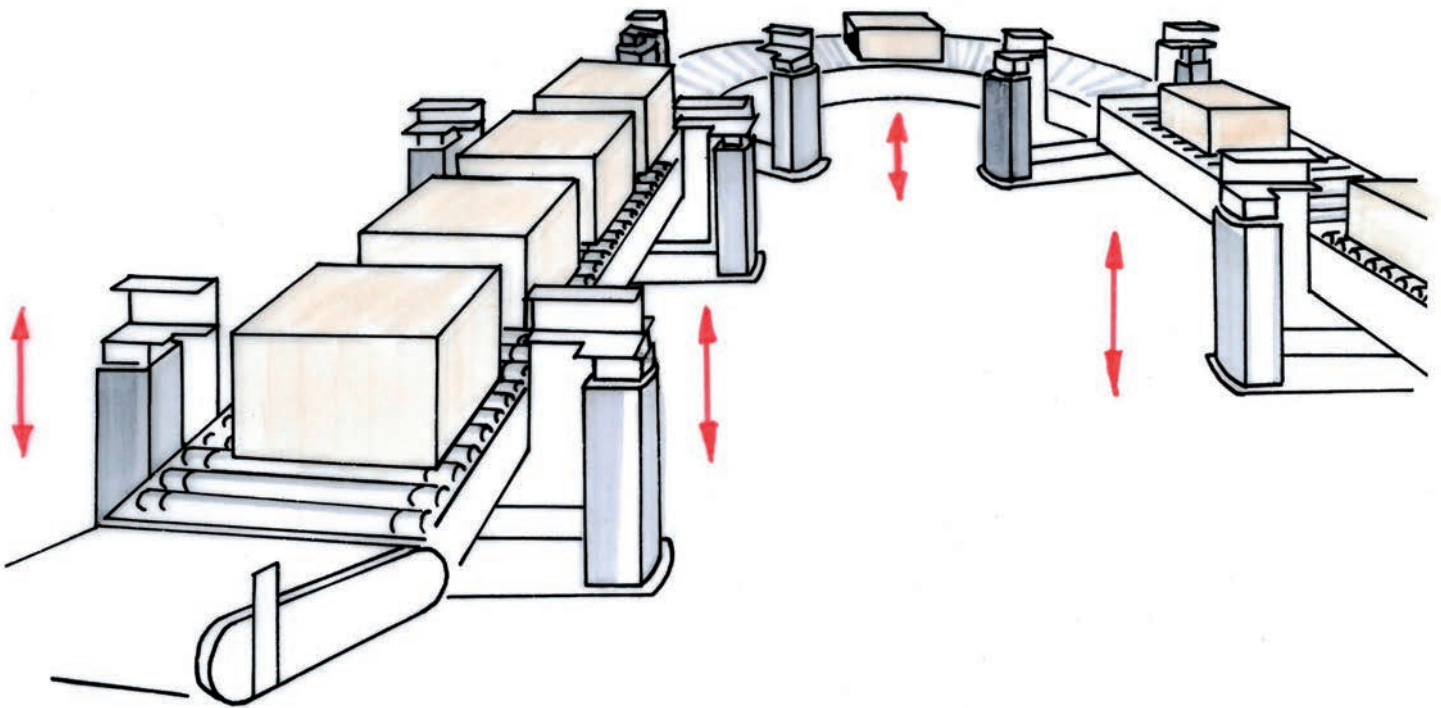
Lifting column: RK Multilift

## Office workstation



Lifting column: RK Powerlift

# Areas of application



## Advantages

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- ✓ Stable guidance
- ✓ Integrated technology
- ✓ Guided start-up
- ✓ Multiple synchronisation possible
- ✓ Simple process connection

Table press machine



Lifting column: RK Multilift

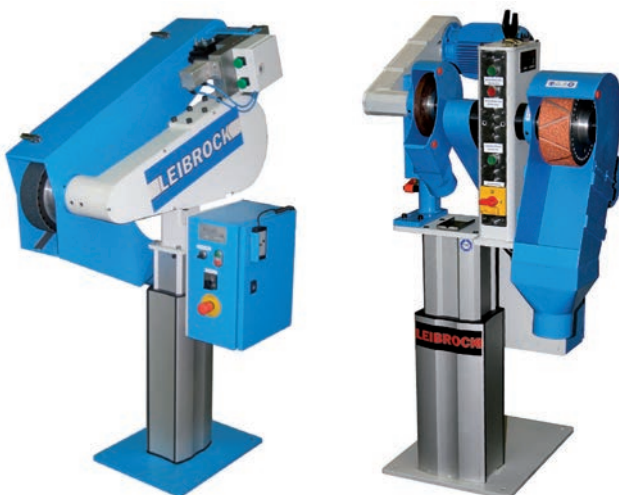
## Technical power packs

RK Rose+Krieger has been operating in the field of industrial automation technology for more than 40 years. Lifting columns and electric cylinders are a speciality.

The lifting columns are ideal for the linear adjustment of mounting devices, conveyors, equipment carriers and handling equipment, enabling working platforms and assembly aids to be positioned ergonomically.

The electric cylinders are a very good alternative to pneumatic cylinders.

Polishing machines



Lifting column: RK Powerlift

# Areas of application

The lifting columns can also be fitted with support arm and equipment carrier systems from the RK Connecting Technology range.

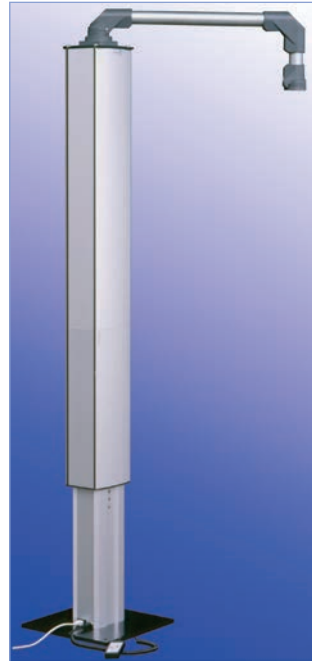
## Scissor lift adjustment



Electric cylinder: LZ 60P

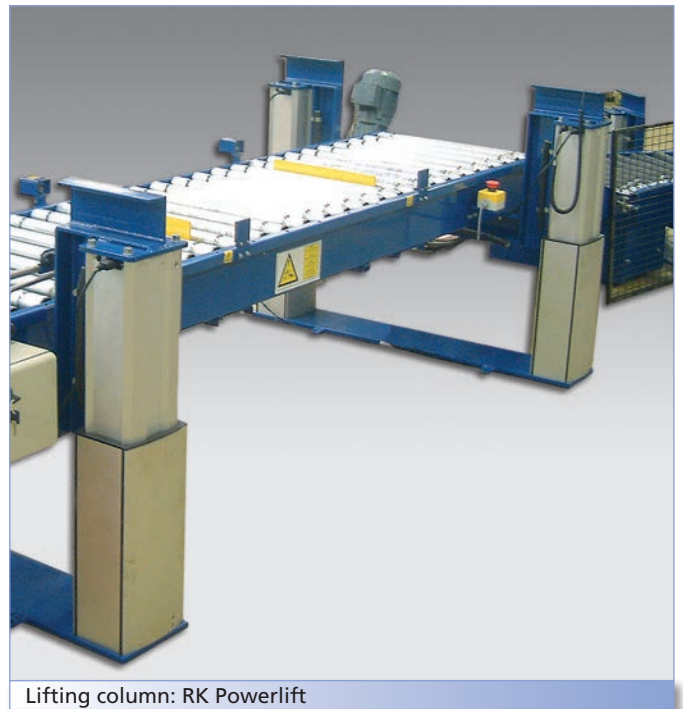
The electric cylinders are a very good alternative to pneumatic cylinders. Motor arrangement in parallel (LZ 60 P) or rod-shaped (LZ 60 S) means space requirements are variable and optimum integration is possible.

## Equipment carrier systems



Lifting columns: RK Powerlift / RK Multilift

## Conveyor adjustment

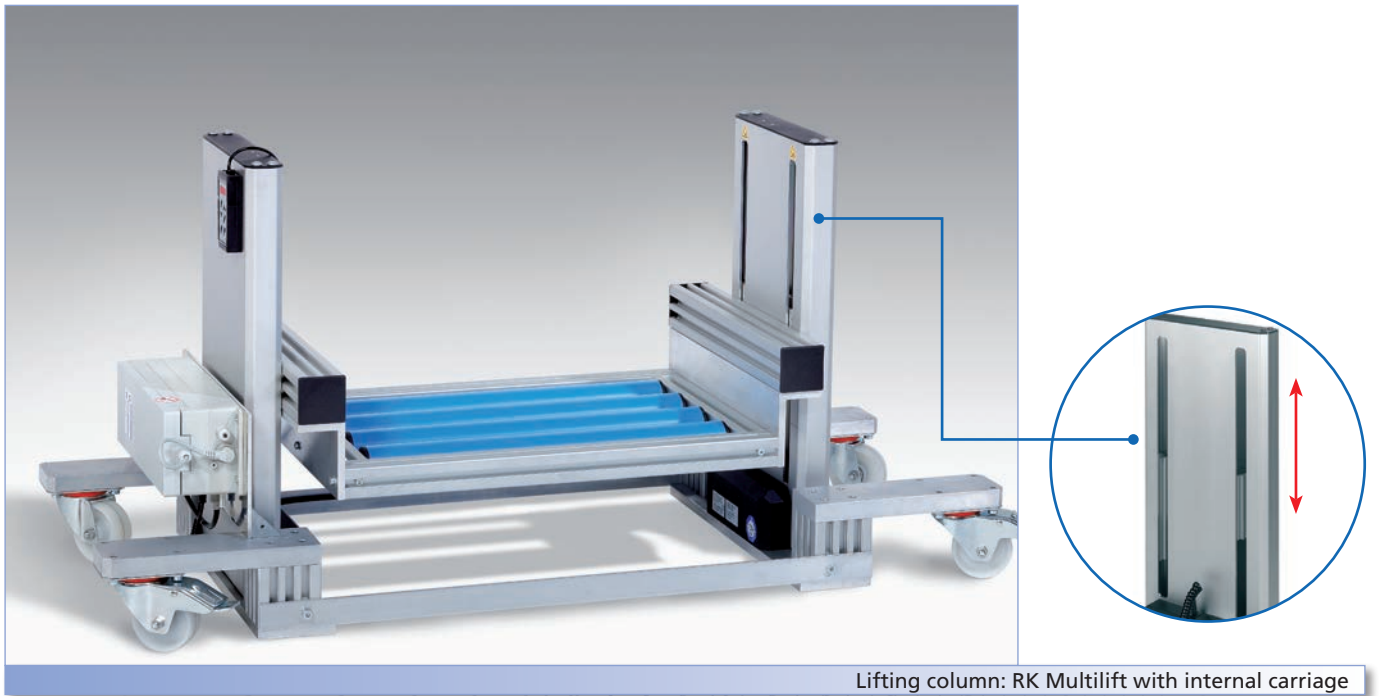


Lifting column: RK Powerlift

A complete system consisting of electrically powered Powerlift columns and MultiControl controls ensures even height adjustment in the printer logistics system.

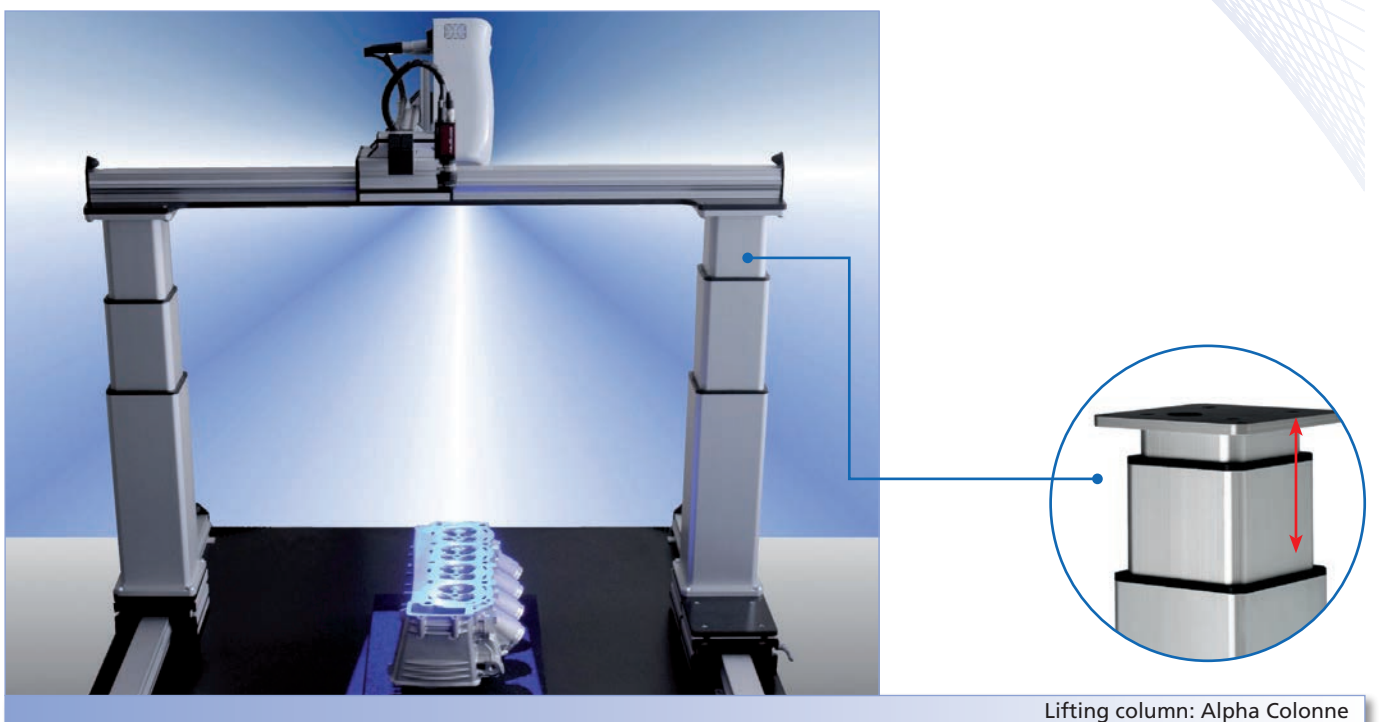


Mobile transfer system



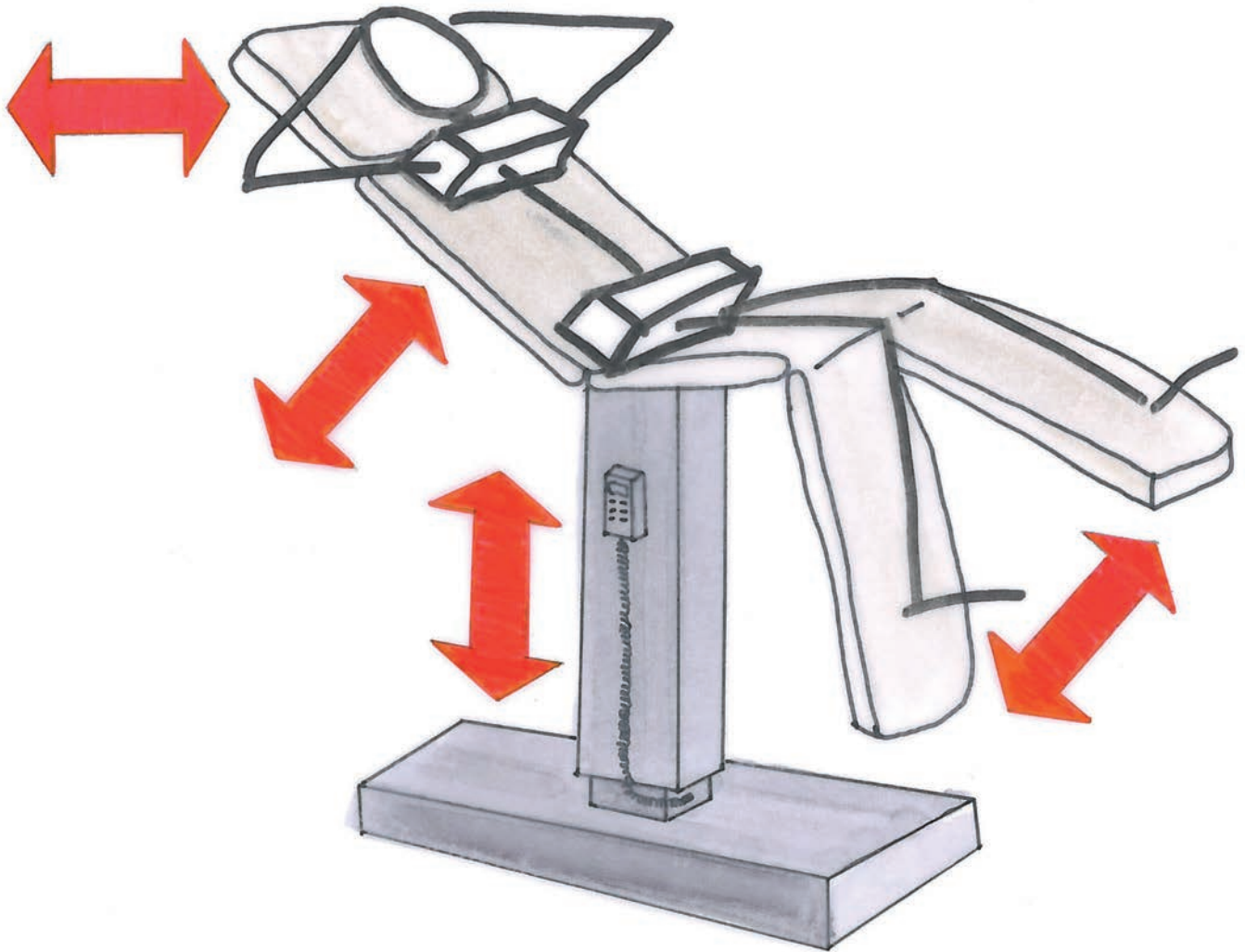
Lifting column: RK Multilift with internal carriage

Industrial scanner



Lifting column: Alpha Colonne

# Areas of application



## Advantages

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- ✓ Approved acc. to standards for medical technical equipment
- ✓ Quiet operation and smooth mechanics
- ✓ Smooth surfaces - easy to clean
- ✓ Resistant to disinfectants

## Wellness couch



Lifting column: RK Powerlift

## Silent helper

In the field of diagnostics, therapy and for general set-ups, lifting columns are often an integral part of medical systems. In the fields of human and veterinary medicine, it is essential to be able to adjust and adapt devices to specific situations. Height adjustable examination couches, adjustable optics in eye exams and the precise adjustment of x-ray devices are just some examples of the huge range of application options.

Many of our lifting columns are approved for medical applications in compliance with EN60601. The sleek design, reliability, stability and long service life all combine to provide maximum cost-effectiveness and create a feeling of safety. The areas of application for RK lifting columns are almost as exciting and diverse as the world of medicine itself.

Tell us what you want to achieve.

## Incubators



Lifting column: RK Powerlift

# Areas of application

The “floating” carbon-fibre table tops allow for outstanding stability and durability coupled with optimum translucency. **Advantage:** X-rays with less impact on patient and tubes.

The attractive design not only offers personalised table height and adjustability, but is also specially designed for universal use with a swivel arm system e.g. the **PROTEC PEDS 600** for digital or classic X-rays.

## X-ray couch



## Rehabilitation technology



Lifting column: RK Powerlift

The **eXcio Pelvic Trainer** is the world's first ergonomically adaptive trainer that measures pelvic floor function and exercises it in a simple and comfortable way.

## Mammography



Lifting column: RK Powerlift

The Akrus patient chair for the transport and accommodation of patients for mammography examination and stereotactic interventions is based on a RK Powerlift M

## Chair application



Akrus GmbH & Co. KG

Lifting column: RK Powerlift

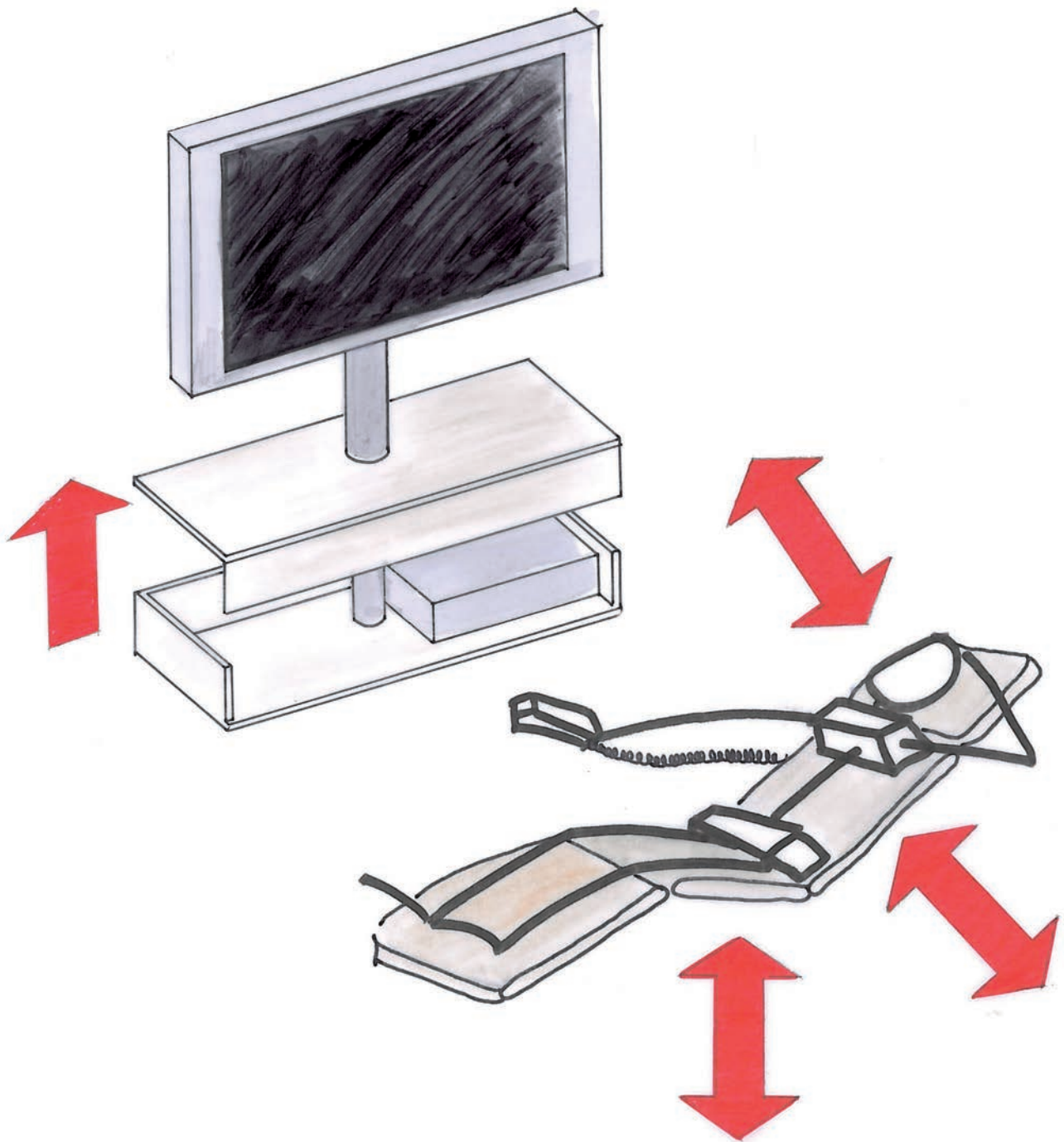
## Instrument table



Photo: Carl Zeiss

Lifting column: RK Powerlift

# Areas of application



## Advantages

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- ✓ Precise and safe
- ✓ Easy-to-assemble
- ✓ Simple and intuitive operation
- ✓ Visually attractive integration

## Media screen



PeTa Bearbeitungstechnik GmbH

Lifting column: RK Multilift

## Luxury that's worthwhile

The expensive media technology is cleverly concealed and only activated as and when required. This protects projectors, plasma screens and hi-fi systems against dust and keeps the high-quality equipment securely hidden from view. The sleek appearance of the stylish furnishings is not impaired by obtrusive entertainment technology.

Seminar rooms are transformed into interactive training centres. Private rooms are transformed into luxurious oases teeming with individuality. One could almost say, the sky's the limit – all you require is the support of an experienced and reliable partner from the drive technology sector. Our experience is our key asset – tell us all about your requirements and we will find a solution.

## TV height adjustment



Lifting column: RK Powerlift

# Areas of application

The design and function are to the fore.  
The technology is hidden in the background.

## Presentation technology



Lifting column: RK Multilift

The height-adjustable mobile video wall lift system is so versatile it leaves almost nothing to be desired.

## TV height adjustment



Lifting column: RK Multilift

## Projector adjustment

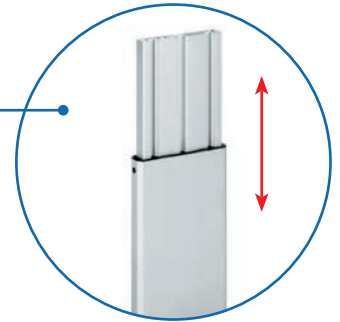


Lifting column: RK Slimlift

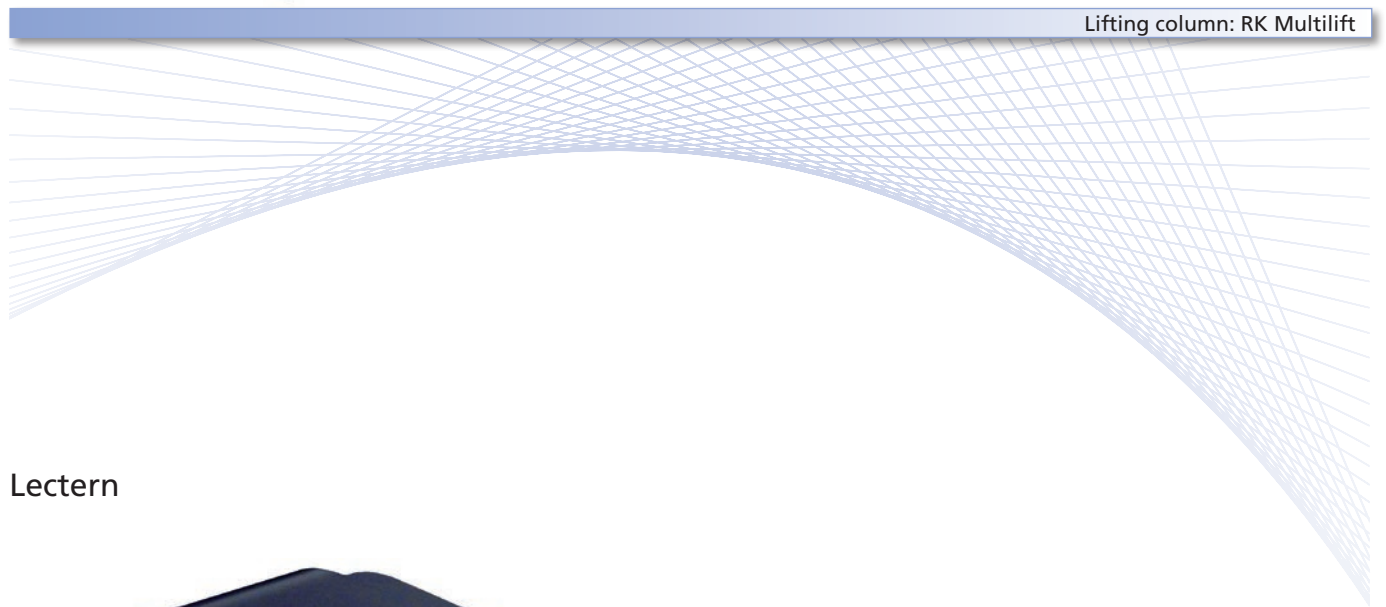
Modern entertainment requires peripherals that enhance the overall experience.



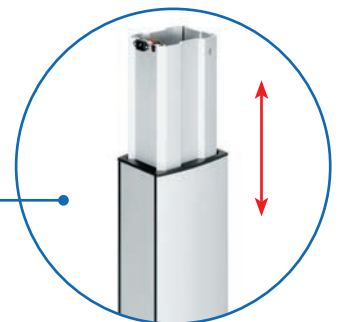
## Information board



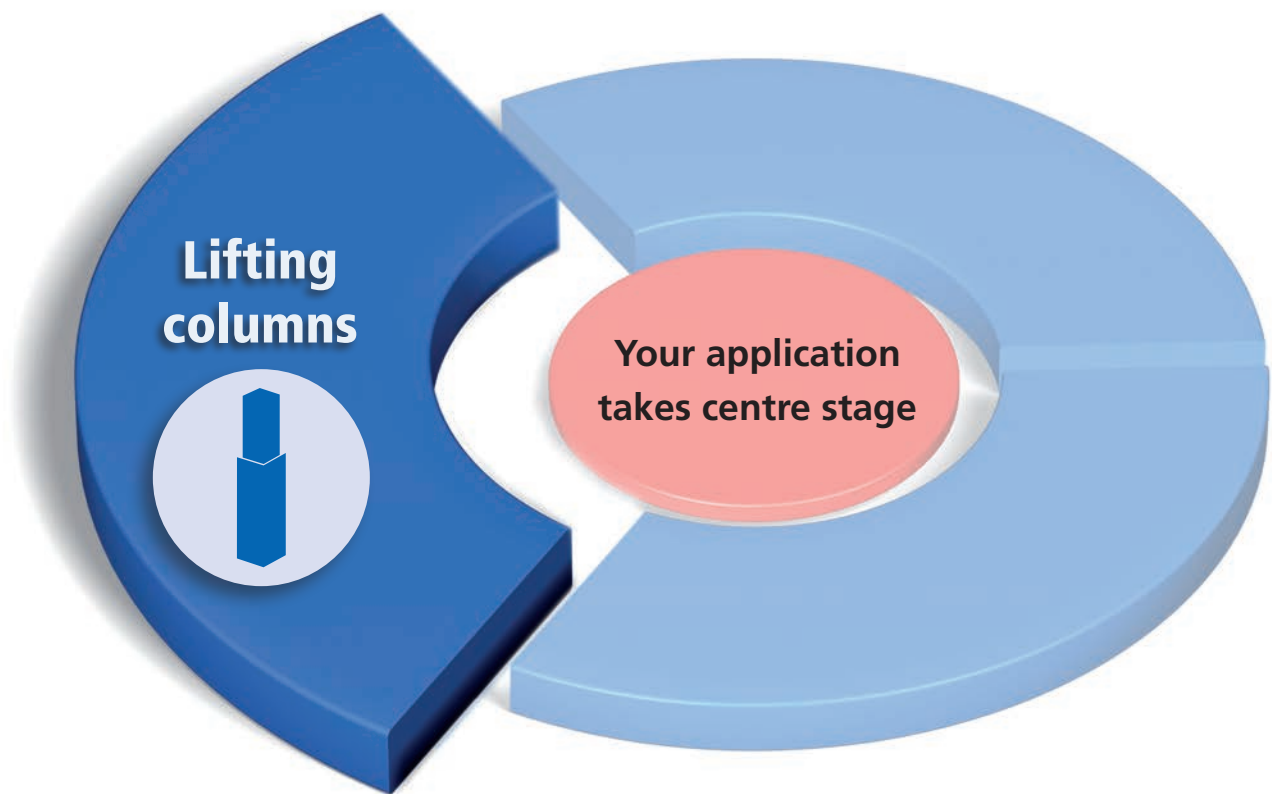
Lifting column: RK Multilift



## Lectern



Lifting column: RK Powerlift



## **Lifting columns**

are the ideal drive elements when stable guidance is required in addition to motorised adjustment. Electrotechnical knowledge is not generally necessary for putting them into operation. Combinations forming multiple synchronisations open up an impressive range of applications.



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***Lifting columns***

# Lifting columns - Product selection

## Finding the right lifting column



Depending on technical and optical requirements, it takes just 2 steps to find the lifting column that matches your needs.  
Step 1 - Determine the type of lifting column.  
Step 2 - Choose the appropriate version.

### Step 1



Select the lifting column on the right that meets your requirements.

### Step 2

For step 2, please refer to the relevant catalogue page.

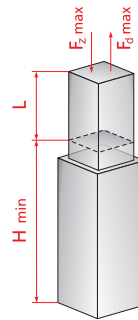




# Lifting columns - Product selection

**RK ROSE+KRIEGER**

## Rodstyle | Drive + Guide



L = Travel  
 H = Installation dimension  
 $F_d$  = Push force  
 $F_z$  = Pull force  
 V = Travel speed

### Two-stage lifting columns (up to 500 mm travel)



### Multi-stage lifting columns (more than 500 mm travel)



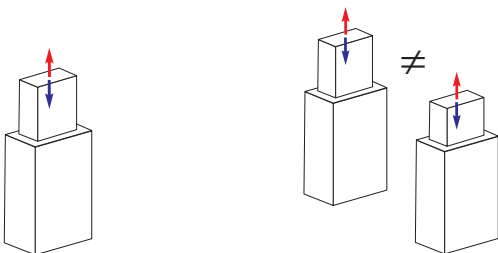
The data refer to the standard size

Features	RK Multilift from page 30	RK Slimlift from page 46	RK Powerlift / RK Powerlift M from page 58	RK Powerlift telescope from page 84	Alpha Colonne from page 96	LAMBDA Colonne from page 104
Max. travel	498 mm	500 mm	500 mm	650 mm	700 mm	600 mm
Max. push force	3,000 N	4,000 N	3,000 N	1,600 N	3,000 N	4,500 N
Max. pull force	1,000 N	2,000 N	3,000 N	800 N	3,000 N	4,500 N
Max. travel speed	8/16 mm/s	8-32 mm/s	10-50 mm/s	15-30 mm/s	8-18 mm/s	8-20 mm/s
Protection rating	IP 20	IP 30	IP 30	IP 30	IP 30	IP 54   IP 40
Integrated limit switch	•	•	•	•	•	•
Can be synchronised by means of control system	•	•	•	•	•	•
Integr. control			•	•	•	
Manual version optional	•	•	•			
Features	✓ Quadruple bearings with POM slide bearing shells	✓ Rod-shaped design, extremely quiet operation	✓ Enables high bending moments	✓ Optimum stroke/ installation height ratio	✓ Suitable for push and pull forces	✓ Wide range of connection methods

## Preferred field of application:

### Single columns

(can be moved individually or simultaneously)

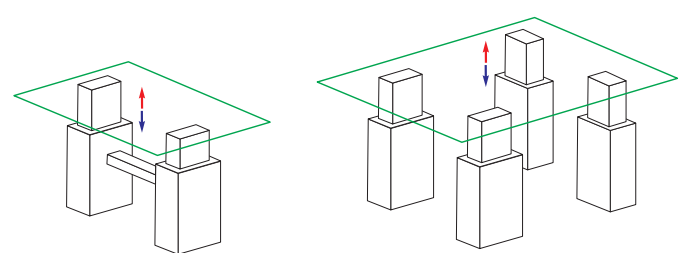


Single operation/  
Mono operation

Parallel operation

### Synchronised columns (2- 32 units)

(can be moved synchronously)



Synchronised operation

Multiple column system

# Two-stage lifting column - Multilift



Slimline design and an unbeatable price/performance ratio



with interior carriage

Version A,  
without milled slot

Version B,  
with milled slot in the  
external profile

**Longitudinal slots**  
✓ Simple connection

**Milled slot in the external profile (version B)**  
✓ This enables the bracing of two parallel Multilifts

**High-performance DC motor**  
✓ Single or synchronous control supported

## Features:

- Quadruple bearings with POM slide bearing shells
- High-performance DC motor
- Integrated limit switches
- Self-locking, even under max. load

## Options:

- Version with manual drive via crank handle
- Special stroke lengths
- Quadro control enables control of up to 32 columns synchron
- Tested to EN 60601-1 (3E)



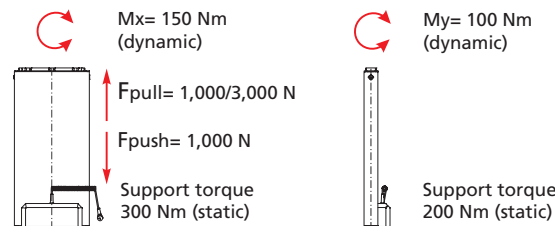
# Multilift – Technical data

## General information/operating conditions

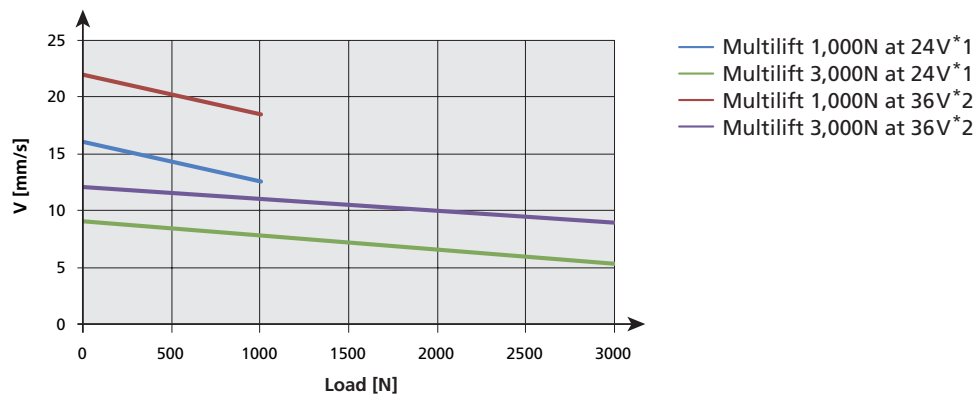
Type	Multilift	Multilift S
Design	Slim lifting column	
Guide	Quadruple bearings with POM slide bearing shells	
Installation position	Any position / suspended with drop protection provided by the customer	
Push force*	3,000 N	1,000 N
Pull force*	1,000 N (only in conjunction with factory-mounted base plate)	
Max. speed	8 mm/s	16 mm/s
Voltage	24 V DC	
Power input	120 W	
Protection class	IP 20 / IP10 for version B (with milled slot)	
Self-locking	3,000 N	1,000 N
Ambient temperature	+5°C to +40°C	
Displacement during synchronous operation	0-2 mm	0-4 mm
Duty cycle	At nominal load, 10% (max. 2 mins operating time, 18 mins rest time)	

\* In medical applications, the maximum pull force of 500 N and, in the case of the version with a travel speed of 8 mm/s, the maximum push force of 2,000 N must not be exceeded.

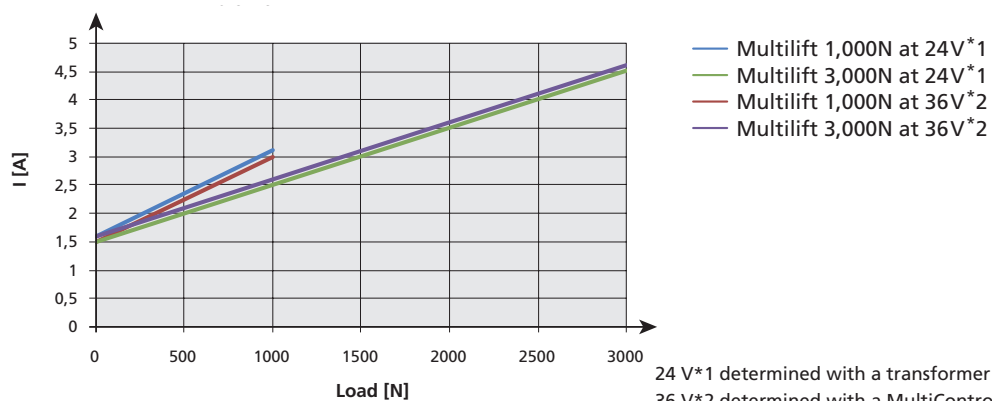
## Load data



## Speed/Force diagram

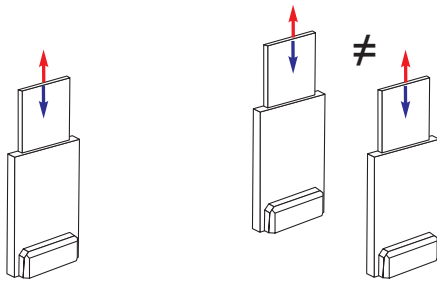


## Current output/Force diagram





## Multilift Mono

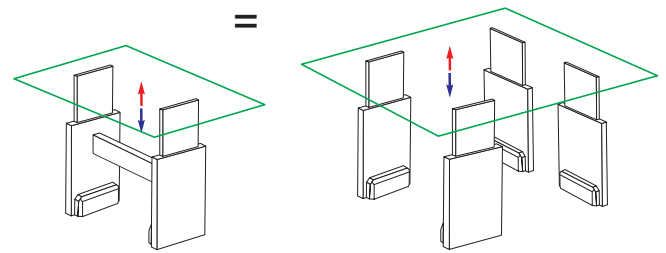


1-2 Multilifts in single or parallel operation

### Parallel operation

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

## Multilift Synchro



2-4 Multilifts in synchronous operation

### Synchronous operation

Synchronous operation of two or more columns. In conjunction with the integrated sensors, the control (see page 44) 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 depends on the lifting speed and is max 2 mm on the 8 mm/s version and max 4 mm on the 16 mm/s version. A memory function is also available.



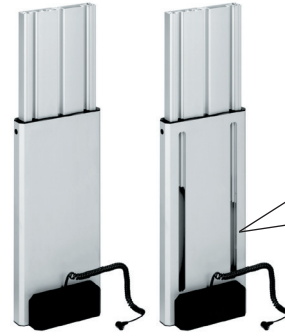
Universal Table Ironing Machine

### Height-adjustable assembly workplaces

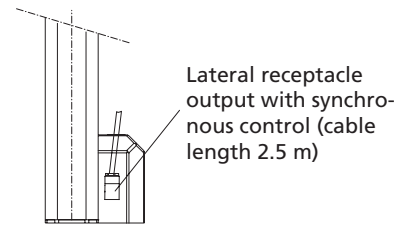
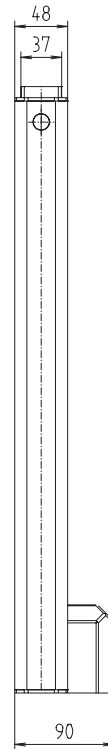
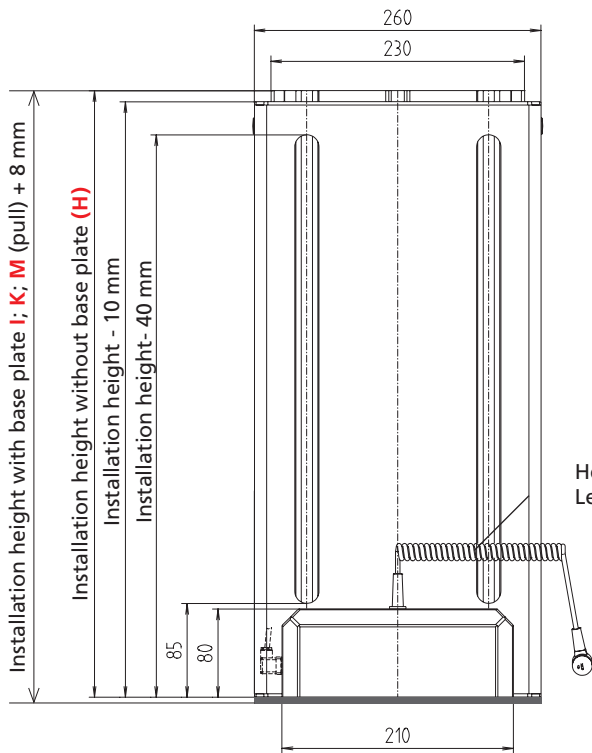


# Multilift - Versions

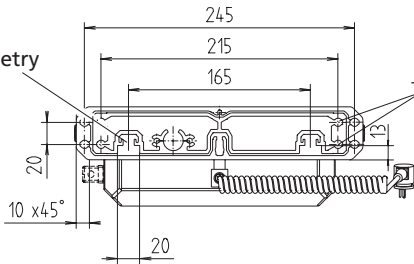
Version A  
without milled  
slot in the exter-  
nal profile



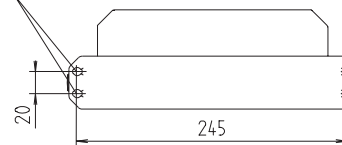
Version B  
with milled slot in  
the external profile



BLOCAN®-  
40 slot geometry

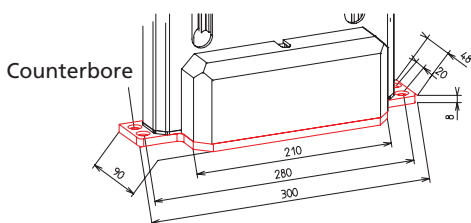


M8 / 40 deep

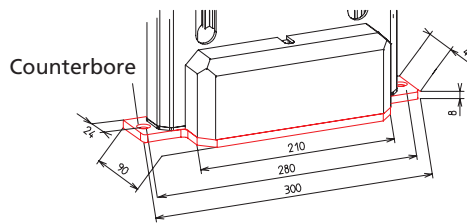


View "A"

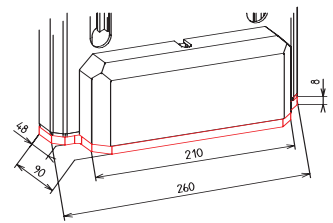
Base plate (I) with  
fixing plates  
(4 counterbores)



Base plate (K) with  
fixing plates  
(2 counterbores)



Base plate (M)  
flush



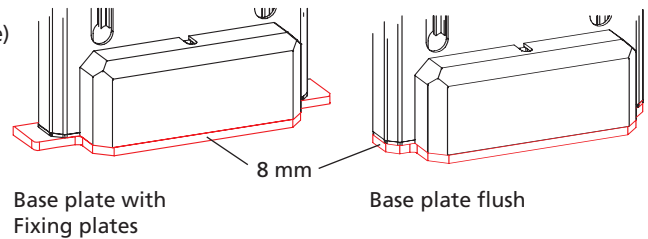
Multilift Mono



Code No.	Type	max. push force [N]	max. pull force [N]	Total travel [mm]	Installation height without base plate [mm]	Weight [kg]
QAB13_G0_0355	Multilift 350	3,000 / 2,000 (med.)	1,000 / 500 (med.)	355	550	9.1
QAB13_G0_0400	Multilift 400			400	595	10.0
QAB13_G0_0450	Multilift 450			452	650	10.8
QAB13_G0_0500	Multilift 500			498	695	11.5
QAB26_G0_0355	Multilift 350 s	1,000 / 1,000 (med.)	1,000 / 500 (med.)	355	550	9.1
QAB26_G0_0400	Multilift 400 s			400	595	10.0
QAB26_G0_0450	Multilift 450 s			452	650	10.8
QAB26_G0_0500	Multilift 500 s			498	695	11.5

**Version:**  
 1 = B (with milled slot in the external profile)  
 2 = A (without milled slot in the external profile)

**Base plate (For dimensions, see page 34):**  
**H** = without base plate (not suitable for pull forces)  
**I** = with external fixing plates 4 counterbores  
**K** = with external fixing plates 2 counterbores  
**M** = base plate flush



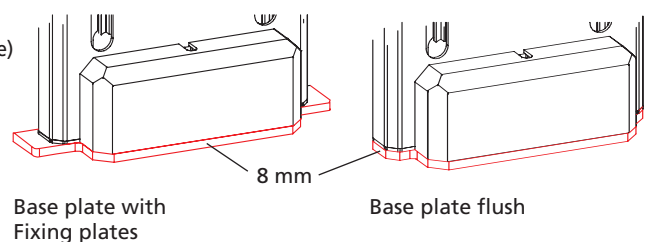
Multilift Synchro



Code No.	Type	max. push force [N]	max. pull force [N]	Total travel [mm]	Installation height incl. base plate [mm]	Weight [kg]
QAB13_G0_0355	Multilift 350	3,000 / 2,000 (med.)	1,000 / 500 (med.)	355	558	10.1
QAB13_G0_0400	Multilift 400			400	603	11.0
QAB13_G0_0450	Multilift 450			452	658	11.8
QAB13_G0_0500	Multilift 500			498	703	12.5
QAB26_G0_0355	Multilift 350 s	1,000 / 1,000 (med.)	1,000 / 500 (med.)	355	558	10.1
QAB26_G0_0400	Multilift 400 s			400	603	11.0
QAB26_G0_0450	Multilift 450 s			452	658	11.8
QAB26_G0_0500	Multilift 500 s			498	703	12.5

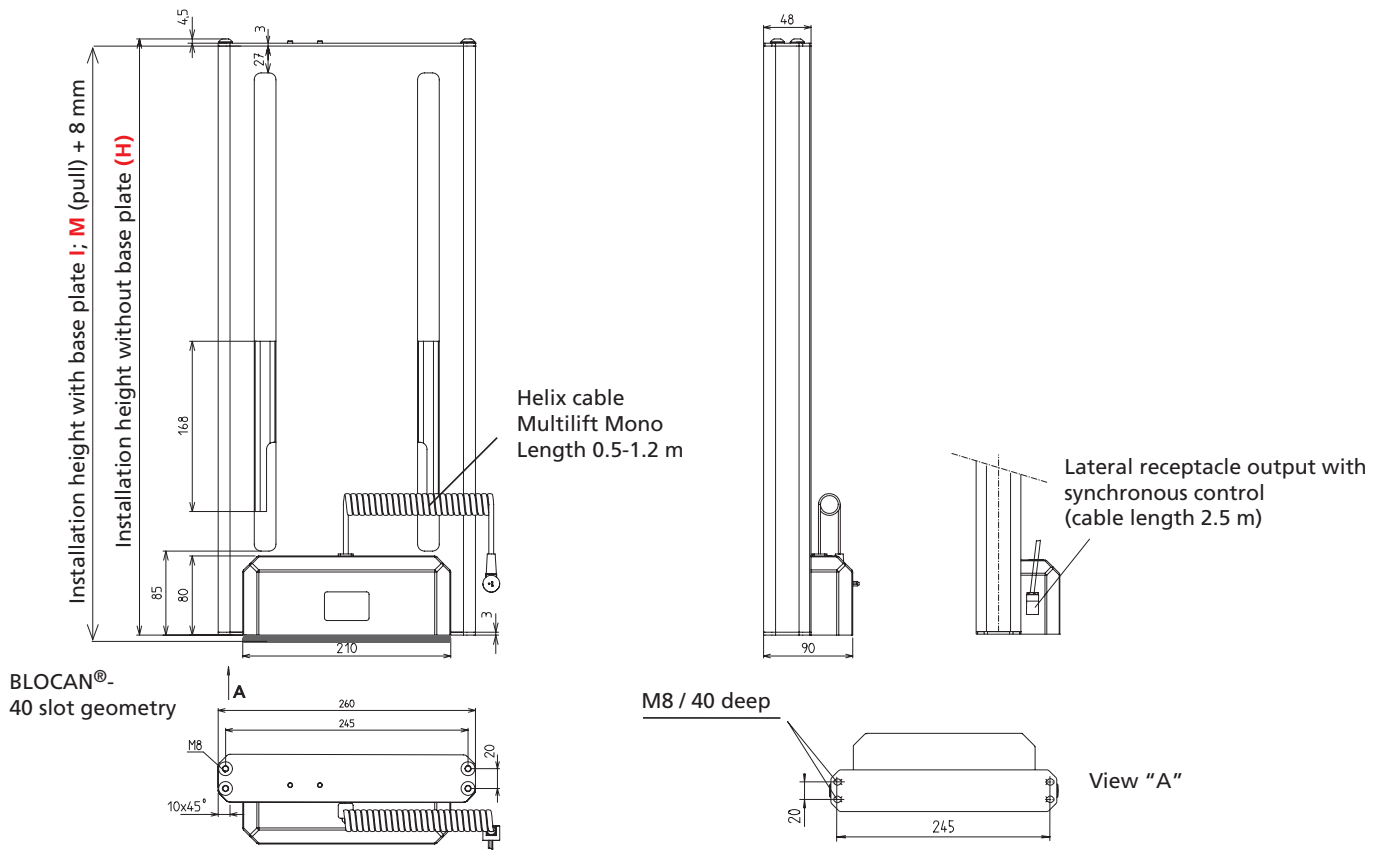
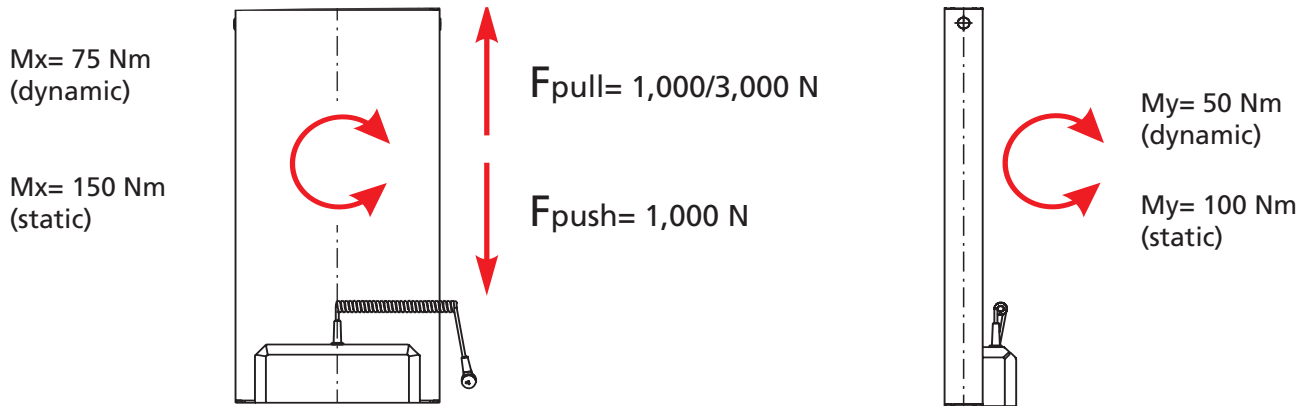
**Version:**  
 3 = B (with milled slot in the external profile)  
 4 = A (without milled slot in the external profile)

**Base plate (For dimensions, see page 34):**  
**I** = with external fixing plates 4 counterbores  
**K** = with external fixing plates 2 counterbores  
**M** = base plate flush

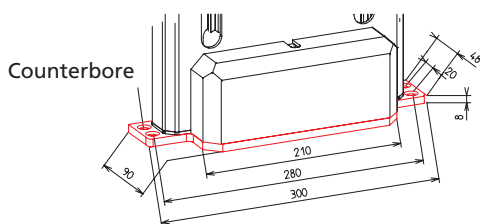


# Multilift – Technical data - internal carriage

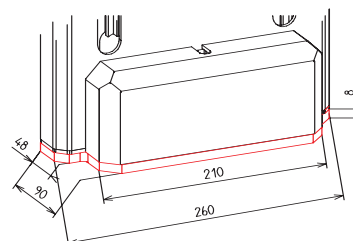
## Load data with internal carriage



Base plate **(I)** with fixing plates (4 counterbores)



Base plate **(M)** flush

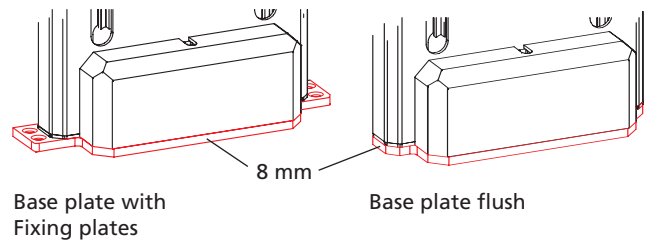


Multilift Mono



Code No.	Type	max. push force [N]	max. pull force [N]	max. lifting speed [mm/s]	Total travel [mm]	Installation height without base plate [mm]	Weight [kg]
QAB13_G070355	Multilift 350	3,000 / 2,000 (med.)	1,000 / 500 (med.)	8	355	557.5	6.4
QAB13_G070400	Multilift 400				400	602.5	6.7
QAB13_G070450	Multilift 450				452	657.5	7.1
QAB13_G070500	Multilift 500				498	702.5	7.4
QAB26_G070355	Multilift 350 s	1,000 / 1,000 (med.)	1,000 / 500 (med.)	16	355	557.5	6.4
QAB26_G070400	Multilift 400 s				400	602.5	6.7
QAB26_G070450	Multilift 450 s				452	657.5	7.1
QAB26_G070500	Multilift 500 s				498	702.5	7.4

**Base plate (For dimensions, see page 36):**  
**H** = without base plate (not suitable for pull forces)  
**I** = with external fixing plates 4 counterbores  
**M** = base plate flush

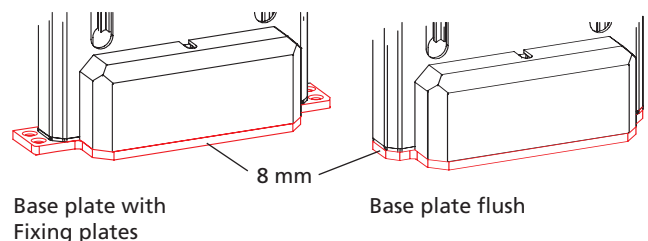


Multilift Synchro



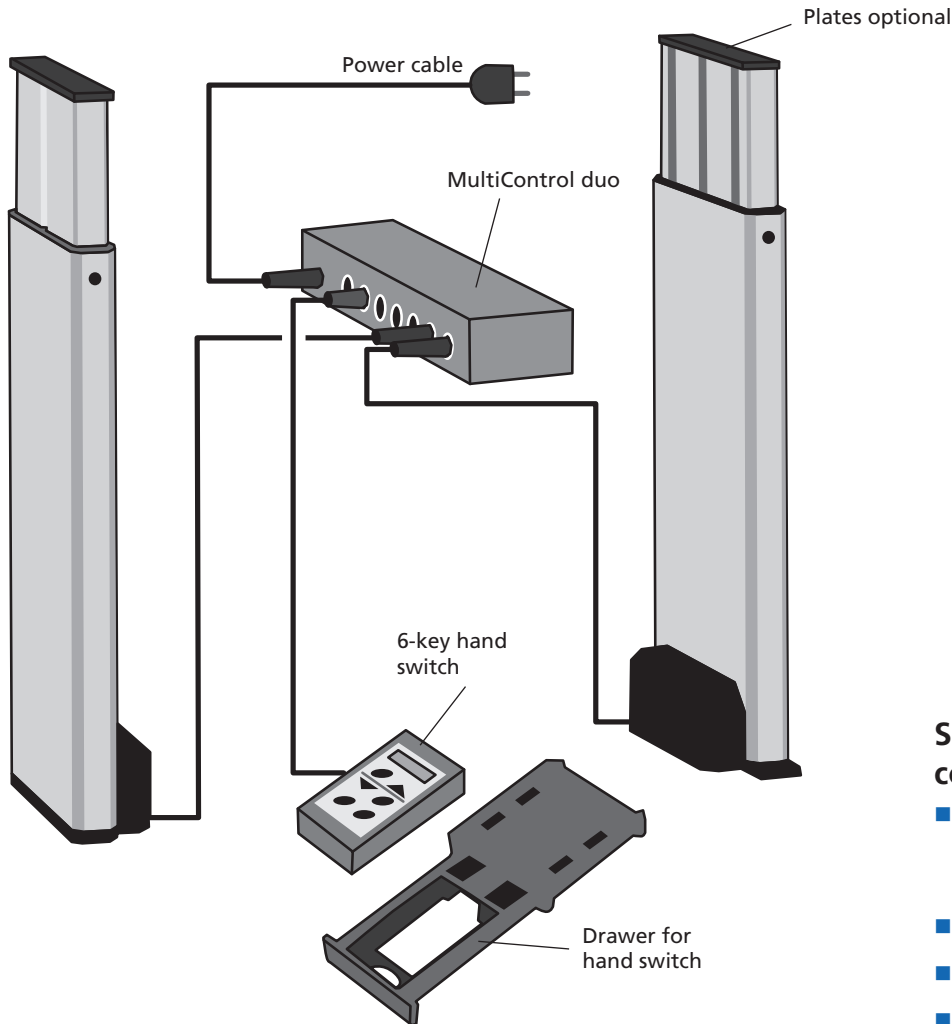
Code No.	Type	max. push force [N]	max. pull force [N]	max. lifting speed [mm/s]	Total travel [mm]	Installation height incl. base plate [mm]	Weight [kg]
QAB13_G080355	Multilift 350	3,000 / 2,000 (med.)	1,000 / 500 (med.)	8	355	565.5	6.4
QAB13_G080400	Multilift 400				400	610.5	6.7
QAB13_G080450	Multilift 450				452	665.5	7.1
QAB13_G080500	Multilift 500				498	710.5	7.4
QAB26_G080355	Multilift 350 s	1,000 / 1,000 (med.)	1,000 / 500 (med.)	16	355	565.5	6.4
QAB26_G080400	Multilift 400 s				400	610.5	6.7
QAB26_G080450	Multilift 450 s				452	665.5	7.1
QAB26_G080500	Multilift 500 s				498	710.5	7.4

**Base plate (For dimensions, see page 36):**  
**I** = with external fixing plates 4 counterbores  
**M** = base plate flush



# Multilift – Synchronous package

Buying made simple – the complete plug and play system



## Synchronous package comprises of:

- Two Multilifts (without milled slot – version A/ with milled slot – version B)
- MultiControl duo
- 6-key hand switch (memory)
- Drawer for hand switch
- Plug & play (factory-initialised)

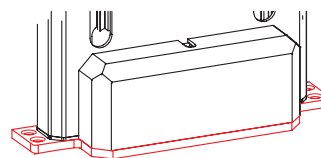
## Multiliftsystem Synchro

[mm]

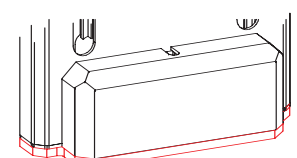
Code No.	Type	max. push force [N]	max. pull force [N]	max. lifting speed [mm/s]	Total travel	Installation height incl. base plate
QBB13_G0_0355	Multiliftsystem Synchro	3,000	1,000	8	355	558
QBB13_G0_0400	Multiliftsystem Synchro				400	603

**Version:**  
 3 = B (with milled slot in the external profile)  
 4 = A (without milled slot in the external profile)

**Base plate:**  
**I** = with external fixing plates  
 4 counterbores  
**M** = base plate flush



Base plate with fixing plates



Base plate flush

**Adaptor bar**

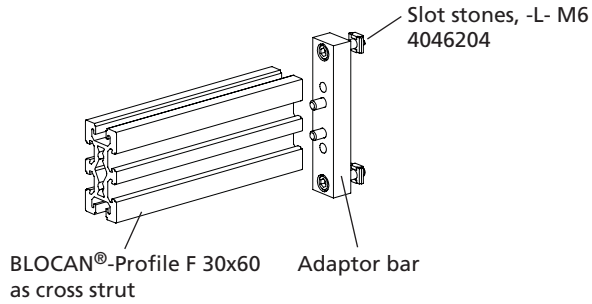
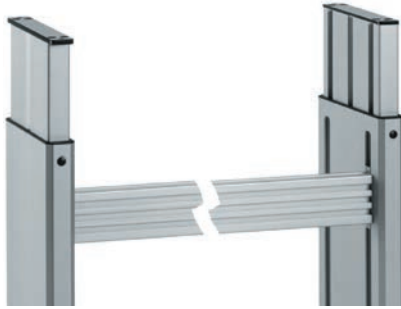
- Cross struts from the BLOCAN® Profile Assembly System are used to increase the stability of two version B Multilifts (see page 34). The adaptor bar is suitable for F profile 40 x 80 L and F 30x60.

**Material:** AlMgSi 0.5

Fixing set, galvanised

**Scope of delivery:**

2x adaptor bars, fixing set



Code No.	Version
QZD020020	Adaptor bar for BLOCAN® profiles
4285000	Profile* F-40 x 80-L, can be cut to specification



Length (clear width between the Multilifts -2 mm)

\* For dimensions of the profiles, please refer to the catalogue BLOCAN PROFILE TECHNOLOGY

# Multilift – Fixing

## Multilift assembly plates / compression plate

The “top” and “bottom” assembly plates facilitate the installation of the Multilift in the customer application (no pull force).

The compression plate (or bottom assembly plate) is required if the floor cannot absorb the push forces (no pull force).

**Material:** Die-cast, black powder-coated galvanised fixing set

**Scope of delivery:** 1x assembly or thrust compression plate fixing set

**Note:**

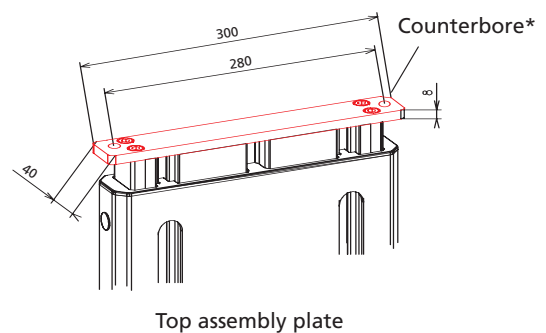
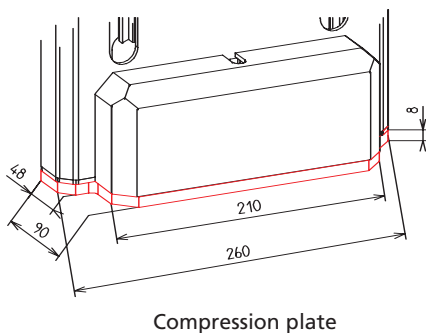
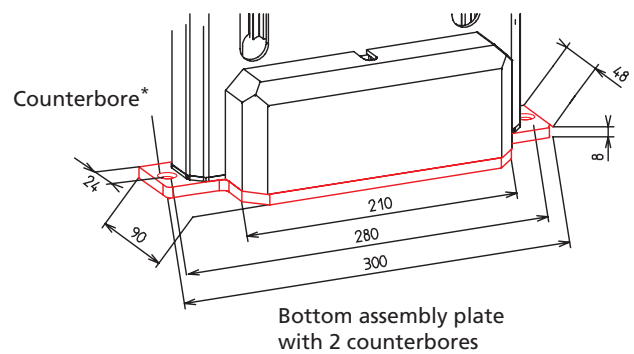
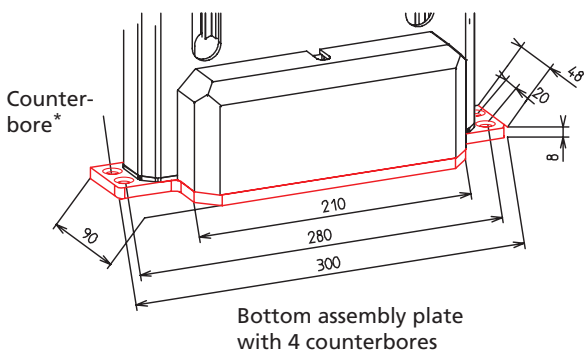
The “bottom” assembly plates listed here and the thrust compression plate are only suitable for push loads.

For applications involving pull force and in synchronised groups, a base plate – factory-mounted on the Multilift – must be used. These versions are defined by the Code No. (Page 35/37)

The supporting surfaces for fixing the internal and external profile must be flat. Since the drive motor is supported by the plastic housing, the entire surface of the Multilift must rest on a stable substructure. This can be achieved by using the “top” and “bottom” assembly plates, which are specially designed for this purpose, or by full-surface fixing to a solid floor.

The M8 fixing screws are bolted into the screw channels. A minimum depth bolted of 20 mm in the internal and external profile must be ensured.

In the case of repeated installation, a minimum depth of approx. 40 mm is recommended!



\* DIN 74 - F8

Code No.	Version
QZD020023	Bottom assembly plate with 4 counterbores
QZD020024	Bottom assembly plate with 2 counterbores
QZD020025	Compression plate
QZD020549	Top assembly plate

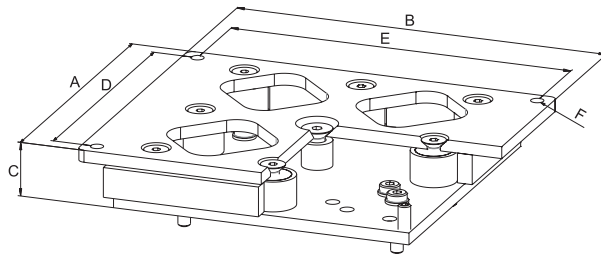


## RK SyncFlex H

**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.



Code No.	Type	A	B	C	D	E	F	[mm]
QZD020471	MultiLift	70	280	36	40	260	M 10	

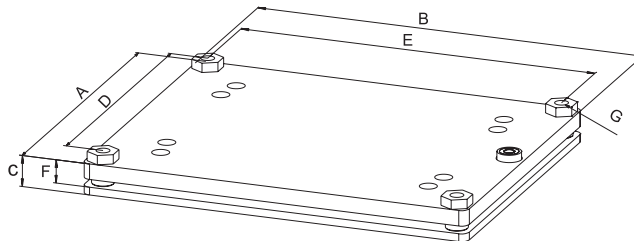
## RK SyncFlex V

**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 lifting columns are subject to very strong forces.
  - The lifting columns can be aligned via the vertical adjustment around the X-Y axes.
- RK SyncFlex V enables the compensation of unevenness in the mounting environment.



Code No.	Type	A	B	C	D	E	F	G	[mm]
<b>Without pressure plate</b>									
QZD020472	MultiLift	110	300	-	90	280	10-15	M 10	
<b>With pressure plate</b>									
QZD020462	MultiLift	110	300	15-20	90	280	10-15	M 10	

# Multilift – Fixing

## Foot

- Different foot versions for the Multilift
- No modifications to the Multilift required
- Max. load 1,000 N

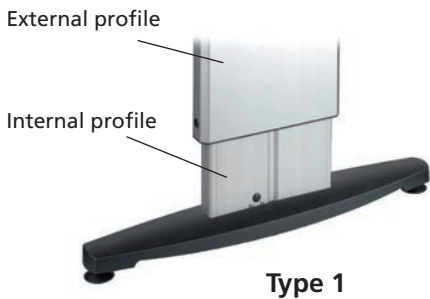
### Material:

Type 1/2/5 GK-AISI12/3.2583.02, black powder-coating

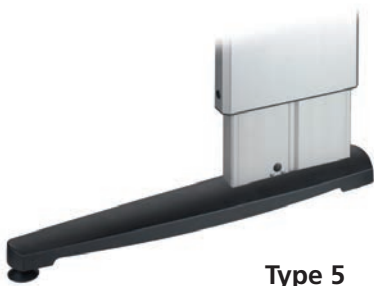
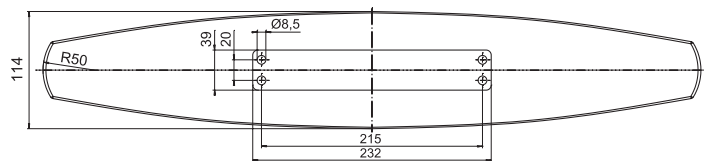
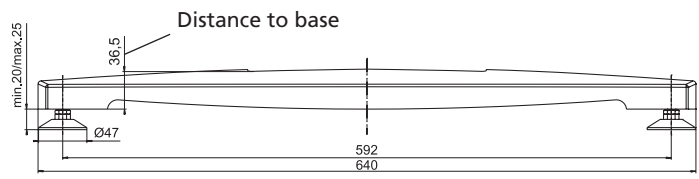
Type 3/4 steel tube, ends capped black powder-coating

### Scope of delivery:

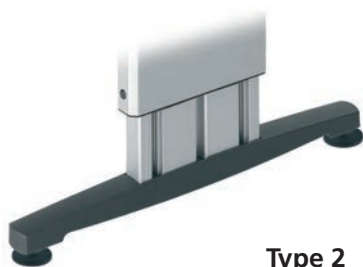
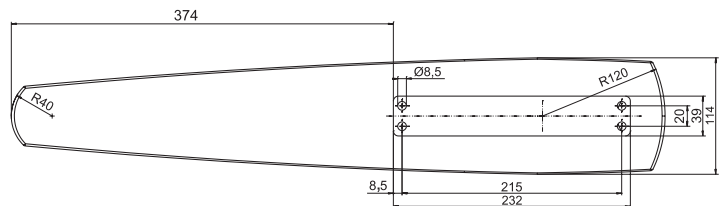
one foot with fixing set



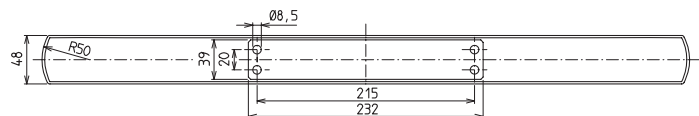
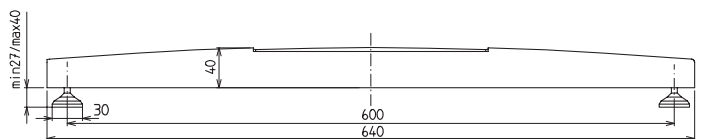
Type 1

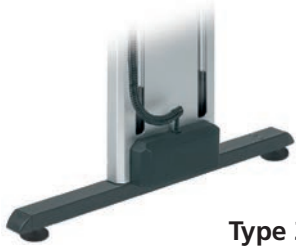


Type 5



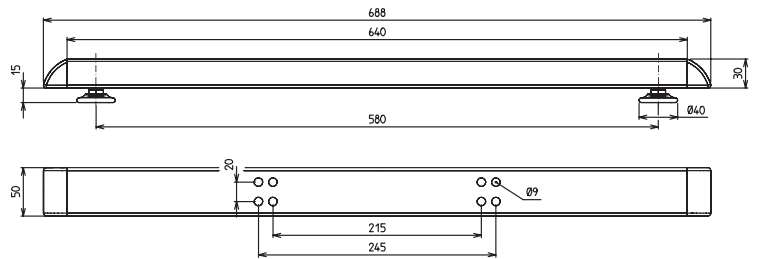
Type 2





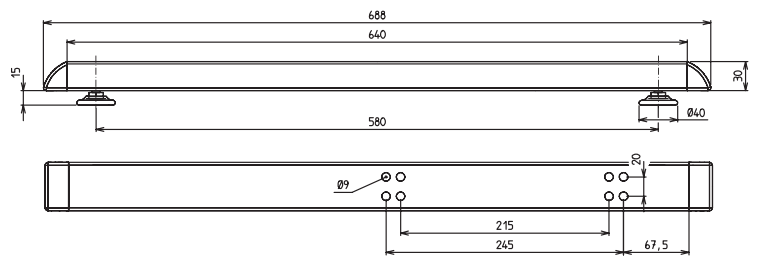
**Type 3**

Multilift centrally mounted  
(choice of internal or external  
profile)



**Type 4**

Multilift mounted off-centre  
(choice of internal or external  
profile)



Code No.	Type
QZD020252	1
QZD020253	2
QZD020254	3
QZD020255	4
QZD020343	5

# Multilift – Drive / Accessories

## Controls

- Input voltage 230 V AC
- Output voltage 24/36 V DC
- For battery operated controls

### Order information:

Observe the current output of the drives when selecting the control.

Transformer control 120 VA



approx. 24 V DC

MultiControl



approx. 36 V DC

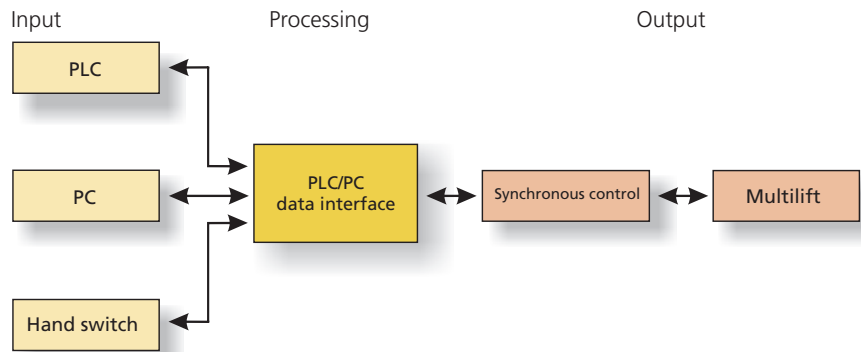
For dimensions and other technical data, please refer to the chapter „Motors and controls“

Code No.	Version	
<b>Controls for Multilift mono</b>		
QZA07C13AX021	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 output, 24 V DC	Controls up to 2 drives
<b>Controls for Multilift synchro</b>		
QST10C02AA000	MultiControl duo connection C, up to max. 12 A current output, 36 V DC	Controls up to 2 drives synchronous
QST10C04AA000	MultiControl quadro connection C, up to max. 12 A current output, 36 V DC	Controls up to 4 drives synchronous
<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)

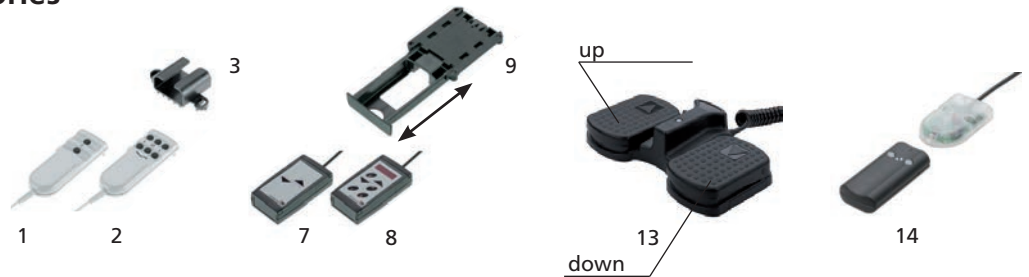
### PLC/PCdata interface

- 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 182



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

### Hand switches/accessories



Code No.	Version	Fig.
<b>Hand switch for transformer control</b>		
QZB02C03AD031	Hand switch with 1 m spiral cable – 6 function keys	2
<b>Hand switches 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	Wireless 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 146

# Two-stage lifting column - *RKSlimlift* / *EM*

## Rod-shaped design and extremely quiet operation



### Features:

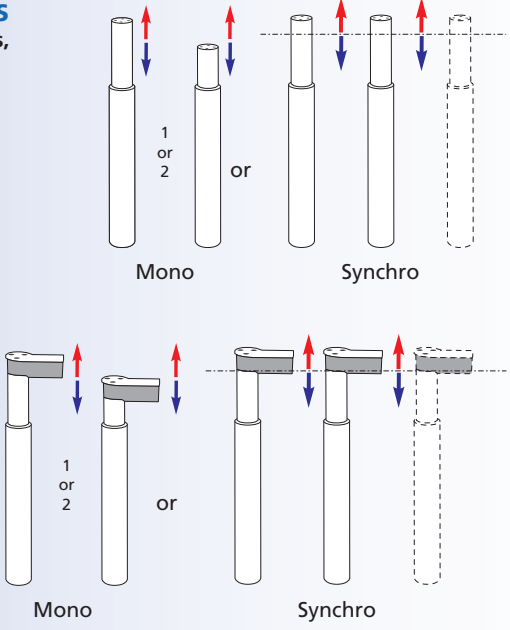
#### General

- Excellent installation height/stroke length ratio
- Self-locking, even at max. load
- Fixing slots in external profile

### Options:

- Version with manual drive via crank handle
- Further stroke lengths available on request
- Quadro control enables control of up to 32 columns synchron

**Table of contents - *RKSlimlift***

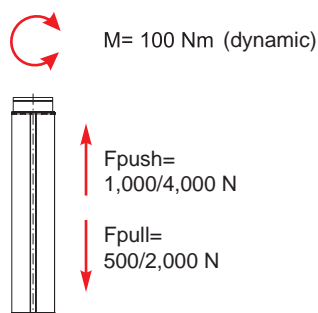
<p><b>Properties/Technical data</b></p>	<ul style="list-style-type: none"> <li>■ General information/operating conditions..... Page 48</li> </ul>
<p><b>Versions</b> (dimensions, order no.)</p>  <p>Mono                      Synchro</p> <p>Mono                      Synchro</p>	<ul style="list-style-type: none"> <li>■ <i>RKSlimlift</i>..... Page 50</li> <li>■ <i>RKSlimlift EM</i> ..... Page 51</li> </ul>
<p><b>Accessories</b></p> <p><b>Fixing</b></p> <p><b>Position determination</b></p>	<ul style="list-style-type: none"> <li>■ Levelling foot for RKSlimlift EM ..... Page 52</li> <li>■ Foot..... Page 52</li> <li>■ Square nut ..... Page 53</li> <li>■ Profile adaptor ..... Page 53</li> <li>■ Controls ..... Page 56</li> <li>■ PLC/PC data interface..... Page 57</li> <li>■ Hand switches ..... Page 57</li> </ul>

## General information / operating conditions

Design	Rod-shaped lifting column, optionally available with external drive motor ( <i>RK Slimlift EM</i> )
Guide	Preset sliding elements made of plastic
Installation position	Any position/suspended with drop protection provided by the customer
Push force	Choice of 1,000 N/4,000 N
Pull force	Choice of 500 N/1,000 N/2,000 N
Voltage	36 V DC
Power input	144 W = Slimlift / 108 W = Slimlift EM
Protection class	IP 30
Self-locking	Yes
Ambient temperature	+5°C to +40°C
Max. displacement with synchronous operation	0-3 mm / 0-1.5 mm
Duty cycle	At nominal load, 15% (max. 1.5 mins operating time, 8.5 mins rest time)

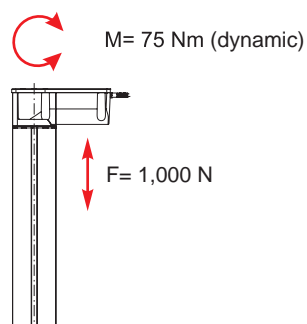
## Load data

RK Slimlift



Support torque  
200 Nm (static)

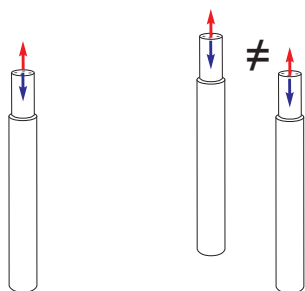
RK Slimlift EM



Support torque  
150 Nm (static)



## Slimlift Mono

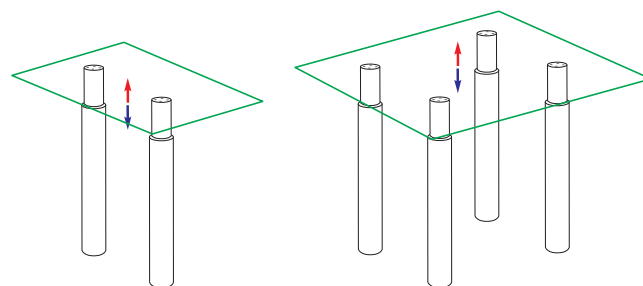


1-2 Slimlifts in single or parallel operation

## Parallel operation

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

## Slimlift Synchro



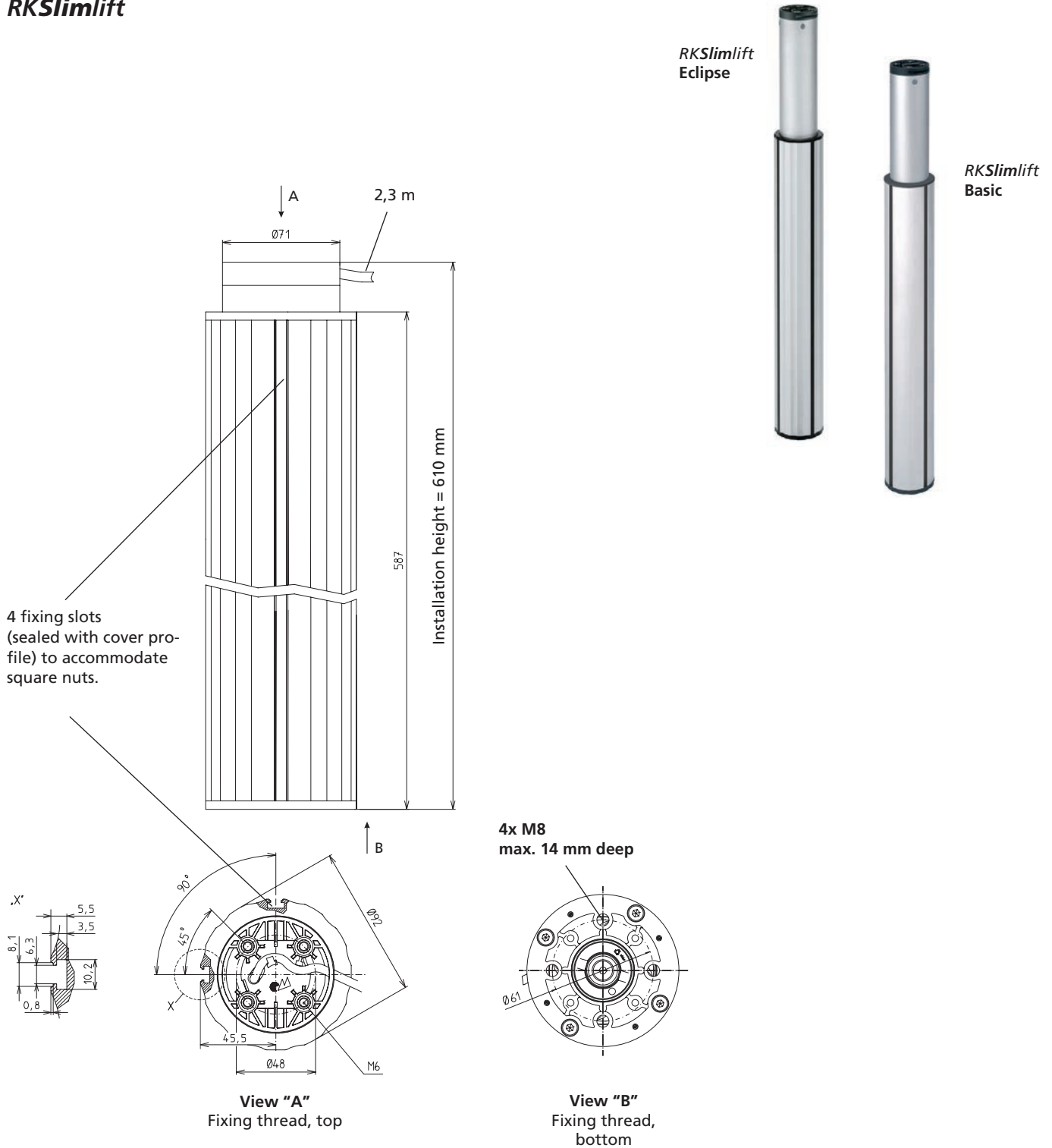
2-4 Slimlifts in synchronous operation

## Synchronous operation

Synchronous operation of two or more columns. In conjunction with the integrated sensors, the control (see page 146) 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 depends on the lifting speed and is max. 1.5 mm for the 8 mm/s version and max. 3 mm for the 25/32 mm version. A memory function is also available.

# RKSlimlift – Versions

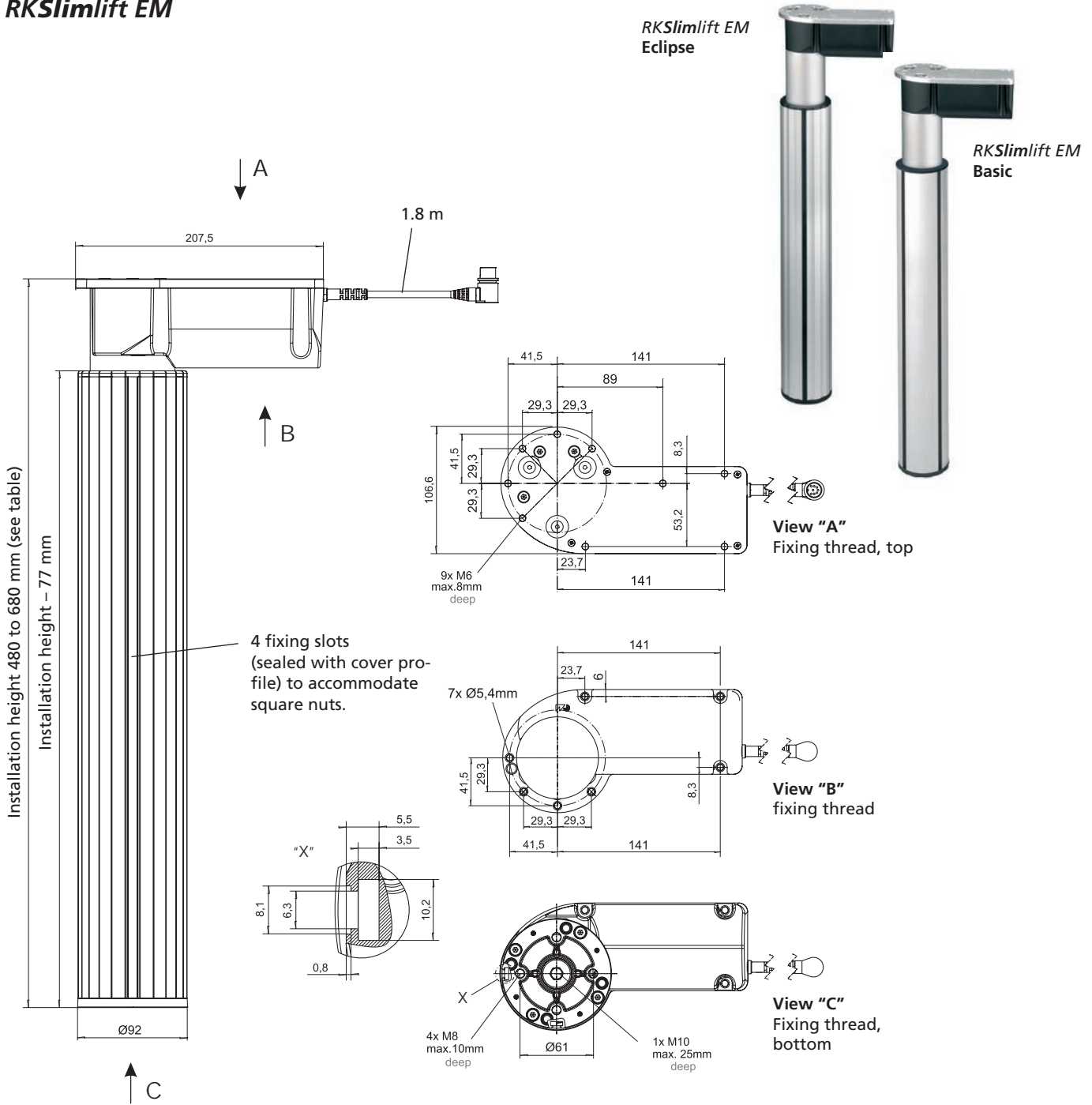
## RKSlimlift



## Mono and synchro

Code No.	Type	Push force [N]	Pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
QSL32BA130460	RKSlimlift Eclipse	1,000	500	32	460	610	6.0
QSL32BA330460	RKSlimlift Basic	1,000	500	32	460	610	6.0
QSL10BD200285	RKSlimlift Basic	4,000	2,000	8	285	610	7.0

**RK Slimlift EM**



**Mono and synchro**

Code No.	Type	Push force [N]	Pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
QSL25BA270300	RK Slimlift EM Basic	1,000	1,000	25	300	480	~4.5
QSL25BA170300	RK Slimlift EM Eclipse	1,000	1,000	25	300	480	~4.5
QSL25BA270400	RK Slimlift EM Basic	1,000	1,000	25	400	580	~5.3
QSL25BA170400	RK Slimlift EM Eclipse	1,000	1,000	25	400	580	~5.3
QSL25BA270430	RK Slimlift EM Basic	1,000	1,000	25	430	610	~5.5
QSL25BA170430	RK Slimlift EM Eclipse	1,000	1,000	25	430	610	~5.5
QSL25BA270500	RK Slimlift EM Basic	1,000	1,000	25	500	680	~6.0
QSL25BA170500	RK Slimlift EM Eclipse	1,000	1,000	25	500	680	~6.0

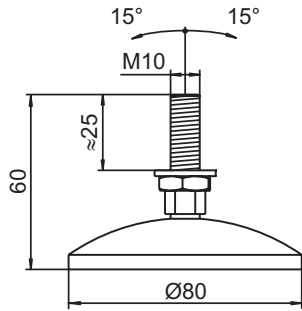
# RK Slimlift – Fixing

## Levelling foot (for Type EM)

■ The foot can be bolted centrally into the base plate of the RK Slimlift EM.

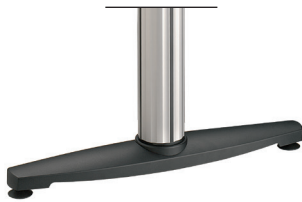
**Material:** steel parts galvanised  
Pivot plate PA, black

■ Max. screw-in depth 25 mm



Code No.	Type
QZD120340	Levelling foot

## Foot

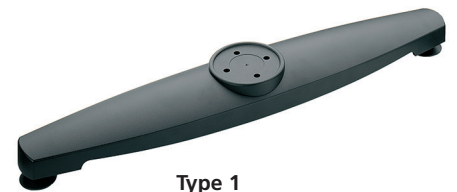
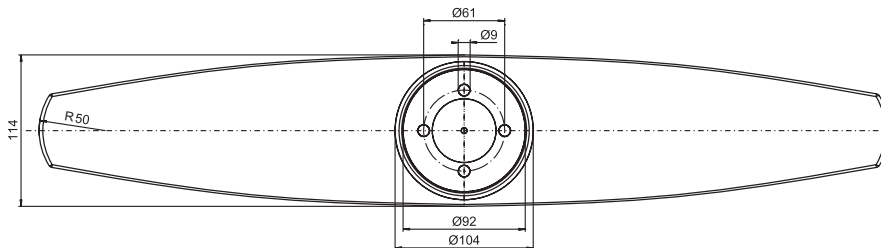
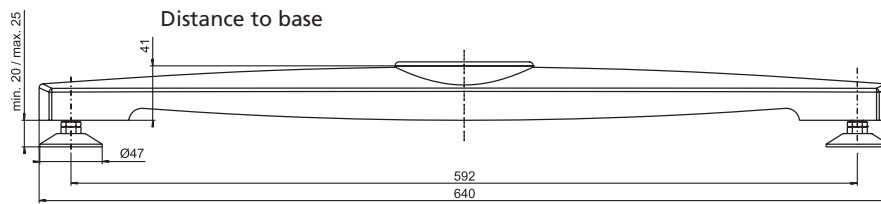


■ Both foot versions can be bolted to the external profile without the need for any further modifications

**Material:** GK-ALSi12/3.2583.02,  
black powder-coating

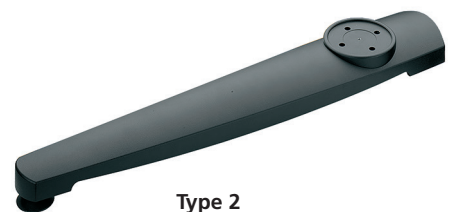
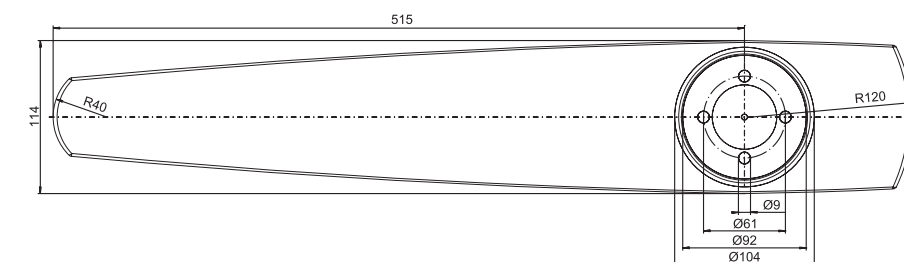
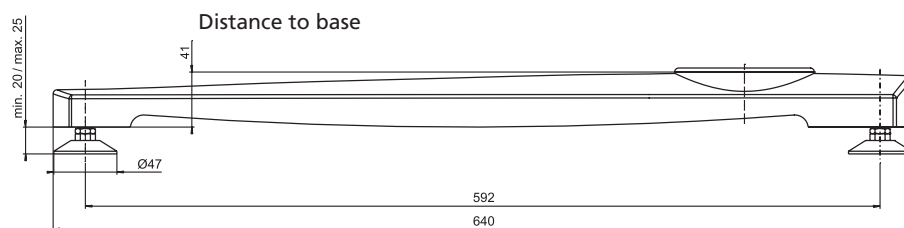
**Max. load 1,000 N**

## Type 1



Type 1

## Type 2



Type 2

Code No.	Type
QZD120341	1
QZD120342	2



### Square nut



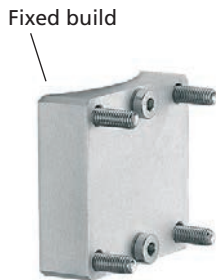
■ For connecting accessories to the external profile

**Material:** galvanised steel

**Scope of delivery:**  
Pack of 20

Code No.	Type
QZD050597	Square nut M6, DIN 562, pack of 20

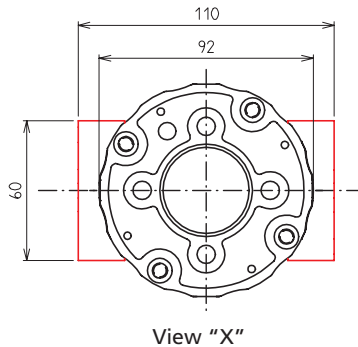
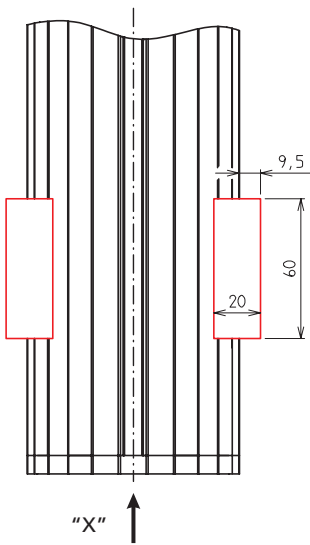
### Profile adaptor



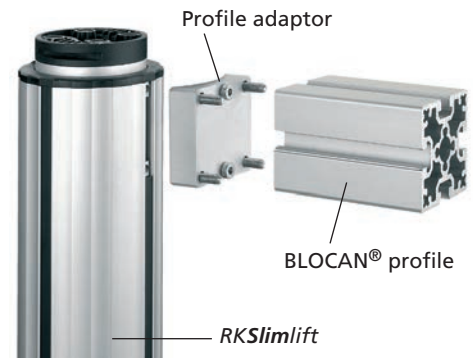
■ The profile adaptor allows several lifting columns to be together to form a stable combination. In this way, and with minimum effort, four columns can be connected to form lifting tables and operated via a synchronous control (MultiControl quadro). The aluminium profiles F-60/1, F-60-L, F-G 60, F-2G 60 from the BLOCAN® Profile Assembly System are suitable as struts for this purpose.

**Material:** AlMgSi, clear anodised  
Galvanised fastenings

**Scope of delivery:** one profile adaptor with fastenings for attachment to one end of the profile

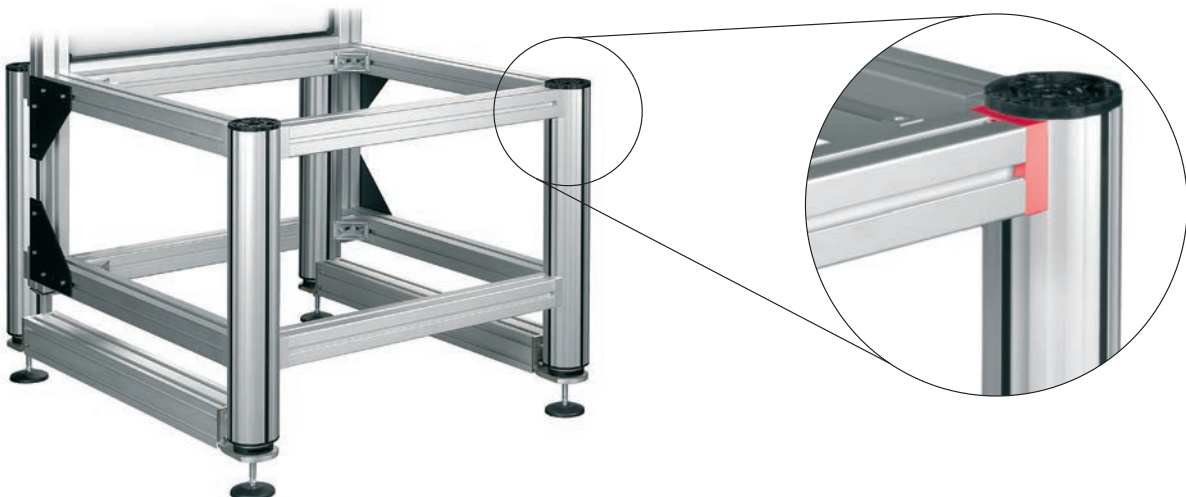


Connection example



Code No.	Type
QZD120256	Complete profile adaptor

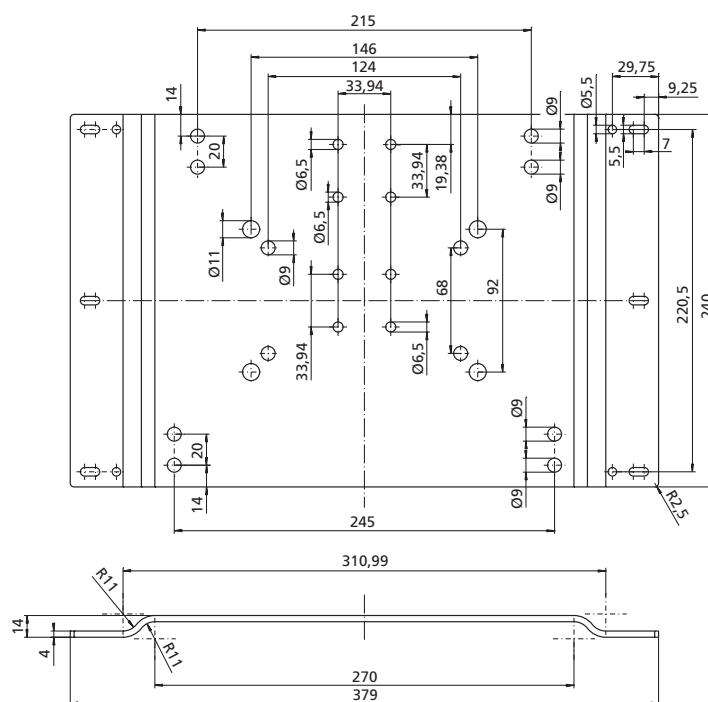
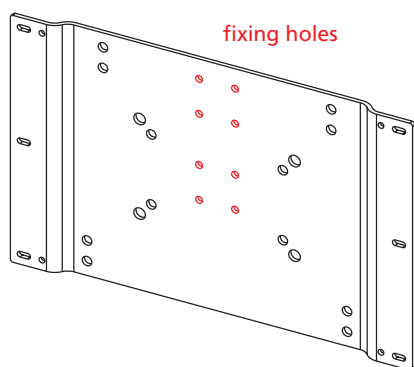
Application example:



## Fixing plate (not for EM)

■ This universal plate can be bolted directly into the screw channel of the lifting column using a fixing set. The numerous pre-drilled holes in the metal make it easy to attach table tops, brackets, etc.

**Material:** steel, black powder-coated (RAL 9005), galvanised fastenings



Code No.	Version
QZD100313	Fixing plate
QZD120336	Fixing set, 4x M6 x 14, DIN 7984



## Controls

- Input voltage 230 V AC
- Output voltage 24/36 V DC
- For battery operated controls

Transformer control 120 VA



approx. 24 V DC

MultiControl



approx. 36 V DC

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

Code No.	Version	
<b>Controls for RK Slimlift mono</b>		
QZA09C13BH031	Transformer control 120 VA connection C, up to 1,000 N total lifting force	Controls up to 1 drive
QSTACCA1AA000	MultiControl mono connection C, up to max. I= 12 A current output, 36 V DC	Controls up to 2 drives
<b>Controls for RK Slimlift synchro</b>		
QST20C02AA000	MultiControl duo connection C, up to max. 2,000 N, 12 A current output at 20% duty cycle	1-2 drives synchronised
QST21C02AA000	MultiControl duo connection C for RK Slimlift EM, up to max. 2,000 N, 12 A current output at 20% duty cycle	1-2 drives synchronised
QST20C04AA000	MultiControl quadro connection C, up to max. 2,000 N, 12 A current output at 20% duty cycle	3-4 drives synchronised
QST21C04AA000	MultiControl quadro connection C for Slimlift EM, up to max. 2,000 N, 12 A current output at 20% duty cycle	3-4 drives synchronised
<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	
QZD070526	Extension cable 2.5 m drive for connector C/8-pin DIN socket	

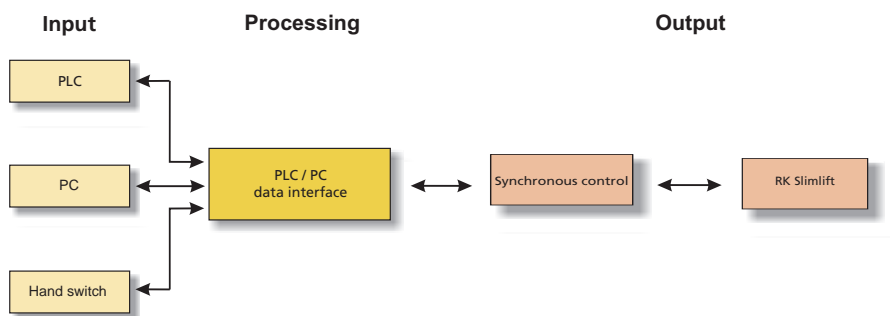
\*for the connection of a parallel hand switch or an external potentiometer (in the case of the MultiControl mono)



**PLC/PC data interface**

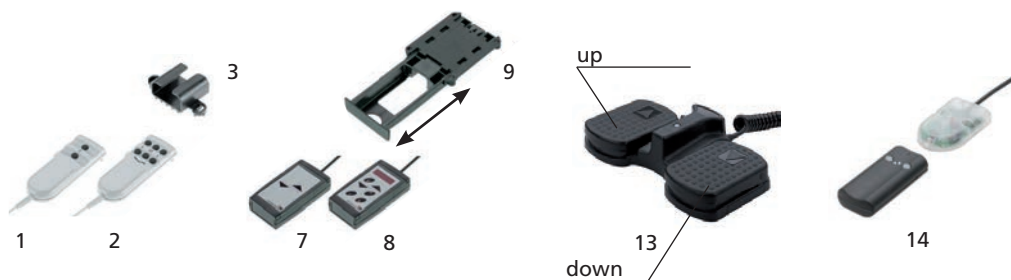
- This interface enables actuation of the synchronous control system via different input devices (PLC, PC and hand switch)

You will find further product-information on page 182



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

**Hand switches/accessories**

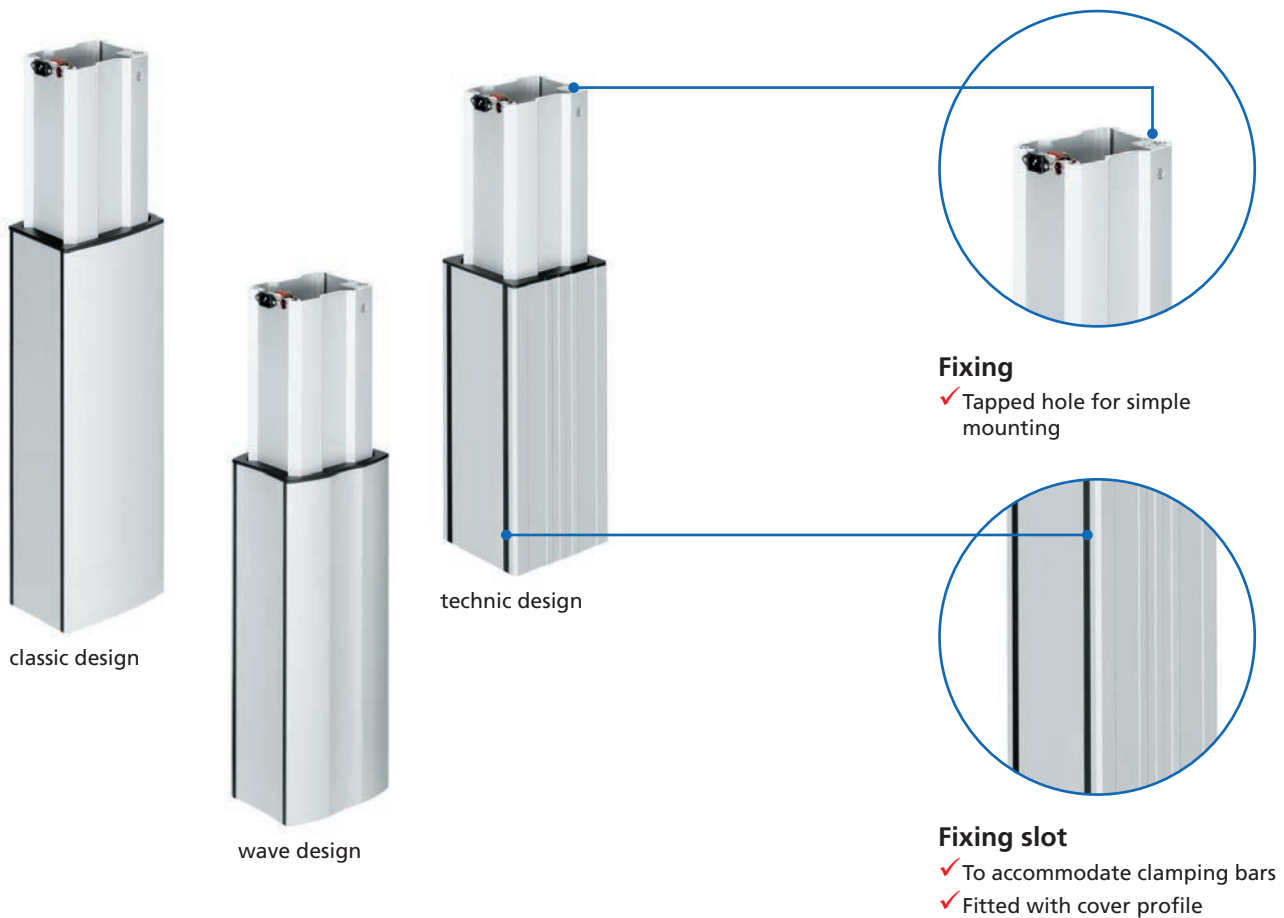


Code No.	Version	Fig.
<b>Hand switch for transformer control</b>		
QZB02C03AD031	Hand switch with 1 m spiral cable – 6 function keys	2
<b>Hand switches for transformer or synchronous control</b>		
QZB02C03AB031	Hand switch with 1 m spiral cable – 2 function keys	1
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	7
QZB02C01AE114	Foot switch – 2 function keys	13
QZB00D07BK141	Wireless 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 146

# Two-stage lifting column - *RKPowerlift*

## The power pack for high bending moments



### ***RKPowerlift* version Z:**

- For push force
- High moment capacity
- High lifting speed

### ***RKPowerlift* version S:**

- For push/pull forces
- Medium moment capacity
- Medium lifting speed

### **Features:**

- Three design versions available
- Withstands high torsional and bending moments
- Integrated motor
- Choice of internal or external control
- Four fixing slots in external profile
- Adjustable stroke length
- Optimum installation height/stroke length ratio
- Extremely quiet operation

### **Options:**

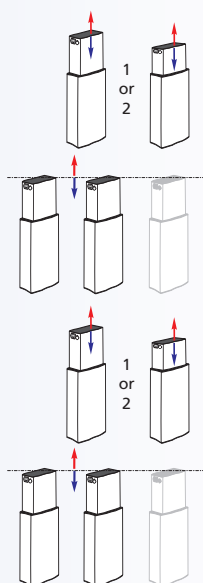
- Special stroke lengths (screw drive)
- Quadro control enables synchronisation of up to 32 columns
- Version with manual drive via crank handle on request

**RKPowerlift - Table of contents**
**Properties/Technical data**

- General information/operating conditions... Page 60
- Load data..... Page 60
- Parallel and synchronous operation ..... Page 61

**Versions**

(Dimensions, order numbers)



- **RKPowerlift** ..... Page 62
- **RKPowerlift Z mono** ..... Page 64
- **RKPowerlift Z synchro** ..... Page 65
- **RKPowerlift S mono**..... Page 66
- **RKPowerlift S synchro**..... Page 67

**Accessories**
**Fixing**

- Clamping bar ..... Page 68
- Frame/fixing plate ..... Page 68
- Base plate ..... Page 69
- RK SyncFlex..... Page 70

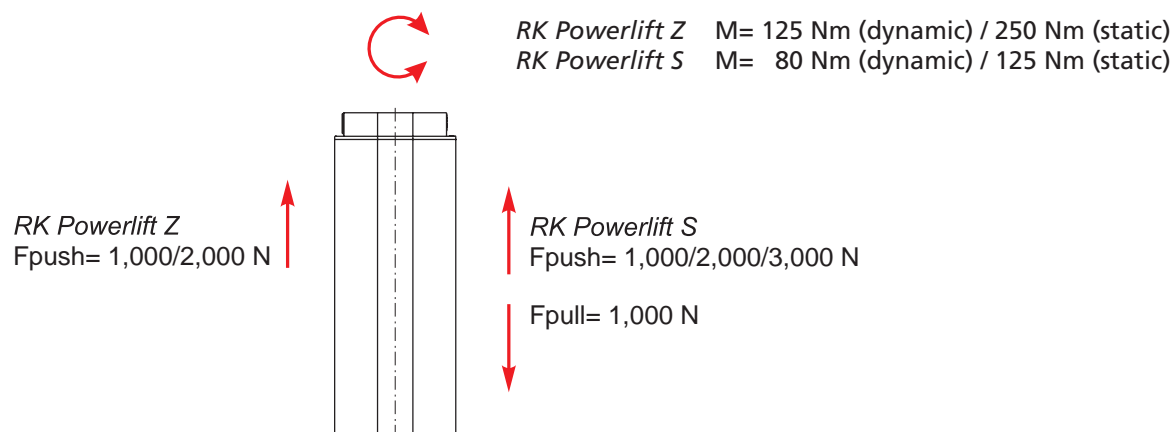
**Position determination**

- Controls ..... Page 66
- PLC/PC data interface..... Page 71
- Hand switch..... Page 71

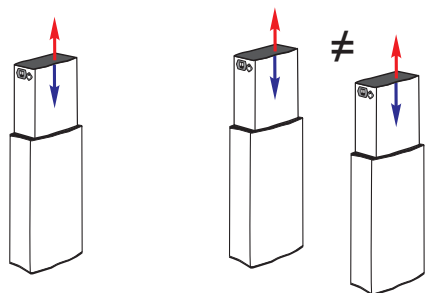
## General information/operating conditions

Design	Rectangular lifting column in compact design
Guide	Multiple roller/slide bearings
Installation position	Defined (any version s)/suspended with drop protection provided by the customer
Push force	Choice of 1,000 N, 2,000 N, 3,000 N
Pull force (Version S)	max. 1,000 N
Voltage	36 V DC
Power input	120 W / 210 W
Protection class	IP 30
Self-locking	Yes
Ambient temperature	+5°C to +40°C
Max. displacement with synchronous operation	0-3 mm rack drive/0-1.5 mm screw drive
Duty cycle	At nominal load, 15% (max. 1.5 mins operating time, 10 mins rest time)

## Load data



### RKPowerlift Mono

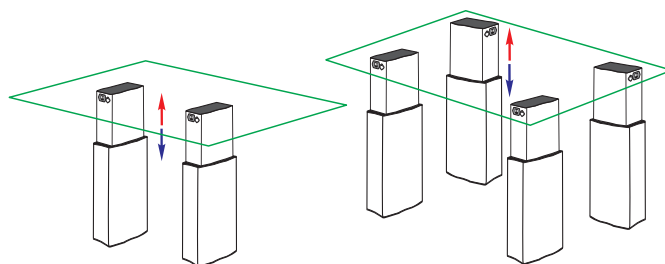


1-2 **RKPowerlifts** in single or parallel operation

#### Parallel operation

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

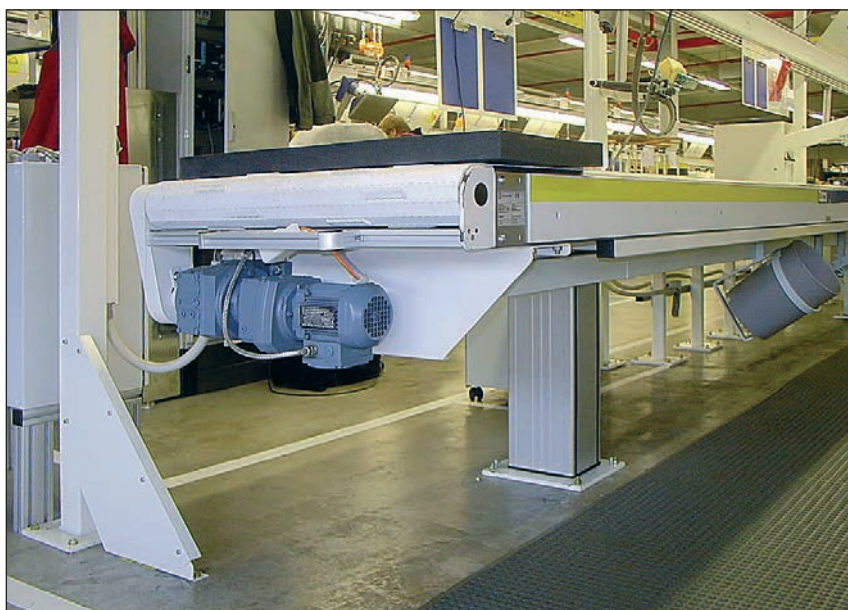
### RKPowerlift Synchro



2-4 **RKPowerlifts** in synchronous operation

#### Synchronous operation

Synchronous operation of two or more columns. In conjunction with the integrated sensors, the control (see page 146) 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 depends on the lifting speed and is max. 3 mm for the version with rack drive or max. 1.5 mm for the version with screw drive. A memory function is also available.

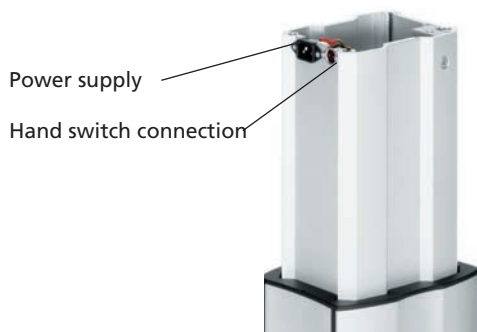


Conveyer adjustment

# RKPowerlift - Versions

**RKPowerlift Z**  
(for push force)

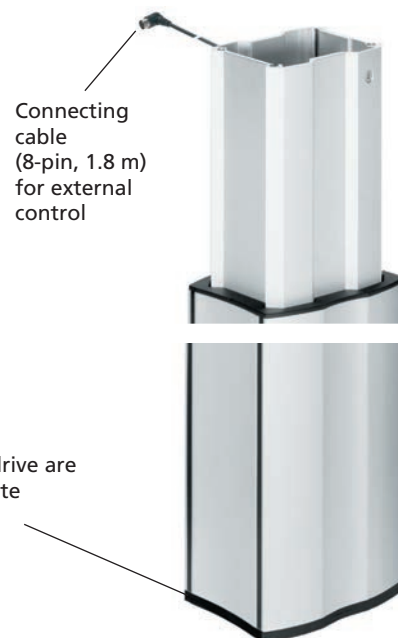
■ with internal control



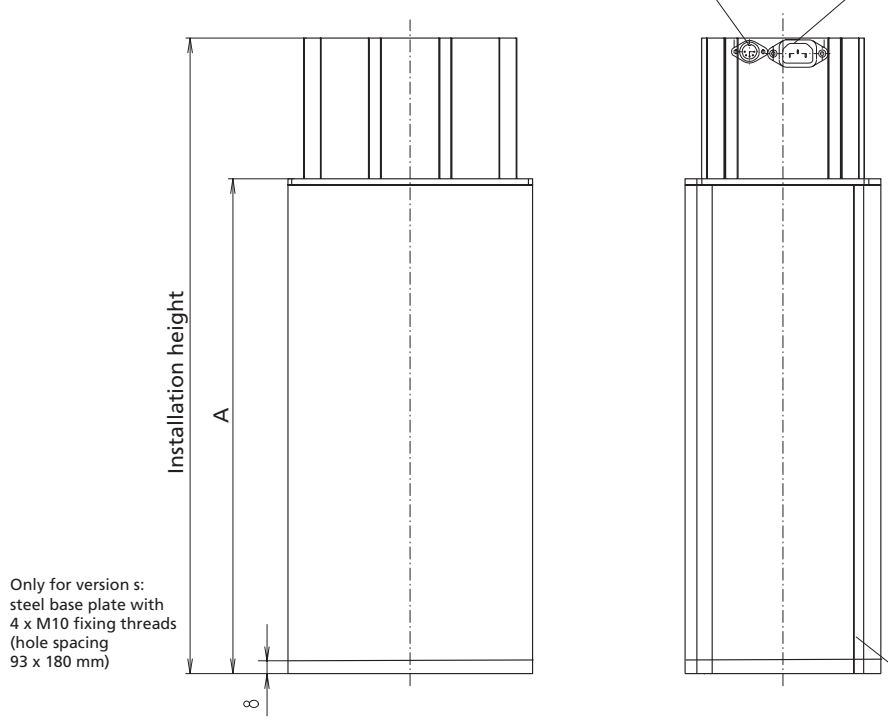
**RKPowerlift S**  
(for push and pull forces)

■ with internal control

■ for external control



Hand switch connection      Power supply

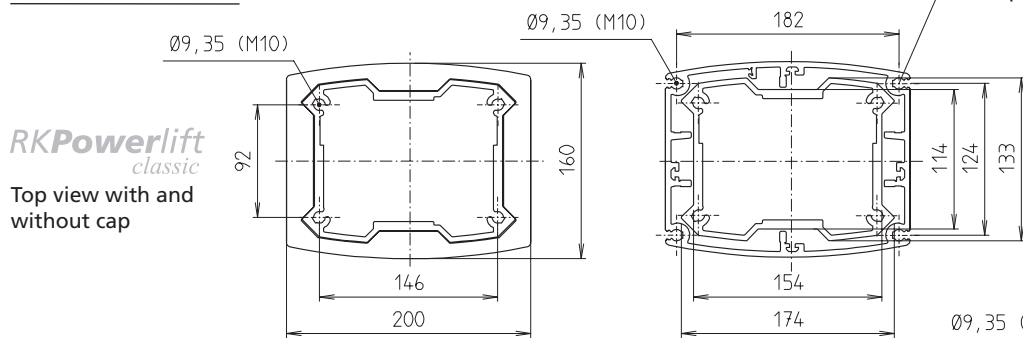


Only for version s:  
steel base plate with  
4 x M10 fixing threads  
(hole spacing  
93 x 180 mm)

[mm]

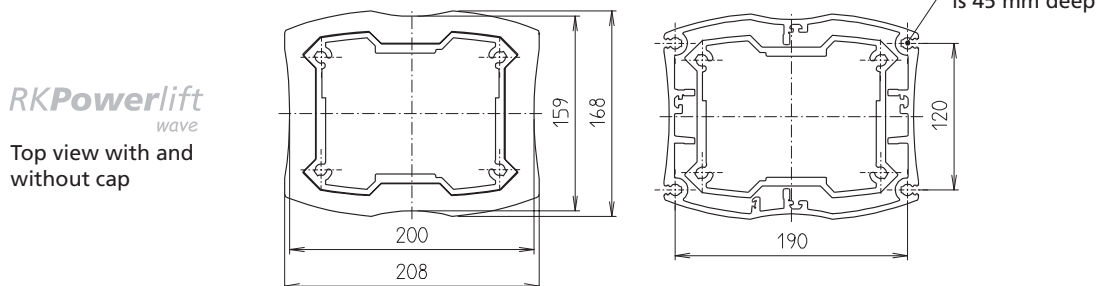
Type	Installation height	A
Manual, stroke 200	610	515
Stroke 350	490	465
Stroke 490	610	585
Stroke 500	648	623

Fixing slot (sealed with cover profile) to accommodate clamping bars.

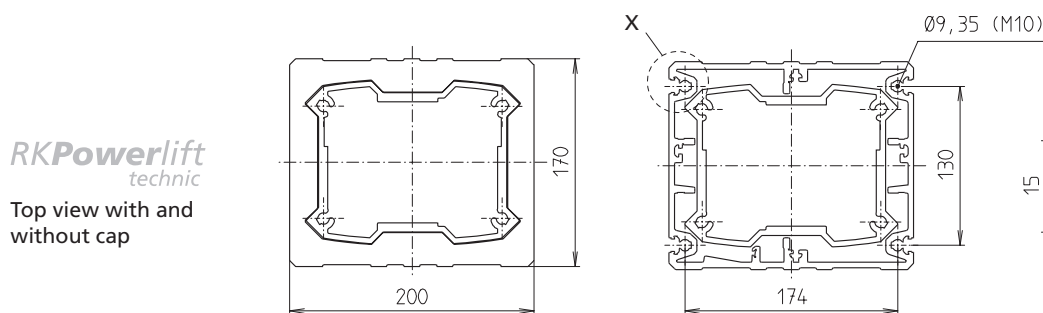


**RKPowerlift classic**  
Top view with and without cap

Dimensions of internal profile identical for all 3 versions

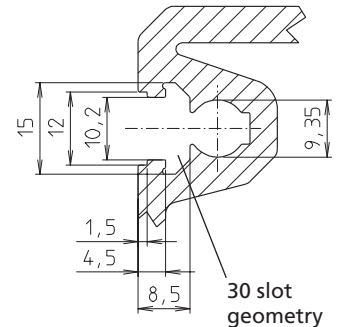


**RKPowerlift wave**  
Top view with and without cap



**RKPowerlift technic**  
Top view with and without cap

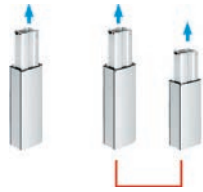
View "X"  
(only with technic design)



For order table, see next page

# RKPowerlift - Versions

## RKPowerlift Z (for push load)



### RKPowerlift mono

Code No.	Type	Push force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
With internal control/standard (start and stop)						
QPL35BA_20350	RKPowerlift 35	1,000	35	350	490	~18
QPL35BA_20490	RKPowerlift 35	1,000	35	490	610	~21
With internal control/soft-control (soft start and braking)						
QPL28BB_40490	RKPowerlift 28	2,000	28	490	610	~21
QPL35BA_40350	RKPowerlift 35	1,000	35	350	490	~18
QPL35BA_40490	RKPowerlift 35	1,000	35	490	610	~21
QPL50BA_40350	RKPowerlift 50	1,000	50	350	490	~18
QPL50BA_40490	RKPowerlift 50	1,000	50	490	610	~21
With internal control/memory (9 positions can be stored)						
QPL28BB_60490	RKPowerlift 28	2,000	28	490	610	~21
QPL50BA_60350	RKPowerlift 50	1,000	50	350	490	~18
QPL50BA_60490	RKPowerlift 50	1,000	50	490	610	~21

Design:  
 3 = classic  
 4 = wave  
 5 = technic

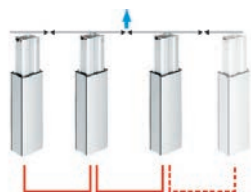


Polishing machine





**RKPowerlift Z** (for push load)



**RKPowerlift synchro**

Code No.	Type	Push force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
With internal control / synchro memory (9 positions can be stored)						
QPL28BB_30490	RKPowerlift 28	2,000	28	490	610	~21
QPL50BA_30350	RKPowerlift 50	1,000	50	350	490	~18
QPL50BA_30490	RKPowerlift 50	1,000	50	490	610	~21

Design:  
 3 = classic  
 4 = wave  
 5 = technic

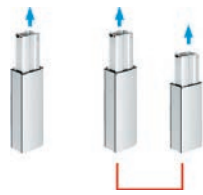
Code No.	Connecting cable (bus cable)
QZD100093	For synchronisation up to 8 RKPowerlifts, 6 m

**RKPowerlift**  
internal control



# RKPowerlift - Versions

## RKPowerlift S (for push and pull force)



### RKPowerlift mono

Code No.	Type	Push force [N]	Pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
With internal control/standard (start and stop)							
QPL25BA_S0500	RKPowerlift 25	1,000	1,000	25	500	648	~19
QPL18BB_S0500	RKPowerlift 18	2,000	1,000	18	500	648	~19
QPL10BC_S0500	RKPowerlift 10	3,000	1,000	10	500	648	~19
With internal control/memory (9 positions can be stored)							
QPL25BA_T0500	RKPowerlift 25	1,000	1,000	25	500	648	~19
QPL18BB_T0500	RKPowerlift 18	2,000	1,000	18	500	648	~19
QPL10BC_T0500	RKPowerlift 10	3,000	1,000	10	500	648	~19

**Design:**  
 3 = classic  
 4 = wave  
 5 = technic

Code No.	Type	Push force [N]	Pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
For external control							
QPL25EA_V0500	RKPowerlift 25	1,000	1,000	25	500	648	~17
QPL18EB_V0500	RKPowerlift 18	2,000	1,000	18	500	648	~17
QPL10EC_V0500	RKPowerlift 10	3,000	1,000	10	500	648	~17

**Design:**  
 3 = classic  
 4 = wave  
 5 = technic

Transformer control 120 VA



approx. 24 V DC

MultiControl mono

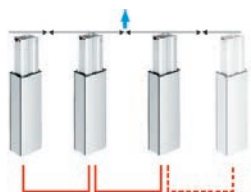


approx. 36 V DC

Code No.	External control	
QZA09C13BH031	Transformer control 120 VA connection C, up to 1,000 N total lifting force, controls 1 drive	Controls 1 drive
QSTACCA1AA000	MultiControl mono connection C, up to max. I= 12 A current output, 36 V DC	Controls up to 2 drives
Accessories		
QZD0702844000*	Straight connecting cable (4 m) with 5-pin connector and open cable end	
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)

RKPowerlift S (for push and pull loads)



RKPowerlift Synchro

Code No.	Type	Push force [N]	Pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
With internal control/ synchro memory (9 positions can be stored)							
QPL25BA_U0500	RKPowerlift 25	1,000	1,000	25	500	648	~19
QPL18BB_U0500	RKPowerlift 18	2,000	1,000	18	500	648	~19
QPL10BC_U0500	RKPowerlift 10	3,000	1,000	10	500	648	~19

Design:  
 3 = classic  
 4 = wave  
 5 = technic

Code No.	Connecting cable (bus cable)
QZD100093	6 m bus cable for the networking of up to 8 synchronous controls

Code No.	Type	Push force [N]	Pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
For external control							
QPL25EA_V0500	RKPowerlift 25	1,000	1,000	25	500	648	~17
QPL18EB_V0500	RKPowerlift 18	2,000	1,000	18	500	648	~17
QPL10EC_V0500	RKPowerlift 10	3,000	1,000	10	500	648	~17

Design:  
 3 = classic  
 4 = wave  
 5 = technic

MultiControl duo



MultiControl quadro



Code No.	External control	
QST42C02AA000	MultiControl duo connection C, up to max. I= 12 A current output	For synchronous control of 1-2 drives
QST42C04AA000	MultiControl quadro connection C, up to max. I= 12 A current output	For synchronous control of 1-4 drives
Accessories		
QZD070526	Extension cable 2,5 m drive for connector C/8-pin DIN socket	





# RKPowerlift - Fixing

**RK ROSE+KRIEGER**

## Base plate

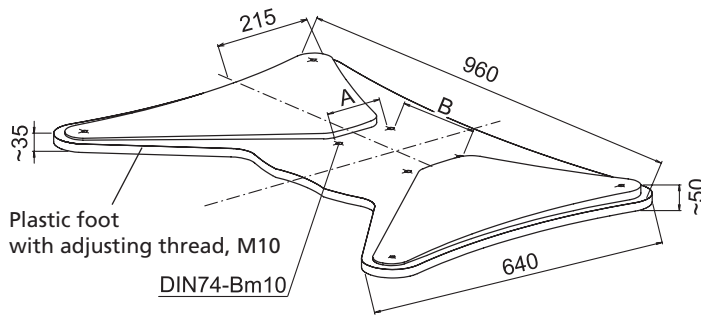
**Material:** steel,  
black powder-coated RAL 9005,  
Galvanised fastenings

**Scope of delivery:** complete with  
fastenings

Frame  
(see page 68)



Base plate,



Code No.	Type	A	B
[mm]			
<i>for RKPowerlift Z</i>			
QZD100092	Base plate for <i>RKPowerlift</i> classic	124	182
QZD100084	Base plate for <i>RKPowerlift</i> wave	120	190
QZD100090	Base plate for <i>RKPowerlift</i> technic	130	174
<i>for RKPowerlift S</i>			
QZD100257	Base plate for <i>RKPowerlift</i>	93	180

# RKPowerlift – Fixing

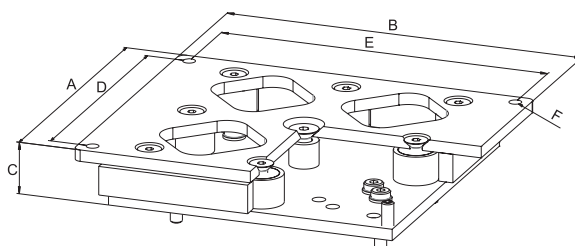
## RK SyncFlex H

**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
QZD100455	Powerlift S / Z	200	250	36	230	180	M 10

## RK SyncFlex V

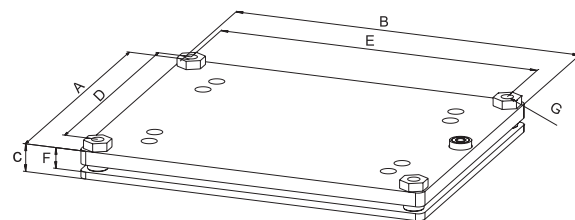
**Scope of delivery:**  
Adjuster plate, incl.  
fixing material

**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 lifting columns are subject to very strong forces.
  - The lifting columns can be aligned via the vertical adjustment around the X-Y axes.
- RK SyncFlex V enables the compensation of unevenness in the mounting environment.



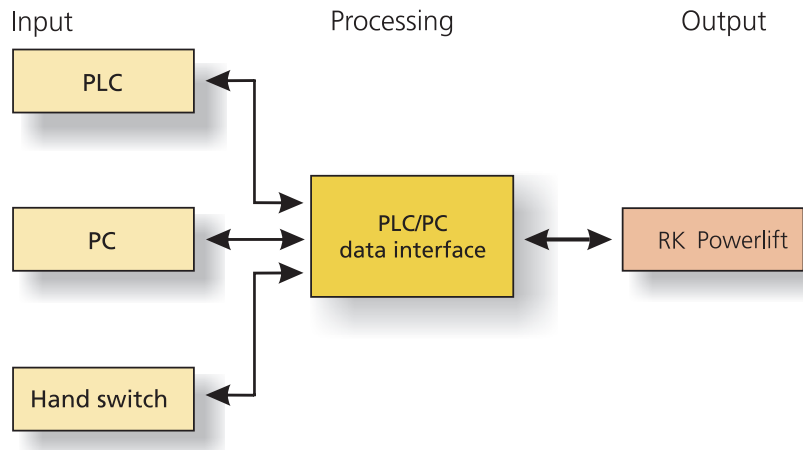
[mm]

Code No.	Type	A	B	C	D	E	F	G
<b>Without pressure plate</b>								
QZD100447	Powerlift S	200	250	-	180	230	10-15	M 10
QZD100449	Powerlift Z-classic	200	250	-	180	230	10-15	M 10
QZD100450	Powerlift Z-wave	200	250	-	180	230	10-15	M 10
<b>With pressure plate</b>								
QZD100464	Powerlift S	200	250	15-20	180	230	10-15	M 10
QZD100465	Powerlift Z-classic	200	250	15-20	180	230	10-15	M 10
QZD100466	Powerlift Z-wave	200	250	15-20	180	230	10-15	M 10

## PLC/PCdata interface

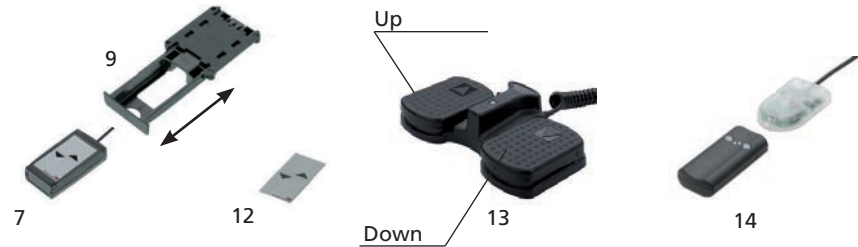
- This interface enables actuation of the synchronous control system via different input devices (PLC, PC and hand switch)

You will find further product information on page 182



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

## Hand switches/accessories RKPowerlift mono



Code No.	Version	Fig.
<b>Hand switch for RKPowerlift mono</b>		
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	12
QZB02C01AE114GS	Foot switch – 2 function keys	13
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	7
<b>Hand switch for RKPowerlift Standard (Start and Stop)</b>		
QZB00D07BK141	Wireless hand switch – 2 function keys	14
<b>Accessories for hand switches</b>		
QZD000074	Hand switch drawer: Fig. 7 + 8	9

## RKPowerlift synchro



Code No.	Version	Fig.
<b>Hand switch for RKPowerlift synchro</b>		
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys	8

# Two-stage lifting column - *RKPowerlift M*

The mini version of the *RKPowerlift* – the *RKPowerlift M*

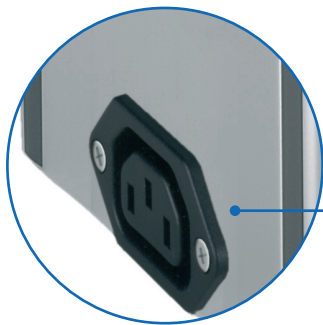


## Standard

- ✓ Hand switch receptacle, power receptacle with integrated fuse

## Optional

- ✓ Power supply/output versions



## *RKPowerlift M*

- Push and pull forces 1,500 N
- Lifting speed 13 mm/s

### Features:

- Withstands high torsional and bending moments
- Integrated motor
- Extremely quiet operation
- Choice of internal or external control

- Four fixing slots in external profile
- Power receptacle at top or bottom, as preferred
- Tested to IEC 60601-1

### Options:

- Special stroke lengths available on request
- Special installation lengths available on request
- Higher push forces available on request



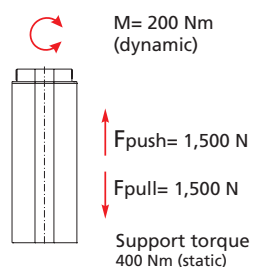


# RKPowerlift M – Technical data

## General information/operating conditions

Type	RKPowerlift M for external control	RKPowerlift M for internal control
Design	Rectangular lifting column in compact design	
Guide	16 POM slide bearings	
Installation position	Any position/suspended with drop protection provided by the customer	
Push force*	1,500 N (3,000 N on request)	
Pull force*	1,500 N	
Max. speed	13 mm/s	
Voltage	24 V DC	
Power input	120 W	
Protection class	IP 30	
Self-locking	Yes	
Ambient temperature	+5°C to +40°C	
Max. displacement with synchronous operation	0-2 mm	
Duty cycle	At nominal load, 15% (max. 1.5 mins operating time, 8.5 mins rest time)	

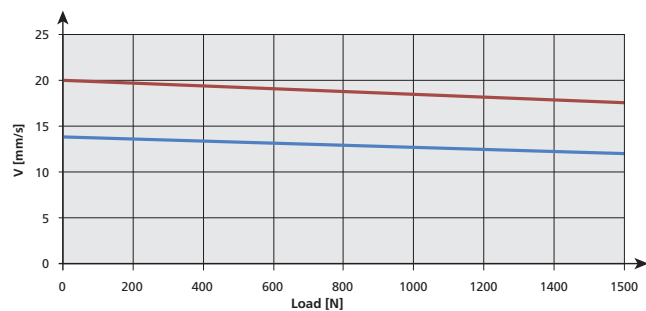
## Load data



\* In medical applications, the maximum pull force of 750 N and the maximum push force of 1,500 N must not be exceeded.

## Speed/Force diagram

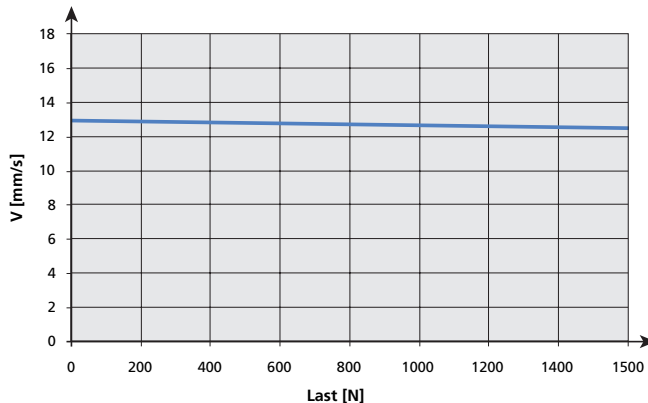
RKPowerlift M for external control



— Powerlift M 1,500N at 24V\*1  
 — Powerlift M 1,500N at 36V\*2

## Speed/Force diagram

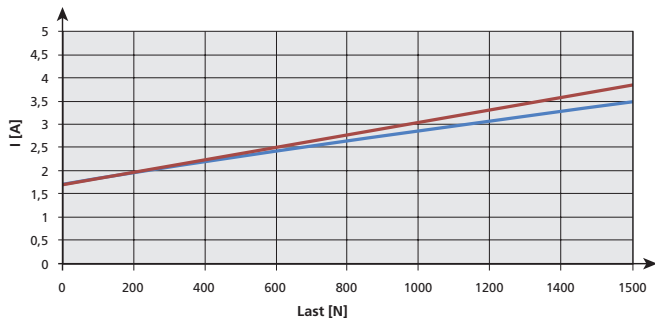
RKPowerlift M, for internal control



— Powerlift M 1,500N internal control

## Current output/Force diagram

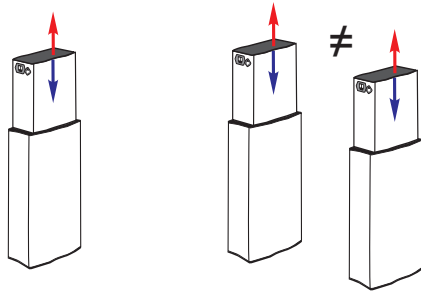
RKPowerlift M, for external control



— Powerlift M 1,500N at 24V\*1  
 — Powerlift M 1,500N at 36V\*2

24 V\*1 determined with a transformer control 120 VA  
 36 V\*2 determined with a MultiControl duo

### RKPowerlift M Mono

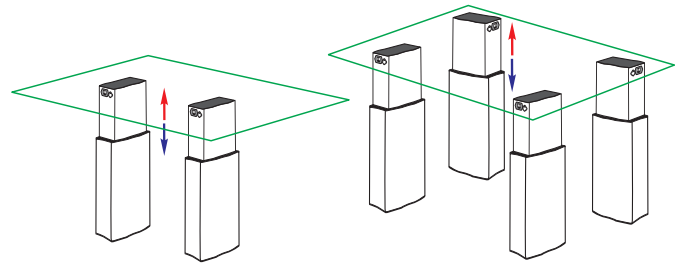


1-2 **RKPowerlifts** in single or parallel operation

#### Parallel operation

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

### RKPowerlift M Synchro



2-4 **RKPowerlifts** in synchronous operation

#### Synchronous operation

Synchronous operation of two or more columns. In conjunction with the integrated sensors, the control (see page 146) 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. 2 mm. A memory function is also available.



Movable measuring table, table adjustment via RK Powerlift, adjustment of measuring equipment via EPX/PL linear actuator

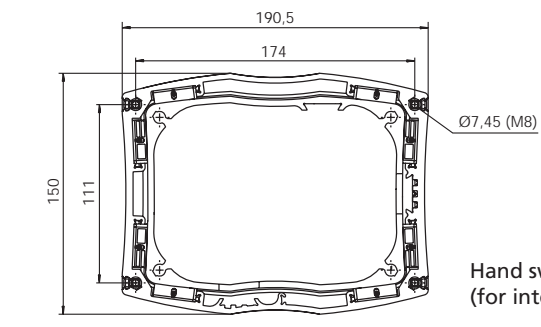
# RKPowerlift M - Versions

## Versions

■ with internal control

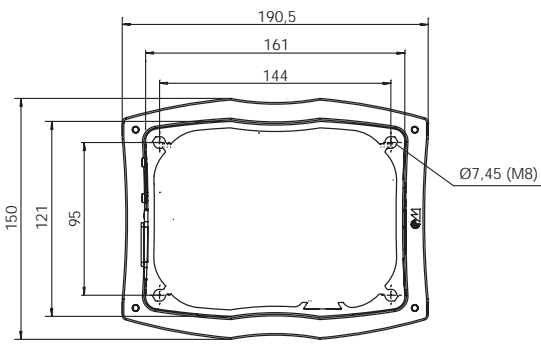
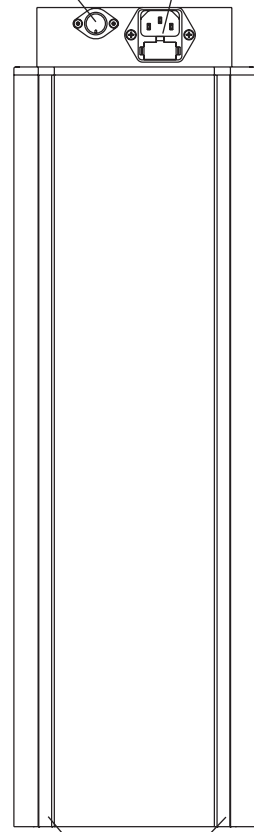
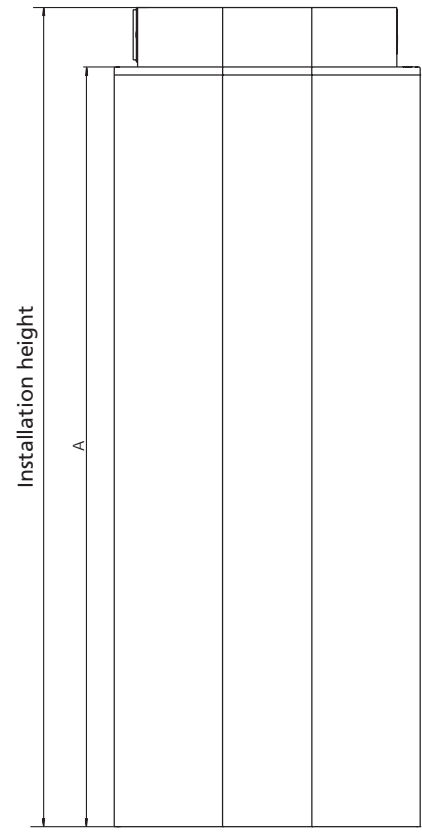
■ for external control





Power supply (for internal control) with integrated fuse (can be replaced externally)

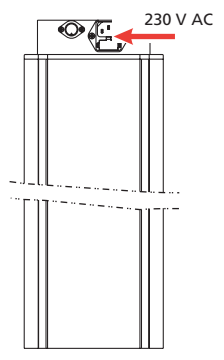
Hand switch connection (for internal control)



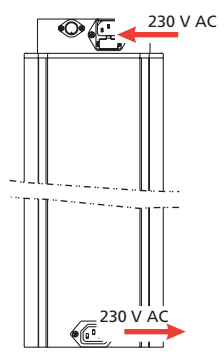
Fixing slot (sealed with cover profile) to accommodate square nuts (see page 396).

**Power supply - versions:**

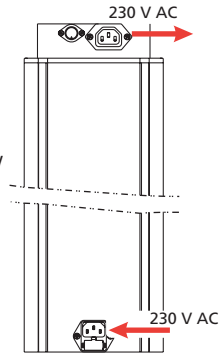
Type 0:  
Standard,  
Power supply, top



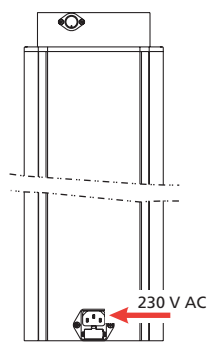
Type 1  
(cable feedthrough):  
Power supply, top/  
power output, bottom



Type 3  
(cable feedthrough):  
Power supply, bottom/  
power output, top

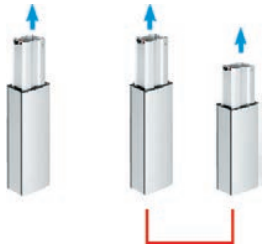


Type 4:  
Power supply, bottom



# RKPowerlift M - Versions

## RKPowerlift M mono



1-2 single or parallel operation

Code No.	Type	Push force [N]	Pull force (med) [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	A [mm]	Weight [kg]
With internal control/standard (start and stop)								
QPM13BC42_300	<i>RKPowerlift M</i>	1,500	1,500	13	300	510	473	~12.0
QPM13BC42_400	<i>RKPowerlift M</i>	1,500	1,500	13	400	610	573	~13.5
QPM13BC42_500	<i>RKPowerlift M</i>	1,500	1,500	13	500	710	673	~15.0
With internal control/memory (9 positions can be stored)								
QPM13BC46_300	<i>RKPowerlift M</i>	1,500	1,500	13	300	510	473	~12.0
QPM13BC46_400	<i>RKPowerlift M</i>	1,500	1,500	13	400	610	573	~13.5
QPM13BC46_500	<i>RKPowerlift M</i>	1,500	1,500	13	500	710	673	~15.0

For mains supply versions see page 77

- 0 = Standard
- 1 = Type 1
- 3 = Type 3
- 4 = Type 4

Code No.	Type	Push force [N]	Pull force (med) [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	A [mm]	Weight [kg]
For external control								
QPM13EC480300	<i>RKPowerlift M</i>	1,500	1,500	13	300	510	473	~12.0
QPM13EC480400	<i>RKPowerlift M</i>	1,500	1,500	13	400	610	573	~13.5
QPM13EC480500	<i>RKPowerlift M</i>	1,500	1,500	13	500	710	673	~15.0

Transformer control 120 VA



approx. 24 V DC

MultiControl mono



approx. 36 V DC

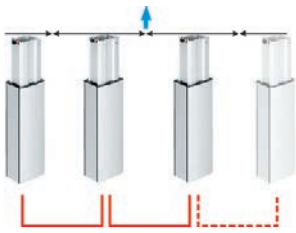
### Order information:

Observe the current output of the drives when selecting the control.

Code No.	External control	
QZA09C13BH031	Transformer control 120 VA connection C, up to max. I= 3 A, 24 V DC	Controls up to 2 drives
QSTACCA1AA000	MultiControl mono connection C, up to max. I= 12 A current output, 36 V DC	Controls up to 2 drives
Accessories		
QZD0702844000*	Straight connecting cable (4 m) with 5-pin connector and open cable end	
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)

RKPowerlift M synchro



2-4 in synchronous operation

Code No.	Type	Push force [N]	Pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	A [mm]	Weight [kg]
With internal control / synchro memory (9 positions can be stored)								
QPM13BC47_300	RKPowerlift M	1,500	1,500	13	300	510	473	~12.0
QPM13BC47_400	RKPowerlift M	1,500	1,500	13	400	610	573	~13.5
QPM13BC47_500	RKPowerlift M	1,500	1,500	13	500	710	673	~15.0

For mains supply versions see page 77  
 0 = Standard  
 1 = Type 1  
 3 = Type 3  
 4 = Type 4

Code No.	Connecting cable (bus cable)
QZD100093	6 m bus cable for synchronisation of up to 8 synchronous controls

Code No.	Type	Push force [N]	Pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	A [mm]	Weight [kg]
For external control								
QPM13EC480300	RKPowerlift M	1,500	1,500	13	300	510	473	~12.0
QPM13EC480400	RKPowerlift M	1,500	1,500	13	400	610	573	~13.5
QPM13EC480500	RKPowerlift M	1,500	1,500	13	500	710	673	~15.0

MultiControl duo



MultiControl quadro



**Order information:**  
 Observe the current output of the drives when selecting the control.

Code No.	External control	
QST44C02AA000	MultiControl duo connection C, up to max. I = 12 A current output, 36 V DC	for synchronous control up to 2 drives
QST44C04AA000	MultiControl quadro connection C, up to max. I = 12 A current output, 36 V DC	for synchronous control up to 4 drives
Accessories		
QZD070526	Extension cable 2,5 m drive for connector C/8-pin DIN socket	

# RKPowerlift M - Fixing

## Assembly plate

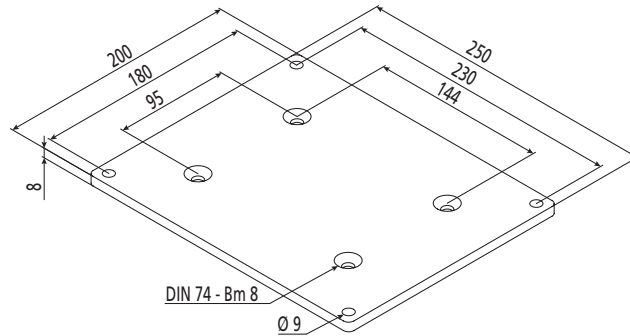
- These mounting plates are fitted using the mounting kits supplied and fixed directly into the screw channels in the Powerlift „M“. A further 4 holes, in the mounting plate, allow easy connection, to brackets or corresponding fixture assembly work etc.

**Material:** S 235 JR, black powder-coated, galvanised fixing set

**Scope of delivery:**  
Plate, incl. fixing set



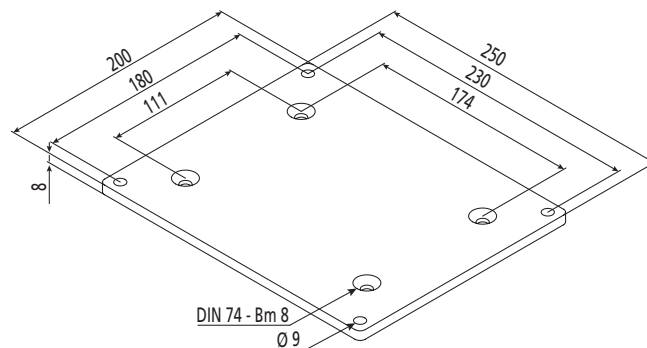
For internal profile



Code No.	Type
QZD100541	Top assembly plate



For external profile



Code No.	Type
QZD100542	Bottom assembly plate





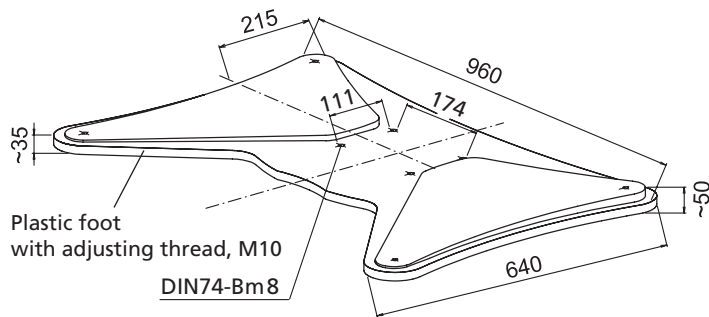
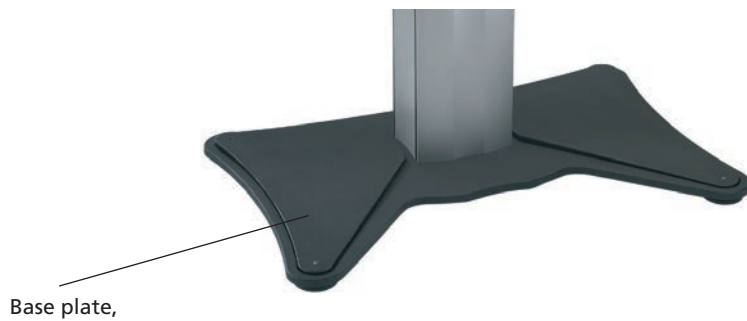
# RKPowerlift M - Fixing

**RK ROSE+KRIEGER**

## Base plate

**Material:** steel,  
black powder-coated (RAL 9005),  
Galvanised fastenings

**Scope of delivery:** complete with  
fastenings



Code No.	Type
QZD100546	Base plate for <i>RKPowerlift M</i>

# RKPowerlift M – Fixing

## Square nut



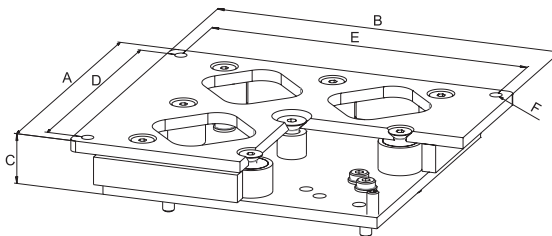
- For connecting accessories to the external profile

Code No.	Type
QZD100326	Square nut M4, DIN 562, pack of 10

## 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
QZD100453	Powerlift M	200	250	36	230	180	M 10

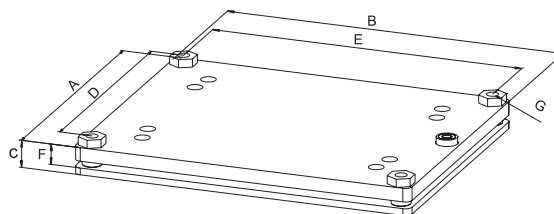
## RK SyncFlex V

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

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

### Vertikale Ausrichtung

- 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.



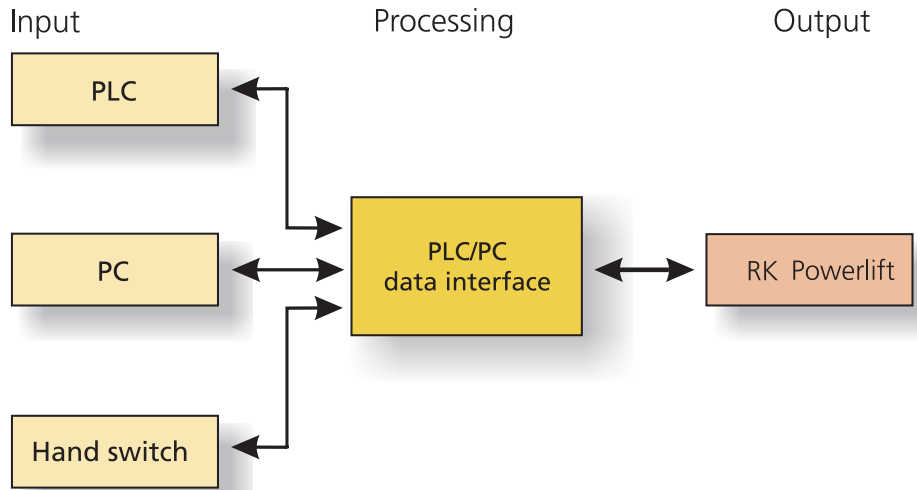
[mm]

Code No.	Type	A	B	C	D	E	F	G
Without pressure plate								
QZD100446	Powerlift M	200	250	-	180	230	10-15	M 10
With pressure plate								
QZD100463	Powerlift M	200	250	15-20	180	230	10-15	M 10

PLC/PC data interface

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

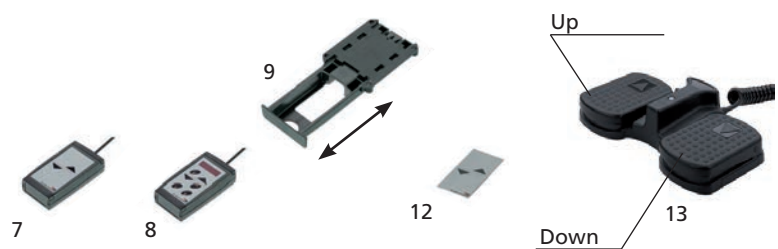
You will find further product information on page 182



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

Hand switches/accessories

(internal control  
RKPowerlift M mono)



Code No.	Version	Fig.
<b>Hand switch for RKPowerlift M mono</b>		
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	12
QZB02C01AE114GS	Foot switch – 2 function keys	13
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	7
<b>Hand switch for RKPowerlift M synchro</b>		
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys	8
<b>Accessories for hand switches</b>		
QZD000074	Drawer for hand switch	9

**Note:**  
For further hand switch versions, please refer to the chapter "Controls" on page 146 ff.

# Multi-stage lifting column - RKPowerlift telescope

The **RKPowerlift** with optimised installation height/stroke ratio

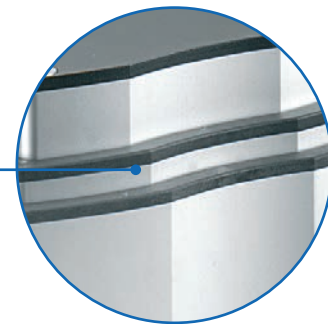


wave design



#### Fixing

- ✓ Adaptor plate with 4x M8 holes



#### Lifting column

- ✓ Double-telescoping

#### **RKPowerlift** telescope:

- Push forces 800 N / 1,600 N  
Pull force 800 N
- Lifting speed  
15 mm/s, 30 mm/s

#### Features:

- Withstands high bending moments in both static and dynamic range
- Integrated motor
- Adjustable stroke length

- Choice of internal or external control
- Four fixing slots in external profile

#### Options:

- Special stroke lengths available on request
- Quadro control enables synchronisation of up to 32 columns

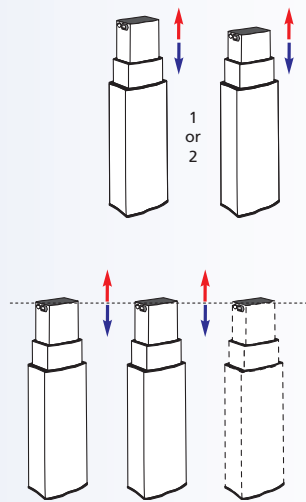
**RKPowerlift telescope - Table of content**

**Properties/Technical data**

- General information/operating conditions .... Page 86
- Load data..... Page 86
- Parallel and synchronous operation ..... Page 87

**Versions**

(Dimensions, order numbers)



- *RKPowerlift telescope* ..... Page 88
- *RKPowerlift telescope mono*..... Page 90
- *RKPowerlift telescope synchro*..... Page 91

**Accessories**

**Fixing**

- Fixing platee..... Page 92
- Base plate ..... Page 93
- RK SyncFlex..... Page 94

**Position determination**

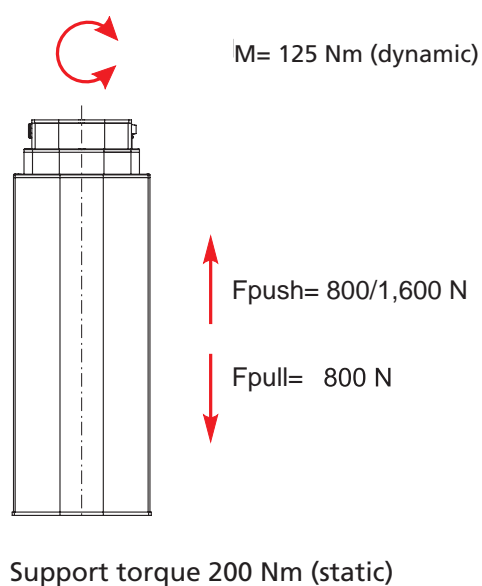
- Controls ..... Page 90
- PLC/PC data interface..... Page 95
- Hand switches ..... Page 95

# RKPowerlift telescope – Technical data

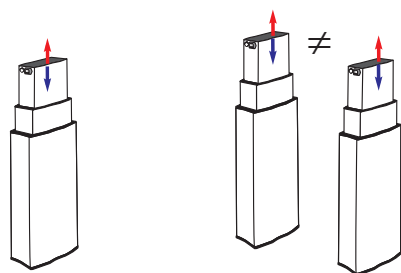
## General information/operating conditions

Design	Rectangular lifting column in compact design
Guide	Multiple roller/slide bearings
Installation position	Any position/ suspended with drop protection provided by the customer
Push force	Choice of 800/1,600 N
Pull force	Max. 800 N
Voltage	36 V DC
Power input	180 W/210 W
Protection class	IP 30
Self-locking	Yes
Ambient temperature	+5°C to +40°C
Max. displacement with synchronous operation	0-2 mm/0-1.5 mm
Duty cycle	At nominal load, 15% (max. 1.5 mins operating time, 8.5 mins rest time)

## Load data



### ***RKPowerlift telescope Mono***

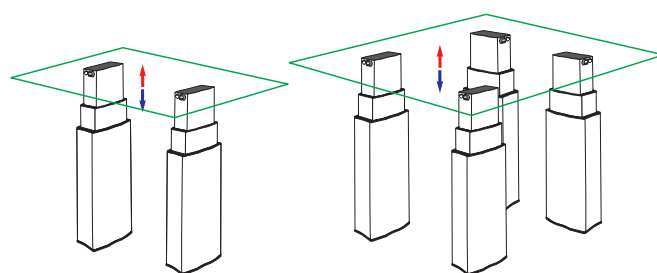


1-2 *RKPowerlifts* in single or parallel operation

### **Parallel operation**

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

### ***RKPowerlift telescope Synchro***



2-4 *RKPowerlifts* in synchronous operation

### **Synchronous operation**

Synchronous operation of two or more columns. In conjunction with the integrated sensors, the control (see page 146) 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 depends on the lifting speed and is max. 1.5 mm for the 15 mm/s version and max. 2 mm for the 30 mm/s version. A memory function is also available.

# RKPowerlift telescope - Versions

## Versions

■ with internal control

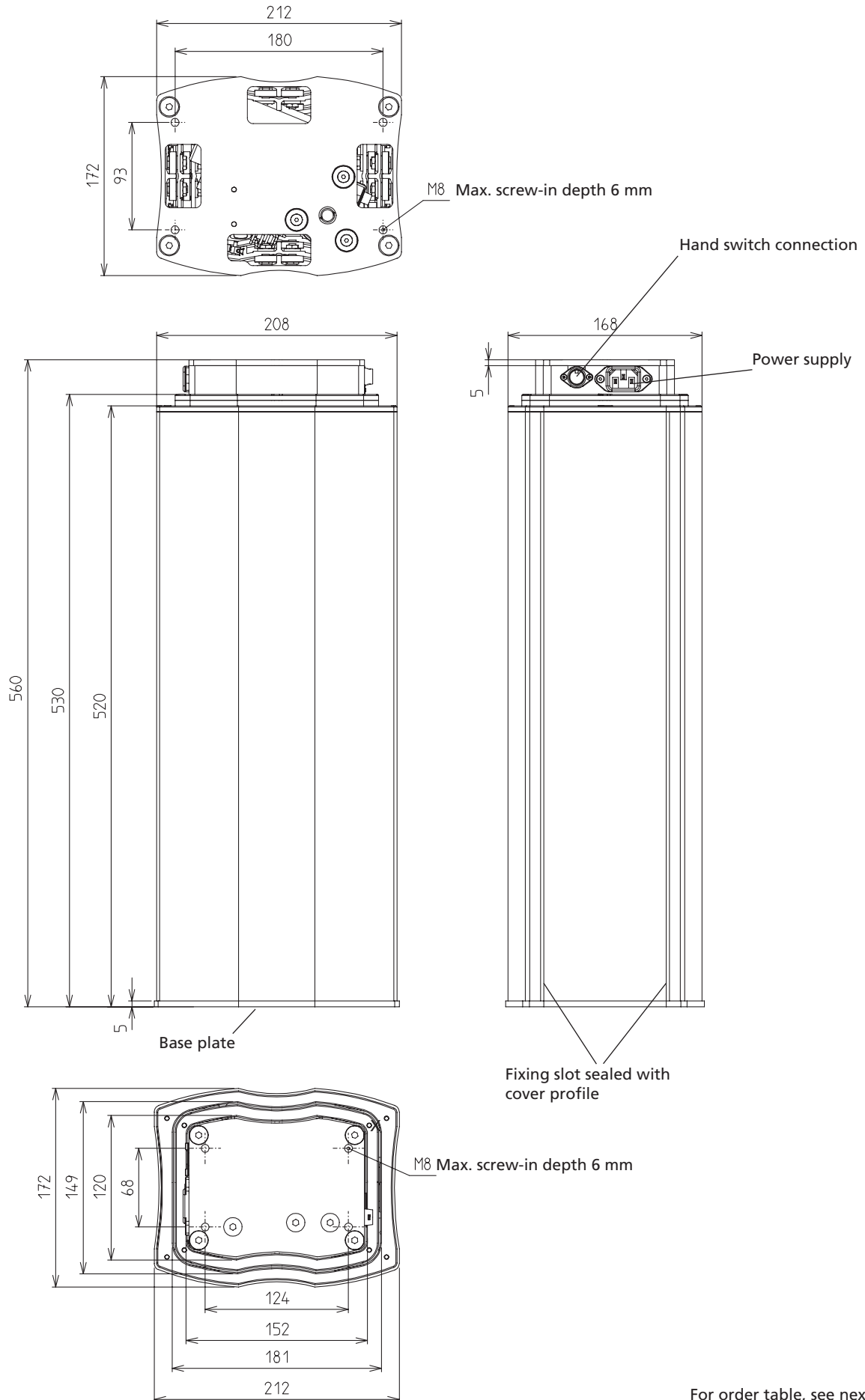
■ for external control

Hand switch connection / mains supply

Connecting cable  
(8-pin, 1.8 m)  
for MultiControl



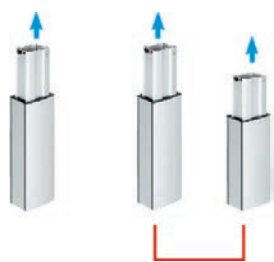




For order table, see next page

# RKPowerlift telescope - Versions

## RKPowerlift telescope mono



1-2 single or parallel operation

Code No.	Type	Push force [N]	Pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
With internal control/standard (start and stop)							
QPT30BC420650	<i>RKPowerlift telescope 30</i>	800	800	30	650	560	~18
QPT15BE420650	<i>RKPowerlift telescope 15</i>	1,600	800	15	650	560	~18
With internal control/memory (9 positions can be stored)							
QPT30BC460650	<i>RKPowerlift telescope 30</i>	800	800	30	650	560	~18
QPT15BE460650	<i>RKPowerlift telescope 15</i>	1,600	800	15	650	560	~18

Code No.	Type	Push force [N]	Pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
For external control							
QPT30EC480650	<i>RKPowerlift telescope 30</i>	800	800	30	650	560	~17
QPT15EE480650	<i>RKPowerlift telescope 15</i>	1,600	800	15	650	560	~17

Transformer control 120 VA



approx. 24 V DC

MultiControl mono

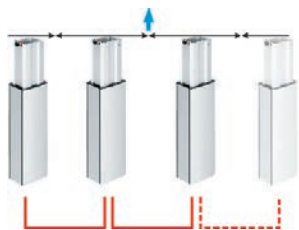


approx. 36 V DC

Code No.	External control for telescopic screw drive	
QZA09C13BH031	Transformer control 120 VA connection C	Controls 1 drive
QSTACCA1AA000	MultiControl mono connection C, up to max. I= 12 A current output, 36 V DC	Controls up to 2 drives
Accessories		
QZD0702844000*	Straight connecting cable (4 m) with 5-pin connector and open cable end	
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)

**RKPowerlift telescope synchro**



2-4 in synchronous operation

Code No.	Type	Push force [N]	Pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
With internal control / synchro memory (9 positions can be stored)							
QPT30BC470650	<i>RKPowerlift telescope 30</i>	800	800	30	650	560	~18
QPT15BE470650	<i>RKPowerlift telescope 15</i>	1,600	800	15	650	560	~18

Code No.	Connecting cable (bus cable)
QZD100093	6 m bus cable for the networking of up to 8 synchronous controls

Code No.	Type	Push force [N]	Pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
For external control							
QPT30EC480650	<i>RKPowerlift telescope 30</i>	800	800	30	650	560	~17
QPT15EE480650	<i>RKPowerlift telescope 15</i>	1,600	800	15	650	560	~17

MultiControl (duo und quadro)



Code No.	External control for telescopic screw drive	
QST43C02AA000	MultiControl duo connection C, up to max. I = 12 A current output	for synchronous control of 1-2 drives
QST43C04AA000	MultiControl quadro connection C, up to max. I = 12 A current output	for synchronous control of 1-4 drives
Accessories		
QZD070526	Extension cable 2,5 m drive for connector C/8-pin DIN socket	

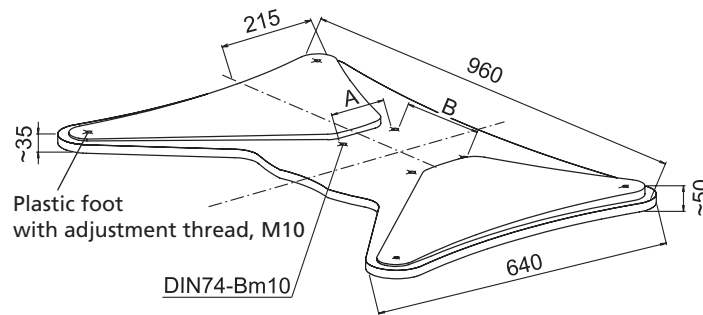
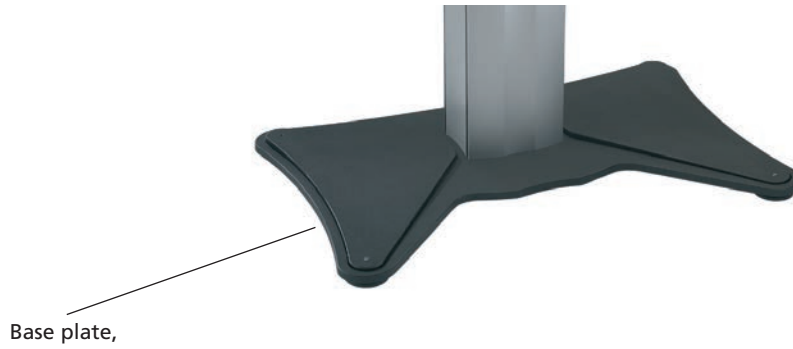




Base plate

Material: steel,  
black powder-coated (RAL 9005)  
Galvanised fastenings

Scope of delivery:  
complete with fastenings



Code No.	Type	[mm]	
		A	B
QZD100257	Base plate for <i>RKPowerlift</i> telescope	93	180

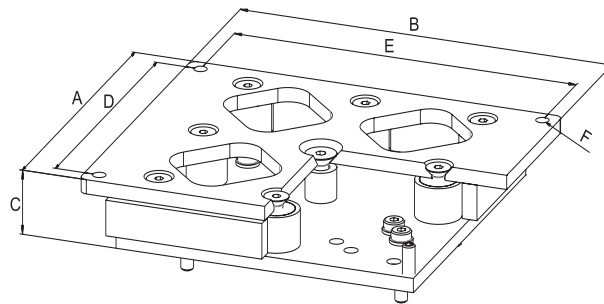
# RK Powerlift telescope – Fixing

## 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
QZD100453	Powerlift telescope	200	250	36	230	180	M 10

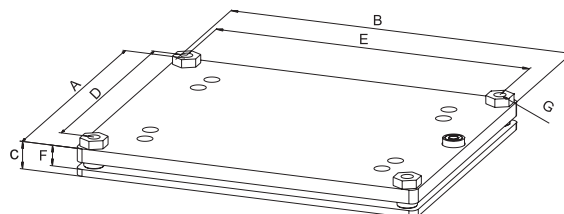
## RK SyncFlex V

**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 lifting columns are subject to very strong forces.
  - The lifting columns can be aligned via the vertical adjustment around the X-Y axes.
- RK SyncFlex V enables the compensation of unevenness in the mounting environment.



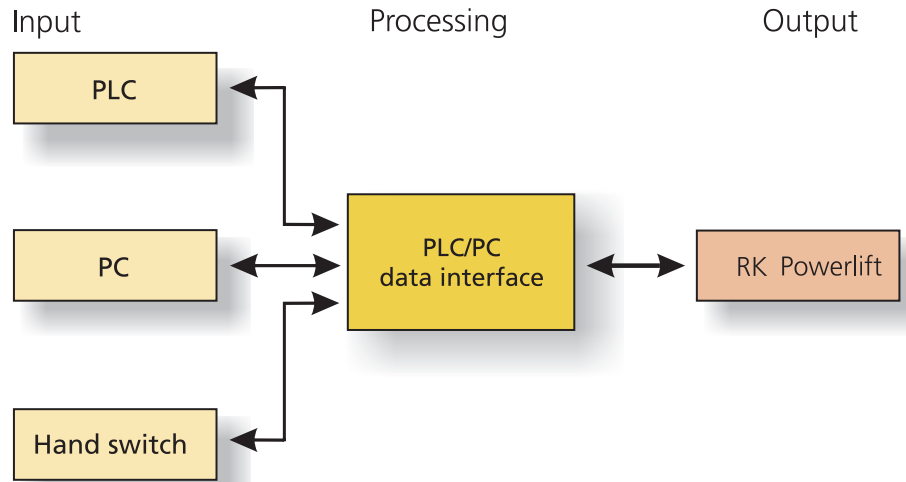
[mm]

Code No.	Type	A	B	C	D	E	F	G
<b>Without pressure plate</b>								
QZD100447	Powerlift telescope	200	250	-	180	230	10-15	M 10
<b>With pressure plate</b>								
QZD100464	Powerlift telescope	200	250	15-20	180	230	10-15	M 10

## PLC/PCdata interface

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

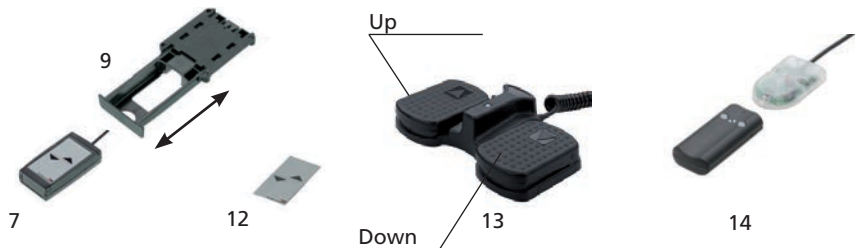
You will find further product information on page 182



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

## Hand switches / accessories

(internal control  
RKPowerlift telescope mono)



Code No.	Version	Fig.
<b>Hand switch for RKPowerlift telescope mono</b>		
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	12
QZB02C01AE114GS	Foot switch – 2 function keys	13
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	7
<b>Hand switch for RKPowerlift telescope mono (Start and Stop)</b>		
QZB00D07BK141	Wireless hand switch – 2 function keys	14
<b>Accessories for hand switches</b>		
QZD000074	Drawer for hand switch	9

## Hand switches/accessories

(external control  
RKPowerlift telescope synchro)



Code No.	Version	Fig.
<b>Hand switch for RKPowerlift telescope synchro</b>		
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys	8

# Multi-stage lifting columns - Alpha Colonne

Square column in two sizes, optionally available with internal control



## Features:

- Two sizes available: "medium" and "large"
- Suitable for both tensile and compressive loads push/pull forces
- 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

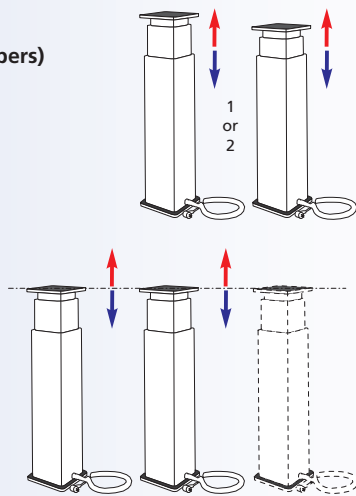


## Alpha Colonne - Table of contents

### Properties/Technical data

- General information/operating conditions..... Page 98
- Power diagram..... Page 98
- Load data..... Page 98

### Versions (Dimensions, order numbers)



- Alpha Colonne ..... Page 99

### Accessories

#### Fixing

- RK SyncFlex..... Page 101

#### Position determination

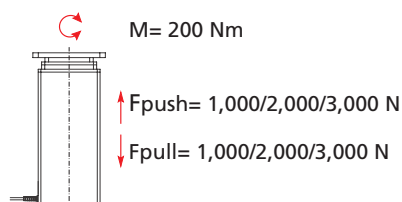
- Controls ..... Page 102
- PLC/PC data interface..... Page 103
- Hand switches ..... Page 103

# Alpha Colonne – Technical data

## General information/operating conditions

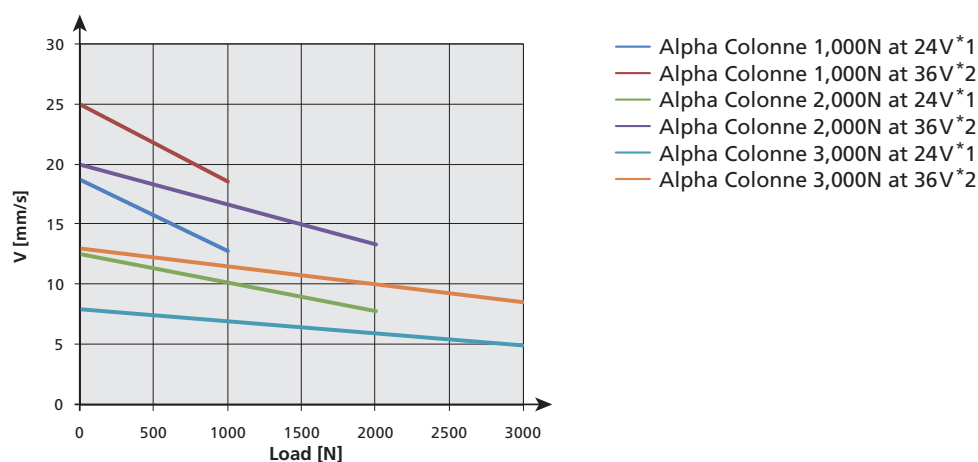
Type	Alpha Colonne for external control	Alpha Colonne with internal control
Design	Lifting column with integrated DC motor	
Guide	Slide guides made of POM	
Installation position	Any position/suspended with drop protection provided by the customer	
Push force/pull force	Up to 3,000 N	
Self-locking	Up to 3,000 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 output	Max. 5.5 A	according to drive
Power input	Max. 130 W	according to drive
Protection class	IP 30	IP 30

## Load data



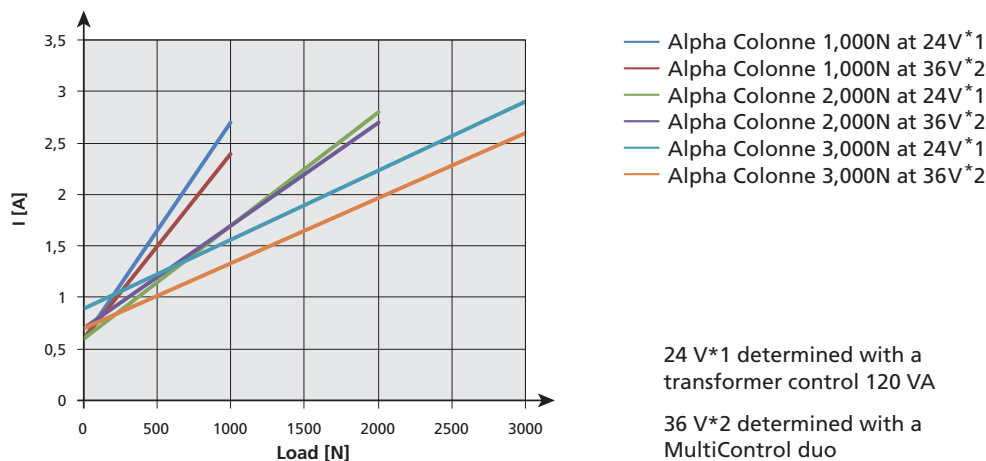
## Speed/Force diagram

Alpha Colonne for external control

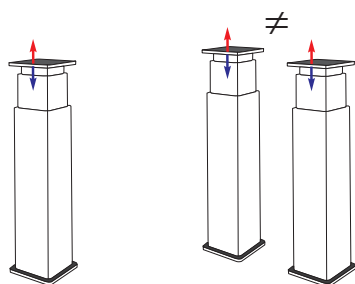


## Current output/Force diagram

Alpha Colonne with external control



## Alpha Colonne mono

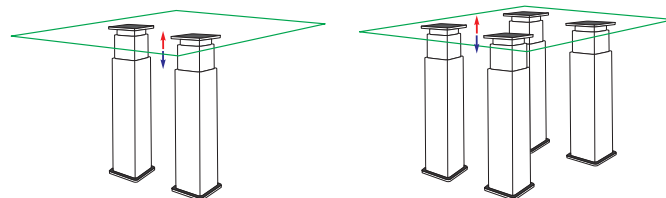


1-2 Alpha Colonne in single or parallel operation

### 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 146) 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

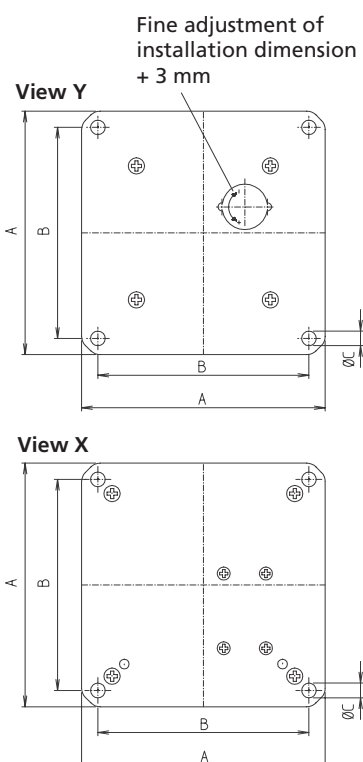
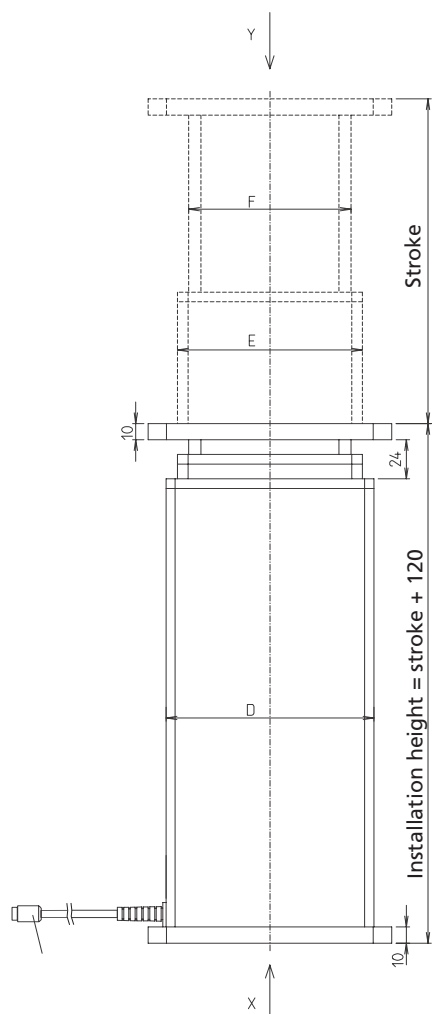
## Dimensions

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

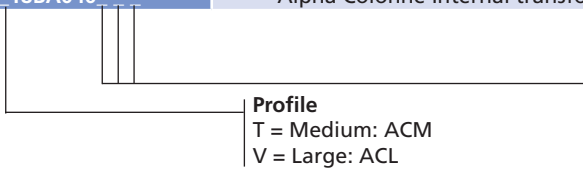


### Connecting cable

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

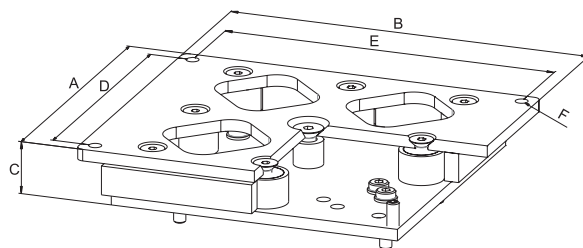
## Alpha Colonne – Fixing

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

# Alpha Colonne – Fixing / Position determination

## RK SyncFlex V

### Vertical alignment

#### Option:

Optionally available with or without pressure plate (see table)



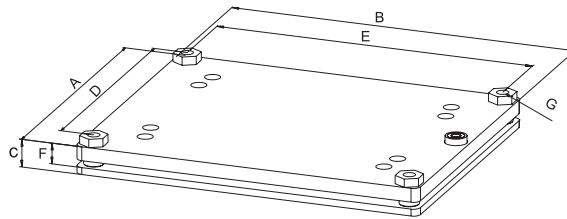
- If the lifting columns are not parallel, the distance between the two upper fixing points will change during the movement. However, a rigid connection keeps this distance constant, and this means that the lifting columns are subject to very strong forces.

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



[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

## 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

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

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

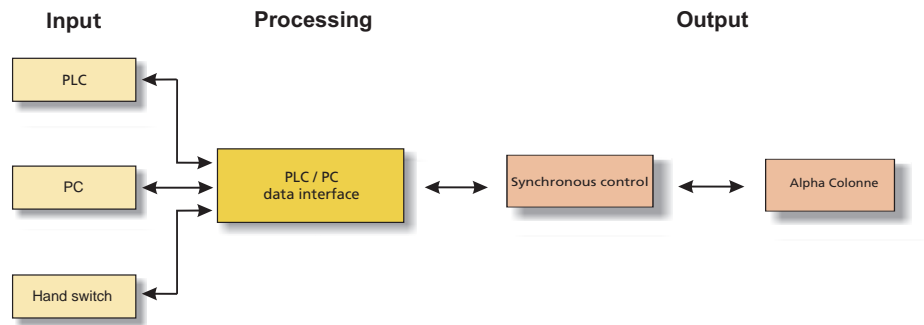
Code No.	Version	
Controls for Alpha Colonne mono		
QZA07C13BQ021	Transformer control 120 VA connection A, up to max. 3 A current output, 24 V DC	Controls up to 2 drives
QSTAACA1AA000	MultiControl mono connection A, up to max. I= 10 A current output, 24 V DC	Controls up to 2 drives
Controls for Alpha Colonne synchro		
QSTACCA1AA000	MultiControl mono connection C, up to max. I= 12 A current output, 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
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	
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)

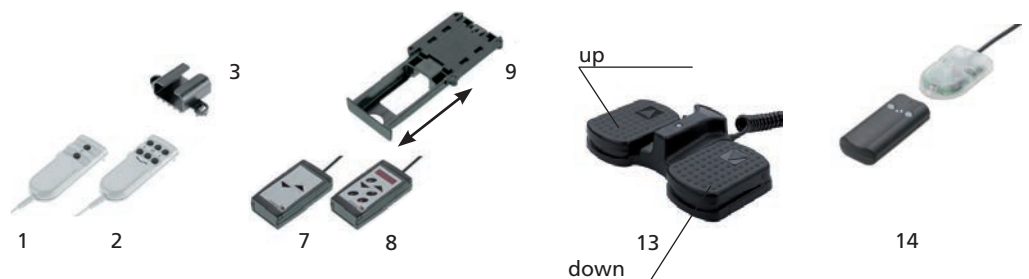
**PLC/PC data interface**

- 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 182



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

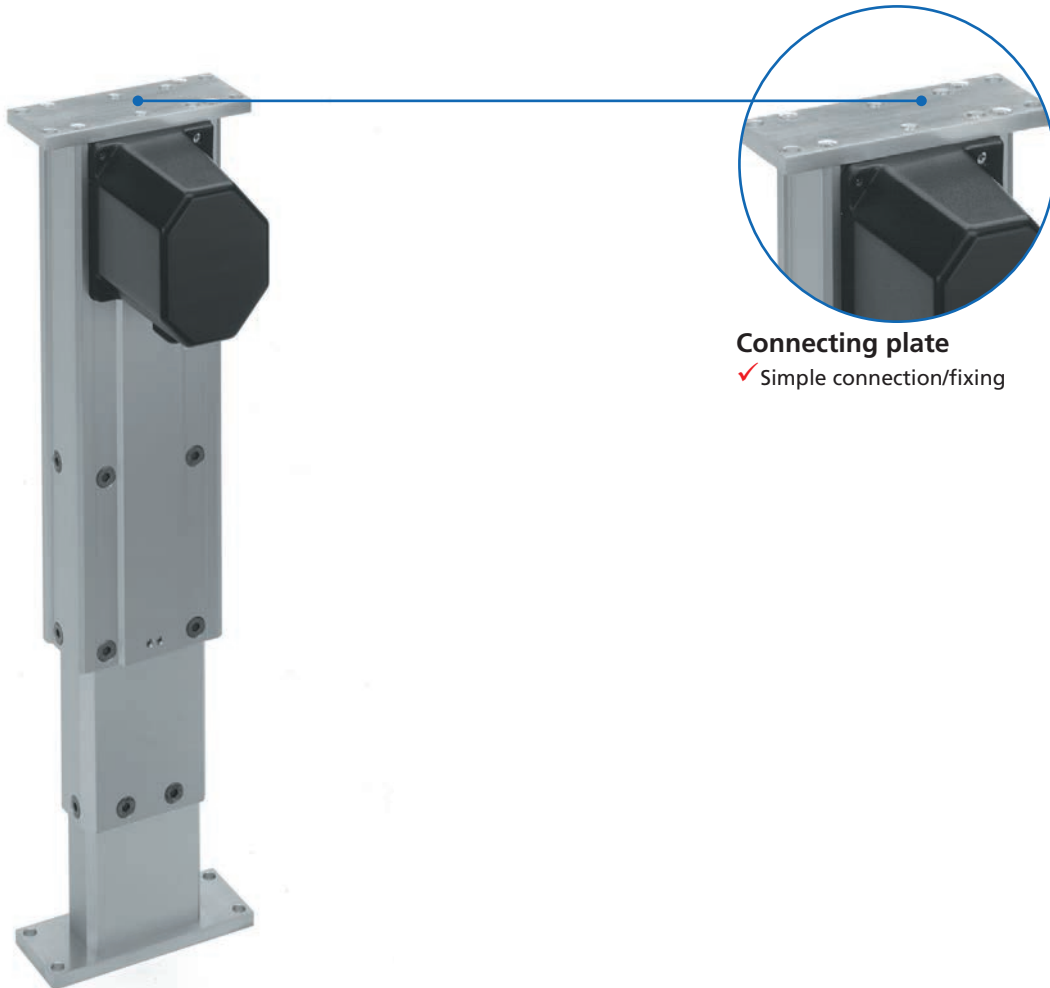
**Hand switches/accessories**


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	Wireless 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 146

# Multi-stage lifting columns - LAMBDA Colonne

## Powerful drive for height lifting forces



### Connecting plate

✓ Simple connection/fixing

### Features:

- High lifting force
- Can be installed in any position
- Guides set to minimum play
- Integrated limit switches
- Self-locking, even at max. load

- With thermal motor protection
- Supports mono and synchronous applications
- Integrated potentiometer for synchron operation

### Options:

- Special stroke lengths
- Longer duty cycle



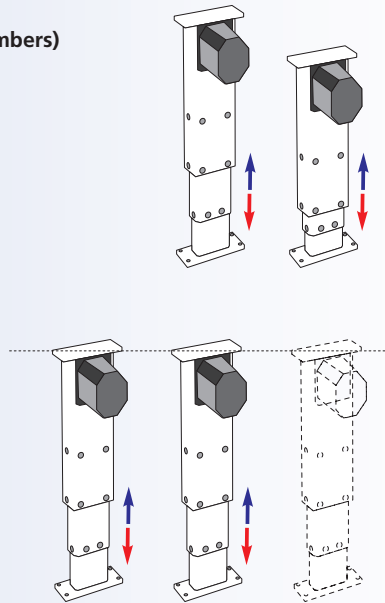
## LAMBDA Colonne - Table of contents

### Properties/Technical data

- General information/operating conditions.... Page 106
- Load data..... Page 106
- Parallel/synchronous operation..... Page 107

### Versions

(Dimensions, order numbers)



- LAMBDA Colonne mono ..... Page 108
- LAMBDA Colonne synchro ..... Page 108

### Accessories

#### Position determination

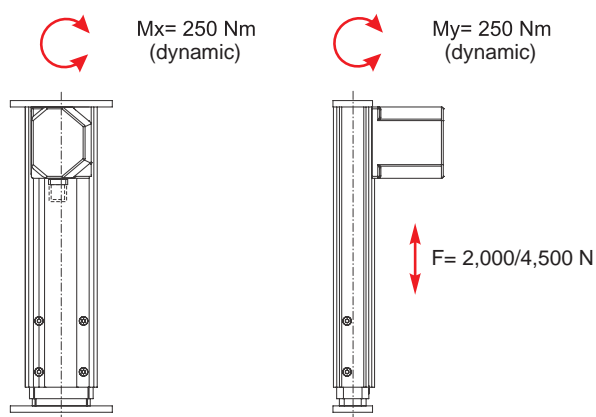
- Controls ..... Page 109
- Hand switches ..... Page 109

# LAMBDA Colonne – Technical data

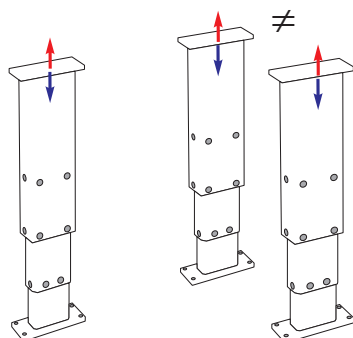
## General information/operating conditions

	Column	External control
Design	Lifting column with integrated DC motor	
Guide	Slide guides made of POM	
Installation position	Any position/suspended with drop protection provided by the customer	
Push force/pull force	Up to 4,500 N	
Self-locking	Up to 8,000 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)	
Voltage	24 V DC	230 V AC
Current output	Max. 7 A	according to drive
Power input	Max. 180 W	according to drive
Protection class	IP 40 (IP 54)	IP 54

## Load data



## LAMBDA Colonne mono

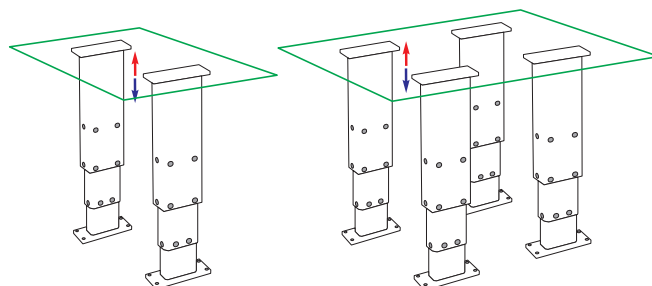


1-2 LAMBDA Colonne in single or parallel operation

### Parallel operation

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

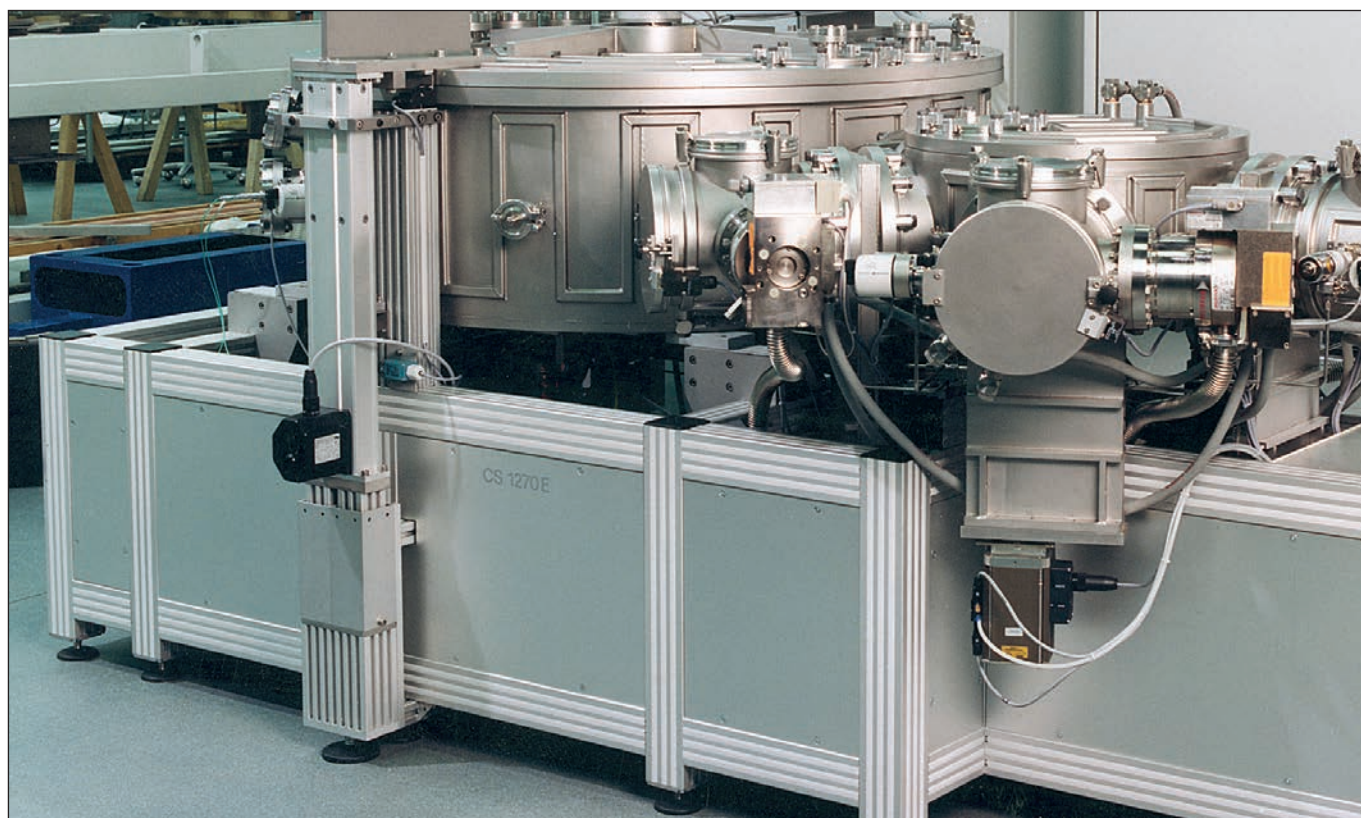
## LAMBDA Colonne synchro



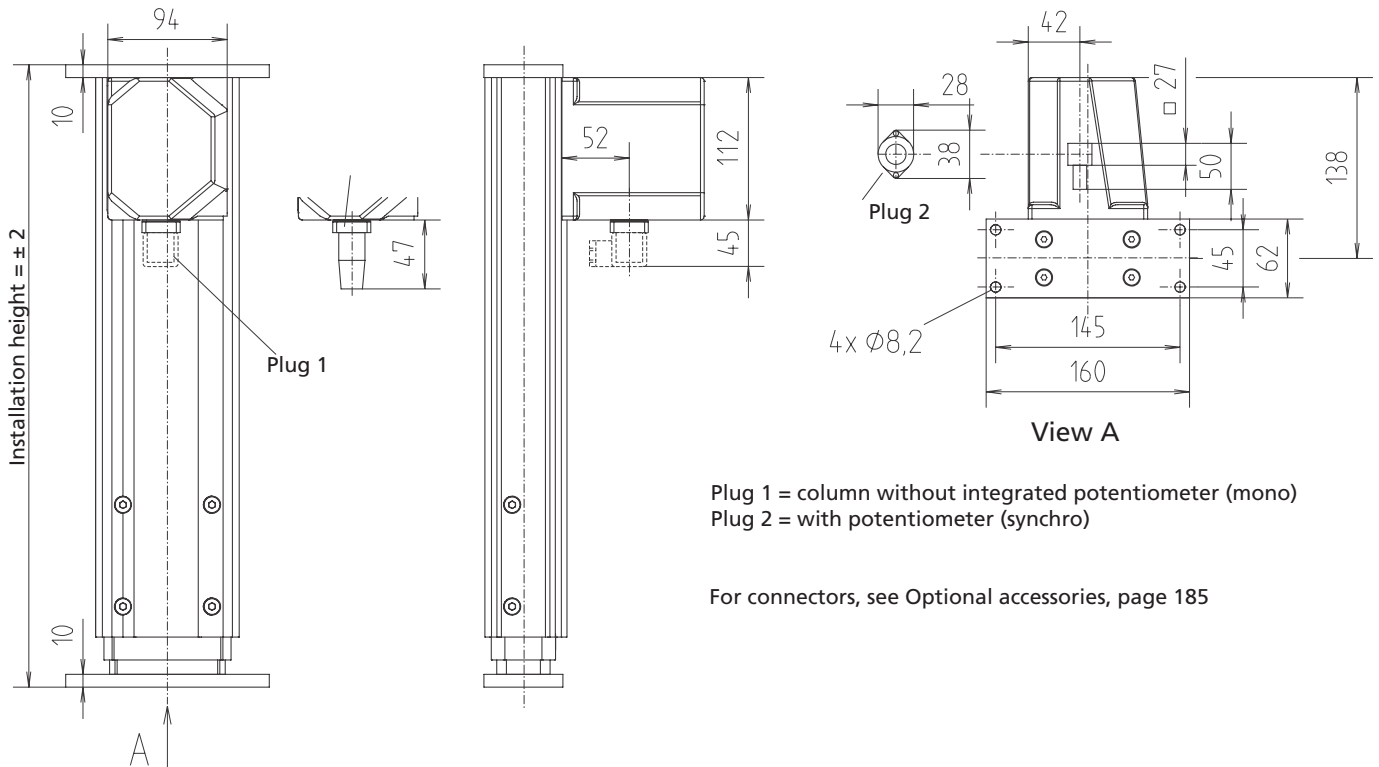
2-4 LAMBDA Colonne in synchronous operation

### Synchronous operation

Synchronous operation of two or more columns. In conjunction with the integrated sensors, the control (see page 146) 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 depends on the lifting speed and is max. 6 mm.



# LAMBDA Colonne - Versions



Plug 1 = column without integrated potentiometer (mono)  
 Plug 2 = with potentiometer (synchro)

For connectors, see Optional accessories, page 185

## LAMBDA Colonne mono

Code No.	Type	Push force/pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
LAMBDA mono without potentiometer, plug 1						
QKL20BA020200	LBC 12	2,000	20	200	410	~5.2
QKL20BA020300	LBC 13	2,000	20	300	460	~5.6
QKL20BA020400	LBC 14	2,000	20	400	510	~6.0
QKL20BA020500	LBC 15	2,000	20	500	610	~7.0
QKL20BA020600	LBC 16	2,000	20	600	710	~8.0
QKL10BB020200	LBC 112	4,500	8	200	410	~5.2
QKL10BB020300	LBC 113	4,500	8	300	460	~5.6
QKL10BB020400	LBC 114	4,500	8	400	510	~6.0
QKL10BB020500	LBC 115	4,500	8	500	610	~7.0
QKL10BB020600	LBC 116	4,500	8	600	710	~8.0

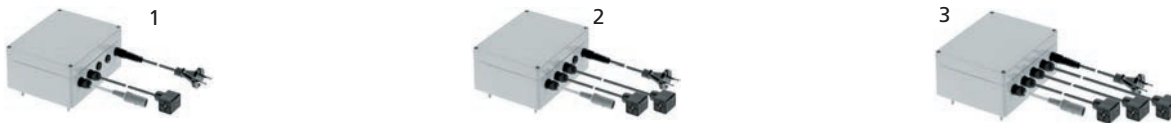
## LAMBDA Colonne synchro

Code No.	Type	Push force/pull force [N]	Lifting speed [mm/s]	Stroke length [mm]	Installation height [mm]	Weight [kg]
LAMBDA synchro with potentiometer, plug 2						
QKL20BA010200	LBC 22	2,000	20	200	410	~5.2
QKL20BA010300	LBC 23	2,000	20	300	460	~5.6
QKL20BA010400	LBC 24	2,000	20	400	510	~6.0
QKL20BA010500	LBC 25	2,000	20	500	610	~7.0
QKL20BA010600	LBC 26	2,000	20	600	710	~8.0
QKL10BB010200	LBC 122	4,500	8	200	410	~5.2
QKL10BB010300	LBC 123	4,500	8	300	460	~5.6
QKL10BB010400	LBC 124	4,500	8	400	510	~6.0
QKL10BB010500	LBC 125	4,500	8	500	610	~7.0
QKL10BB010600	LBC 126	4,500	8	600	710	~8.0

## Controls

- Input voltage 230 V AC
- Output voltage 24 V DC

### Transformer control



### Synchronous control



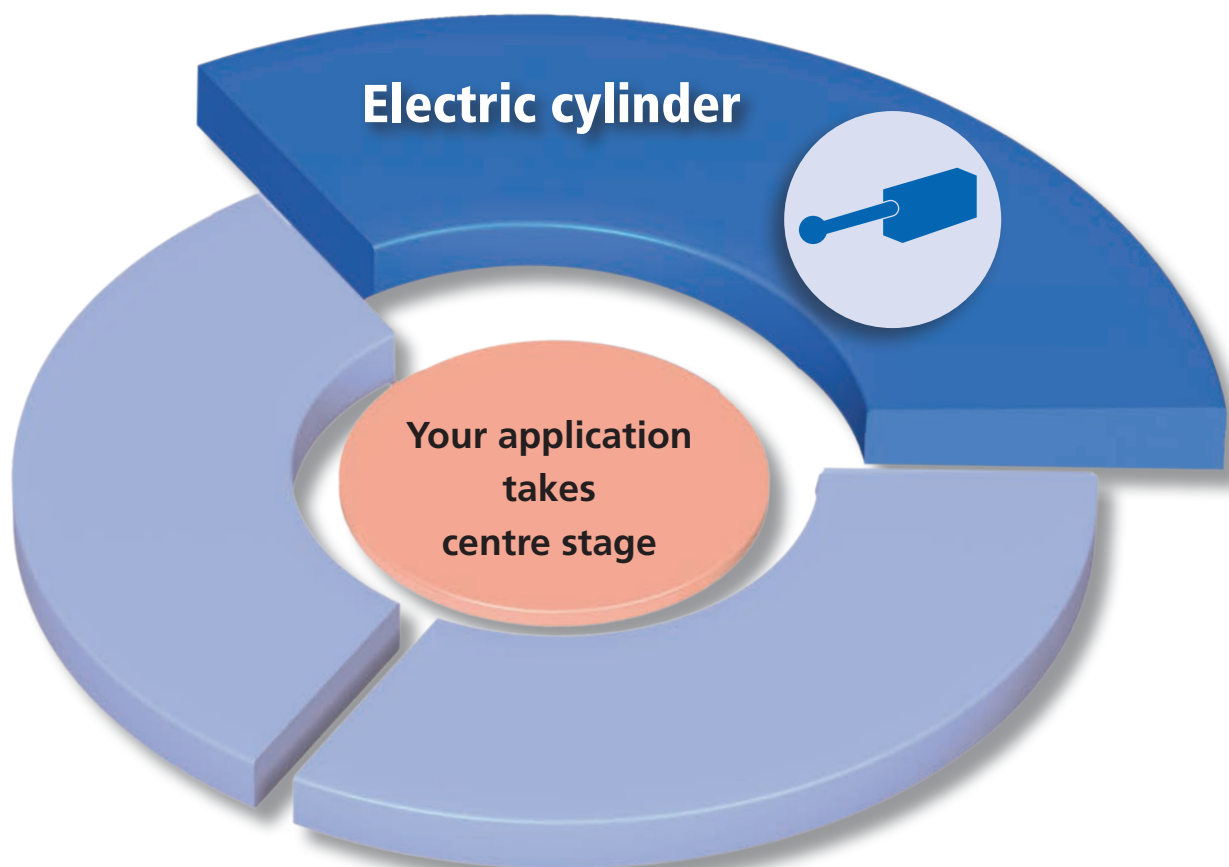
Code No.	Version		Fig.
<b>Controls for Lambda Colonne mono</b>			
QZA01C04AD011	LBG 1 transformer control	Controls up to 1 drive	1
QZA01C04AE011	LBG 2 transformer control	Controls up to 2 drives	2
QZA01C04AF011	LBG 3 transformer control	Controls up to 3 drives	3
<b>Controls for Lambda Colonne synchro</b>			
QZA10C01AG011	LBS 2 synchronous control	2 drives, synchronous	4
QZA10C01AH011	LBS 2+1 synchronous control	Controls up to 3 drives, 2 x synchronous + 1 additional drive	5

For dimensions and additional technical data, please refer to the chapter "Controls" on page 146 ff.

## Hand switches/ Accessories



Code No.	Version		Fig.
QZB03C02AD031	LAMBDA-hand switch with fixing clip, 6 function keys	control of up to 3 drives	2
QZD000072	Bracket for hand switch		3



## Electric cylinders

are self-locking, which means that no power is supplied when at a standstill. This makes electric cylinders an interesting alternative to pneumatic and hydraulic actuators. Powerful DC motors, signal lines, potentiometers and Hall ICs for position sensing, and integrated limit switches thus respond to the most common requirements.



## Contents

---

Series M9 ..... Page 116

Series 010..... Page 118

Series 015..... Page 122

LAMBDA ..... Page 128

LZ 60 P/S ..... Page 132

# *Electric cylinder*

# Electric cylinder - Product selection

## Finding the right electric cylinder



Depending on technical and optical requirements, it takes just 2 steps to find the electric cylinder that matches your needs.  
Step 1 - Determine the type of electric cylinder.  
Step 2 - Choose the appropriate version.

### Step 1



Select the electric cylinder on the right that meets your requirements.

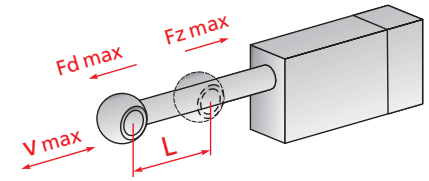
### Step 2

For step 2, please refer to the relevant catalogue page.





## Rodstyle | Drive + Guide



L = Travel  
 $F_d$  = Push force  
 $F_z$  = Pull force  
V = Travel speed

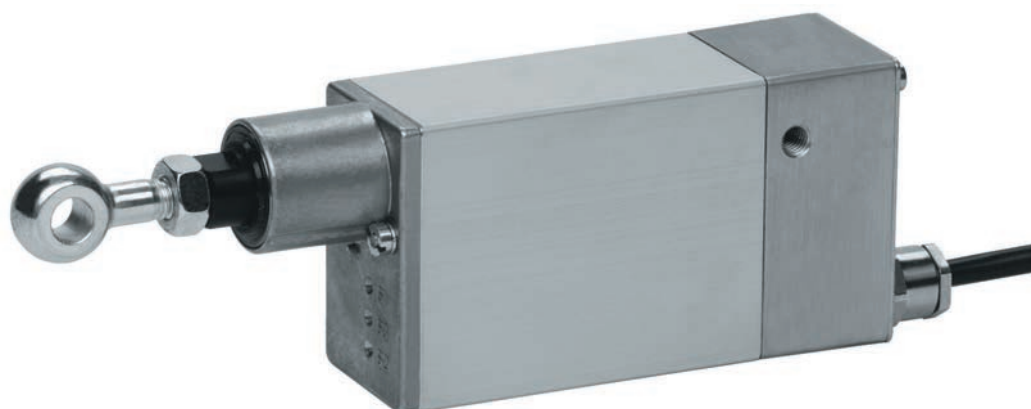
All data refer to standard sizes

Features	Cylinders performance class 1		Cylinders performance class 2		
	M9 page 116	010 page 118	015 page 124	LAMBDA page 128	LZ 60 P/S page 132
Max. travel	50 mm	40–100 mm	300 mm	600 mm	600 mm
Max. push force	300 N	500 N	1,000 N	6,000 N	4,000 N
Max. pull force	300 N	500 N	1,000 N	4,000 N	4,000 N
Max. travel speed	14 mm/s	22 mm/s	100 mm/s	21 mm/s	110 mm/s
Protection class	IP 30	IP 40   IP 54	IP54	IP 66	IP 54
Integrated limit switch	●	+ (adjustable)	+ (adjustable)	●	●
Can be synchronised by means of control system				●	●
Fitted with signal contact	●	●	●	●	●
Integr. control					●
Potentiometer	●	●	●	●	
Features	✓ Lightweight ✓ Bellows	✓ Range of lifting speeds	✓ Rugged design ✓ Adjustable travel	✓ Clamping protection optional	✓ Various connections for industrial applications

# Cylinders - performance class 1



M9 Electric cylinder



M10, LH10; LH11; LH950 Electric cylinder

## Features:

- M9, M10, LH10; LH11 and LH950 are maintenance-free – due to permanent lubrication
- Integrated limit switches
- M9 is fitted with bellows as standard

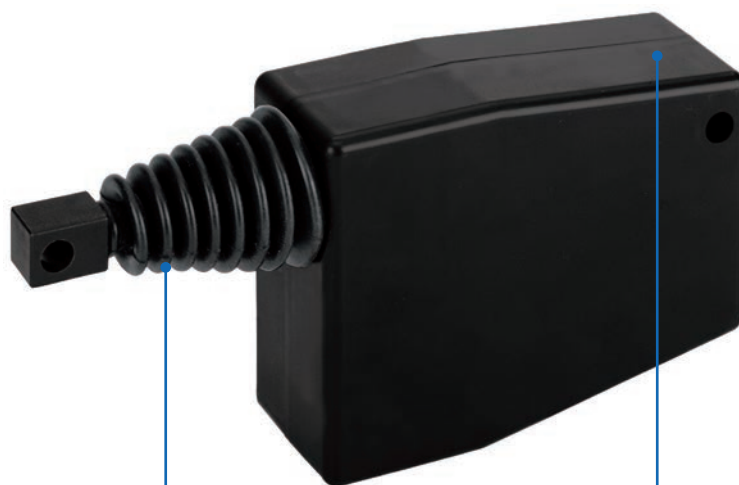
## Options:

- M10, LH10; LH11; LH950 can be fitted with bellows

## Cylinders - performance class 1 - Table of contents

<b>M9 Electric cylinder</b>	
<b>Properties/Technical data</b>	<ul style="list-style-type: none"> <li>■ General information - operating conditions ..... Page 117</li> </ul>
<b>Version</b>	<ul style="list-style-type: none"> <li>■ M9 Electric cylinder ..... Page 117</li> </ul>
<b>M10, LH10; LH11; LH950 Electric cylinder</b>	
<b>Properties/Technical data</b>	<ul style="list-style-type: none"> <li>■ General information - operating conditions ..... Page 119</li> </ul>
<b>Version</b>	<ul style="list-style-type: none"> <li>■ 010 Electric cylinder ..... Page 119</li> </ul>
<b>Fixing</b>	<ul style="list-style-type: none"> <li>■ Trunnion kit..... Page 121</li> </ul>

# M9 Electric cylinder



## Bellows fitted as standard

- ✓ Protected push rod
- ✓ IP 30



## Plastic housing

- ✓ Lightweight
- ✓ Greater durability

## Features:

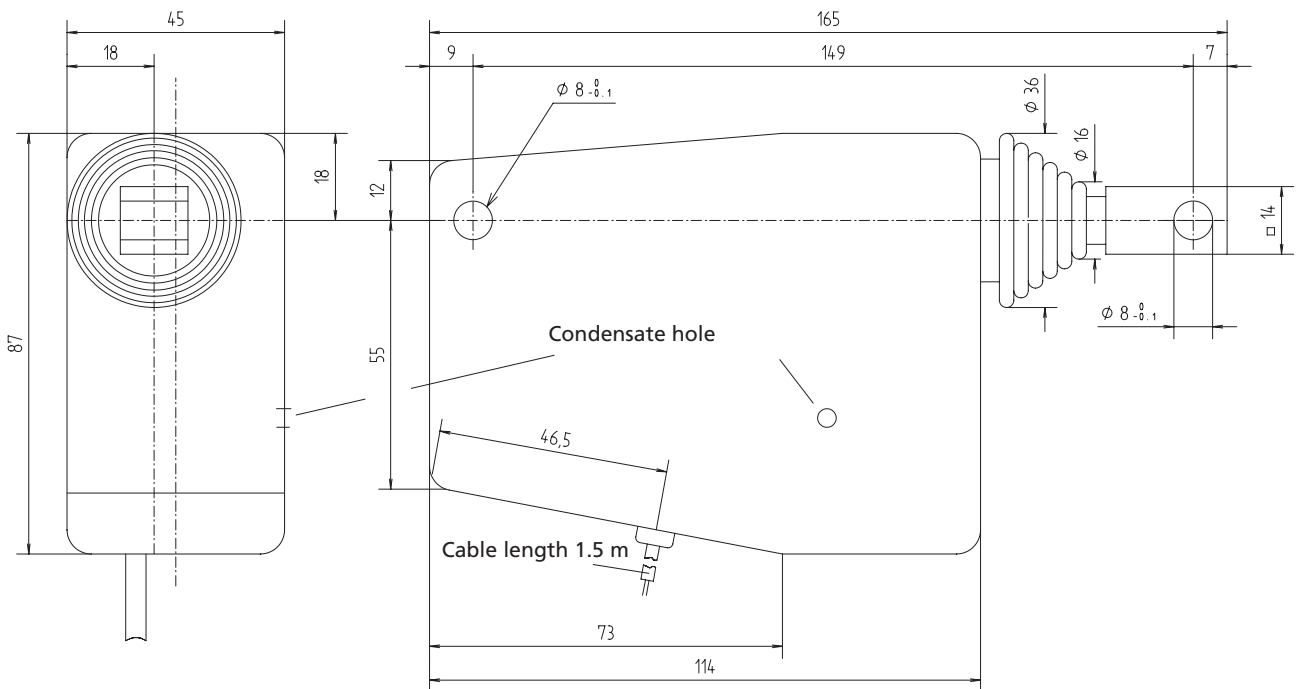
- Plastic housing reduces weight
- Integrated limit switches
- Integrated overcurrent protection
- Maintenance-free (permanent lubrication)
- Self-locking
- M9 is fitted with bellows as standard

## Options:

- Special stroke lengths
- Adjustable overall length
- Potentiometer
- Signal contacts
- Diode braking circuit to limit coasting
- Different temperature range

## General information/operating conditions

Design	Linear cylinder with integrated DC motor
Guide	Slide bearing
Installation position	Any position, without shear forces, condensate hole must be taken into account
Push force / Pull force	Up to 300 N
Self-locking	Up to 500 N
Ambient temperature	-10°C to +60°C
Repeatability	0.5 mm
Duty cycle (at max. load)	10% at nominal load (max. 2 mins operating time, 18 mins rest time)
Voltage	24 (12) V DC
Current output	Max. 0.7 (1.4) A
Power input	Max. 18 W
Protection class	IP 30

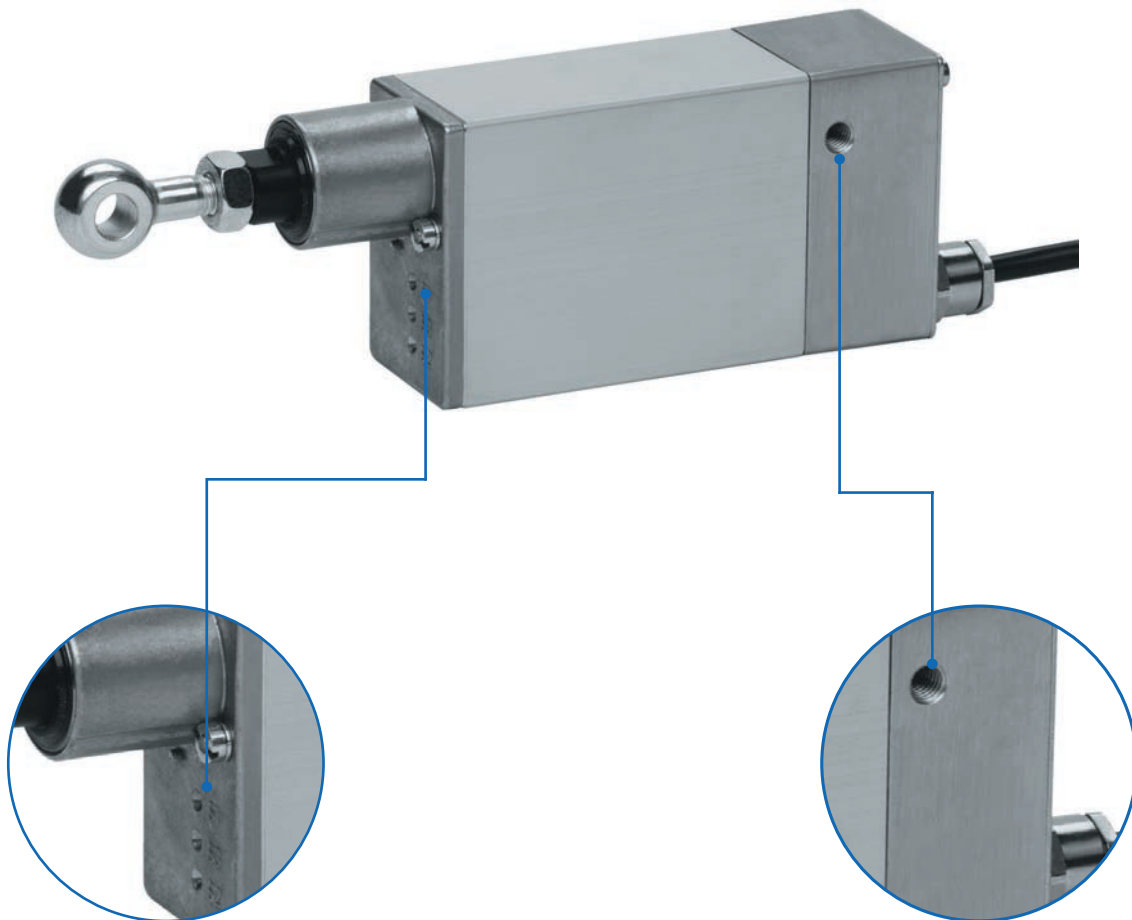


## Version

Code No.	Type	Max. force F [N]	Max. speed [mm/s]	Stroke length [mm]	Weight [kg]	Operating cycles Double strokes/hour
QKA05_C010050	M 999	300	5	50	0.4	18
QKA15_A010050	M 999.1	125	14			50
QKA02_C010050	M 999.2	300	2			7

Voltage:  
 B = 24 V DC  
 C = 12 V DC

# M10, LH10, LH11, LH950 Electric cylinder



## Adjustable stroke lengths (not available with M10)

✓ Precise adjustment

## Tapped holes

✓ Thread for trunion mounting

### Features:

- Integrated limit switch
- Maintenance-free (permanent lubrication)
- Iron free high-performance motors
- Various travel speeds
- Can be installed in any position

### Options:

- Other travel speeds, special stroke lengths
- Potentiometer (only available with LH10, LH11, LH 950)
- 3rd limit switch enables centre position (only available with LH10, LH11, LH 950)
- Corrosion protected screw and push rod

## General information/operating conditions

	M 10	LH 10	LH 11	LH 950
Design	Linear cylinder with integrated DC motor			
Guide				Slide bush
Installation position	Any position, without shear forces			
Push force/ Pull force	Up to 300 N	Up to 300 N	Up to 300 N	Up to 500 N
Self-locking	Up to 500 N	Up to 500 N	Up to 500 N	Up to 1,250 N
Ambient temperature	-20°C to +40°C	-20°C to +40°C	-20°C to +85°C	-20°C to +85°C
Repeatability	0.5 mm			
Duty cycle (at max. load)	at 20°C 40% at nominal load (max. 8 mins operating time, 12 mins rest time)			
Voltage	24 (12) V DC			
Current output	Max. 1.1 A			
Power input	Max. 27 W			
Protection class	IP 40	IP 54	IP 54	IP 54

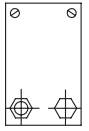
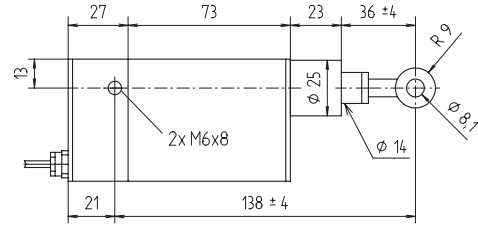
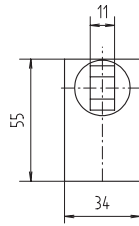
## Version

Code No.	Type	Max. force F [N]	Max. speed [mm/s]	Stroke length [mm]	Weight [kg]
QKB01_C010040	M 10	300	0.25	40	0.45
QKB02_C010040		300	1.9		
QKB04_B010040		200	4		
QKB10_A010040		50	10		
QKM01_C010090	LH 10	300	0.25	90	0.55
QKM02_C010100		300	1.9		
QKM04_B010100		200	4		
QKM10_A010100		50	10		
QKN07_C010100	LH 11	300	7	100	0.75
QKN22_A010100		100	22		
QKR04_E010100	LH950	500	4	100	1.15

Voltage:  
B = 24 V DC  
c = 12 V DC

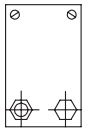
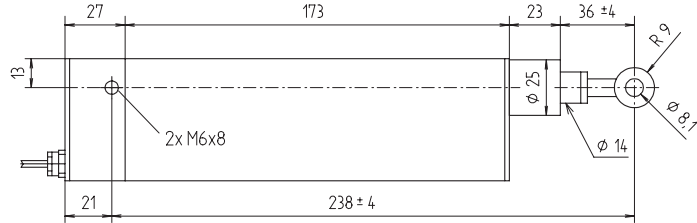
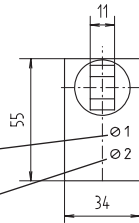
# M10, LH10, LH11, LH950 - Versions

**M 10**



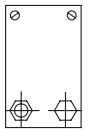
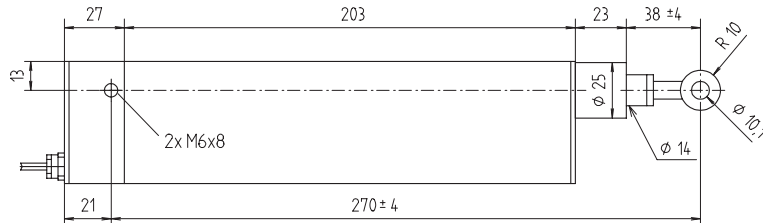
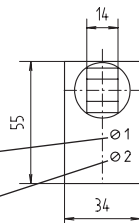
**LH 10**

Adjustment of stroke length  
Adjustment of installation dimension



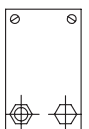
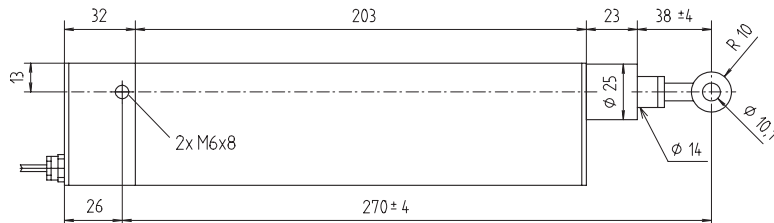
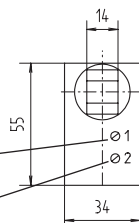
**LH 11**

Adjustment of stroke length  
Adjustment of installation dimension



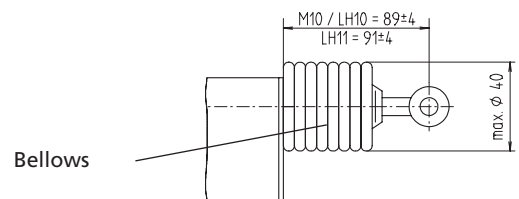
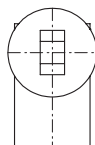
**LH 950**

Adjustment of stroke length  
Adjustment of installation dimension

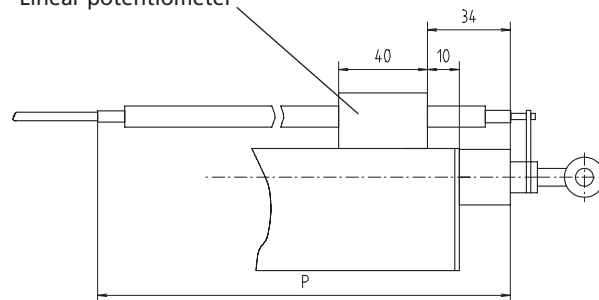


**Options:**

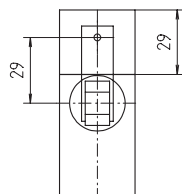
Bellows



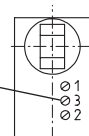
Linear potentiometer



External potentiometer



3rd limit switch (for intermediate positions)



	[mm]			
Stroke length	15	40	90	100
Dimension P	105	130	180	205



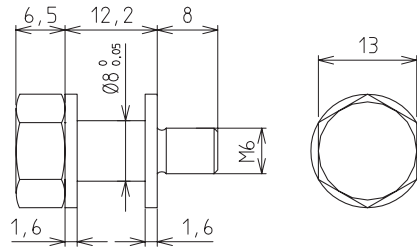


## M10, LH10, LH11, LH950 - Fixing

### Trunnion kit

- The trunnion is bolted into the thread in the side of the electric cylinder
- Each kit comprises two trunnions

- **Material:** Galvanised steel

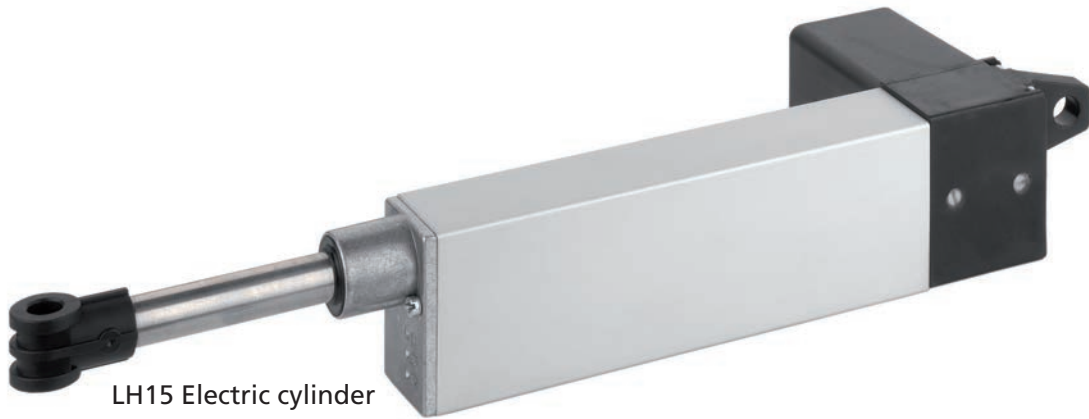


Code No.	Type
QZD050003	Trunnion kit

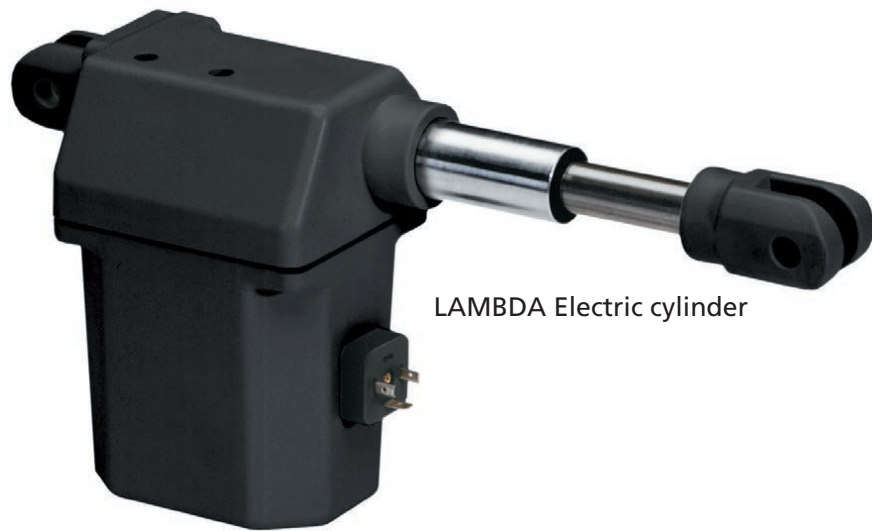


Adjustment of combine harvester sieve via series 010 electric cylinder. Ideal for use in harsh conditions (heat, dust and vibrations).

# Cylinders - performance class 2



LH15 Electric cylinder



LAMBDA Electric cylinder



LZ60 Electric cylinder  
(here with motor  
fitted in parallel)

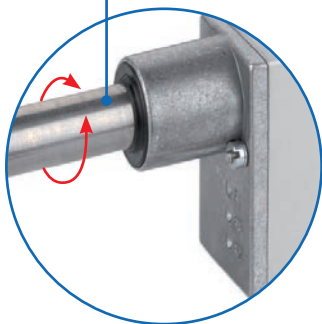
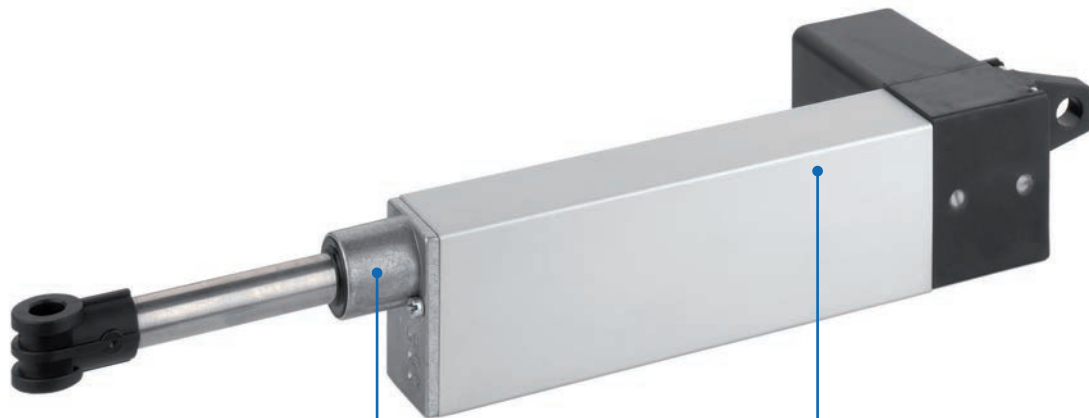
## Features:

- Wide range of application and fixing options
- Limit switch integrated on all models
- Maintenance-free – due to permanent lubrication
- Rugged design
- Corrosion-protected by means of durable materials, such as aluminium, stainless steel and plastic

## Cylinders - performance class 2 - Table of contents

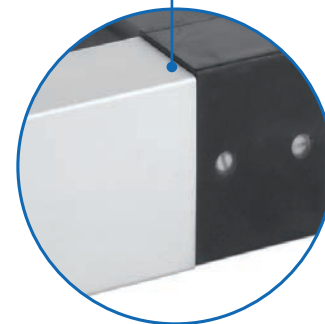
<b>LH15 electric cylinder</b>	
<b>Properties - Technical data</b>	<ul style="list-style-type: none"> <li>■ General information - operating conditions ..... Page 125</li> </ul>
<b>Version</b>	<ul style="list-style-type: none"> <li>■ E-cylinder 015 ..... Page 126</li> </ul>
<b>LAMBDA electric cylinder</b>	
<b>Properties - Technical data</b>	<ul style="list-style-type: none"> <li>■ General information - operating conditions ..... Page 129</li> </ul>
<b>Version</b>	<ul style="list-style-type: none"> <li>■ LAMBDA electric cylinder ..... Page 130</li> </ul>
<b>Accessories</b>	<ul style="list-style-type: none"> <li>■ Controls/hand switches ..... Page 131</li> </ul>
<b>LZ60 electric cylinder</b>	
<b>Properties - Technical data</b>	<ul style="list-style-type: none"> <li>■ General information - operating conditions ..... Page 134</li> </ul>
<b>Versions</b>	<ul style="list-style-type: none"> <li>■ LZ60 S electric cylinder ..... Page 137</li> <li>■ LZ60 P electric cylinder ..... Page 138</li> <li>■ Fixing ..... Page 140-141</li> <li>■ Magnetic switch ..... Page 144</li> </ul>
<b>Position determination</b>	<ul style="list-style-type: none"> <li>■ Axial adjustment, Controls, PLC/PCdata interface, Hand switches ..... Page 142-145</li> </ul>

# LH15 Electric cylinder



## Adjustable stroke lengths

- ✓ Precise adjustment



## Corrosion-protected

- ✓ Stainless-steel spindle
- ✓ Housing made of aluminium and plastic

## Features:

- Outstanding for industrial applications
- High max. lifting speed
- Integrated overcurrent protection
- Maintenance-free (permanent lubrication)
- Corrosion-protected, thanks to stainless-steel spindle and push rod; housing made of aluminium and plastic
- Rugged design
- Integrated limit switches
- Adjustable travel

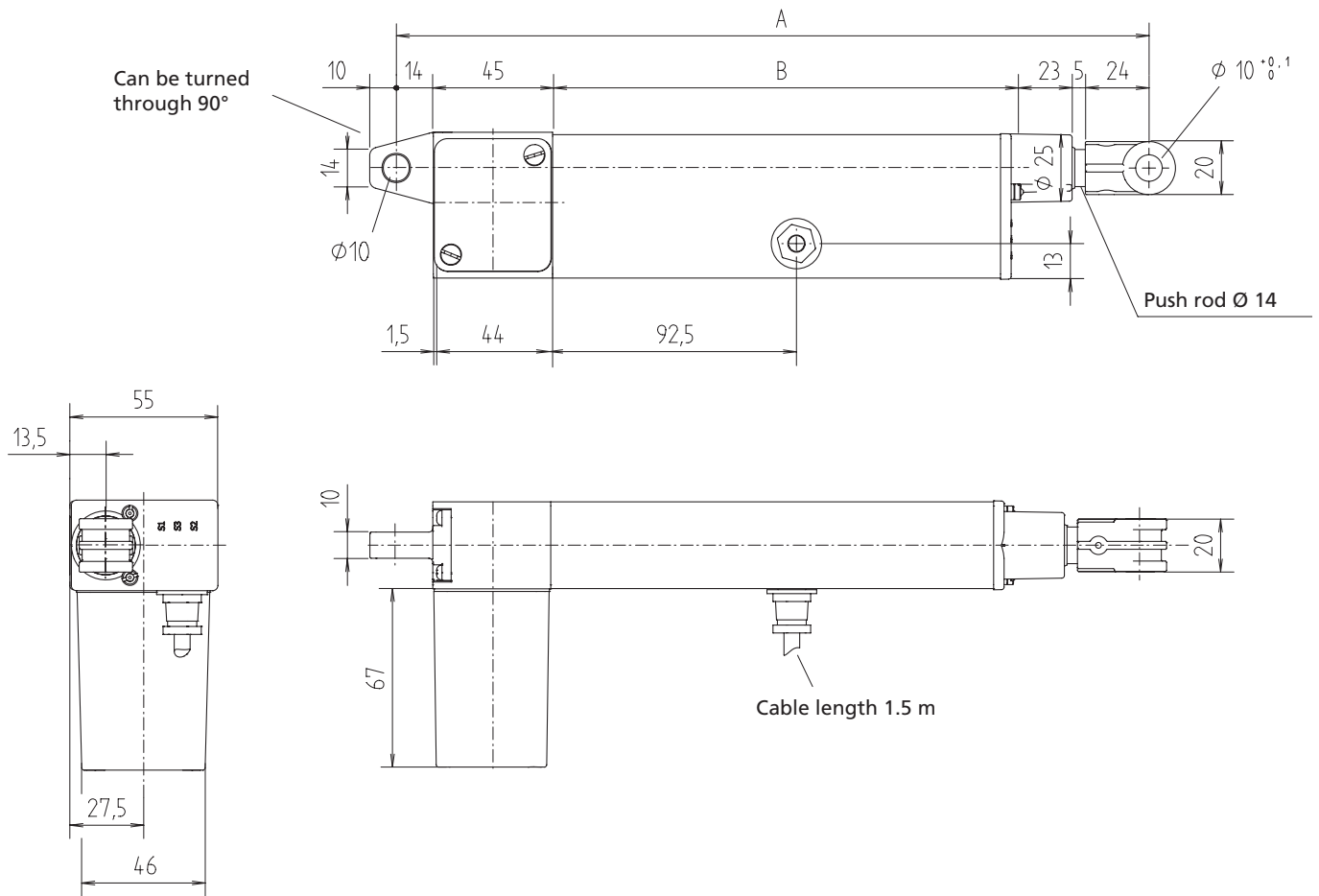
## Options:

- Special stroke lengths
- Potentiometer
- Signal contacts
- Higher protection class with bellows

## General information/operating conditions

	Drive
Design	Linear cylinder with integrated DC motor
Guide	Slide bush
Installation position	Any position, without shear forces
Push force/Pull force	Up to 1,000 N
Self-locking	Up to 2,000 N
Ambient temperature	-20°C to +80°C
Repeatability	0.5 mm
Duty cycle (at max. load)	10% at nominal load (max. 2 mins operating time, 18 mins rest time)
Voltage	24 (12) V DC
Current output	Max. 2.2 (4.5) A
Power input	Max. 50 W
Protection class	IP 54

# LH15 Electric cylinder - Versions



Code No.	Type	Max. force F [N]	Max. speed [mm/s]
QKD05_F010_ _ _	LH15	1,000	5
QKD10_E010_ _ _		600	10
QKD22_C010_ _ _		300	22
QKD25_D010_ _ _		450	25
QKD60_B010_ _ _		200	60
QKD01_A010_ _ _		60	100

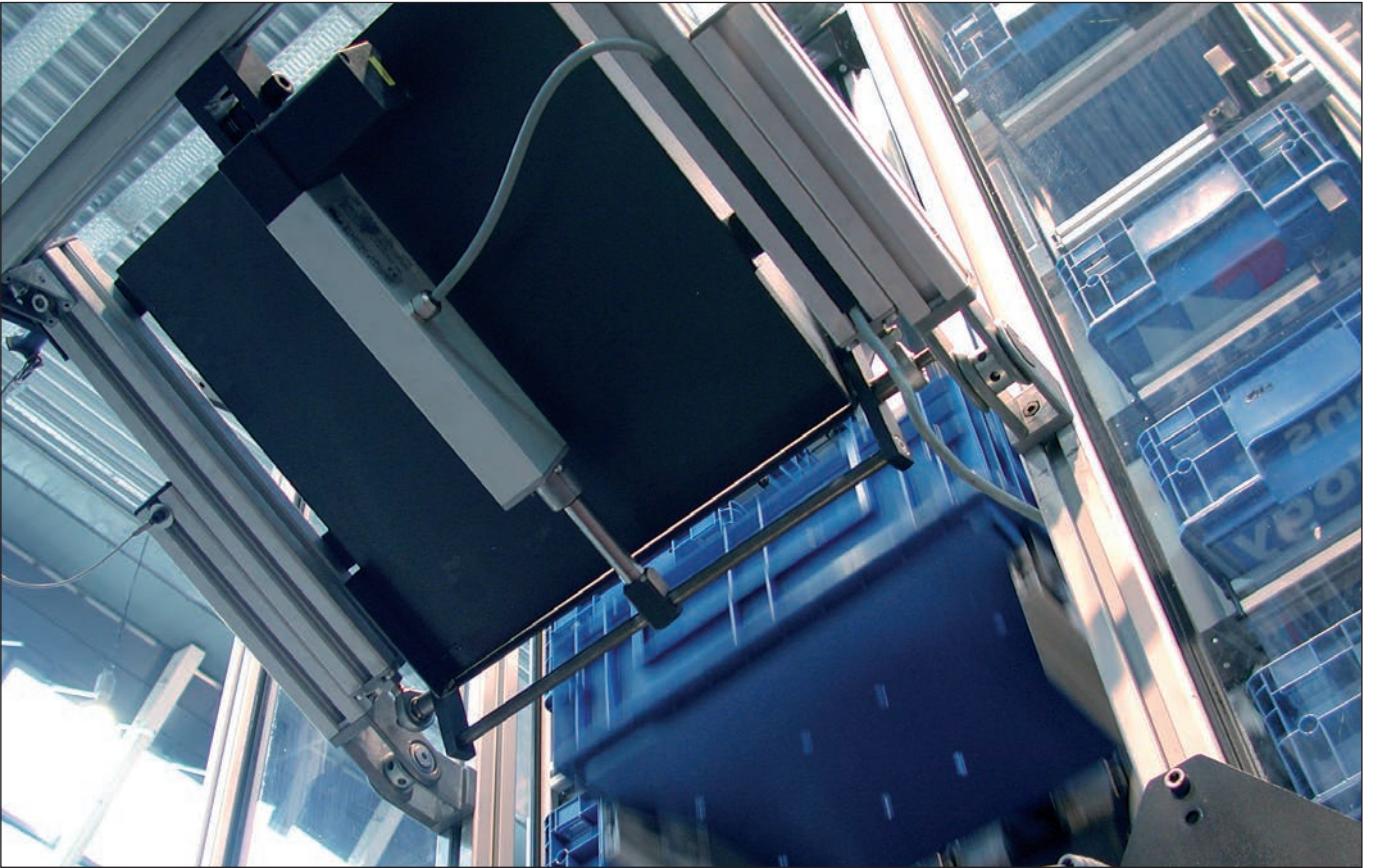
## Standard stroke lengths

Stroke [mm]	Stroke can be externally adjusted	Dimension A [mm]	Dimension B [mm]	Weight [kg]
100	Yes	284	173	1.2
140	No	284	173	

## Special stroke lengths available on request

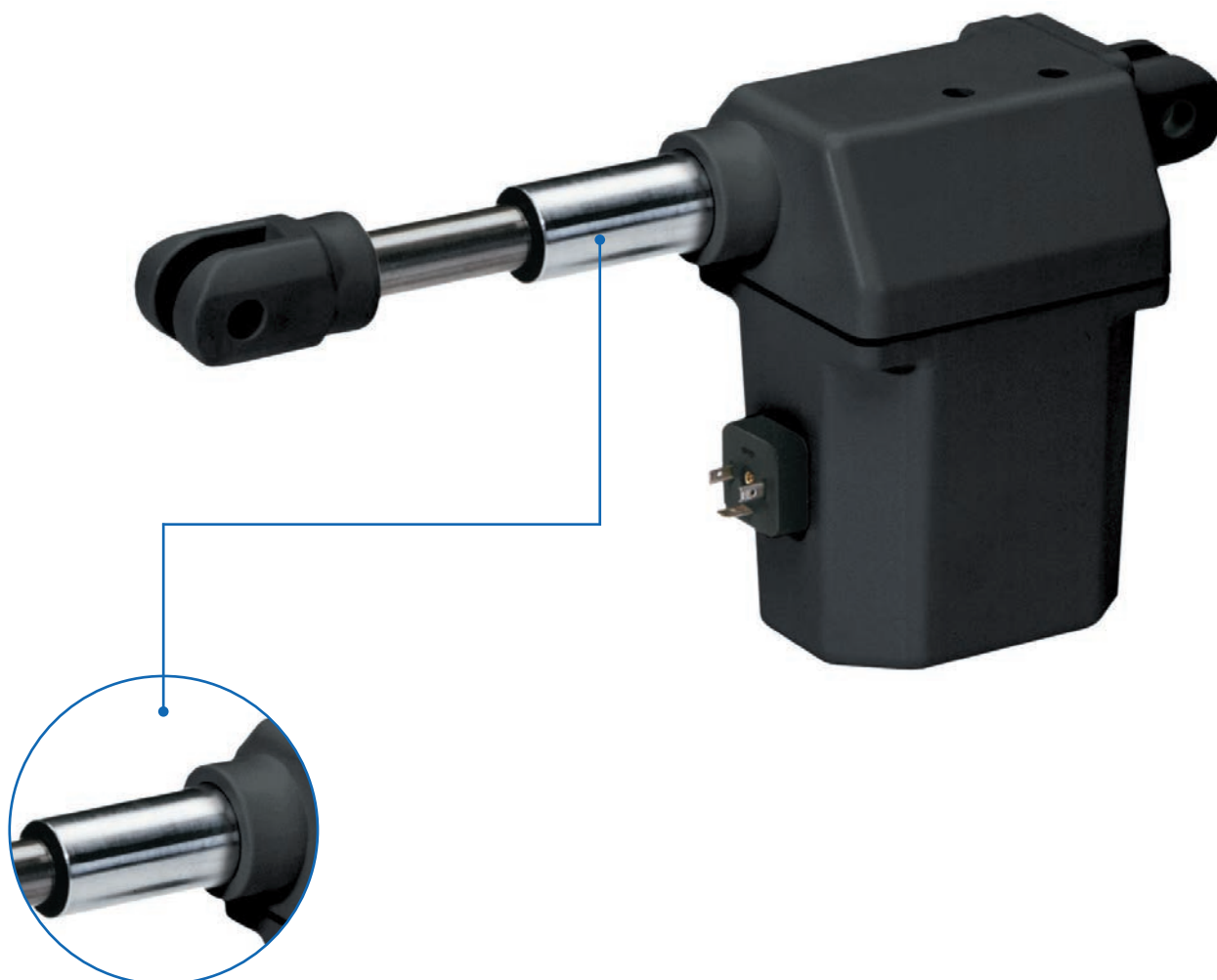
Stroke [mm]	Stroke can be externally adjusted	Dimension A [mm]	Dimension B [mm]	Weight [kg]
140	Yes	324	213	1.2
260		444	333	
180	No	324	213	
300		444	333	

B = 24 V DC  
C = 12 V DC



Feeding device for an automated small parts warehouse

# LAMBDA Electric cylinder



- ✓ Precise adjustment
- ✓ Stainless steel push rod

## Features:

- Integrated limit switches
- Corrosion protected: push rod made of stainless steel; housing made of plastic
- Self-locking, even under max. lifting force
- With thermal motor protection

- Fixing via clevises Potentiometer
- Jam protection in pull direction

## Options:

- Special stroke lengths
- Faster travel speeds
- Adjustable even in the event of power failure (can be mechanically disengaged)
- Signal contacts
- Jam protection in push direction

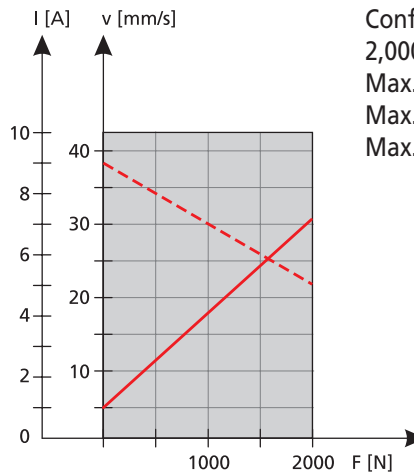
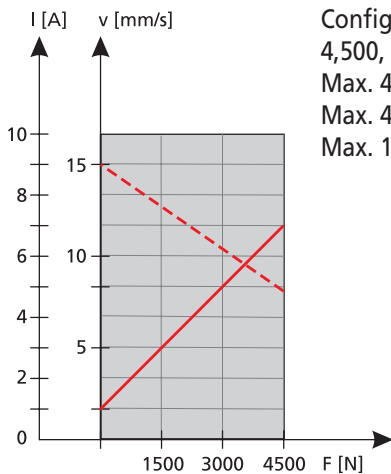
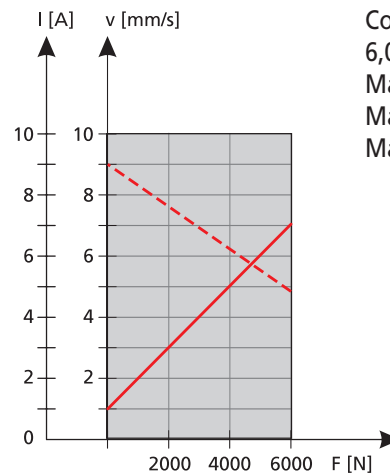


**General information/operating conditions**

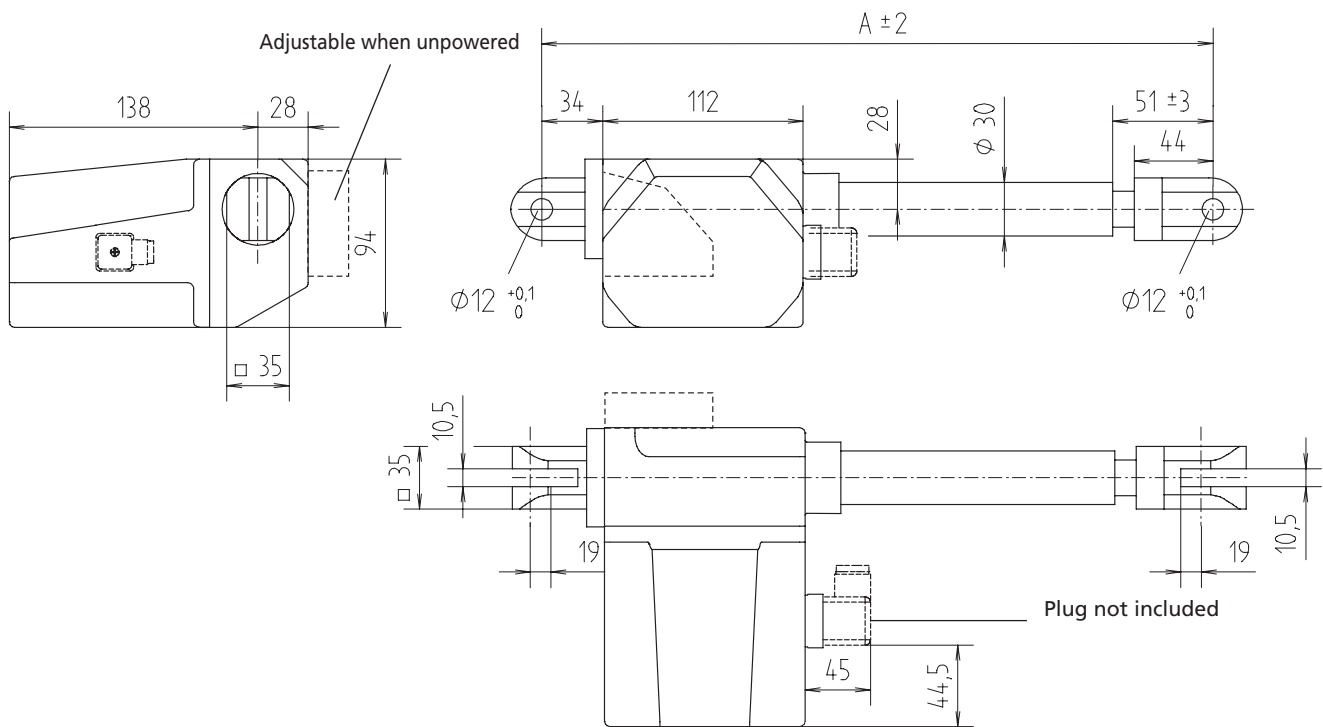
	Cylinder	External control
Design	Linear cylinder with integrated DC motor	
Guide	Slide bush	
Installation position	Any position, without shear forces	
Push force/Pull force	Up to 6,000 N push /4,000 N pull	
Self-locking	Up to 6,000 N	
Ambient temperature	-20°C to +60°C	
Repeatability	0.5 mm	
Duty cycle (at max. load)	10% at nominal load (max. 2 mins operating time, 18 mins rest time)	
Voltage	24 V DC	230 V AC
Current output	Max. 7 A	As for drive
Power input	Max. 180 W	As for drive
Protection class	IP 66	IP 54

**Power diagram**

--- v [mm/s]  
 — I [A]



# LAMBDA - Versions



For connectors, see Optional accessories, page 185

[mm]

Stroke	100	150	200	250	300	400	500	600
Installation dimension A	Stroke + 175					Stroke + 225		

## LAMBDA versions

Code No.	Type	Max. force F [N]		Max. speed [mm/s]
		Push	Pull	
QKK05BC0_0_ _ _	LBM	6,000	4,000	5
QKK08BB0_0_ _ _	LBM	4,500	4,000	8
QKK21BA0_0	LBM	2,000	2,000	21

e.g. stroke [mm] = 150

- 0 = Twin for synchronous controls/without clamping protection
- 1 = Without potentiometer/without clamping protection
- 2 = With potentiometer 10 K $\Omega$ /without clamping protection
- 3 = Without potentiometer/with clamping protection during pull force

Stroke [mm]	Weight [kg]
100	2.3
150	2.5
200	2.7
250	2.9
300	3.1
400	3.5
500	3.9
600	4.3

**Note:**  
The clamping protection takes effect at approx. 2% of the nominal force

Not for 6000 N

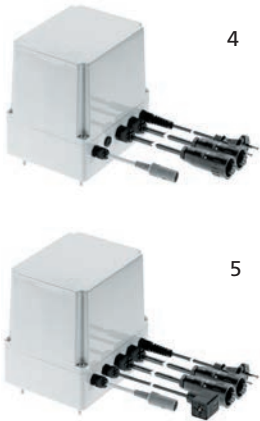
## Controls

- Input voltage 230 V AC
- Output voltage 24 V DC

### Transformer control



### Synchronous control



Code No.	Version		Fig.
<b>Transformer control</b>			
QZA01C04AD011	LBG 1 transformer control	Controls up to 1 drive	1
QZA01C04AE011	LBG 2 transformer control	Controls up to 2 drives	2
QZA01C04AF011	LBG 3 transformer control	Controls up to 3 drives	3
<b>Synchronous control</b>			
QZA10C01AG011	LBS 2 synchronous control	2 electric cylinders, synchronous	4
QZA10C01AH011	LBS 2+1 synchronous control	Controls up to 3 electric cylinders, 2x synchronous + 1 additional electric cylinder	5

**Note:** For dimensions and other technical data, please refer to page 146

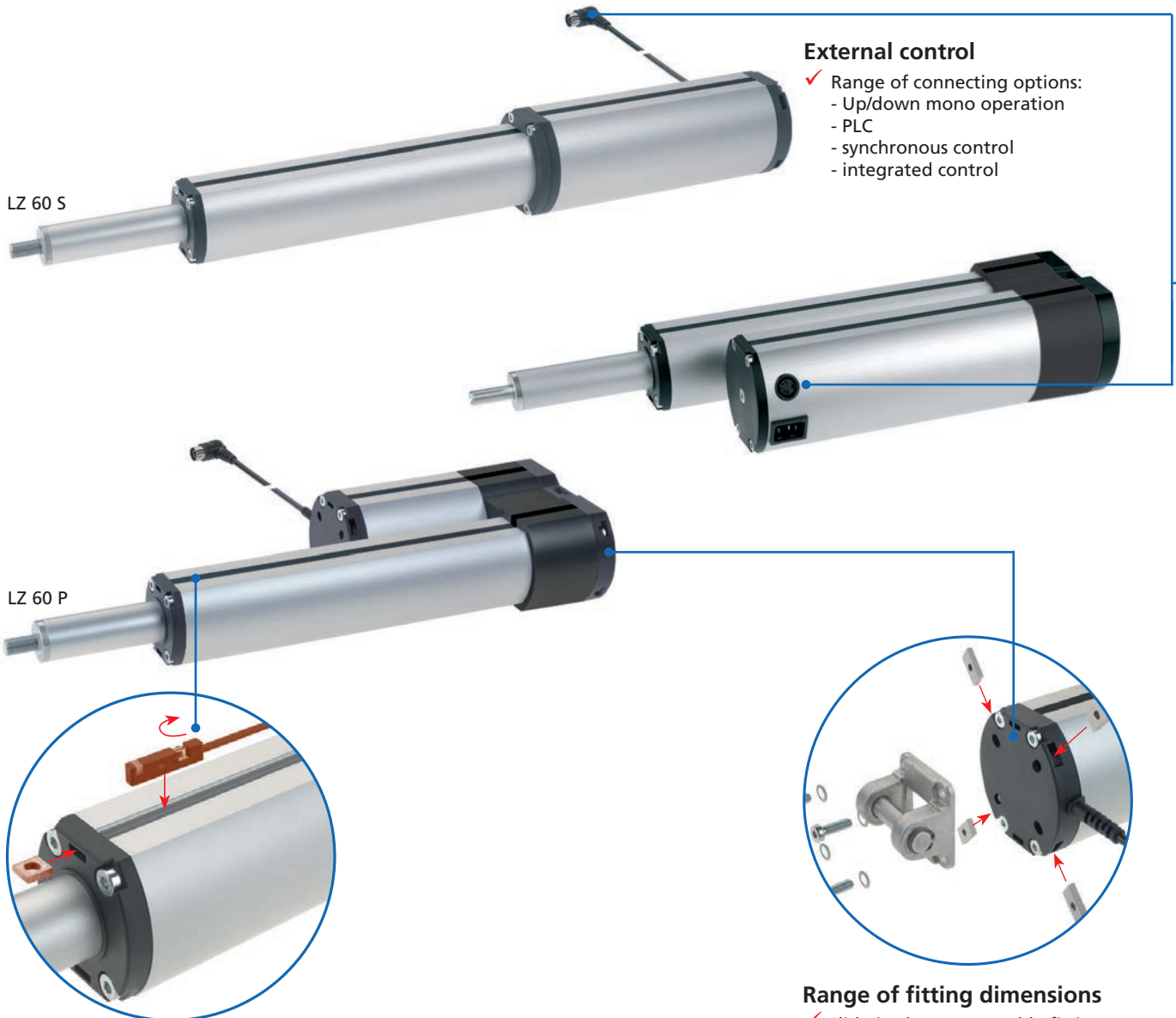
## Hand switches/accessories



Code No.	Version		Fig.
QZB03C02AD031	LAMBDA hand switch with fixing clip – 6 function keys	Controls up to 3 drives	2
QZD000072	Bracket for hand switch		3

# LZ 60 Electric cylinder

The industrial design complete system with push/pull forces up to 4000 N.

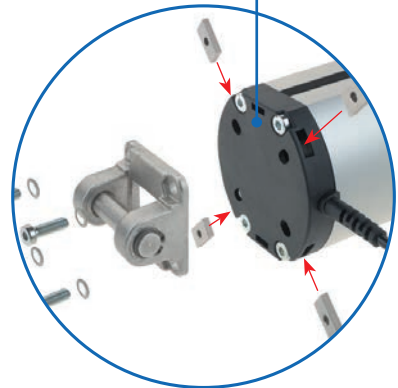
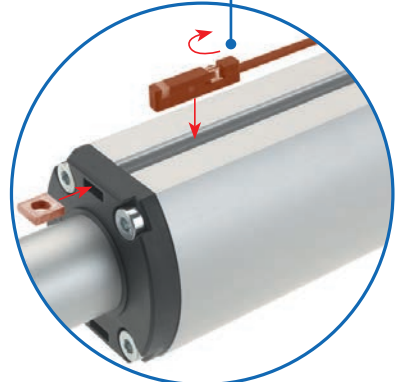


### External control

- ✓ Range of connecting options:
  - Up/down mono operation
  - PLC
  - synchronous control
  - integrated control

LZ 60 S

LZ 60 P



### Adjustable external magnetic switch

- ✓ Covered in slot geometry
- ✓ Stroke can be adjusted
- ✓ Accessories can be retrofitted
- ✓ Pre-fitted with internal magnets for external magnetic switch

### Range of fitting dimensions

- ✓ Slide-in clasp nuts enable fitting dimensions of 37.5 to 40.5 mm.
- ✓ Compatible with a wide range of fixing elements from the pneumatic industry.

### Features:

- Integrated DC drive
- Flexible use of space due to different motor installation options: parallel (LZ 60 P) or rod shaped (LZ 60 S)
- Coverable slot geometry on both sides supports a range of fixing options
- Push rod with rotation locking
- Maintenance-free for up to 10,000 double strokes
- IP 54
- Self-locking
- Optionally available with integrated control/230 V (IP 30) LZ 60 S on request

### Options:

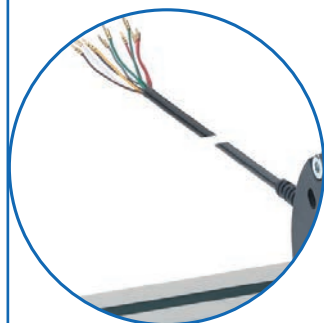
- Special stroke lengths available on request



**External control**

**Elec. connection "a"**

- ✓ Connection (2.5 m) to RK transformer control or to external fixed voltage source. Only connecting cable is fed out of unit. Limit switch is hard-wired internally.
- ✓ Mono operating modes Up/down optional parallel operation
- ✓ Internal limit switches for stroke limitation wired internally
- ✓ Connection to RK transformer control or equivalent control 24 V/36 V



**Elec. connection "b"**

- ✓ All connecting cables (approx. 1 m) is fed out of the unit (limit switches, motor, 2-channel Hall sensor) e.g for connection to a PLC
- ✓ Synchronous operating modes can be freely positioned/industrial version
- ✓ Internal limit switch and incremental displacement pick-up lead directly out of the unit

- ✓ Connection to PLC or equivalent control 24 V/36 V



**Elec. connection "c"**

- ✓ Connection (2.5 m) to RK synchronous control
- ✓ Synchronous operating modes/DIN plug, 8-pin
- ✓ Internal limit switches and incremental displacement pick-up fed out of the unit

- ✓ Connection to RK Multicontrol



**Integrated control**

**Elec. connection "d"**

- ✓ The mains cable and the 2-key hand switch are directly connected to the motor housing.
- ✓ Mono operating modes Up/down
- ✓ Internal limit switch for stroke limitation wired internally
- ✓ Connection to power supply unit, 230 V

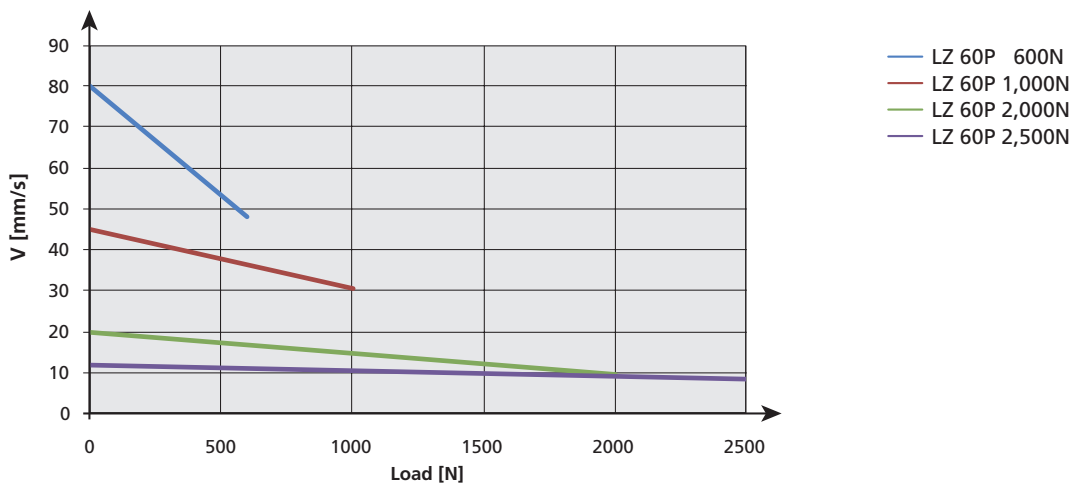
# LZ 60 – Technical data

## General information/operating conditions

Type	LZ 60 external control	LZ 60 internal control
Design	Linear cylinder with integrated DC motor	
Guide	Double bearing via POM bushes	
Installation position	Any position, without shear forces	
Push force/Pull force	Up to 4,000 N	
Self-locking	Up to 5,000 N	
Ambient temperature	+5°C to +40°C	
stroke tolerances	+0.5 mm / -2.5 mm	
Repeatability	0.5 mm	
Duty cycle (at max. load)	15% (max. 1.5 mins operating time, 8.5 mins rest time)	
Voltage	24/36 V DC	230 V AC
Current output	Max. 5.5 A	Max. 1.25 A
Power input	Max. 180 W	115 W
Protection class	IP 54	IP 30
Speed	Max. 85 mm/s	Max. 80 mm/s

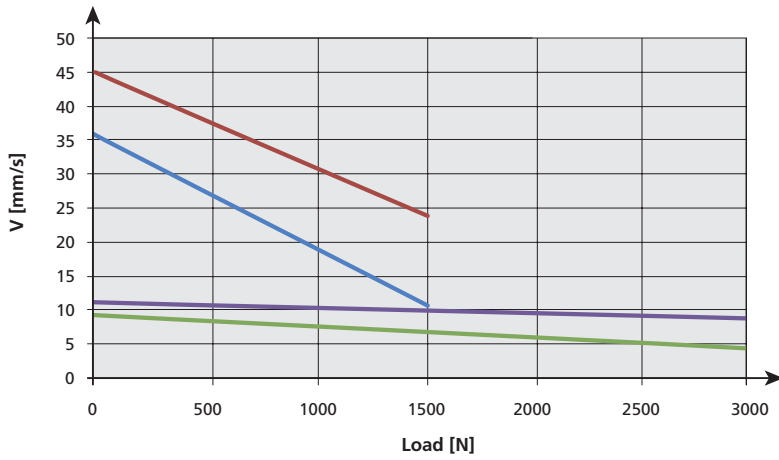
## Speed/Force diagram

LZ 60P, with internal control



### Speed/Force diagram

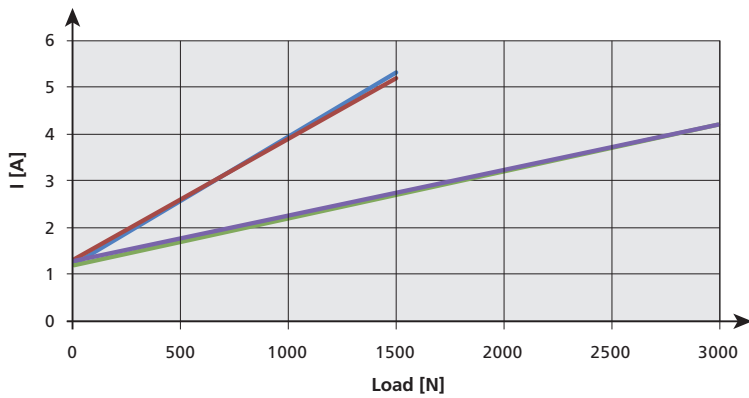
LZ 60S, for external control



- LZ 60S 1,500N at 24V\*1
- LZ 60S 3,000N at 24V\*1
- LZ 60S 1,500N at 36V\*2
- LZ 60S 3,000N at 36V\*2

### Current output/Force diagram

LZ 60S, for external control



- LZ 60S 1,500N at 24V\*1
- LZ 60S 3,000N at 24V\*1
- LZ 60S 1,500N at 36V\*2
- LZ 60S 3,000N at 36V\*2

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

36 V\*2 determined with a MultiControl duo

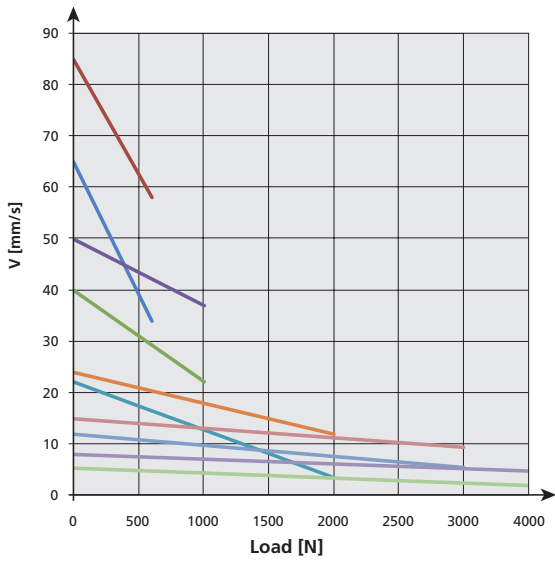


Scissor lift with combination of several LZ 60 P electric cylinders

# LZ 60 – Technical data

## Current output/Force diagram

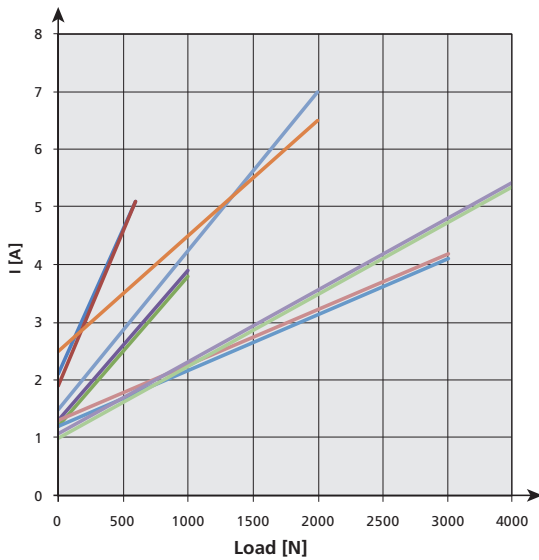
LZ 60P, for external control



- LZ 60P 600N at 24V\*1
- LZ 60P 600N at 36V\*2
- LZ 60P 1,000N at 24V\*1
- LZ 60P 1,000N at 36V\*2
- LZ 60P 2,000N at 24V\*1
- LZ 60P 2,000N at 36V\*2
- LZ 60P 3,000N at 24V\*1
- LZ 60P 3,000N at 36V\*2
- LZ 60P 4,000N at 24V\*1
- LZ 60P 4,000N at 36V\*2

## Current output/Force diagram

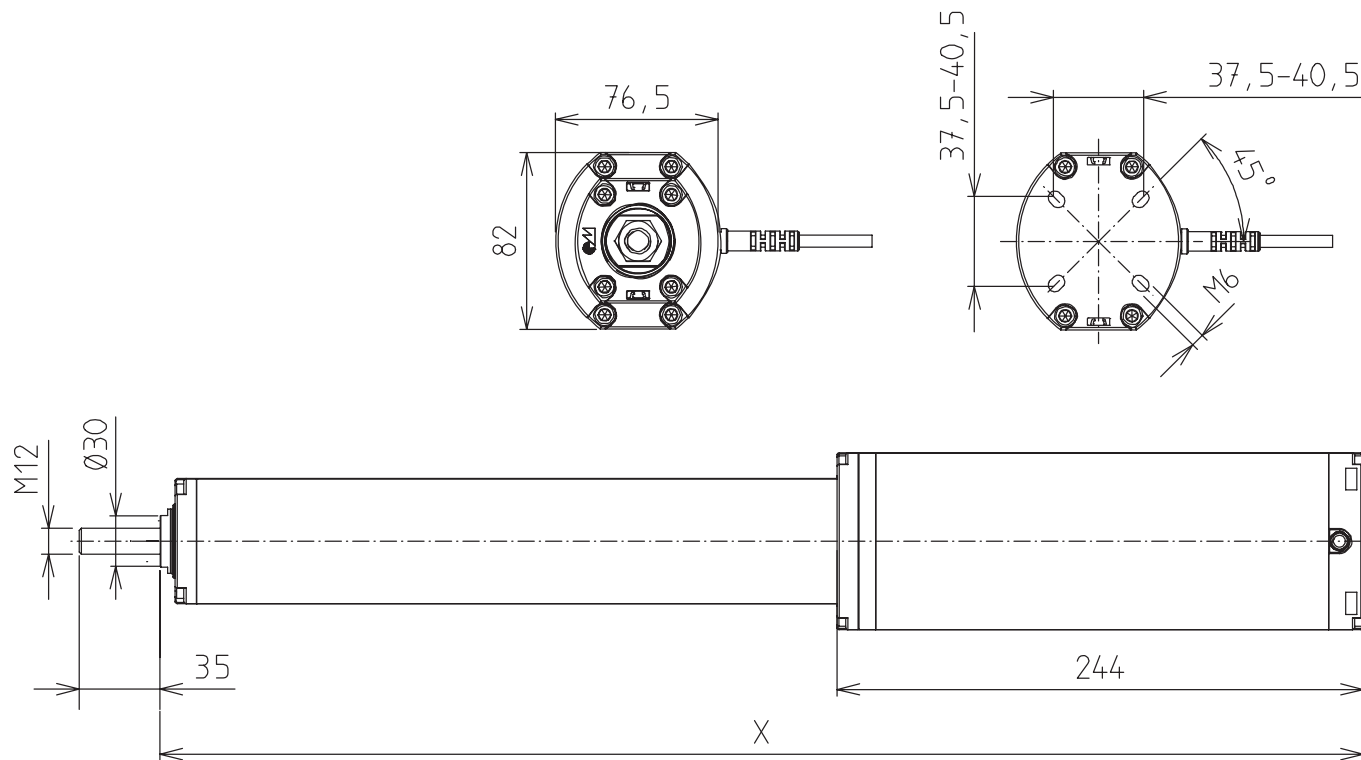
LZ 60P, for external control



- LZ 60P 600N at 24V\*1
- LZ 60P 600N at 36V\*2
- LZ 60P 1,000N at 24V\*1
- LZ 60P 1,000N at 36V\*2
- LZ 60P 2,000N at 24V\*1
- LZ 60P 2,000N at 36V\*2
- LZ 60P 3,000N at 24V\*1
- LZ 60P 3,000N at 36V\*2
- LZ 60P 4,000N at 24V\*1
- LZ 60P 4,000N at 36V\*2

24 V\*1 determined with a transformer control 120 VA  
 36 V\*2 determined with a MultiControl duo





**Version for external control 24 V/36 V**

Code No.	Type	Max. force F [N]	Max. speed [mm/s]	
			24 V DC	36 V DC
QKI00AA0_0_ _ _	LZ 60 S	1,500	36	45
QKI00AB0_0_ _ _	LZ 60 S	3,000	9	12

e.g. stroke [mm] = **202**

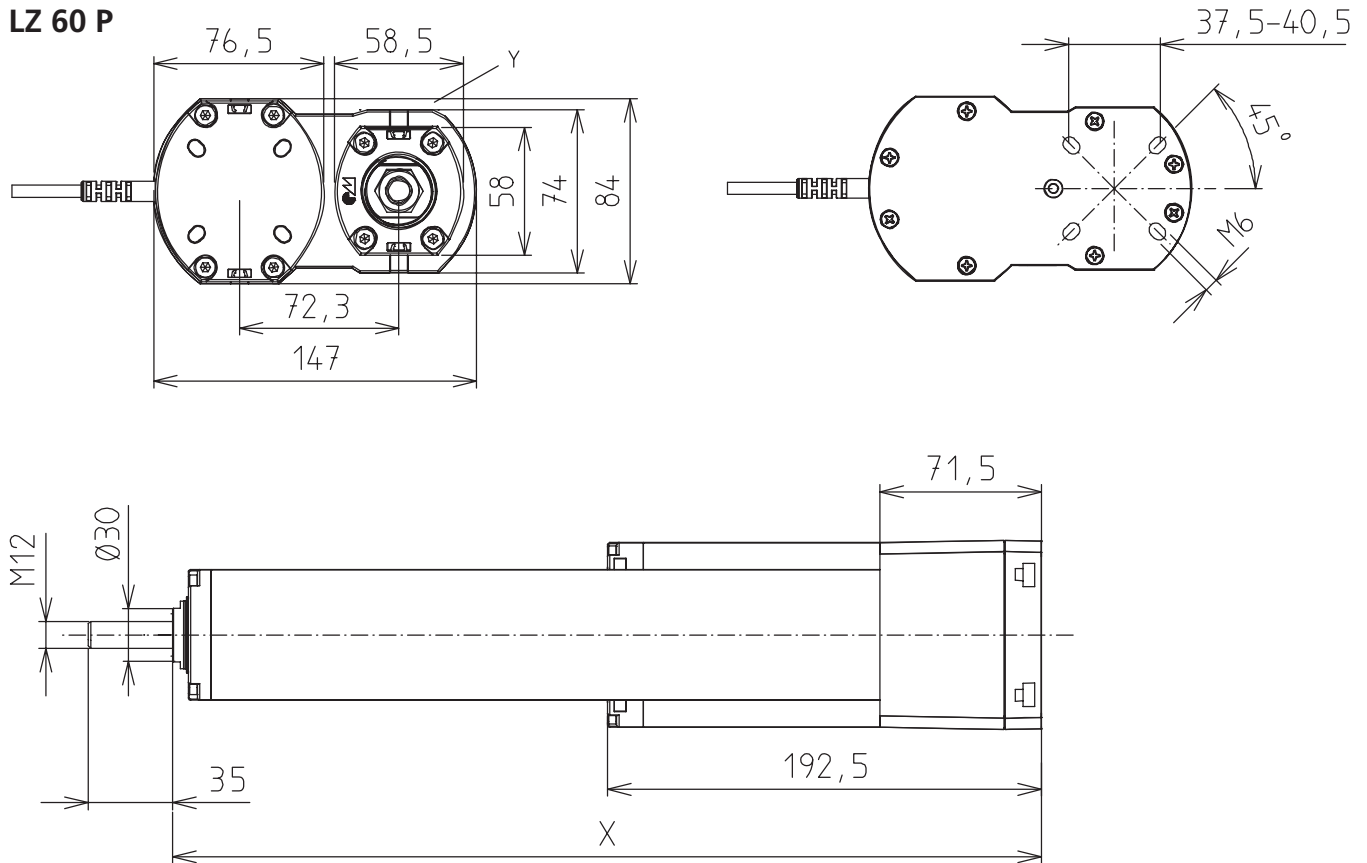
Stroke* [mm]	Installation dimension X [mm]	Weight [kg]
105	446.0	2.9
150	491.0	3.0
<b>202</b>	543.5	3.2
255	596.0	3.4
300	641.0	3.6
352	708.5	3.7
405	761.0	3.9
450	806.0	4.1
502	858.5	4.3
555	911.0	4.4
600	956.0	4.6

\*Tolerance: +0.5mm / -2.5mm

- A = connection to RK transformer control
- B = connecting cable with open lead-through for PLC/incremental displacement pick-up/limit switches
- C = connection to RK synchronous control

# LZ 60 P - Versions

## LZ 60 P



## Version for external control 24 V/36 V

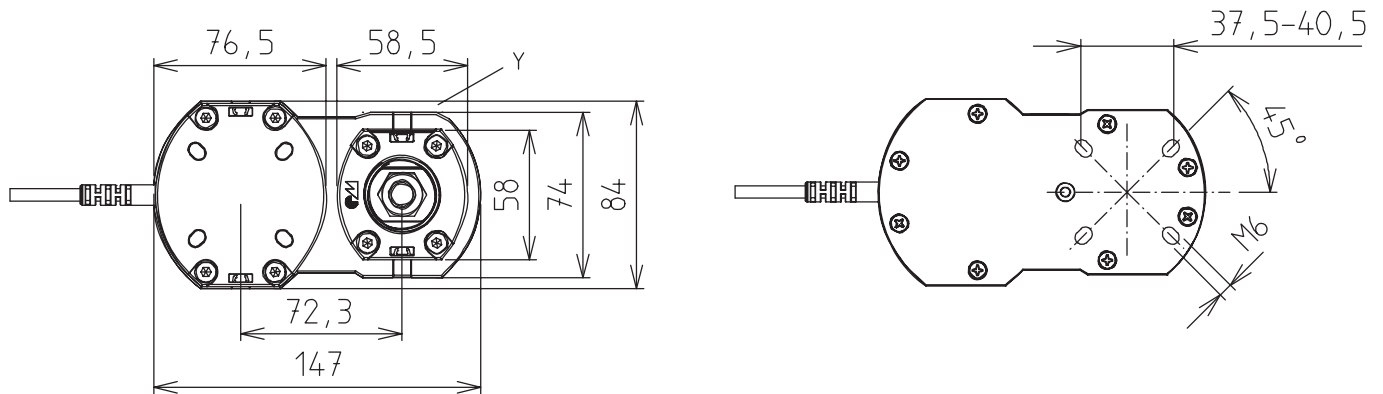
Code No.	Type	Max. force F [N]	Max. speed [mm/s]	
			24 V DC	36 V DC
QKX00AA0_0_ _	LZ 60 P	600	65	85
QKX00AC0_0_ _	LZ 60 P	1,000	40	50
QKX00AB0_0_ _	LZ 60 P	2,000	22	28
QKX00AE0_0_ _	LZ 60 P	3,000	12	15
QKX00AF0_0_ _	LZ 60 P	4,000	6	9

e.g. stroke [mm] = **202**

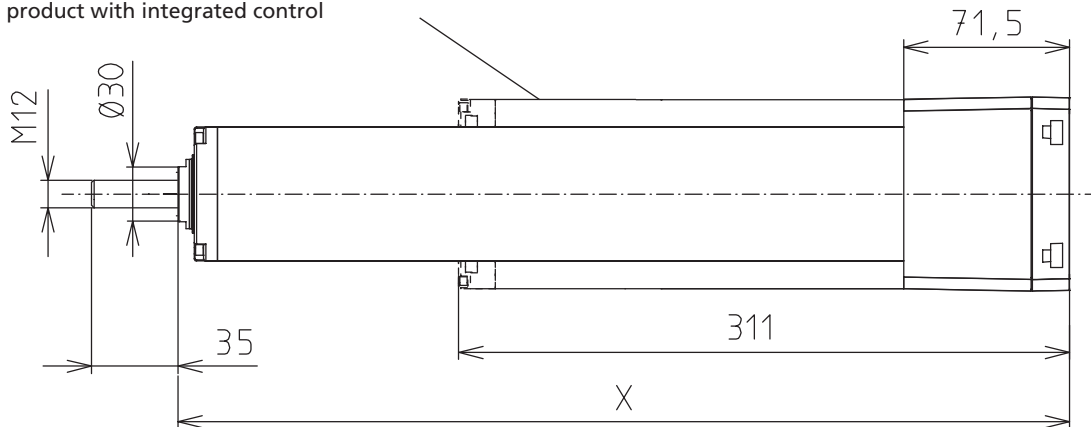
Stroke* [mm]	Installation dimension X [mm]	Weight [kg]
105	273.5	3.7
150	318.5	3.8
<b>202</b>	371.0	4.0
255	423.5	4.2
300	468.5	4.4
352	536.0	4.5
405	588.5	4.7
450	633.5	4.9
502	686.0	5.1
555	738.5	5.2
600	783.5	5.4

\*Tolerance: +0.5mm / -2.5mm

- A = connection to RK transformer control
- B = connecting cable with open lead-through for PLC/incremental displacement pick-up/limit switches
- C = connection to RK synchronous control



Extended motor housing for product with integrated control



**Version with internal control 230 V**

Code No.	Type	Max. force F [N]	Max. speed [mm/s]	Electrical connection
QKX00AA0D0_ _ _	LZ 60 P	600	80	230 V AC
QKX00AC0D0_ _ _	LZ 60 P	1,000	45	230 V AC
QKX00AB0D0_ _ _	LZ 60 P	2,000	20	230 V AC
QKX00AE0D0_ _ _	LZ 60 P	2,500	13	230 V AC

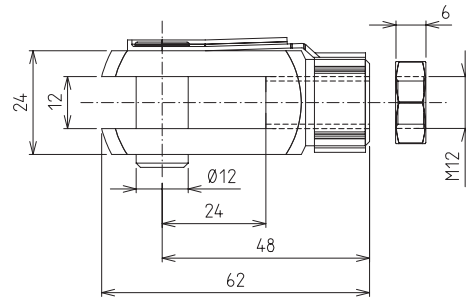
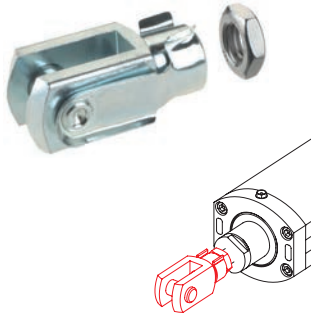
e.g. stroke [mm] = **202**

Stroke* [mm]	Installation dimension X [mm]	Weight [kg]
105	273.5	4.7
150	318.5	4.8
202	371.0	5.0
255	423.5	5.2
300	468.5	5.4
352	536.0	5.5
405	588.5	5.7
450	633.5	5.9
502	686.0	6.1
555	738.5	6.2
600	783.5	6.4

\*Tolerance: +0.5mm / -2.5mm

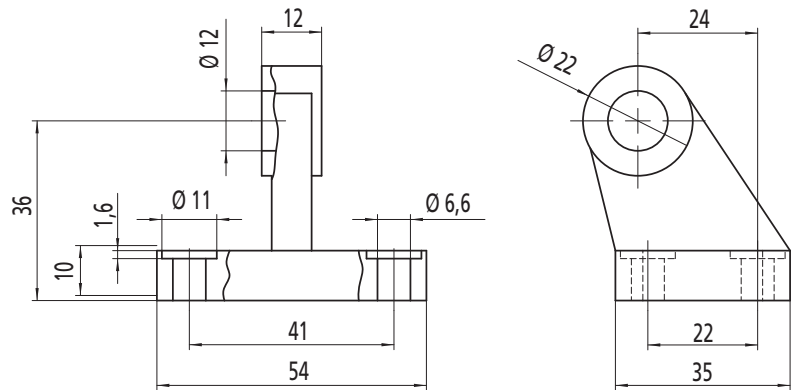
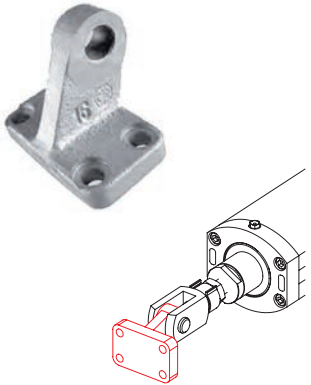
# LZ 60 – Fixing

## Clevis head



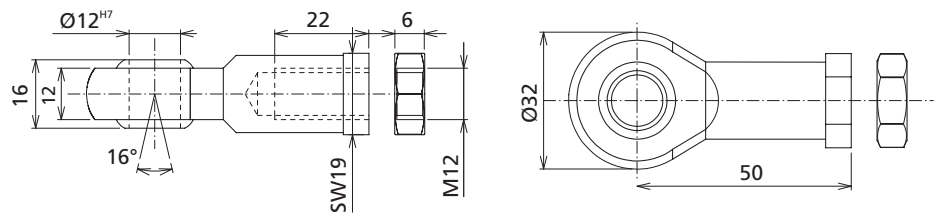
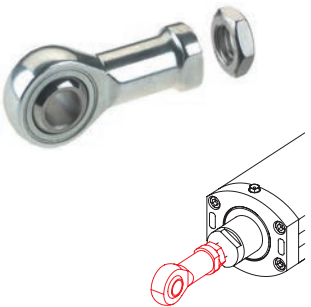
Code No.	Type
QZD050570	Clevis head M12

## Bearing block for clevis head



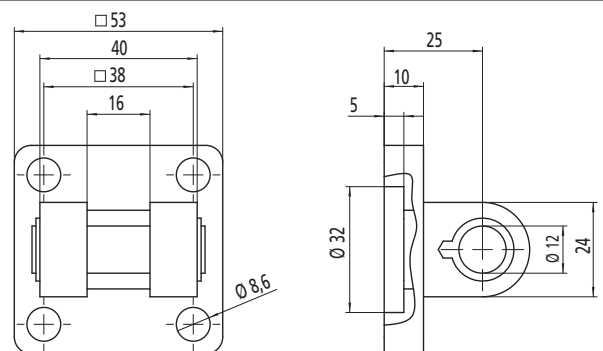
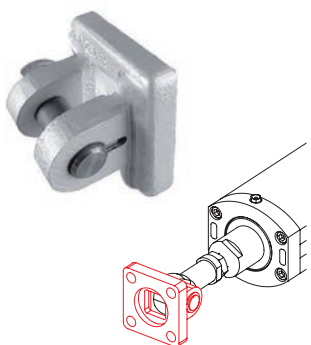
Code No.	Type
QZD050572	LZ 60 Bearing block Ø 12

## Swivel head



Code No.	Type
QZD050574	Swivel head M12

## Clevis mounting for swivel head

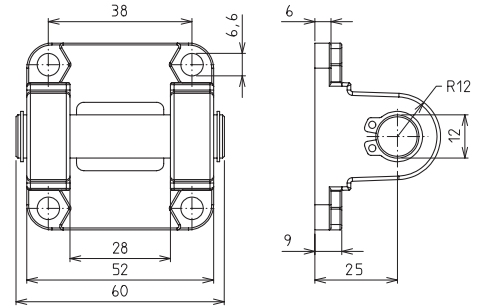
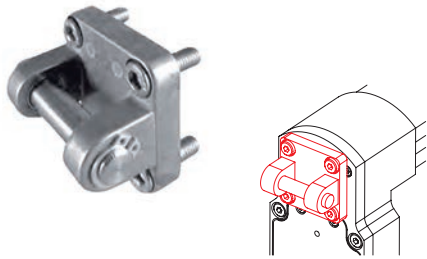


Code No.	Type
QZD050576	LZ 60 Clevis mounting Ø 12



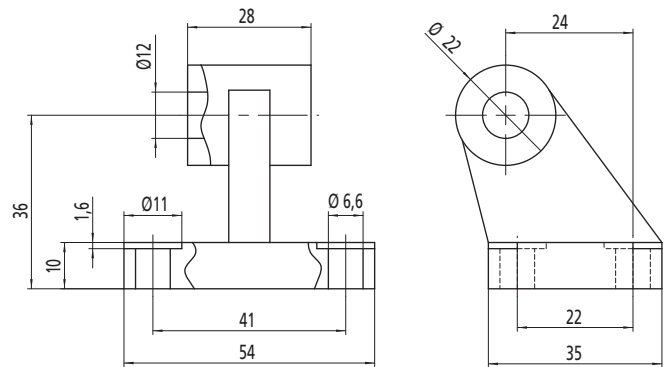
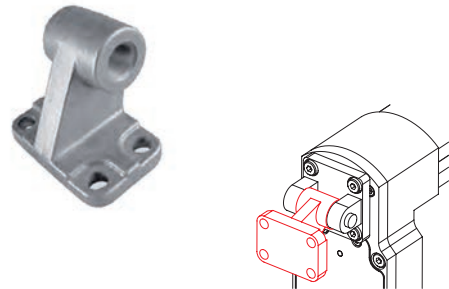
### LZ 60 Fixing

#### Clevis mounting



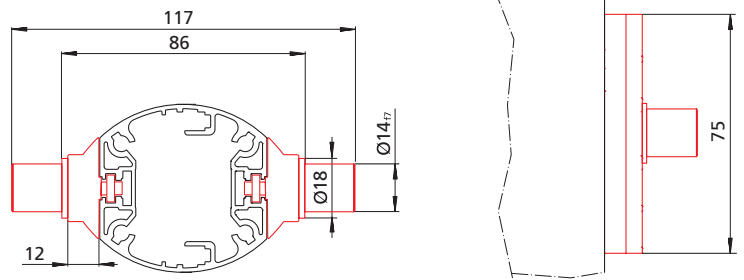
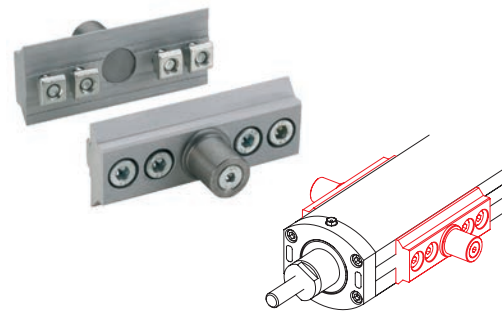
Code No.	Type
QZD050578	Clevis mounting Ø 12

#### Bearing block for clevis mounting



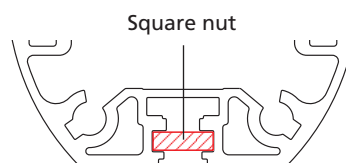
Code No.	Type
QZD050583	LZ 60 Bearing block Ø 12

#### Trunnion mounting set



Code No.	Type
QZD050586	Trunnion mounting set LZ 60

#### Square nut



■ The square nut enables the attachment of fittings to the cylinder. Nuts can be slid into the lateral slots for this purpose.

Code No.	Type
QZD050597	Square nut M6, DIN 562, pack of 20

# LZ 60 – Accessories

## Axial adjustment

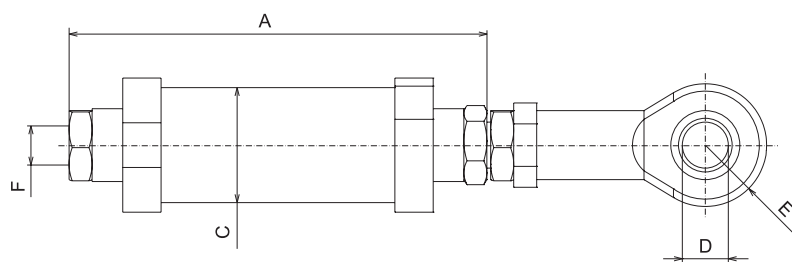
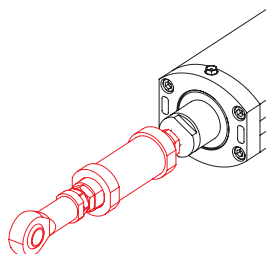


## Axial adjustment

- ✓ Compensates manufacturing tolerances
- ✓ Compensates installation tolerances
- ✓ Length compensation -2 mm
- ✓ Reduces commissioning times

## Scope of delivery:

Axial adjustment, incl. swivel head as depicted



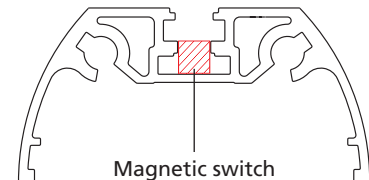
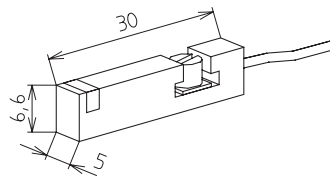
[mm]

Code No.	Load	A	C	D	E	F
QZD050590	600 N	102	Ø30	Ø12	R16	M12
QZD050591	1,000 N	102				
QZD050592	2,000 N	103.5				
QZD050593	2,500 N	109				
QZD050594	3,000 N	107.5				
QZD050595	4,000 N	139.5				



# LZ 60 – Position determination / Drive

## Magnetic switch



- Signals from the magnetic switch can be collected and evaluated by a customer-provided control unit (such as a PLC).
- The switch can be retrofitted in the lateral slot (protected by a cover profile as standard)
- Magnets are already integrated in the cylinder as standard.

Code No.	Type
QZD050598	Magnetic switch, NO contact, cable length 6 m
QZD050599	Magnetic switch, NC contact, cable length 5.3 m

## Magnetic switch – Technical data

	NC contact	NO contact
Voltage	10-30 V DC	5-30 V DC
Current output	< 10 mA	< 10 mA
Output current	Max. 100 mA	Max. 50 mA
Output type	PNP	PNP
Function indication	LED	LED
Ambient temperature	-25°C to +85°C	-20°C to +70°C
Protection class	IP 67	IP 68

## Controls

- Input voltage 230 V AC
- Output voltage 24 V DC, 36 V DC

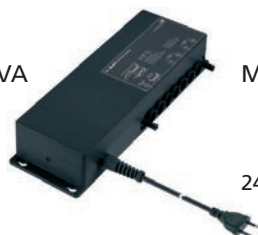
### Order information:

Observe the current output of the drives when selecting the control.



Transformer control 120 VA

approx. 24 V DC



MultiControl

24/36 V DC

Code No.	Version	
<b>Controls for LZ 60 connection A</b>		
QZA07C13BQ021	Transformer control 120 VA, up to max. I= 3 A current output	Controls up to 2 drives
QSTAACA1AA000	MultiControl mono connection A, up to max. I= 10 A current output, 24 V DC	Controls up to 2 drives
<b>Controls for LZ 60 connection C</b>		
QSTACCA1AA000	MultiControl mono connection C, up to max. I= 12 A current output, 36 V DC	Controls up to 2 drives
QST30C02AA000	MultiControl duo connection C, up to max. I= 12 A current output, 36 V DC	Up to 2 drives synchronised
QST30C04AA000	MultiControl quadro connection C, up to max. I= 12 A current output, 36 V DC	Up to 4 drives synchronised
<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	

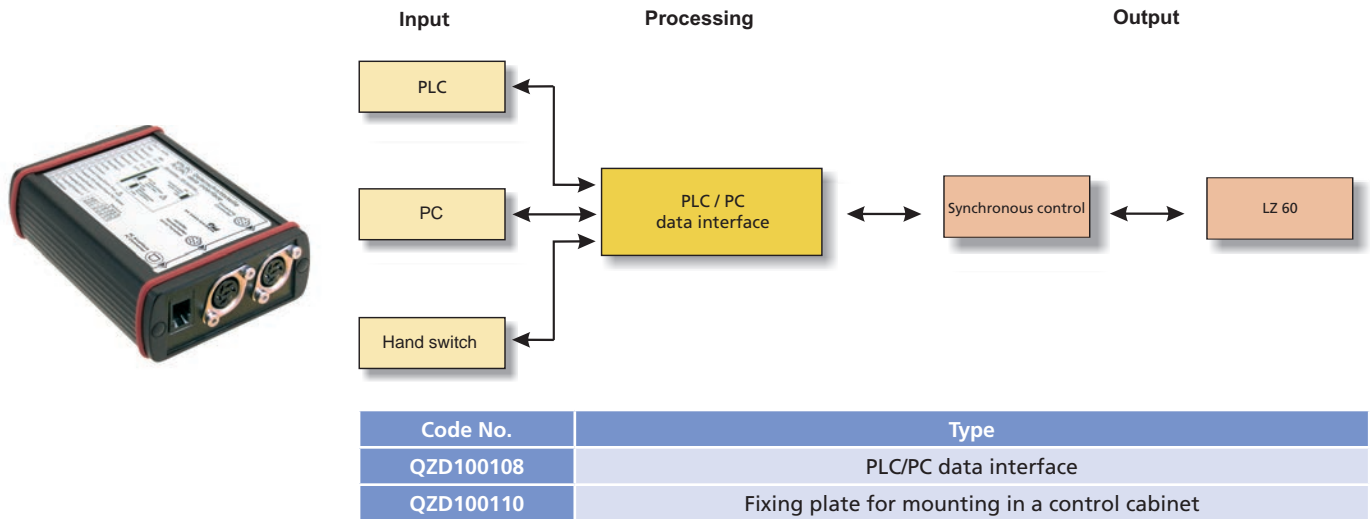
\* for the connection of a parallel hand switch or an external potentiometer (in the case of the MultiControl mono)



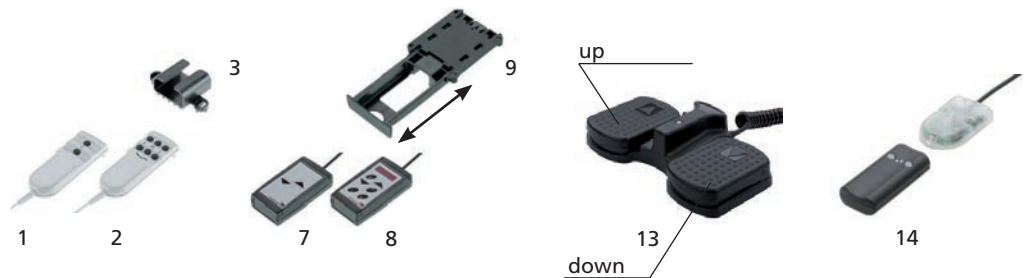
**PLC/PC data interface**

- This interface enables actuation of the LZ 60 with synchronous control via different input devices (PLC, PC and hand switch).

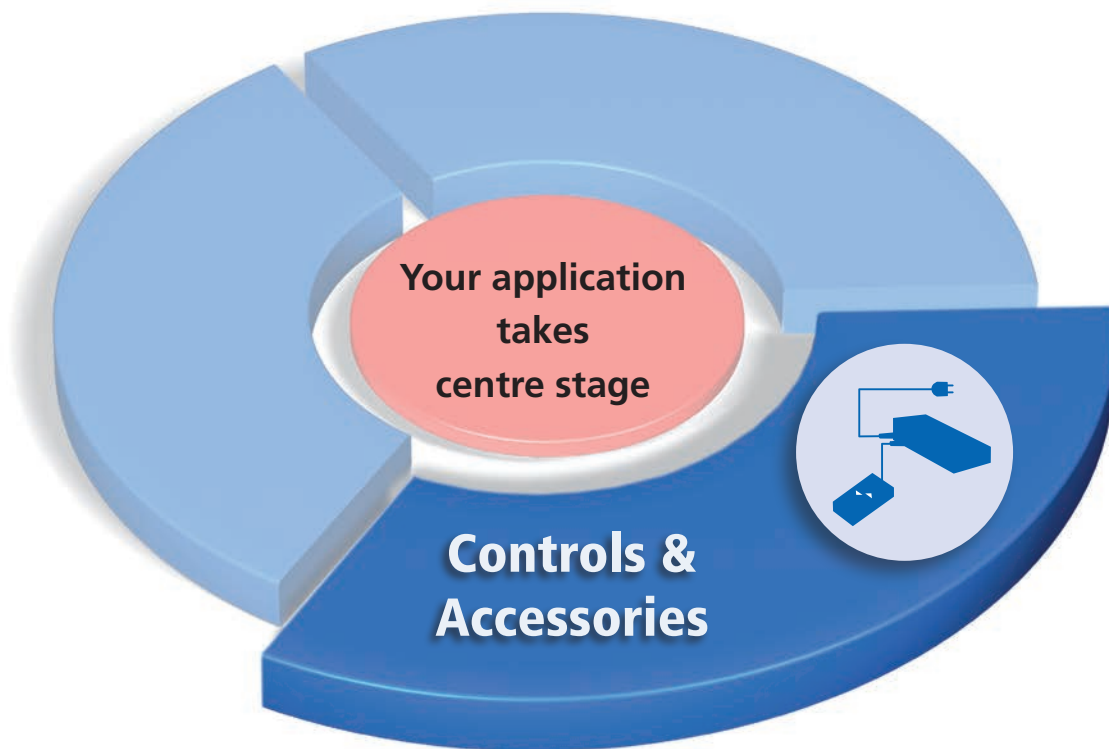
You will find further product-information on page 182



**Hand switches/Feet**



Code No.	Version	Fig.
<b>Hand switch for transformer control</b>		
QZB02C03AD031	Hand switch with 1 m spiral cable – 6 function keys	2
<b>Hand switches 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	Wireless 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
<b>Accessories for integrated control</b>		
QZD050210	IEC power cable (3 m) with right-angle connector	–



## Controls & Accessories

The mono and multiple synchronous controls are the powerhouses for lifting columns and electric cylinders. The MultiControl control family makes it easier to choose while increasing the level of diversity. Both convenient manual push-button operation and integration in master control systems are possible via PLC module.



## Contents

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Mono..... Page 152

Synchro ..... Page 168

Accu..... Page 176

Optional accessories ..... Page 185

# Controls & Accessories

## Finding the right control



Depending on technical and optical requirements, it takes just 2 steps to find the controls that matches your needs.  
Step 1 - Determine the type of control.  
Step 2 - Choose the appropriate version.

### Step 1







Select the control on the right that meets your requirements.

### Step 1

For step 2, please refer to the relevant catalogue page.

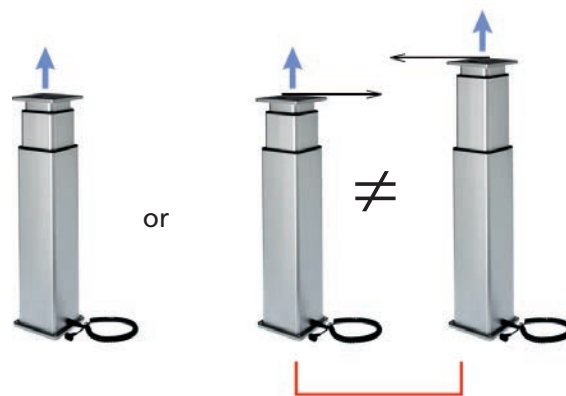
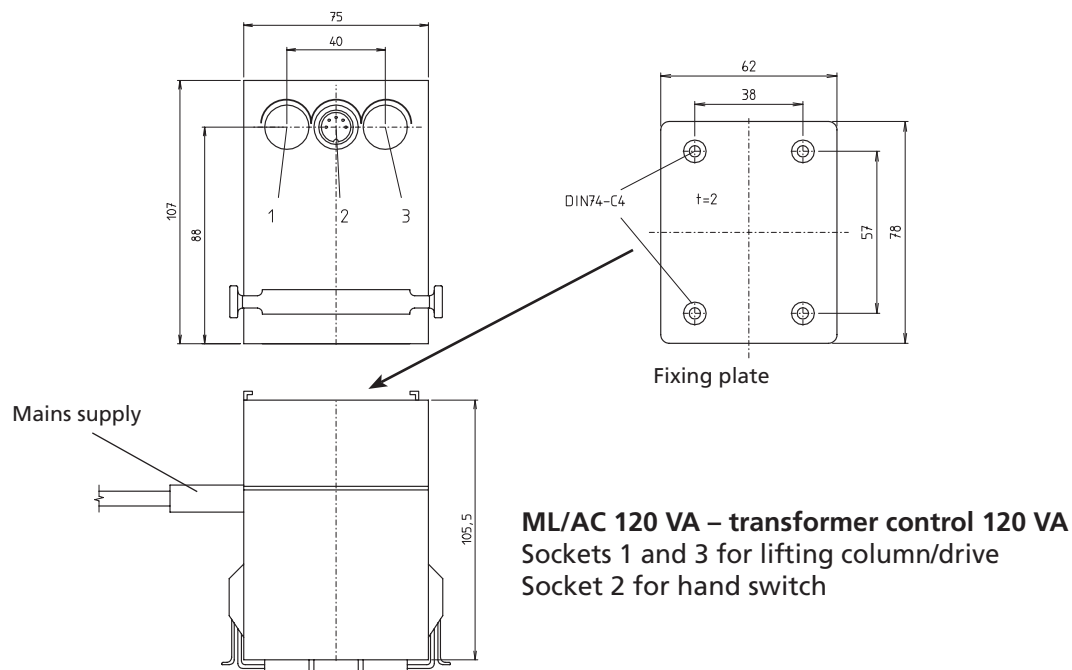


Mono					
Features	Transformer control page 150	MultiControl mono page 152	MultiControl Care Mono page 154	LAMBDA- actuators page 160	MultiControl mono accu page 176
No. of drives	1 – 2	1 – 2	1 – 4	1 – 3	1 – 2
Individual operation	•	•	•	•	•
Parallel operation	•	•	•	•	•
Mains-independent battery mode					•
Variable speed control		•			•
Wide-range input			•		

Synchro						
Features	MultiControl duo page 162	MultiControl duo silent page 164	MultiControl quadro page 166	MultiControl Care Synchro page 168	LAMBDA- Antriebe page 174	MultiControl duo accu page 176
No. of drives	1 – 2	1 – 2	1 – 4	2 – 4	2	1 – 2
Individual operation	•	•	•	•		•
Parallel operation				•		
Synchronised operation	•	•	•	•	•	•
Duty cycle monitoring	•	•	•			•
Memory function*	•	•	•			•
Networking of multiple controls	•	•	•			
PLC/PC data interface link	•	•	•			•
Safety shutdown function*			•			
Wide-range input				•		

\* only in conjunction with hand switch (6 function keys & display)

# Transformer control 120 VA



Single operation

Single/parallel operation

\* in the case of RKSlimlift and Powerlift M only one lifting column can be controlled

## Features:

- Connection for one or two drives
- Parallel movement when operating two drives (not synchronised)
- Used together with a hand switch (6 function keys) this unit supports joint/individual operation of two drives

## General information/operating conditions

Max. duty cycle	20% (at 18 mins cycle time)
Input voltage	230 V AC (115 V AC available on request)
Output voltage	24 V DC
Output	120 VA
Current output	Max. 3 A
Protection class	IP 20
Length of mains cable	4 m

## Controls

### Order information:

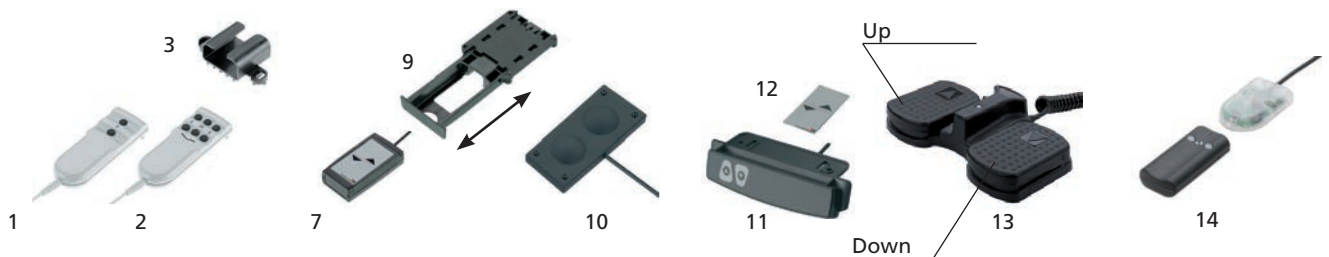
Observe the current output of the drives when selecting the control.

Code No.	for drive
QZA07C13BQ021	Alpha Colonne connection A
QZA07C13AX021	Multilift connection A
QZA09C13BH031	RK Slimlift / RK Powerlift M – only single operation connection C
QZA07C13BQ021	Electric cylinder LZ 60 connection A
QZA07C13BQ021	Drive unit LZ S/P connection A

## Fixing plate for transformer control 120 VA

Code No.	Type
QZD020083	Fixing plate, control is pushed onto the fixing plate

## Hand switches/accessories



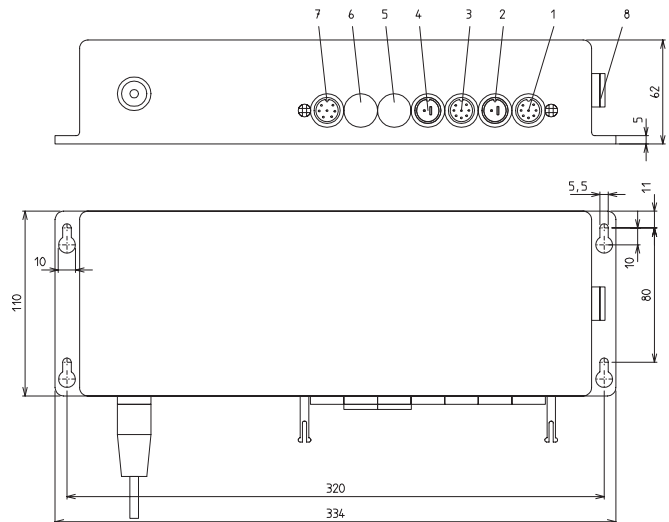
Code No.	Version	Mono operation	Parallel operation	2 drives with individual control	Fig.
QZB02C03AB031	Hand switch with 1 m spiral cable – 2 function keys	X	(X)		1
QZB02C03AD031	Hand switch with 1 m spiral cable – 6 function keys	X	X	X	2
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	X	(X)		7
QZB02A03AB041	Undercover hand switch with "angled" plug	X			10
QZB00A00AB051	Table hand switch with 1 m spiral cable – 2 function keys	X			11
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	X	(X)		12
QZB02C01AE114	Foot switch – 2 function keys	X	(X)		13
QZB00D07BK141	Wireless hand switch – 2 function keys	X	(X)		14
Accessories					
QZD000072	Bracket for hand switch				3
QZD000074	Drawer for hand switch				9
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				

(X) = limited use

# MultiControl mono

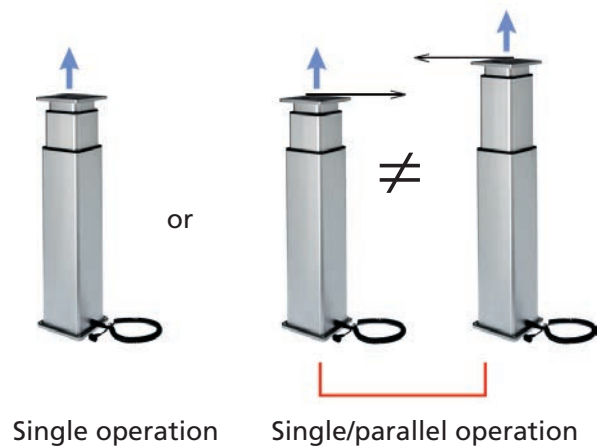
## Control - MultiControl mono, connection A

- Socket 1 not assigned
- Socket 2 2-pin DIN socket for drive 1
- Socket 3 not assigned
- Socket 4 2-pin DIN socket for drive 2
- Socket 5 not assigned
- Socket 6 2- to -10- volt- input or potentiometerinput
- Socket 7 5-pin DIN socket for parallel hand switch with 2 or 6 function keys
- Socket 8 not assigned



## Control - MultiControl mono connection C

- Socket 1 8-pin DIN socket for drive 1
- Socket 2 not assigned
- Socket 3 8-pin DIN socket for drive 2
- Socket 4 not assigned
- Socket 5 not assigned
- Socket 6 2- to -10- volt- input or potentiometerinput
- Socket 7 5-pin DIN socket for parallel hand switch with 2 or 6 function keys
- Socket 8 not assigned



## Features:

- Single or parallel operation of up to two lifting columns or electric cylinders (not synchronised)
- External potentiometer (customer-supplied) for setting an infinitely variable motor speed
- Temperature and duty cycle monitoring as overload protection (standard)
- Used together with a hand switch (6 function keys) this unit supports joint/individual movement of two drives



### General information/operating conditions

	Connection A	Connection C
The following can be connected:	Multilift, LZ 60, Drive units LZ, Alpha Colonne	Alpha Colonne, RKPowerlift (external control), RK Slimlift, Linear cylinder LZ 60, Drive units LZ
Max. duty cycle	10% 10 A, 15% 7 A	20%
Input voltage	230 V AC (115 V AC available on request)	
Output voltage	24 V DC	36 V DC
Power	250 VA	300 VA
Current output	Max. 10 A	Max. 12 A
Protection class	IP 30	
Length of mains cable	1,8 m	

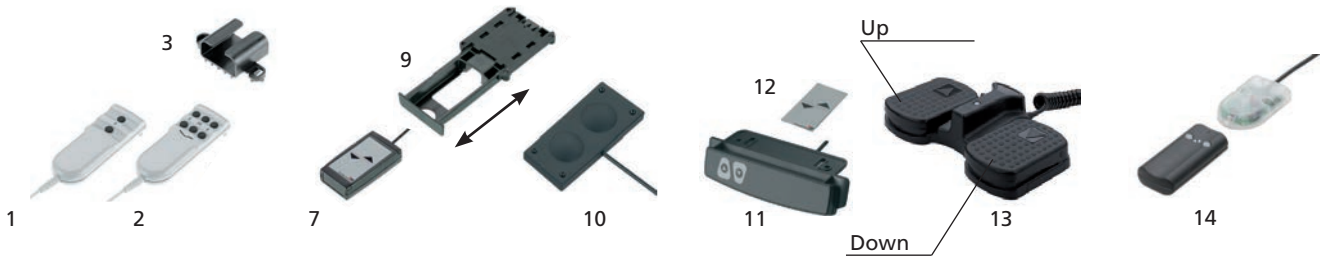
### Controls

#### Order information:

Observe the current output of the drives when selecting the control.

Code No.	for drive
QSTACCA1AA000	mono, 2- pin DIN- Connector
QSTACCA1AA000	parallel, 8- pin DIN- Connector

### Hand switches/accessories



Code No.	Version	Mono operation	Parallel operation	2 drives with individual control	Fig.
QZB02C03AB031	Hand switch with 1 m spiral cable – 2 function keys	X	(X)		1
QZB02C03AD031	Hand switch with 1 m spiral cable – 6 function keys	X	X	X	2
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	X	(X)		7
QZB02A03AB041	Undercover hand switch with “angled” plug	X			10
QZB00A00AB051	Table hand switch with 1 m spiral cable – 2 function keys	X			11
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	X	(X)		12
QZB02C01AE114	Foot switch – 2 function keys	X	(X)		13
QZB00D07BK141	Wireless hand switch – 2 function keys	X	(X)		14

Accessories					
QZD000072	Bracket for hand switch				3
QZD000074	Drawer for hand switch				9
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)

(X) = limited use

# MultiControl Care mono



International connecting options



Multilift mono  
Tested to EN 60601-1 (3E)





MultiControl Care  
Tested to EN 60601-1 (3E)



## Features:

- 4 drives
- Single-fault protection
- Switching power supply with wide-range input
- Conforms to the Ecodesign Directive (standby electricity output <0.5 W)
- Locking function
- Trendelenburg position
- Anti-Trendelenburg position
- International connecting options

**MultiControl Care - Table of contents**

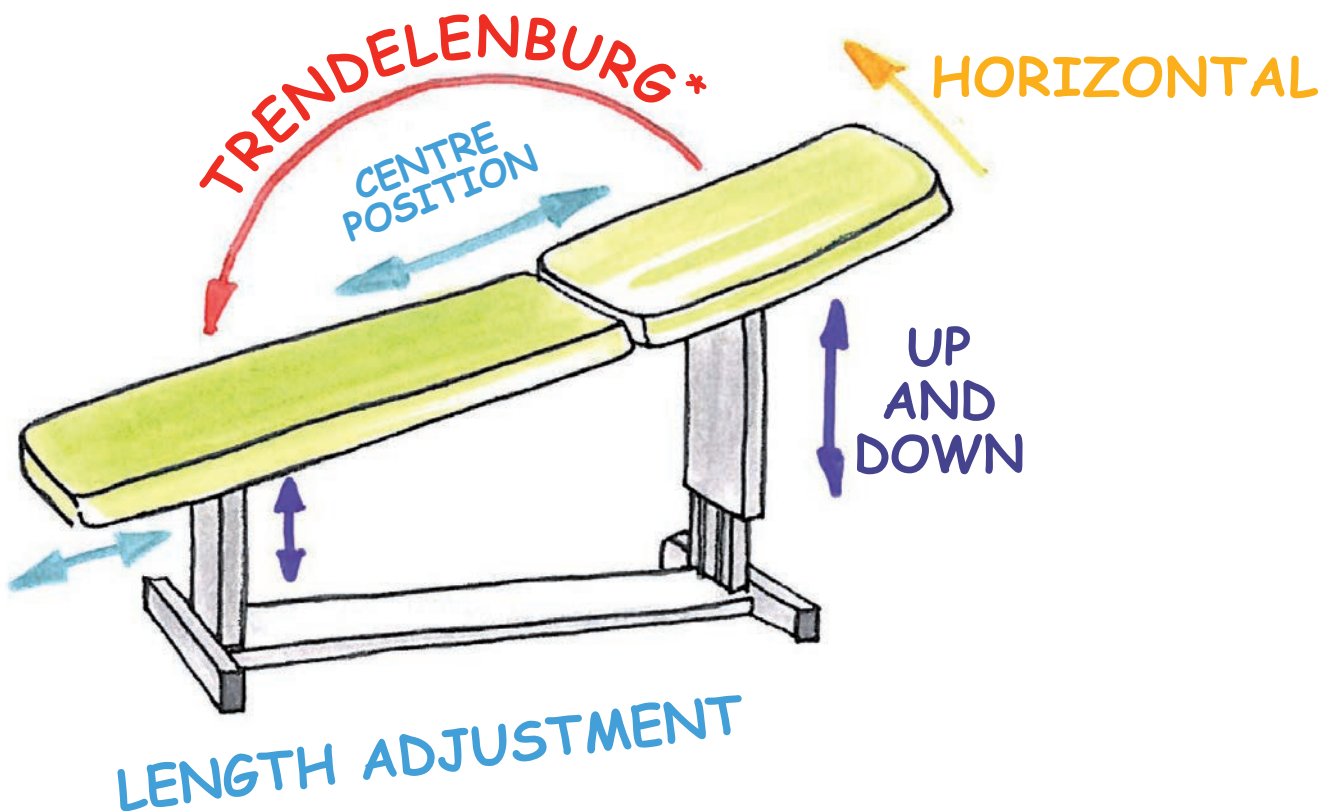
<p><b>Properties/Technical data</b></p>	<ul style="list-style-type: none"> <li>■ General information/operating conditions.....Page 156</li> </ul>
<p><b>Versions</b> (Dimensions, order numbers)</p>  	<ul style="list-style-type: none"> <li>■ MultiControl Care Mono .....Page 157</li> </ul>
<p><b>Accessories</b></p> <p style="text-align: right;"><b>Control</b></p>	<ul style="list-style-type: none"> <li>■ Controls .....Page 159</li> <li>■ Hand switches .....Page 159</li> <li>■ Power cable .....Page 159</li> </ul>

# MultiControl Care – Technical data

## General information / operating conditions

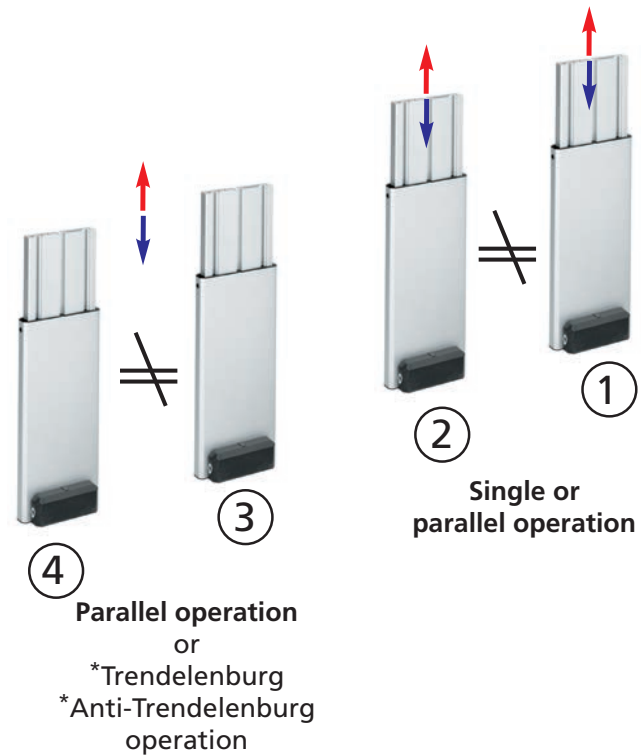
The following can be connected:	Multilift mono
Max. duty cycle	At nominal load, 10% (max. 2 mins operating time, 18 mins rest time)
Input voltage	100–240 V AC, 50/60 Hz, switching power supply with wide-range input $\pm 10\%$
Number of drives <sup>1)</sup>	Max. 4 drives
Power	Conforms to the Ecodesign Directive (standby electricity output $<0.5$ W)
Current output	Current output at nominal load max. 3.0 A (depending on input voltage)
Degree of protection	IP20, IPX6
Length of mains cable	3,000 mm–4,000 mm (depending on version, PVC)

1) No more than two drives may be operated at nominal load at the same time!



\*For *anti-Trendelenburg adjustment*, the customer must observe the permissible inclination in the relevant application.

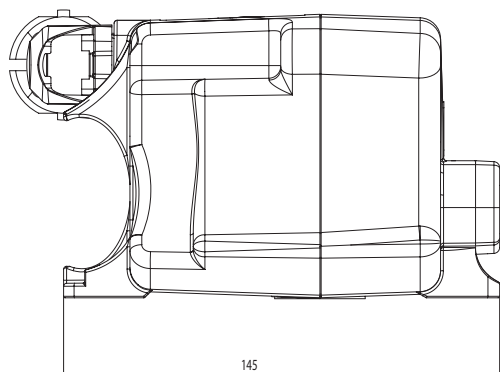
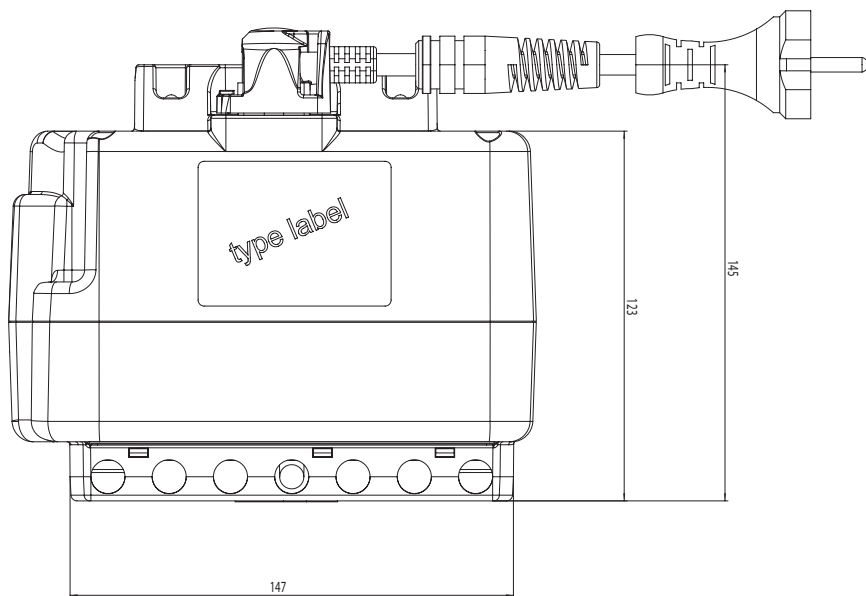
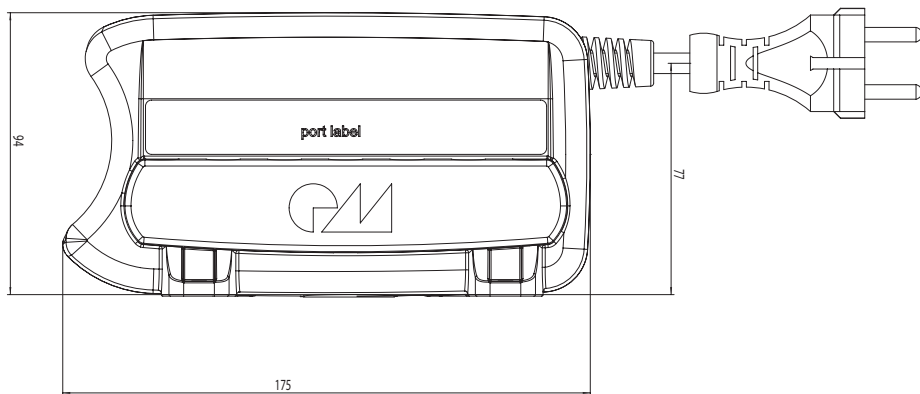
## MultiControl Care Mono



### Parallel operation

With the MultiControl Care Mono up to 4 drives can be operated in parallel (not synchronised). Drives 1 and 2 may be operated singly or in parallel. Drives 3 + 4 operate in parallel. The 8- or 10-key hand switch has a magnetic switch locking function. With drives 3 + 4 Trendelenburg\* and anti-Trendelenburg\* applications are possible.

# MultiControl Care – Technical data



## Controls - MultiControl Care



Code No	for drive
QST10H20AC300	MultiControl Care Mono*

\*Please order power cable separately; see below.

## Hand switches / accessories



1



2



3

Holder



4



5



6

Code No.	Version	Mono mode	Parallel operation	2 drives with individual control	Trendelenburg / anti-Trendelenburg function	Locking function with magnetic key*	Fig.
QZB20A06BL136	10 keys with locking function (13-pin)	●	●	●	●	●	1
QZB20A06BE136	8 keys with locking function (13-pin)	●	●	●		●	2
QZB20A06BF136	2 keys (13-pin)	●	●				3
QZB20A06BG136	6 keys (13-pin)	●	●	●			4
QZB20A06BH136	Foot switch, 2 keys (13-pin)	●	●				5
QZD170505	Magnetic key*						6
QZD000072	Holder for hand switch (3 + 4)						

## Power cable with protective ground wire (PE)



1



2



3



4

Control-side

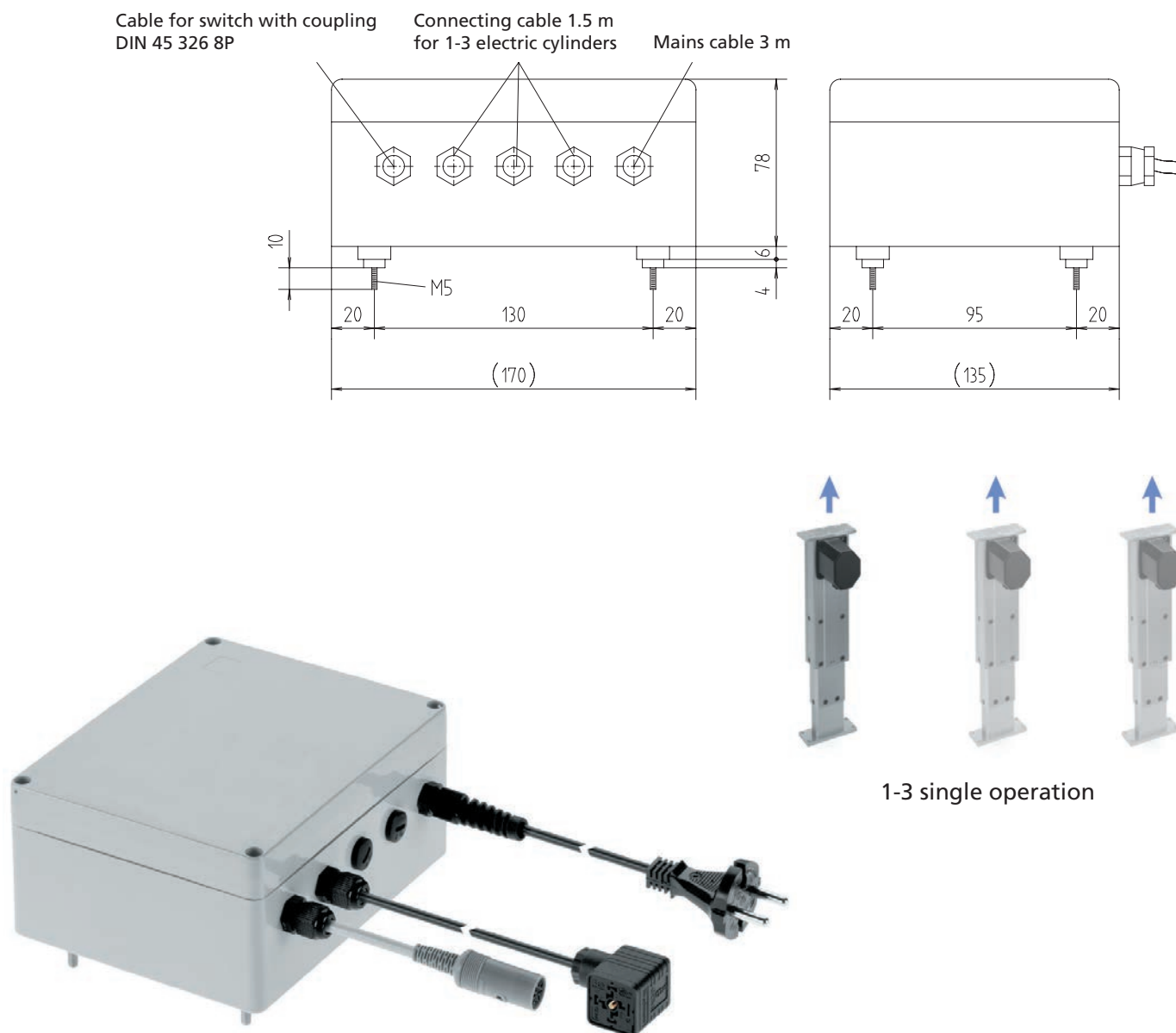


\*

Code No	Version	Length	Fig.
QZD170501	Power cable* (USA version), plug-in, straight	4 m	1
QZD170500	Power cable* (Europe version), plug-in, straight	3 m	2
QZD170503	Power cable* (UK version), plug-in, helix	2 m	3
QZD170502	Power cable* (Japan version), plug-in, straight	4 m	4

# Transformer control for LAMBDA actuators

## LAMBDA Colonne LBC/LAMBDA LBG electric cylinder



### Features:

- Integrated thermal monitoring
- Low magnetic leakage toroidal transformer with extremely low power output
- Movement of loads up to a total of 8,000 N

### Options:

- Depending on the version, this unit can operate up to three individual LAMBDA actuators
- Operation with a hand switch (accessories)



## General information/operating conditions

Transformer control	LBM/LBC 1 (for 1 drive) LBM/LBC 2 (for 2 drives) LBM/LBC 3 (for 3 drives)
Duty cycle	Max. 30%
Input voltage	230 V AC/50Hz (standard) or 110 V AC/50-60Hz (on request)
Supply voltage (retraction/extension)	24 V DC
Power	192 VA
Protection class	IP 54
Length of mains cable	3 m

## Controls



Code No.	Version	
QZA01C04AD011	LBM/LBC 1 transformer control	Controls up to 1 electric cylinder
QZA01C04AE011	LBM/LBC 2 transformer control	Controls up to 2 electric cylinders
QZA01C04AF011	LBM/LBC 3 transformer control	Controls up to 3 electric cylinders

## Hand switches/accessories

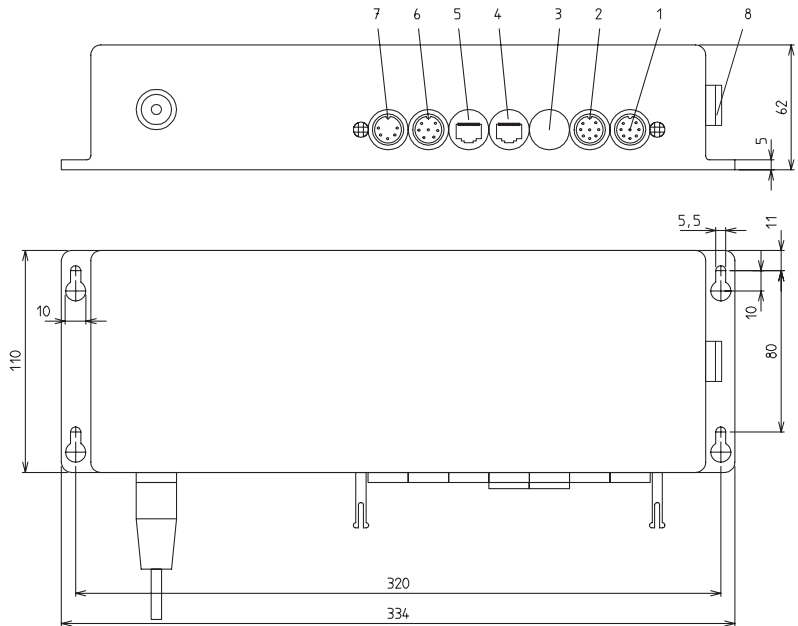


Code No.	Version		Fig.
QZB03C02AD031	LAMBDA hand switch with fixing clip – 6 function keys	Controls up to 3 drives	2
QZD000072	Bracket for hand switch		3

# MultiControl duo

## Control - MultiControl duo

- Socket 1 8-pin DIN socket for drive 1
- Socket 2 8-pin DIN socket for drive 2
- Socket 3 not assigned
- Socket 4 Bus
- Socket 5 Bus
- Socket 6 6-pin DIN socket for serial hand switch
- Socket 7 5-pin DIN socket for parallel hand switch with 2 function keys
- Socket 8 not assigned



2 drives synchronised

## Features:

- Synchronous control of up to two drives
- Duty cycle monitoring as overload protection (can be activated as standard)
- Current height display with 6-key hand switch
- The hand switch with six function keys supports storage of nine different intermediate positions (memory) which can be called up at the touch of a button
- For simple synchronous operation, we recommend the 2-key hand switch
- Supports connection to a PLC/PC data interface
- Bus cable enables the networking of up to 8 controls

General information/operating conditions

The following can be connected:	Multilift, Alpha Colonne, RKPowerlift (external control), RK Slimlift, Linear cylinder LZ 60, drive unit LZ
Max. duty cycle	20% (at 10 mins cycle time)
Input voltage	230 V AC (115 V AC available on request)
Output voltage	36 V DC
Power	300 VA
Current output	Max. 12 A
Protection class	IP 30
Length of mains cable	1.8 m

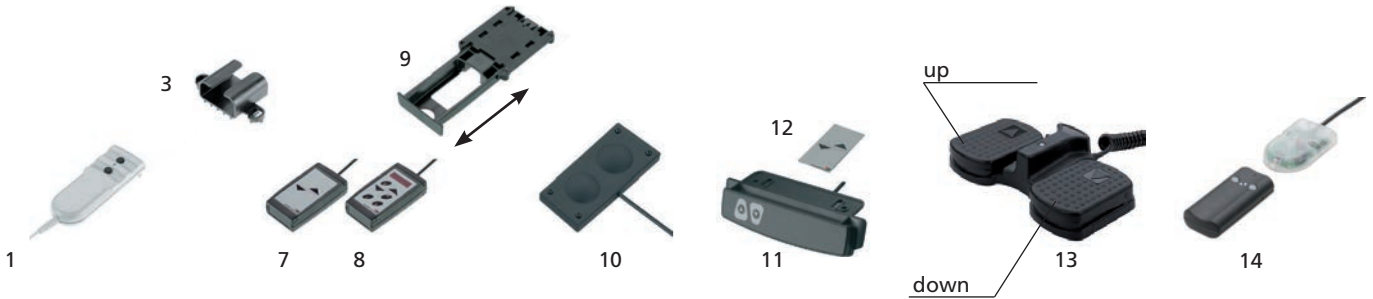
Controls

**Order information:**  
Observe the current output of the drives when selecting the control.

Code No.	for drive
QST35C02AA000	Drive unit LZ S/P, 230 V AC
QST61C02AA000	Alpha Colonne, 230 V AC
QST10C02AA000	Multilift , 230 V AC
QST42C02AA000	RKPowerlift Spindle, 230 V AC
QST43C02AA000	RKPowerlift telescope, 230 V AC
QST44C02AA000	RKPowerlift M, 230 V AC

Code No.	for drive
QST20C02AA000	RK Slimlift, 230 V AC
QST21C02AA000	RK Slimlift EM, 230 V AC
QST30C02AA000	Electric cylinder LZ 60, 230 V AC

Hand switches/accessories



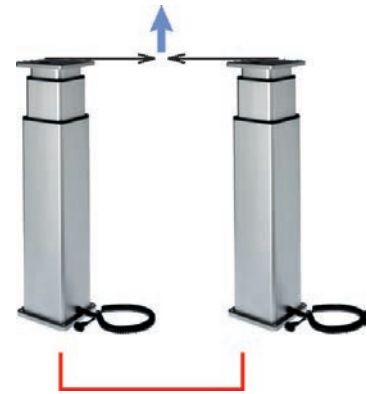
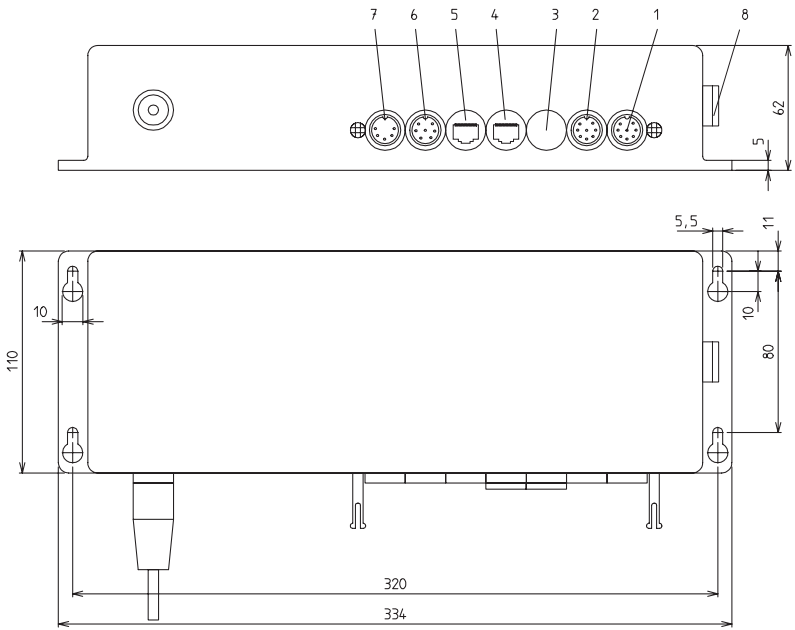
Code No.	Version	Synchronous operation	Commissioning bus system	Memory function	Fig.
QZB02C03AB031	Hand switch with 1 m spiral cable – 2 function keys	X			1
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	X			7
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys/display	X	X	X	8
QZB02A03AB041	Undercover hand switch with “angled” plug	X			10
QZB00A00AB051	Table hand switch with 1 m spiral cable – 2 function keys	X			11
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	X			12
QZB02C01AE114	Foot switch – 2 function keys	X			13
QZB00D07BK141	Wireless hand switch – 2 function keys	X			14
Accessories					
QZD000072	Bracket for hand switch				3
QZD000074	Drawer for hand switch				9
QZD100093	Bus cable 6m for networking synchronous control				
QZD070526	Extension cable 2,5 m drive for connector C/8-pin DIN socket				

# MultiControl duo silent

## Low-noise control for sensitive areas

### Control - MultiControl duo

- Socket 1 8-pin DIN socket for drive 1
- Socket 2 8-pin DIN socket for drive 2
- Socket 3 not assigned
- Socket 4 Bus
- Socket 5 Bus
- Socket 6 6-pin DIN socket for serial hand switch
- Socket 7 5-pin DIN socket for parallel hand switch with 2 function keys
- Socket 8 not assigned



2 drives synchronised

### Features:

- Synchronous control of up to two drives
- Duty cycle monitoring as overload protection (can be activated as standard)
- Current height display with 6-key hand switch
- The hand switch with six function keys supports storage of nine different intermediate positions (memory) which can be called up at the touch of a button
- Significant noise reduction due to a 30% reduction in speed compared to the Multi-Control duo
- Supports connection to a PLC/PC data interface
- Bus cable enables the networking of up to 8 controls

### General information/operating conditions

The following can be connected:	Multilift, Alpha Colonne, RKPowerlift (external control), RK Slimlift, Linear cylinder LZ 60, drive unit LZ
Max. duty cycle	10% (at 10 mins cycle time)
Input voltage	230 V AC (115 V AC available on request)
Output voltage	24 V DC
Power	250 VA
Current output	Max. 10 A
Protection class	IP 30
Length of mains cable	1.8 m

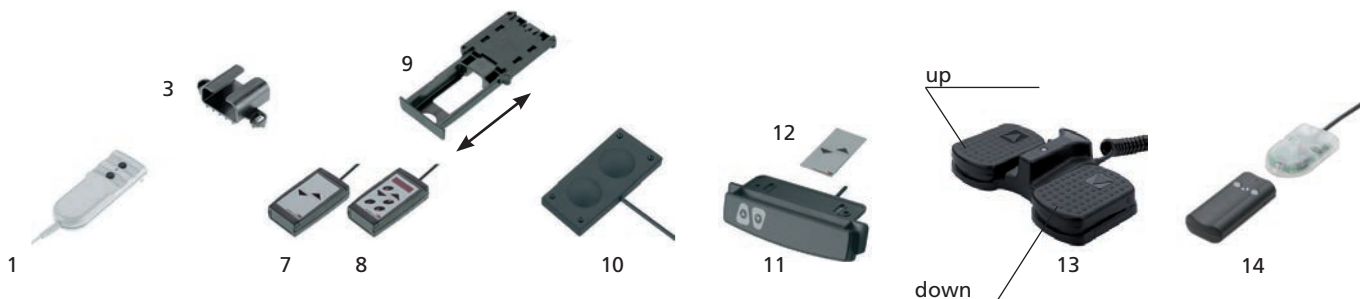
### Controls

#### Order information:

Observe the current output of the drives when selecting the control.

Code No.	for drive	Code No.	for drive
QST61C02AD000	Alpha Colonne, 230 V AC	QST20C02AD000	RK Slimlift, 230 V AC
QST10C02AD000	Multilift, 230 V AC	QST21C02AD000	RK Slimlift EM, 230 V AC
QST42C02AD000	RKPowerlift Spindle, 230 V AC	QST30C02AD000	Electric cylinder LZ 60, 230 V AC

### Hand switches/accessories

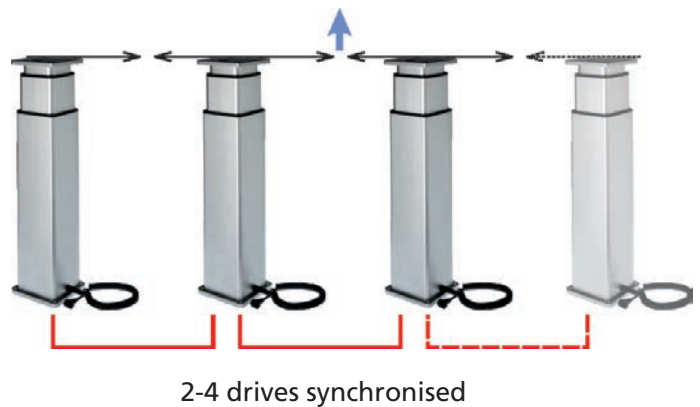
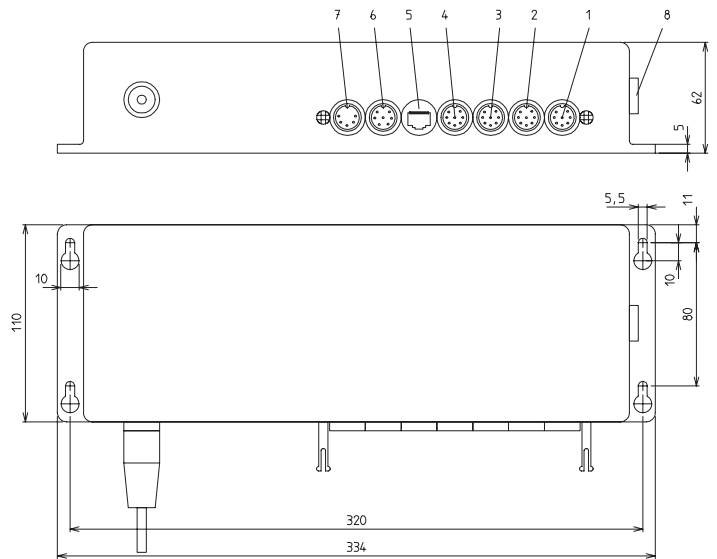


Code No.	Version	Synchronous operation	Commissioning bus system	Memory function	Fig.
QZB02C03AB031	Hand switch with 1 m spiral cable – 2 function keys	X			1
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	X			7
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys/display	X	X	X	8
QZB02A03AB041	Undercover hand switch with “angled” plug	X			10
QZB00A00AB051	Table hand switch with 1 m spiral cable – 2 function keys	X			11
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	X			12
QZB02C01AE114	Foot switch – 2 function keys	X			13
QZB00D07BK141	Wireless hand switch – 2 function keys	X			14
Accessories					
QZD000072	Bracket for hand switch				3
QZD000074	Drawer for hand switch				9
QZD100093	Bus cable 6m for networking synchronous control				
QZD070526	Extension cable 2,5 m drive for connector C/8-pin DIN socket				

# MultiControl quadro

## Control - MultiControl quadro

- Socket 1 8-pin DIN socket for drive 1
- Socket 2 8-pin DIN socket for drive 2
- Socket 3 8-pin DIN socket for drive 3
- Socket 4 8-pin DIN socket for drive 4
- Socket 5 Bus
- Socket 6 6-pin DIN socket for serial hand switch
- Socket 7 5-pin DIN socket for parallel hand switch with 2 function keys
- Socket 8 6-pin DIN socket for connecting a protective shutdown e.g. a safety edge switch



## Features:

- The synchronous control can operate up to four drives
- Duty cycle monitoring protects the system against overload (can be activated as standard)
- The hand switch with 6 function keys supports storage of nine different intermediate positions (memory) which can be called up at the touch of a button
- 2-key hand switch for simple synchronous operation
- Supports connection to a PLC/PC data interface
- Bus cable enables the networking of up to 8 controls

### General information/operating conditions

The following can be connected:	Multilift, Alpha Colonne, RKPowerlift (external control), RK Slimlift, Linear cylinder LZ 60, drive unit LZ
Max. duty cycle	20% (at 10 mins cycle time)
Input voltage	230 V AC (115 V AC available on request)
Output voltage	36 V DC
Power	300 VA
Current output	Max. 12 A
Protection class	IP 30
Length of mains cable	1.8 m

### Controls

#### Order information:

Observe the current output of the drives when selecting the control.

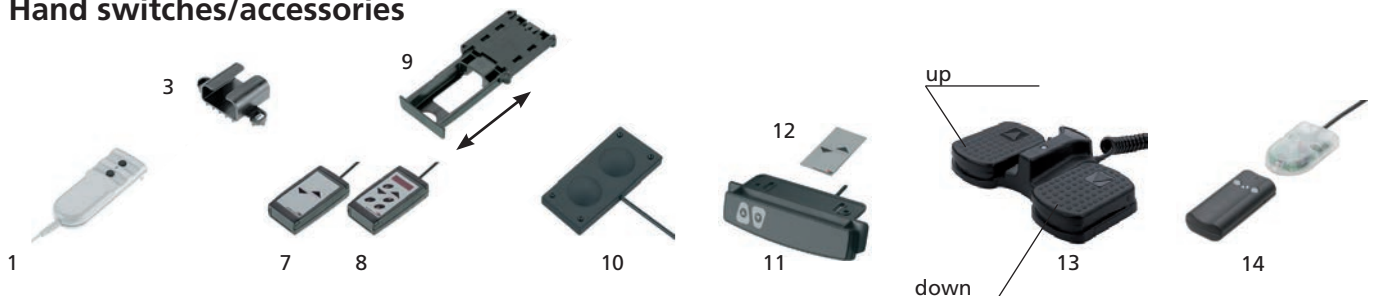
When connecting a switch-strip or other protective cut-out device, please consider control of the single impulses, regarding over travel.

For this function, please ensure that a 6-Button handset, with display is used. (as Example. 8).

Code No.	for drive
QST35C04AA000	Drive unit LZ S/P, 230 V AC
QST61C04AA000	Alpha Colonne, 230 V AC
QST10C04AA000	Multilift, 230 V AC
QST42C04AA000	RKPowerlift Spindle, 230 V AC
QST43C04AA000	RKPowerlift telescope, 230 V AC
QST44C04AA000	RKPowerlift M, 230 V AC

Code No.	for drive
QST20C04AA000	RK Slimlift, 230 V AC
QST21C04AA000	RK Slimlift EM, 230 V AC
QST30C04AA000	Electric cylinder LZ 60, 230 V AC

### Hand switches/accessories



Code No.	Version	Synchronous operation	Commissioning bus system	Memory function	Fig.
QZB02C03AB031	Hand switch with 1 m spiral cable – 2 function keys	X			1
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	X			7
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys/display	X	X	X	8
QZB02A03AB041	Undercover hand switch with "angled" plug	X			10
QZB00A00AB051	Table hand switch with 1 m spiral cable – 2 function keys	X			11
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	X			12
QZB02C01AE114	Foot switch – 2 function keys	X			13
QZB00D07BK141	Wireless hand switch – 2 function keys	X			14
Accessories					
QZD000072	Bracket for hand switch				3
QZD000074	Drawer for hand switch				9
QZD070526	Extension cable 2,5 m drive for connector C/8-pin DIN socket				

# MultiControl Care synchro



International connecting options



MultiControl Care  
Tested to EN 60601-1 (3E)





Multilift synchro  
Tested to EN 60601-1 (3E)

## Features:

- 4 drives
- Single-fault protection
- Switching power supply with wide-range input
- Conforms to the Ecodesign Directive (standby electricity output <0.5 W)
- Locking function
- Trendelenburg position
- Anti-Trendelenburg position
- International connecting options



**MultiControl Care - Table of contents**

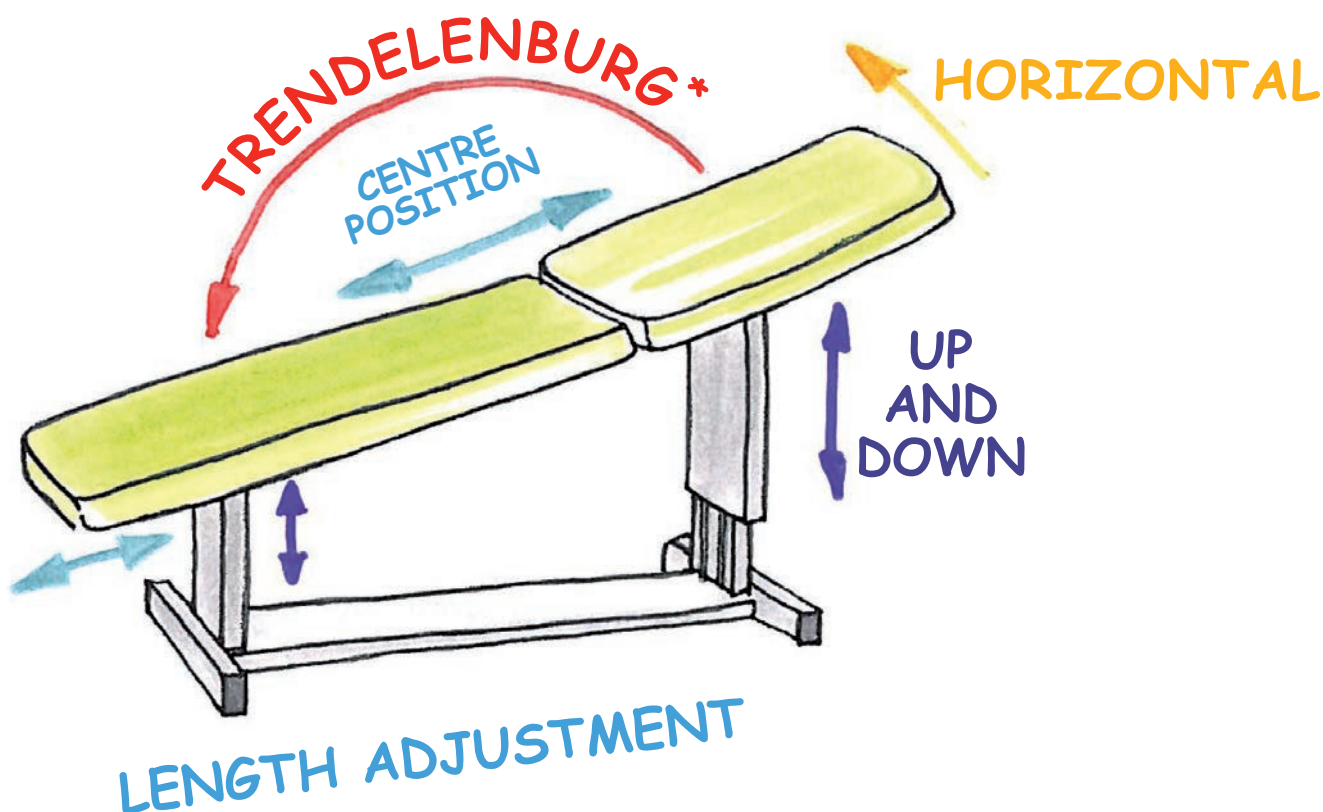
<p><b>Properties/Technical data</b></p>	<ul style="list-style-type: none"> <li>■ General information/operating conditions.....Page 170</li> </ul>
<p><b>Versions</b> (Dimensions, order numbers)</p>  	<ul style="list-style-type: none"> <li>■ MultiControl Care Synchro .....Page 171</li> </ul>
<p><b>Accessories</b></p> <p style="text-align: right;"><b>Control</b></p>	<ul style="list-style-type: none"> <li>■ Controls .....Page 173</li> <li>■ Hand switches .....Page 173</li> <li>■ Power cable .....Page 173</li> </ul>

# MultiControl Care – Technical data

## General information / operating conditions

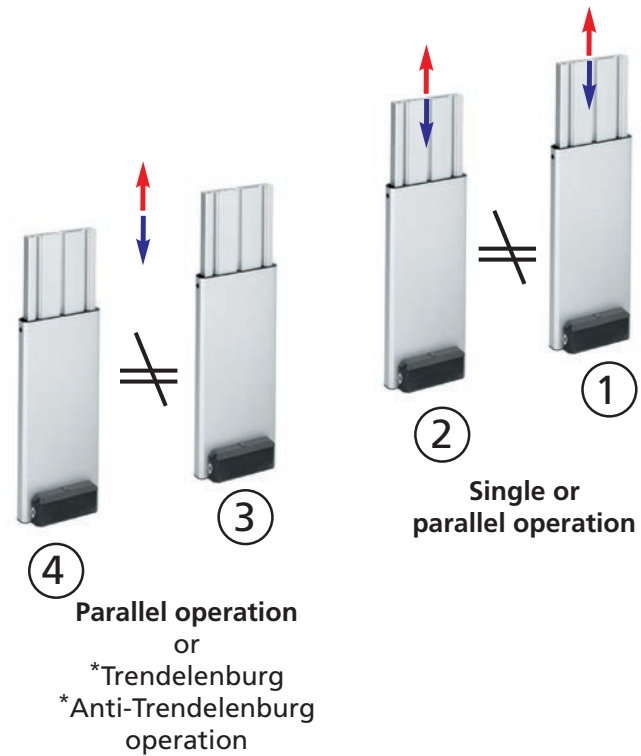
The following can be connected:	Multilift synchro
Max. duty cycle	At nominal load, 10% (max. 2 mins operating time, 18 mins rest time)
Input voltage	100–240 V AC, 50/60 Hz, switching power supply with wide-range input $\pm 10\%$
Number of drives <sup>1)</sup>	Max. 4 drives
Power	Conforms to the Ecodesign Directive (standby electricity output <0.5 W)
Current output	Current output at nominal load max. 3.0 A (depending on input voltage)
Degree of protection	IP20, IPX6
Length of mains cable	3,000 mm–4,000 mm (depending on version, PVC)

1) No more than two drives may be operated at nominal load at the same time!



\*For *anti-Trendelenburg adjustment*, the customer must observe the permissible inclination in the relevant application.

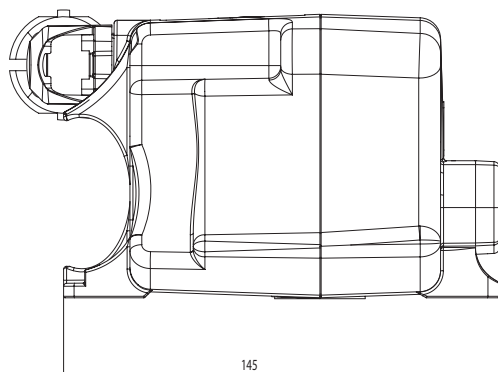
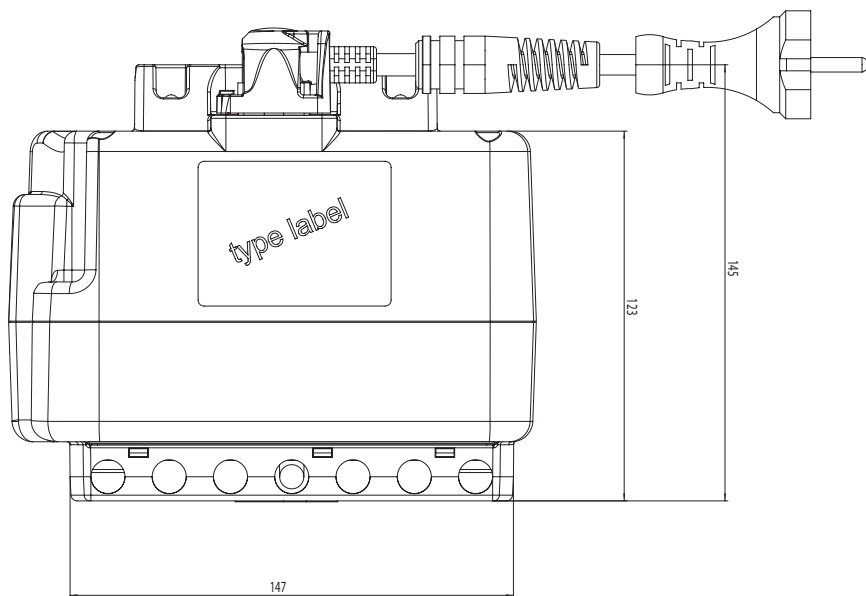
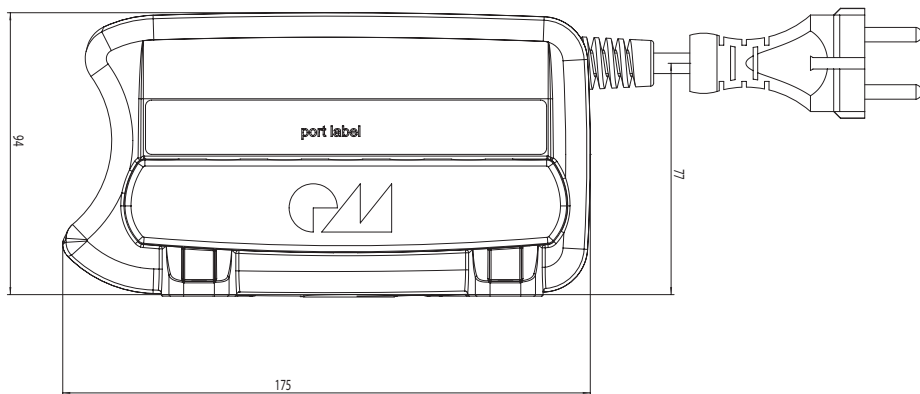
## MultiControl Care Synchro



### Parallel operation

With the MultiControl Care Synchro up to 4 drives can be operated in parallel (not synchronised). Drives 1 and 2 may be operated singly or in parallel. Drives 3 + 4 operate in parallel. The 8- or 10-key hand switch has a magnetic switch locking function. With drives 3 + 4 Trendelenburg\* and anti-Trendelenburg\* applications are possible.

# MultiControl Care – Technische Daten



## Steuerungen - MultiControl Care



Code No	for drive
QST10H21AC300	MultiControl Care Synchro*

\*Please order power cable separately; see below.

## Hand switches / accessories



1



2



3

Holder



4



5



6

Code No.	Version	Mono mode	Parallel operation	2 drives with individual control	Trendelenburg / anti-Trendelenburg function	Locking function with magnetic key*	Fig.
QZB20A06BL136	10 keys with locking function (13-pin)	●	●	●	●	●	1
QZB20A06BE136	8 keys with locking function (13-pin)	●	●	●		●	2
QZB20A06BF136	2 keys (13-pin)	●	●				3
QZB20A06BG136	6 keys (13-pin)	●	●	●			4
QZB20A06BH136	Foot switch, 2 keys (13-pin)	●	●				5
QZD170505	Magnetic key*						6
QZD000072	Holder for hand switch (3 + 4)						

## Power cable with protective ground wire (PE)



1



2



3



4

Control-side

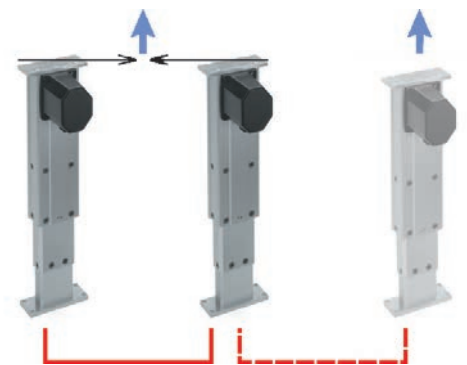
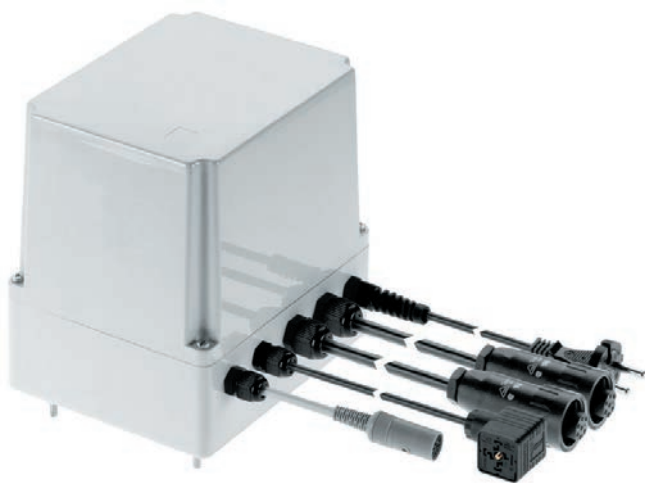
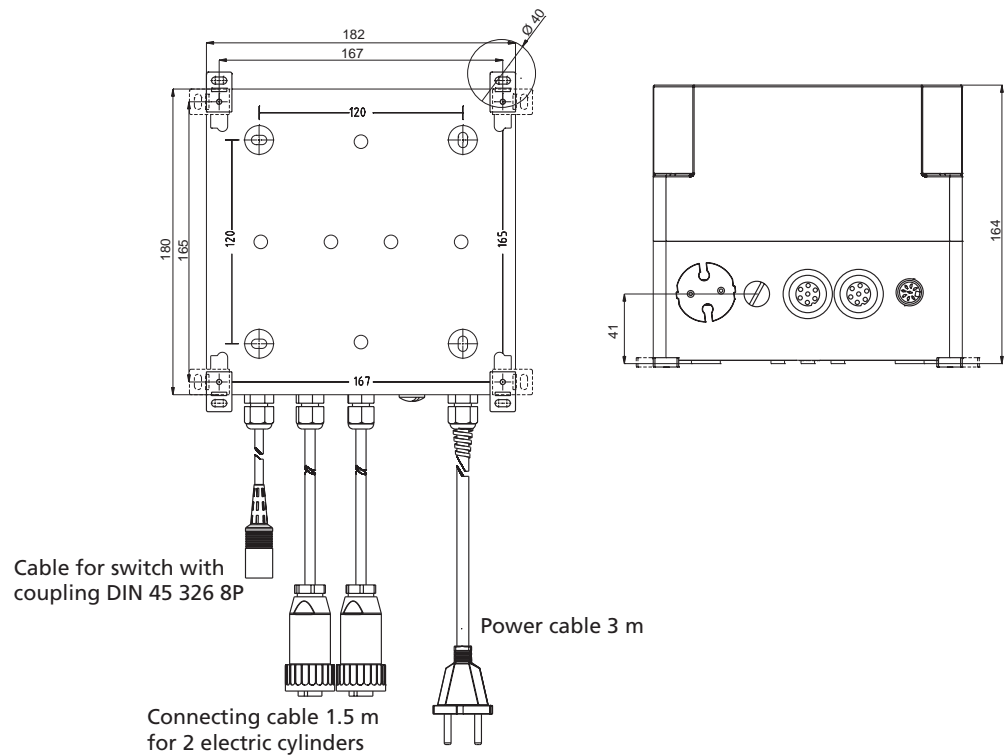


\*

Code No	Version	Length	Fig.
QZD170501	Power cable* (USA version), plug-in, straight	4 m	1
QZD170500	Power cable* (Europe version), plug-in, straight	3 m	2
QZD170503	Power cable* (UK version), plug-in, helix	2 m	3
QZD170502	Power cable* (Japan version), plug-in, straight	4 m	4

# Synchronous control for LAMBDA actuators

## LAMBDA Colonne LAMBDA LBS electric cylinder



2 drives synchronised  
or 2 drives synchronised  
+ 1 additional drive

### Features:

- Integrated thermal monitoring
- Two low magnetic leakage toroidal transformers with extremely low power output
- Movement of loads up to a total of 8,000 N
- Synchronised and load-independent operation of two LAMBDA actuators with integrated potentiometers

### Options:

- A third LAMBDA actuator can also be connected, which does not support synchronised movement

## General information/operating conditions

Transformer control	LBS 2 (for 2 drives) LBS 2+1 (2 drives synchronised, plus 1 additional drive)
Duty cycle	Max. 30%
Input voltage	230 V AC/50Hz (standard) or 110 V AC/50-60Hz (optional)
Supply voltage (retraction/extension)	24 V DC (standard)
Power	382 VA
Degree of protection	IP 54
Length of mains cable	3 m

## Controls



Code No.	Version	
QZA10C01AG011	LBS 2 synchronous control	2 electric cylinders, synchronous
QZA10C01AH011	LBS 2+1 synchronous control	Control of up to 3 electric cylinders, 2 x synchronised + 1 additional electric cylinder

## Hand switches/accessories



Code No.	Version		Fig.
QZB03C02AD031	LAMBDA hand switch with fixing clip – 6 function keys	Controls up to 3 drives	2
QZD000072	Bracket for hand switch		3

# MultiControl accu

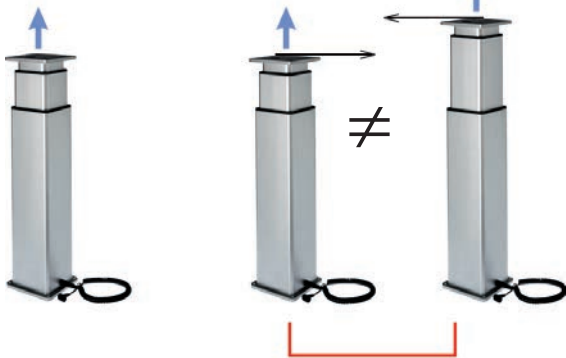


Battery 1.2 Ah



Battery 7.2 Ah

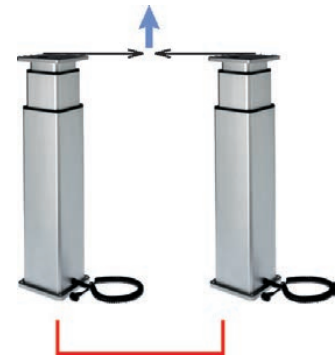
## MultiControl mono



Single operation

Single/parallel operation

## MultiControl duo



2 drives synchronised

### Features:

- For mobile devices
- Depending on the drive and task, applications can be run independent of a mains power supply for more than 40 hours
- Memory function for storing preferred positions with MultiControl duo
- Mains-independent battery mode
- Processor-assisted charging: deep discharge protection, overload protection, trickle charging, audible undervoltage indicator

### Options:

- Choice of two battery versions (1.2 Ah or 7.2 Ah)
- Choice of mono or duo version for parallel or synchronous operation
- External potentiometer for setting an infinitely variable motor speed
- Storage of 9 different positions (duo)





## General information/operating conditions

The following can be connected:	Multilift, Alpha Colonne, RKPowerlift (external control), RK Slimlift, Linear cylinder LZ 60
Max. duty cycle	20% (at 10 mins cycle time)
Input voltage	230 V AC (115 V AC available on request)
Input power	250 VA (at 1.2 Ah)/300 VA (at 7.2 Ah)
Nominal voltage (battery)	24 V DC
Max. discharge current	5 A (at 1.2 Ah)/10 A (at 7.2 Ah)
Max. charging time	approx. 14 hours
Protection class	II
Protection class	IP 30
Operating temperature	10°C to 35°C
Storage temperature	10°C to 40°C
Charge cycles	at 30% discharge approx. 1,000
Weight	Control 3.5 kg/battery 1.5 kg (1.2 Ah)/battery 5.6 kg (7.2 Ah)
Battery cable length	0.15 m (at 1.2 Ah)/0.45 m (at 7.2 Ah)
Length of mains cable	1.8 m

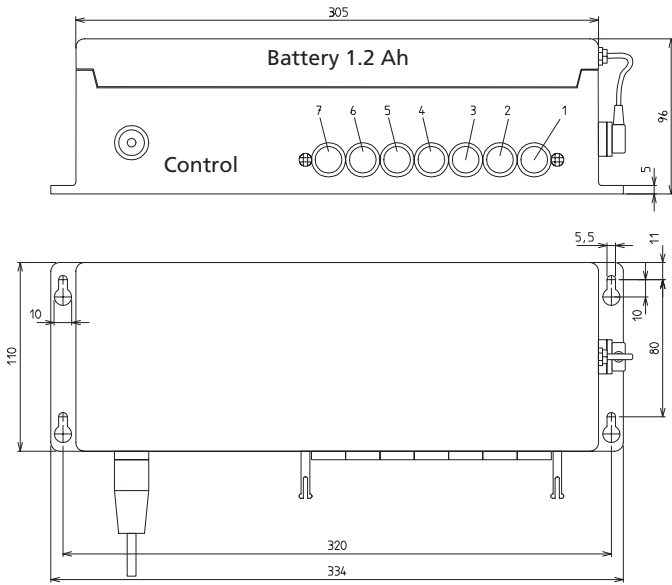
## Controls

Code No.	for drive	Code No.	for drive
<b>MultiControl mono accu 1.2 Ah</b>		<b>MultiControl mono accu 7.2 Ah</b>	
QSTAACA1AE100	mono, 2- pin DIN- Connector	QSTAACA1AF100	mono, 2- pin DIN- Connector
QSTACCA1AE100	parallel, 8- pin DIN- Connector	QSTACCA1AF100	parallel, 8- pin DIN- Connector
<b>MultiControl duo accu 1.2 Ah connection C</b>		<b>MultiControl duo accu 7.2 Ah connection C</b>	
QST20C02AE100	RKSlimlift	QST20C02AF100	RKSlimlift
QST21C02AE100	RKSlimlift EM	QST21C02AF100	RKSlimlift EM
QST61C02AE100	Alpha Colonne II	QST61C02AF100	Alpha Colonne II
QST10C02AE100	Multilift	QST10C02AF100	Multilift
QST44C02AE100	RKPowerlift M	QST44C02AF100	RKPowerlift M
QST42C02AE100	RKPowerlift Spindle	QST42C02AF100	RKPowerlift Spindle
QST43C02AE100	RKPowerlift telescope	QST43C02AF100	RKPowerlift telescope
QST40C02AE100	RKPowerlift Rack	QST40C02AF100	RKPowerlift Rack
QST30C02AE100	LZ60	QST30C02AF100	LZ 60

Accessories	
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

# MultiControl accu

## MultiControl mono/duo accu 1,2 Ah



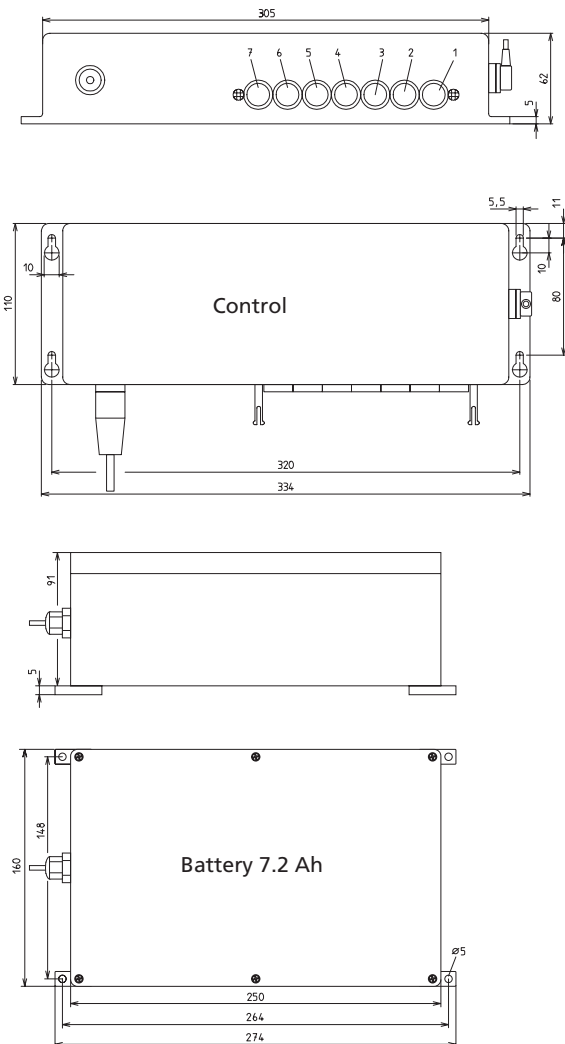
### Control - MultiControl mono accu, connection A

- Socket 1 not assigned
- Socket 2 2-pin DIN socket for drive 1
- Socket 3 not assigned
- Socket 4 2-pin DIN socket for drive 2
- Socket 5 not assigned
- Socket 6 2- to -10- volt- input or potentiometerinput
- Socket 7 7-pin DIN socket for parallel hand switch with 2 or 6 function keys
- Socket 8 connection accu

### Control - MultiControl mono accu connection C

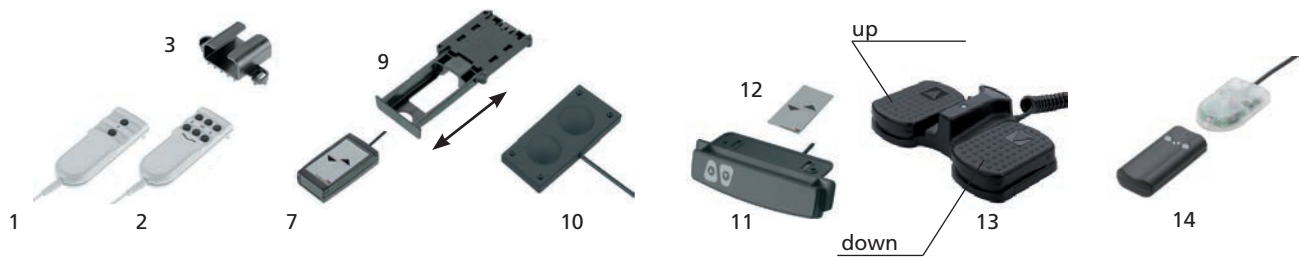
- Socket 1 8-pin DIN socket for drive 1
- Socket 2 not assigned
- Socket 3 8-pin DIN socket for drive 2
- Socket 4 not assigned
- Socket 5 not assigned
- Socket 6 2- to -10- volt- input or potentiometerinput
- Socket 7 7-pin DIN socket for parallel hand switch with 2 or 6 function keys
- Socket 8 connection accu

## MultiControl mono/duo accu 7,2 Ah



Height-adjustable lectern

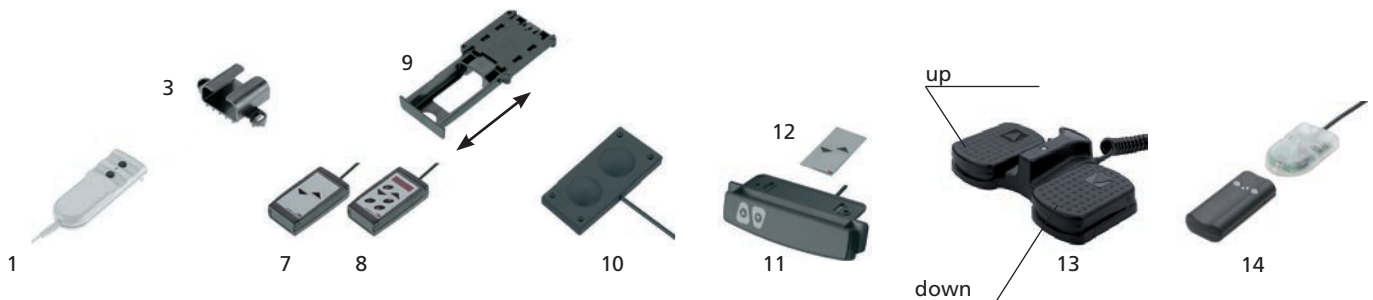
## Hand switches/accessories (MultiControl mono accu)



Code No.	Version	Mono operation	Parallel operation	2 drives with individual control	Fig.
QZB02C03AB031	Hand switch with 1 m spiral cable – 2 function keys	X	(X)		1
QZB02C03AD031	Hand switch with 1 m spiral cable – 6 function keys	X	X	X	2
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	X	(X)		7
QZB02A03AB041	Undercover hand switch with "angled" plug	X			10
QZB00A00AB051	Table hand switch with 1 m spiral cable – 2 function keys	X			11
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	X	(X)		12
QZB02C01AE114	Foot switch – 2 function keys	X	(X)		13
QZB00D07BK141	Wireless hand switch – 2 function keys	X	(X)		14
Accessories					
QZD000072	Bracket for hand switch				3
QZD000074	Drawer for hand switch				9

(X) = limited use

## Hand switches/accessories (MultiControl duo accu)

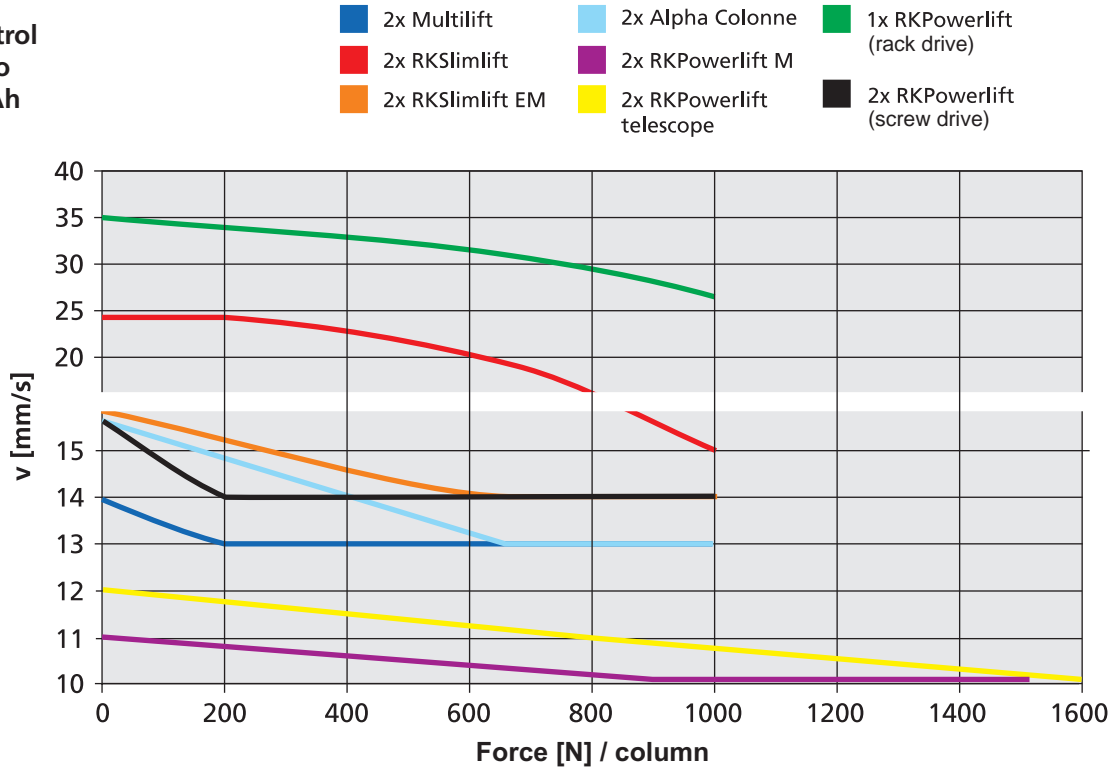


Code No.	Version	Synchronous operation	Commissioning bus system	Memory function	Fig.
QZB02C03AB031	Hand switch with 1 m spiral cable – 2 function keys	X			1
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	X			7
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys/display	X	X	X	8
QZB02A03AB041	Undercover hand switch with "angled" plug	X			10
QZB00A00AB051	Table hand switch with 1 m spiral cable – 2 function keys	X			11
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	X			12
QZB02C01AE114	Foot switch – 2 function keys	X			13
QZB00D07BK141	Wireless hand switch – 2 function keys	X			14
Accessories					
QZD000072	Bracket for hand switch				3
QZD000074	Drawer for hand switch				9

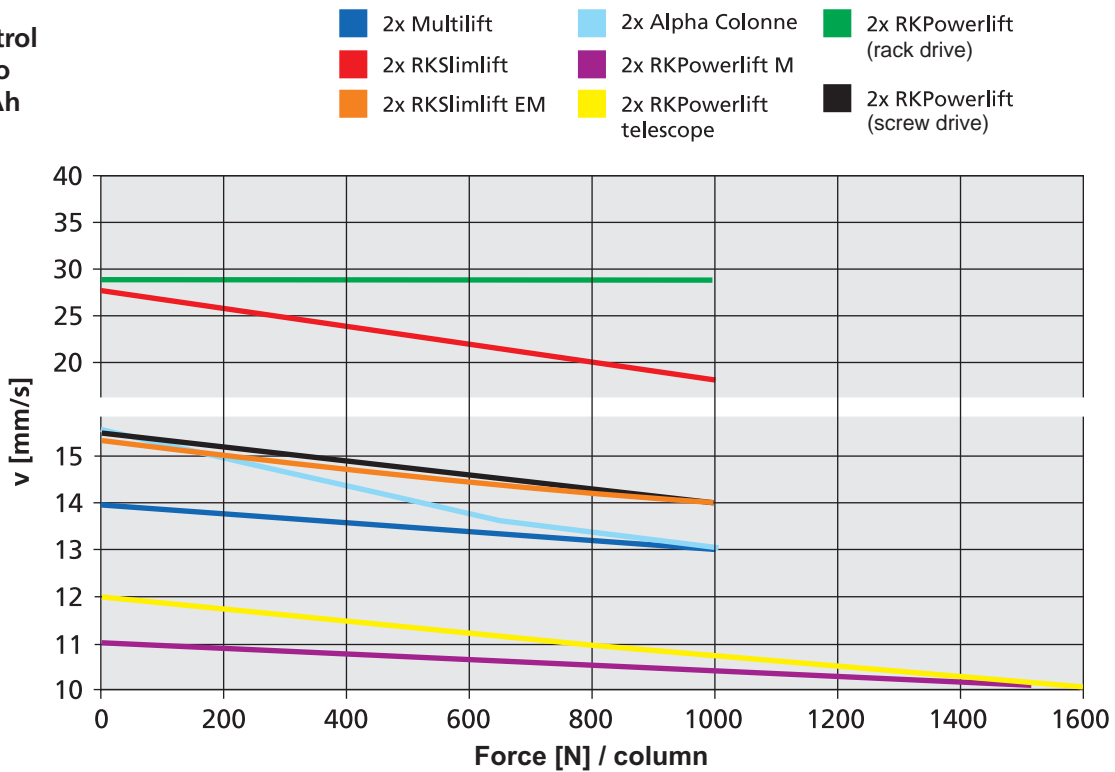
# MultiControl accu

## Speed achievable in battery mode

MultiControl  
mono/duo  
accu 1.2 Ah

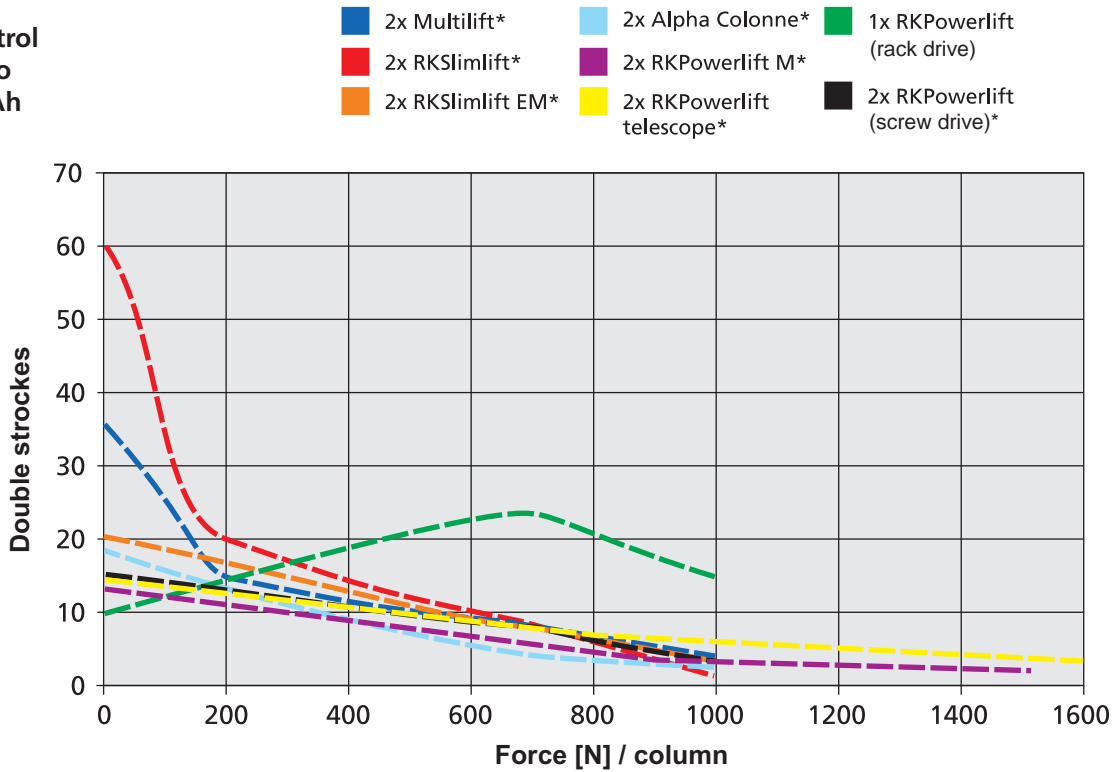


MultiControl  
mono/duo  
accu 7.2 Ah

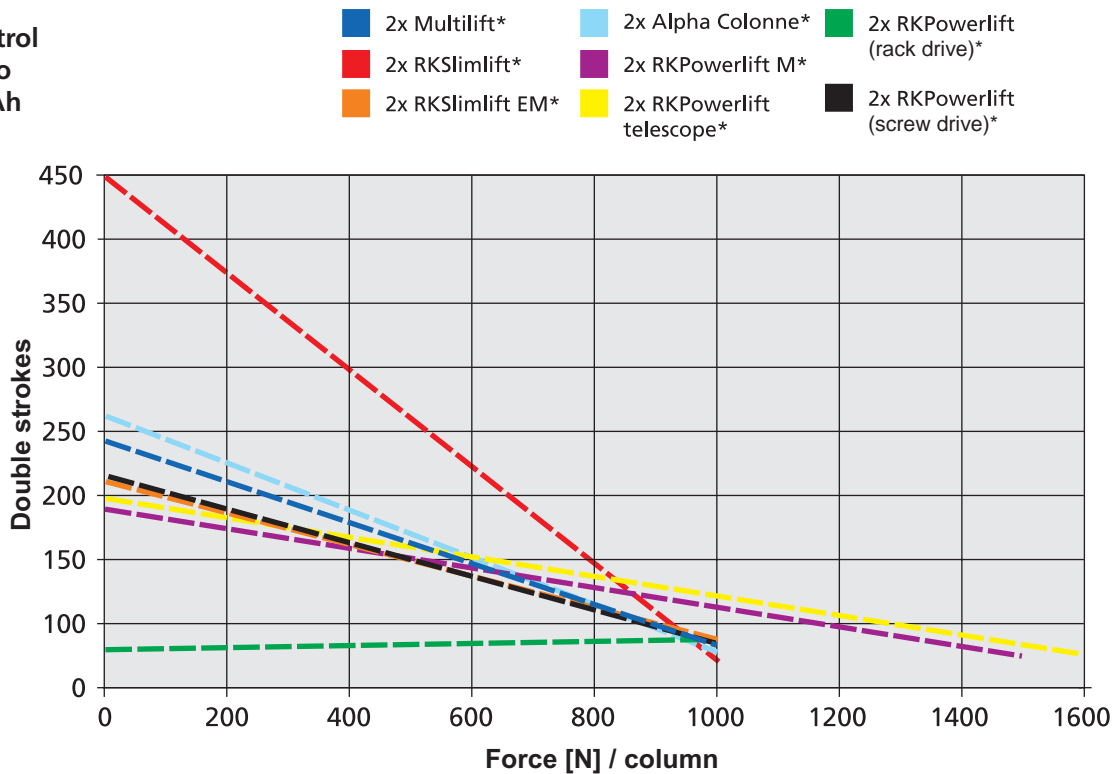


## Double strokes achievable in battery mode

MultiControl  
mono/duo  
accu 1.2 Ah



MultiControl  
mono/duo  
accu 7.2 Ah



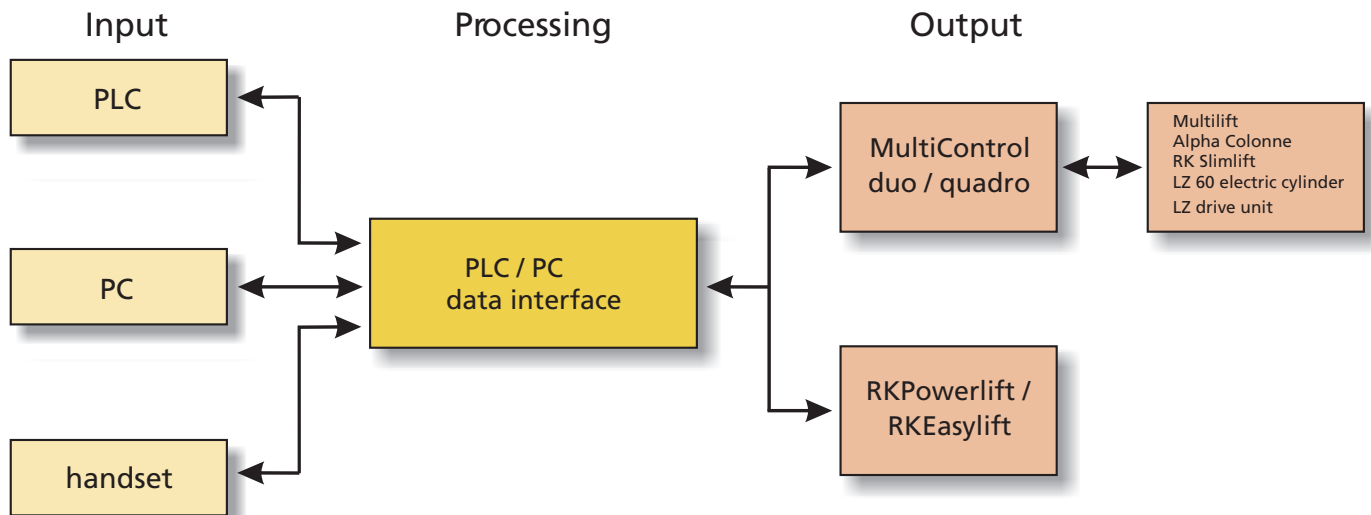
\*Values with 2 drives in parallel/synchronous operation (with a stroke of 500 mm).  
These values increase by a factor of 2.5 if a single drive is used.

# Accessories

## PLC/PC data interface

The RK Rose+Krieger lifting column range supports a wide range of workflows in a wide range of assembly and manufacturing processes.

A special data interface has now been developed in order to further optimise these workflows and increase the level of automation. This interface supports the control of lifting columns from various input devices, such as a hand switch, which enables user-friendly and intuitive setting up of lifting columns. Further production processes are then controlled via a PC or PLC.



### Features:

- Interface for a range of input devices (hand switch, PC and PLC)
- Quick and easy plug-in assembly
- Simple operation
- Software for Windows XP / Vista / Win 7

### Options:

- Three different options for electrical connection
- Various adaptors available on request

## Accessories

### PC operation with *RKLift-Control software*

The PC software allows all the functions of the hand switch to be reproduced via the data interface. Once the program is started, an intuitive input mask appears, which can be operated via the PC keyboard or mouse. The arrow keys enable smooth movement of the lifting column. A user selection lets you call up 5 different names, each with its own memory position.

### Connection of a PLC

The data interface is connected to a PLC via a screw terminal. The control requires floating contacts that switch 12-24 V DC to the inputs of the data interface. The movement of the lifting column is achieved by assigning a specific pattern to the inputs. On delivery, the unit is assigned an 8 bit pattern as default setting. To save the outputs of the controlling PLC, a 4 bit pattern can also be assigned.

The control enables precise movement to all memory positions. A binary pattern is output via 3 outputs to indicate when the position has been reached, thus enabling evaluation by the PLC.

## General information/operating conditions

System requirements	PC with WINDOWS XP / Vista / Win 7 Free disk space, at least 6.3 MB
Supply voltage	5 VDC, is automatically made available on connection to the MultiControl control system and RKPowertlift
Degree of protection	IP 30
Operating temperature	+5°C to +60°C
Suitable for controls	RKPowertlift "Memory" and "Synchro"/MultiControl duo/quadro
Dimensions	W x H x L: 84 x 35 x 123 mm

## Scope of delivery

- Data interface with housing
- Connecting cable to column 2.5 m
- Connecting cable to PC, 2.5 m
- Screw terminal for PLC connection
- Software RKLiftControl
- Documentation



Code No.	Type	Version
QZD100108	PLC/PC data interface	for RKPowertlift "Synchro" and "Memory", MultiControl duo/quadro
QZD100110	Fixing plate	for mounting in a control cabinet



Mobile Powerlift-Table

## Highlights in brief

- ✓ Comprehensive accessories
- ✓ Range of different feet
- ✓ Table top frames & fixing plates
- ✓ Assembly plates, adaptor bars and levelling elements for a wide range of applications



## Optional accessories



1



2



3



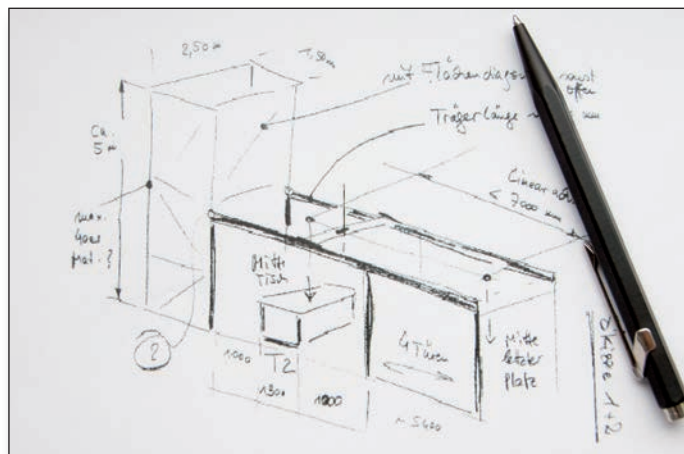
4

Code No.	Versions	Description / information	Fig.
QZD050013	Amphenol coupling "straight version" without cable	For Lambda electric cylinder or Lambda Colonne lifting column with potentiometer for customer-provided control	1
QZD050004	Amphenol coupling "straight version" with 5 m cable		1
QZD050010	Device coupling "right-angle version" without cable (EN 175301-803 -A)		2
QZD050009	Device coupling "right-angle version" with 5 m cable (EN 175301-803 -A)		2
QZD0702844000	4 m connecting cable with right-angle connector DIN 41524 5-pin / open cable end	For connecting a parallel hand switch or an external potentiometer (MultiControl mono)	3
QZD070525	2.5 m extension cable drive for connection A / 2-pin DIN connector	Max. 1 extension per drive	
QZD070526	2.5 m extension cable drive for connection C / 8-pin DIN connector	Max. 1 extension per drive	4
QZD0201335000	5 m connecting cable for Multilift synchro 8-pin DIN connector straight/right-angle	Connecting cable between Multicontrol synchro and Multilift (Note that a 2.5 m cable is included in the scope of delivery of the Multilift)	

# What we can do for you

Do you need to focus your resources on other tasks and are you looking for a competent partner you can rely on? Working in close collaboration with you, our specialists will develop solutions tailor-made to meet your needs. If you wish, we can also assemble and commission the units on site.

- Just make a sketch of your requirements

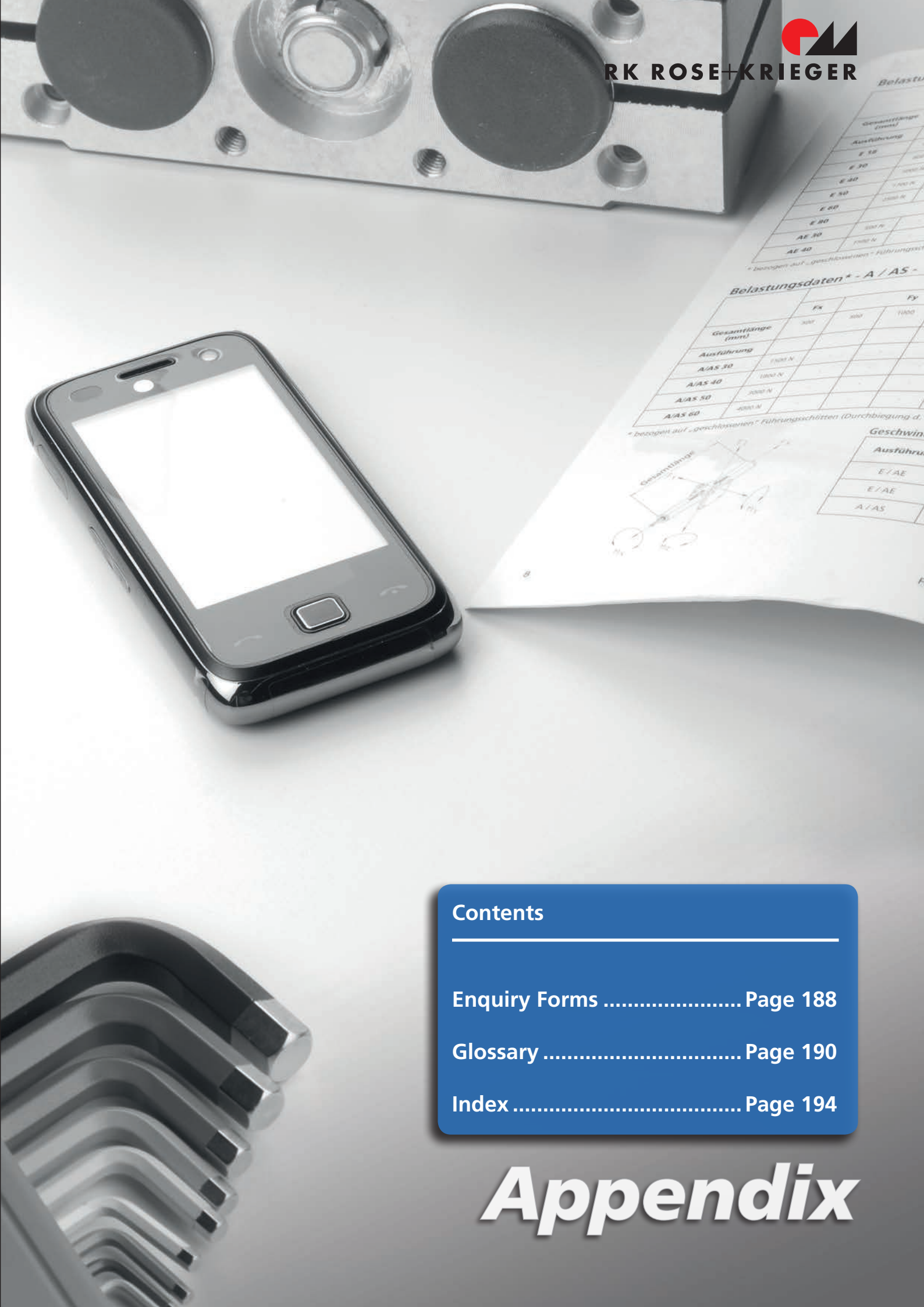


- Our product specialists will devise a solution for you



- We deliver the optimum product for your requirements.





Belastung

Gesamtlänge (mm)	Ausführung	1000 N	1500 N	2000 N
E 10				
E 20				
E 30				
E 40				
E 50				
E 60				
E 80				
E 90				
AE 30		300 N		
AE 40		1000 N		

\* Bezogen auf „geschlossenen“ Führungsschlitzen - Führungswinkel

Belastungsdaten\* - A / AS -

Gesamtlänge (mm)	Fx		Fy
	300	300	1000
Ausführung			
A/AS 30	1500 N		
A/AS 40	1800 N		
A/AS 50	2000 N		
A/AS 60	4000 N		

\* Bezogen auf „geschlossenen“ Führungsschlitzen (Durchbiegung d.)



Geschwindigkeit

Ausführung	E / AE	E / AE	A / AS

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# Appendix

# Enquiry form Lifting columns

**Fax: +49 (0)571 9335-119**

Telephone: +49 (0)571 9335-0  
e-mail: anfrage.vertrieb@rk-online.de

Company ..... Cust. No. ....  
Street ..... City.....  
Telephone..... Fax .....

Contact..... Dept. ....

Remarks .....

.....

**Lifting column**

- 1.) **Where is the lifting column to be positioned?** .....
- .....
- 2.) **Lifting force [N]** ..... Load on during 2.1 pushing  and/or 2.2 pulling
- 3.) **Travel [mm]** ..... **Lifting speed** desired ..... mm/s
- 4.) **Lifetime [DH]** .....
- 5.) **Operating cycles = No. of double strokes (forwards and backwards movement)**  
per  minute  hour  day average...../max. ....
- 6.) **Voltage** ..... volt direct-current (DC)
- 7.) **Position indication**  
7.1 in the limit positions  yes  no  
7.2 continuously by potentiometers  yes  no
- 8.) **Parallel connection**  
8.1 Do you wish to operate two or more systems with a single switch/protection device?  yes  no  
8.2 Do you require synchronous operation of two or more systems?  yes, quantity .....  no
- 9.) **Environment**  
9.1  dry  dusty  damp  
9.2 IP protection class ...../temperature ..... °C
- 10.) **Endlagerbegrenzung**  
**Limit positions**  
10.1 Do you require in-built limit switches?  yes  no  
10.2 Do you want to limit the travel by means of external limit switches?  yes  no  
10.3 Do you want the limit switch(es) to be adjustable?  yes  no  
10.4 Do you require additional switches for intermediate positions?  yes  no
- 11.) **Limited installation dimensions?**  
If yes, please enclose sketch showing installation situation.  yes  no
- 12.) **No. of units required** .....
- 13.) **Are you already using similar systems?**  yes  no

Submission of offer/date: .....

Remarks: .....

.....

**Fax: +49 (0)571 9335-119**

Telephone: +49 (0)571 9335-0  
e-mail: anfrage.vertrieb@rk-online.de

Company ..... Cust. No. ....  
 Street ..... City .....  
 Telephone ..... Fax .....  
 Contact ..... Dept. ....  
 Remarks .....

E-cylinders

- 1.) Where is the e-cylinders to be positioned? .....
- 2.) Lifting force [N] ..... Load on during 2.1 pushing  and/or 2.2 pulling
- 3.) Travel [mm] ..... Lifting speed ..... desired ..... mm/s
- 4.) Lifetime [DH] .....
- 5.) Operating cycles = No. of double strokes (forwards and backwards movement)  
 per  minute  hour  day average...../max. ....
- 6.) Voltage ..... volt direct-current (DC)
- 7.) Position indication
  - 7.1 in the limit positions  yes  no
  - 7.2 continuously by potentiometers  yes  no
- 8.) Parallel connection
  - 8.1 Do you wish to operate two or more systems with a single switch/protection device?  yes  no
  - 8.2 Do you require synchronous operation of two or more systems?  yes, quantity .....  no
- 9.) Environment
  - 9.1  dry  dusty  damp
  - 9.2 IP protection class ...../temperature ..... °C
- 10.) Endlagerbegrenzung
 

Limit positions

  - 10.1 Do you require in-built limit switches?  yes  no
  - 10.2 Do you want to limit the travel by means of external limit switches?  yes  no
  - 10.3 Do you want the limit switch(es) to be adjustable?  yes  no
  - 10.4 Do you require additional switches for intermediate positions?  yes  no
  - 10.5 Do you require closing pressure?  yes  no
- 11.) Limited installation dimensions?  
 If yes, please enclose sketch showing installation situation.  yes  no
- 12.) No. of units required .....
- 13.) Are you already using similar systems?  yes  no

Submission of offer/date: .....

Remarks: .....

**Adjustment load:** Each drive type has a different, structurally-dependent, adjustment load. This variable defines the maximum push and tractive force that a drive can handle (for linear drives). The adjustment load is always a so-called dynamic load. The drive still performs reliable adjusting movements under the specified maximum load. The adjustment load is defined in terms of Newtons (N), whereby the following applies: 1kg » 10 N.

**BLOCAN:** Product name of the RK Rose+Krieger aluminium profile system with patented connection system, which permits the quick and easy assembly of very different structures. These profiles are available in a wide range of cross-sections and sizes.

**Checkback signal:** A technical means for the detection of the current position and speed of the drive. A distinction is made between the relative (incremental) and absolute (analogue) method.

**Incremental (relative):**

A so-called Hall sensor generates a fixed number of electrical impulses for each distance travelled. The control then calculates up-to-date information on the current position and speed relative to a defined reference point. In order to ensure the reliable operation of the drive, it is essential that a correct reference value is always available. However, if this reference value is lost, such as in the unlikely event of a power failure or a malfunction, it is essential to specify a new reference point.

**Analogue (absolute):**

In this case, the position/speed is detected using a so-called potentiometer. This electronic component is permanently coupled to the drive movement and adjusts its resistance value according to the current position. The control uses this information to calculate the current position and speed. This type of position determination does not require a reference point as all potentiometer values are constantly available.

**Control:** The control combines the various functions required to operate the drive. The switching signals of a hand switch are converted to control functions for the connected drives. At the same time, the control contains facilities for power supply and various protection devices to protect against overloads and short-circuits.

**Transformer control:**

The hand switch controls electromechanical relays, which, in turn, control the drive currents (the most common control technology).

**Customer applications:** The responsibility for RK Rose+Krieger products (in the specific application) and compliance with the applicable directives, standards and laws lies with the manufacturer of the complete system in which the RK Rose+Krieger products are installed.

**Duty cycle (max):** This technical variable defines the maximum time period that a drive can be operated continuously. This maximum period must be followed by a specified idle time. Both values are defined in the specified duty cycle (DC) in relation to one another. In the case of drive systems, 2/18 min has become standard in the field of drive technology, i.e. 2 minutes of continuous operation must be followed by 18 minutes idle time. It therefore follows that if the unit is operated for a shorter period, the idle time can also be shortened respectively. It is essential to ensure adherence to these specifications for periodic duty; failure to do so may cause the unit to overload and trigger protection equipment.

**Earthing conductor cable:** The Multicontrol Care power cable with earth connection on the control side is for connecting the application to the earthing conductor. Install the control-side earthing conductor cable in your application in accordance with the applicable standards and current practice.

**Hand switch:** The operator can use this operating device to control the full range of drive functions. A press of the button generates switching signals, which are converted to corresponding control signals in the control system.

**Standard:**

The hand switch is directly connected to the control system via a connecting cable; transmission of the switching signals is hard-wired.

**Radio:**

Instead of the standard hand switch, a radio receiver is connected to the control interface. The switching signals sent by the radio remote control are picked up by the receiver and relayed on to the control.

**Installation dimension:** This dimension specifies the installation length of the respective drive. Installation length = basic length + travel.

**Installation position:** Observe operating manual: [www.rk-rose-krieger.com/english/service/download-documents/technical-manuals/linear-technology](http://www.rk-rose-krieger.com/english/service/download-documents/technical-manuals/linear-technology)

**Lifting column:** Single actuator with a special, often design-oriented linear guide. This actuator is able to reliably withstand lateral forces and ensure the necessary stability even in a fully extended position while taking the maximum torques into account.

**Memory synchronous drive:** This kind of actuator is equipped with a position and stroke detection system. Information on the current position of the drive is continuously transmitted back to a synchronised control system. This memory drive is generally used in applications where the stored positions can be retrieved with the simple press of a button. They are also required in applications with synchronous/memory controls.

**Power cable feedthrough:** Additional voltage tap for the supply of external devices.

**Protection class:** The impermeability of electronic devices against the penetration of foreign bodies and liquids is defined by means of a two-digit IP code. The first number refers to the level of ingress protection against solid materials, such as dust, and the second to ingress protection against liquids. The most common protection classes are IP 20 (touch protection); IP 44 (water spray protection); IP 66 (water jet protection).

**Repeatability:** Repeatability is the ability of the linear unit drive to return to a once reached position within the given tolerance limits under identical conditions. Factors that influence repeatability (and positioning accuracy) include: load, speed, delay, direction of movement and temperature.

**Stroke:** In the case of lifting columns and electric cylinders, the maximum travel is referred to as stroke.

**Service life of drives:** The lifetime depends on the drives used and the application. Depending on the system, there is a considerable difference between the lifetime of ball screw drives and acme screw drives. The lifetime of the drives is also affected by the control systems used and the associated duty cycles. As a guideline for acme screw drives, a stroke of 500 mm, with adherence to the permitted loads and duty cycles, we estimate a lifetime of 10,000 double strokes. Any changes of application will effect a corresponding change in the expected lifetime of the drive. Ball screw drives are expected to have a considerably longer lifetime. Please contact us if you require any further advice and we will be happy to assist.

**Synchronous control:**

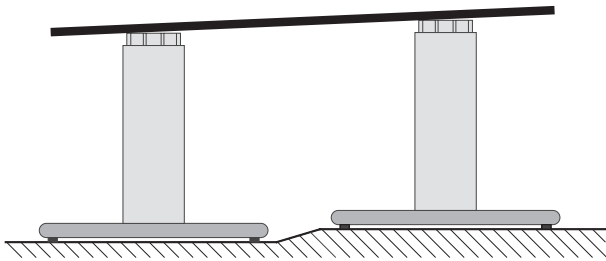
The synchronous operation of several drives at the same speed is possible even in the case of widely ranging loads. This technology is always used if a single adjusting movement is implemented via more than one drive (such as the height adjustment of workstations).

**Synchronous operation:** Synchronised drives are used for the simultaneous movement of several mechanically connected columns. "Standard" single drives are generally not able to meet the requirements of such applications.

The following section contains some brief information on the best way to set up a synchronous system. More detailed information on this subject can be found in the respective technical instructions on our website [www.rk-rose-krieger.com/english/service/download-documents/technical-manuals/linear-technology](http://www.rk-rose-krieger.com/english/service/download-documents/technical-manuals/linear-technology).

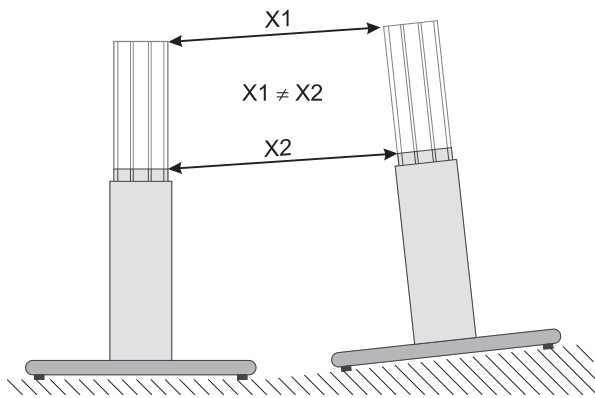
The following errors can occur during set-up:

**Different heights:**



A rigid connection between the lifting columns aligns them at the same height. Fixing the table frame in place may cause the lifting columns to distort.

**Parallel 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.

**Distorted table frame:**

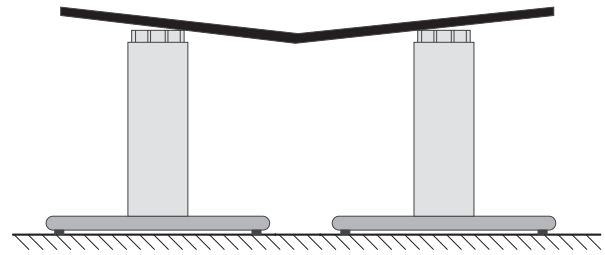
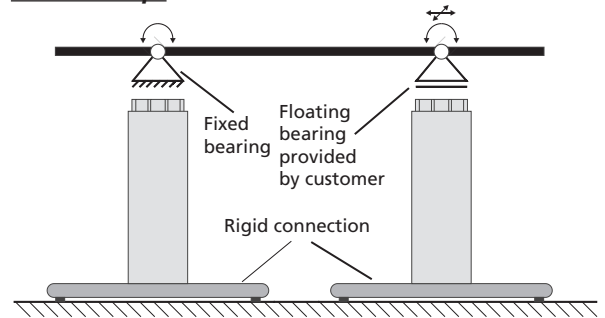


Table frames are generally made of welded steel tubes and connecting plates that connect to the lifting columns. If the connecting plates are not lying flat on the lifting column, the synchronous system will distort during screw attachment.

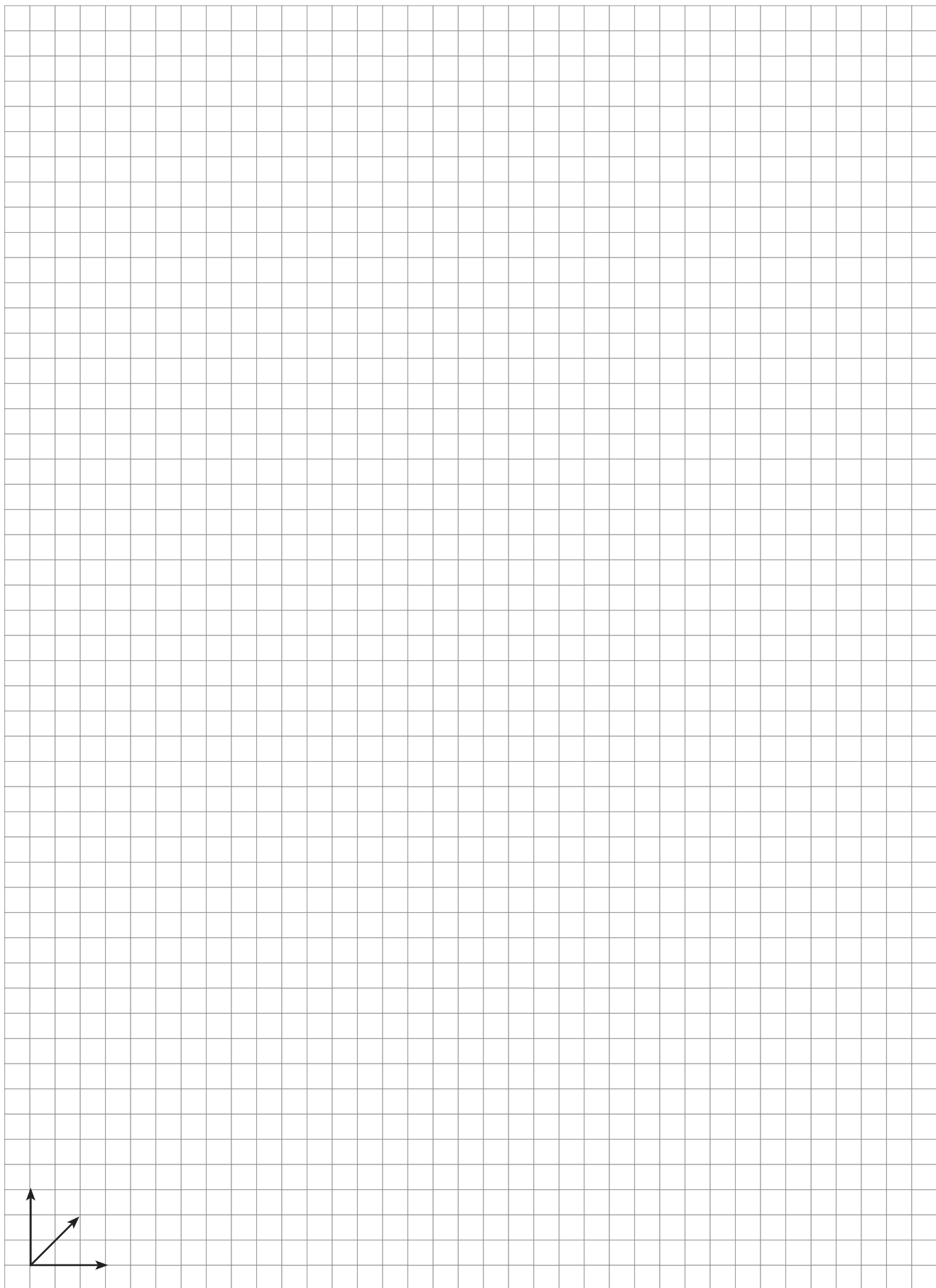
Failure to address these mechanical errors may impair the running properties of the drive, shorten lifetime or damage the lifting column. If using an electronic control system, this may cause the output of error messages and render the system inoperable.

**Ideal set-up:**



Surfaces at the foot and top of the columns must be at the same height, parallel to one another and as flat and even as possible, the columns themselves must also be aligned so that they are completely parallel. Existing tolerances and height differences due to control deviations are offset by means of a customer-provided floating bearing.





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We say what we do - and do what we say!  
We also say what we can't do - and don't do it!



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