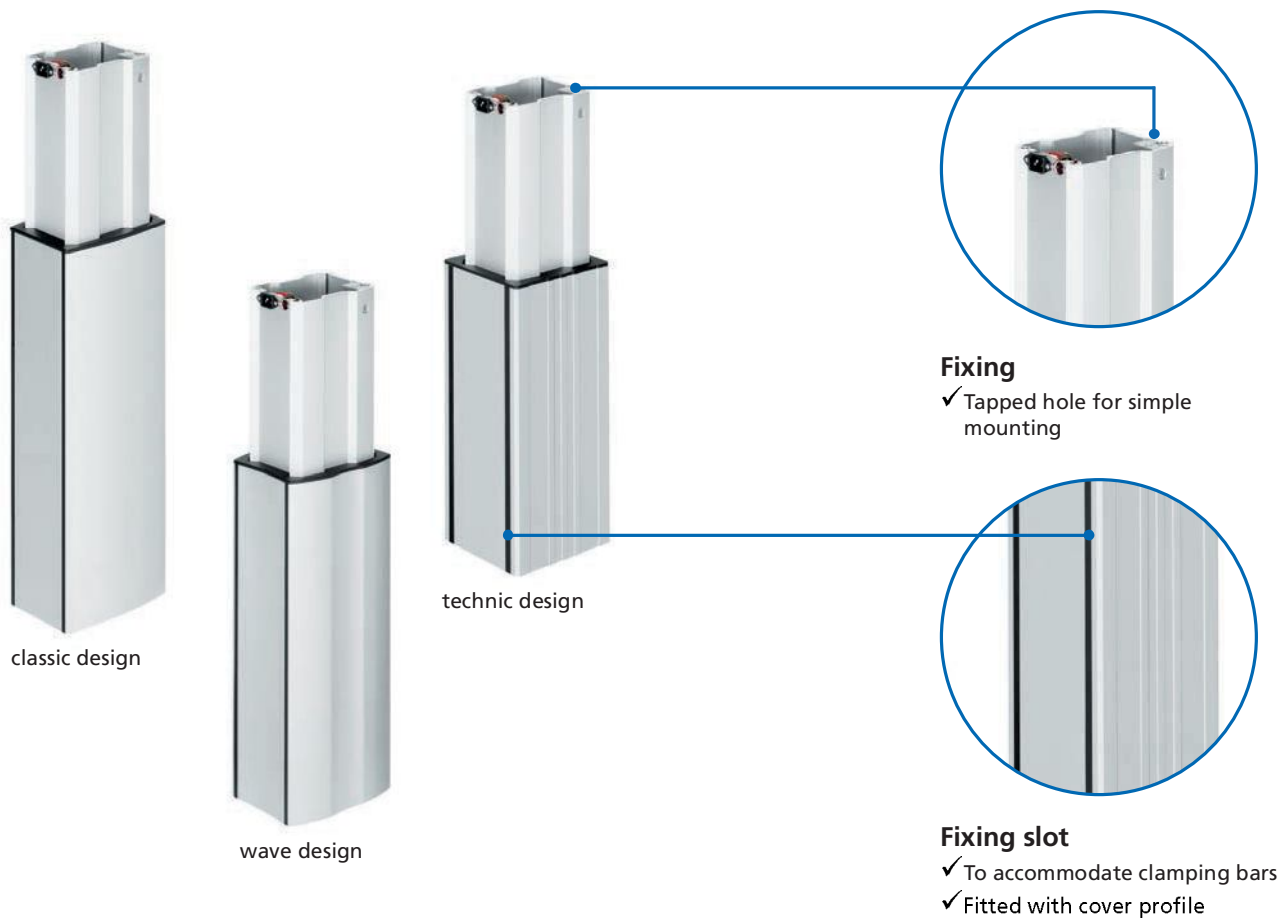


# Two-stage lifting column - *RKPowerlift*

## 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:**

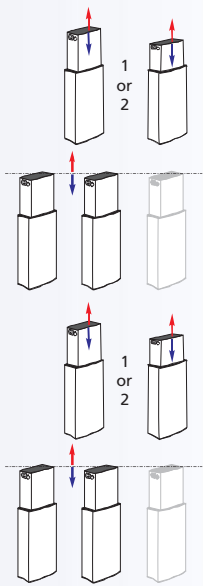
- Three design versions available
- Withstands high torsional and bending moments
- Integrated motor
- Choice of internal or external control

- 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

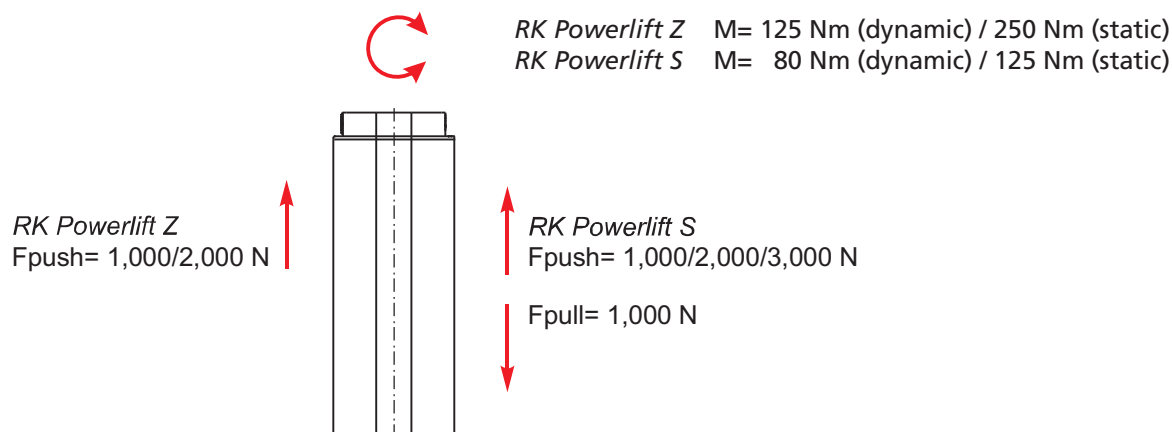
RKPowerlift - Table of contents

<div>Properties/Technical data</div>	<div> <div>■ General information/operating conditions... Page 60</div> <div>■ Load data..... Page 60</div> <div>■ Parallel and synchronous operation ..... Page 61</div> </div>
<div> <div> <div>Versions</div> <div>(Dimensions, order numbers)</div> </div> <div>  </div> </div>	<div> <div>■ RKPowerlift ..... Page 62</div> <div>■ RKPowerlift Z mono ..... Page 64</div> <div>■ RKPowerlift Z synchro ..... Page 65</div> <div>■ RKPowerlift S mono..... Page 66</div> <div>■ RKPowerlift S synchro..... Page 67</div> </div>
<div> <div>Accessories</div> <div> <div>Fixing</div> <div>Position determination</div> </div> </div>	<div> <div> <div>■ Clamping bar ..... Page 68</div> <div>■ Frame/fixing plate ..... Page 68</div> <div>■ Base plate ..... Page 69</div> <div>■ RK SyncFlex..... Page 70</div> </div> <div> <div>■ Controls ..... Page 66</div> <div>■ PLC/PC data interface..... Page 71</div> <div>■ Hand switch ..... Page 71</div> </div> </div>

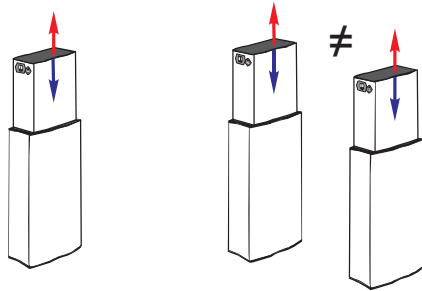
## General information/operating conditions

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

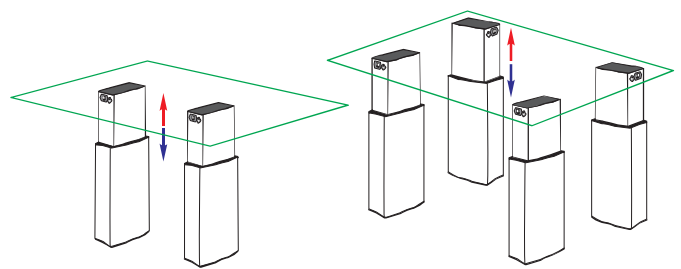


1-2 **RKPowerlifts** in single or parallel operation

### 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.

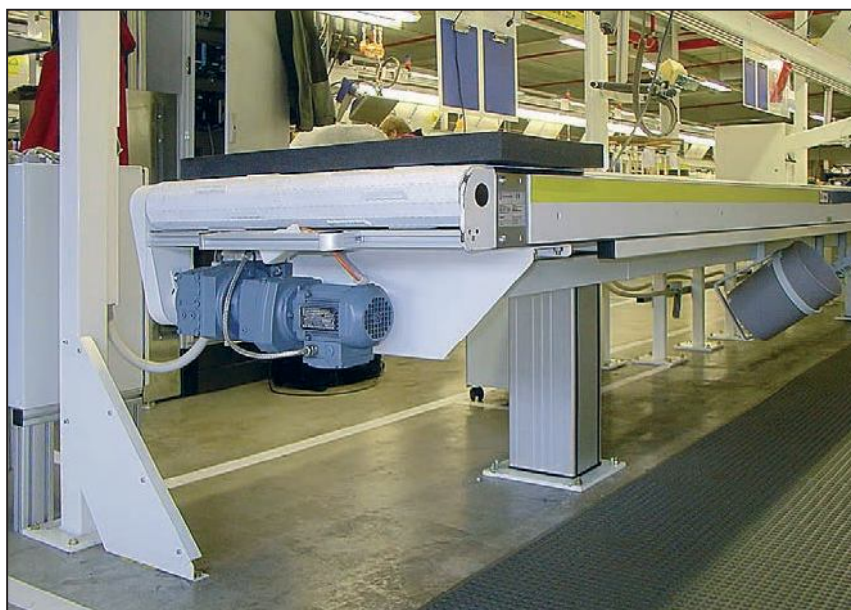
## RKPowerlift Synchro



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.

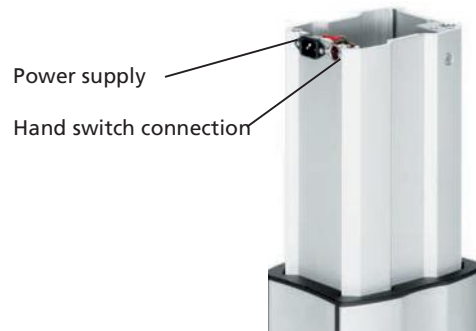


Conveyor adjustment

# RKPowerlift - Versions

## **RKPowerlift Z** (for push force)

### ■ with internal control

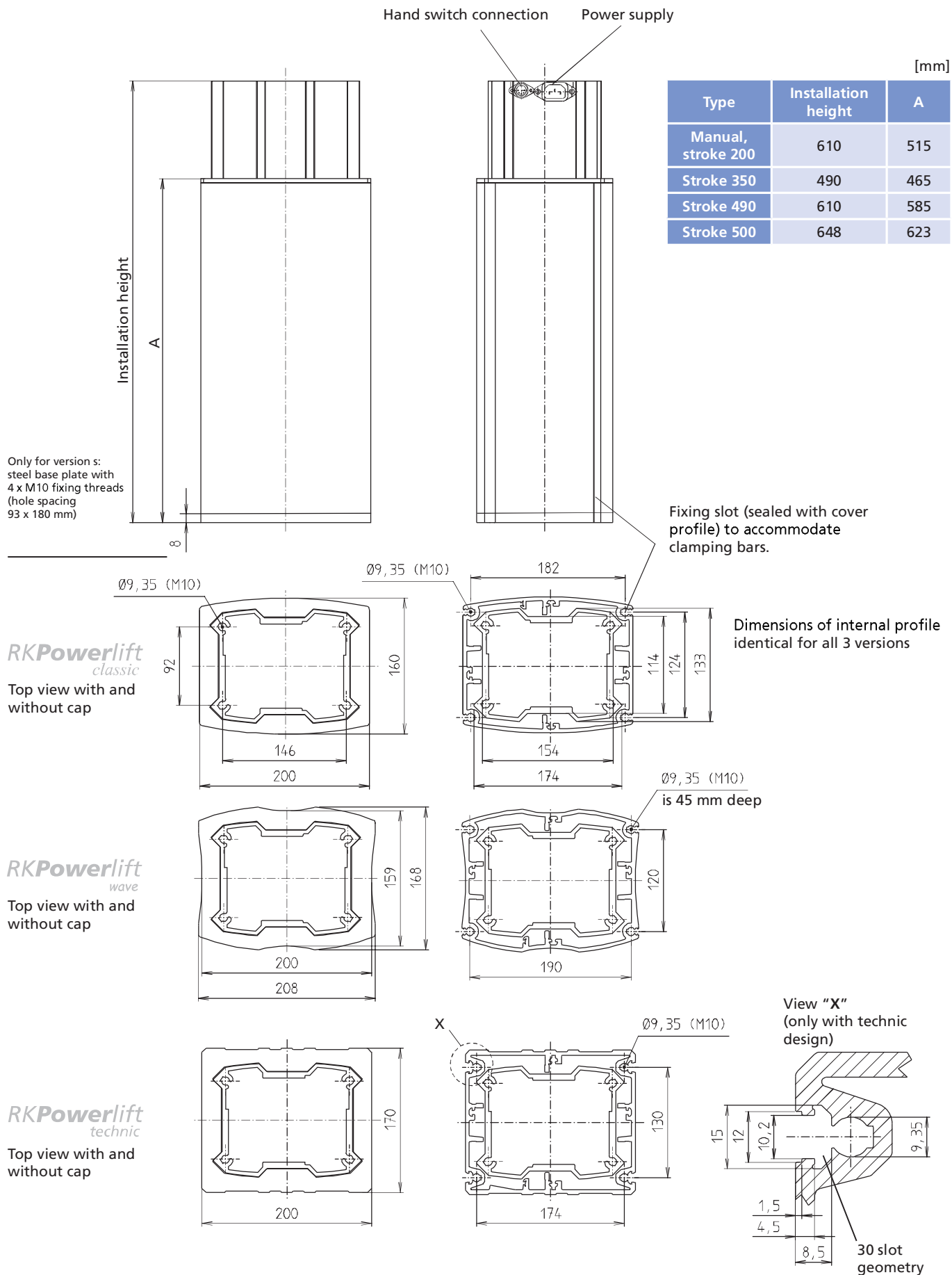


## **RKPowerlift S** (for push and pull forces)

### ■ with internal control

### ■ for external control





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)
QZD 100093	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	<b>RKPowerlift 25</b>	1,000	1,000	25	500	648	~19
QPL18BB_U0500	<b>RKPowerlift 18</b>	2,000	1,000	18	500	648	~19
QPL10BC_U0500	<b>RKPowerlift 10</b>	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	<b>RKPowerlift 25</b>	1,000	1,000	25	500	648	~17
QPL18EB_V0500	<b>RKPowerlift 18</b>	2,000	1,000	18	500	648	~17
QPL10EC_V0500	<b>RKPowerlift 10</b>	3,000	1,000	10	500	648	~17

Design:  
 3 = classic  
 4 = wave  
 5 = technic

MultiControl duo



approx. 36 V DC

MultiControl quadro

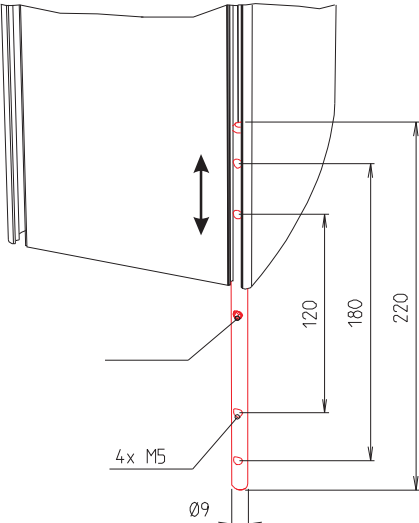


approx. 36 V DC

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

## Clamping bar



- In the case of the “technic” design version, attachments can also be secured using accessories (slot stones, etc.) from the catalogue BLOCAN® Profile Systems.

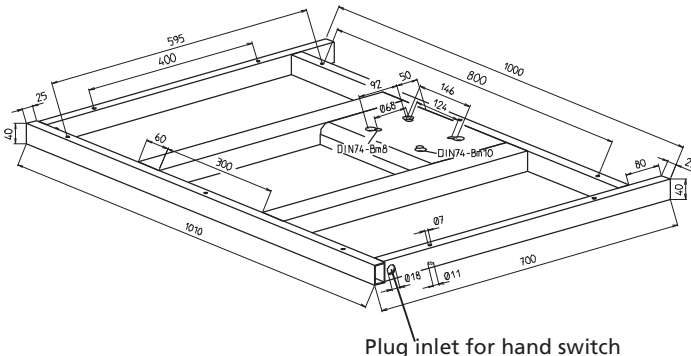
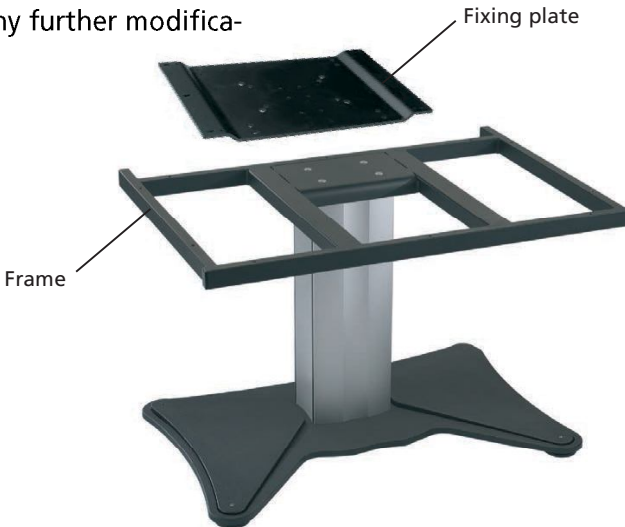
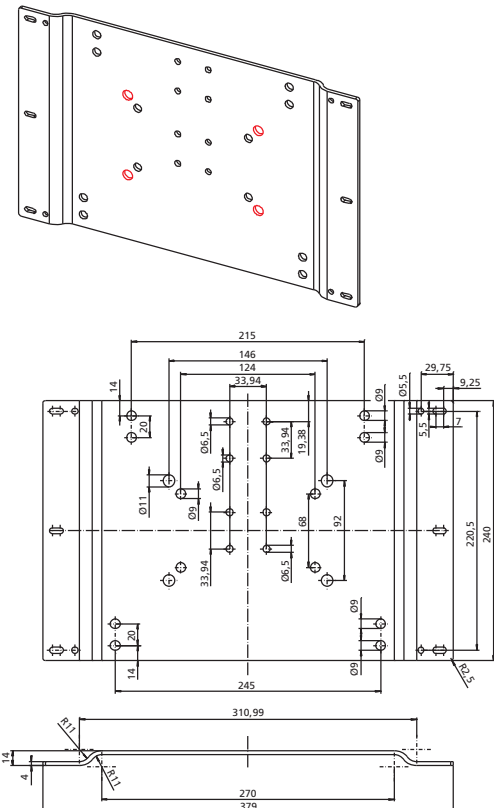
**Material:**  
St37-2 k, galvanised



Code No.	Type
QZD000075	Clamping bar

## Frame/fixing plate for table top

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



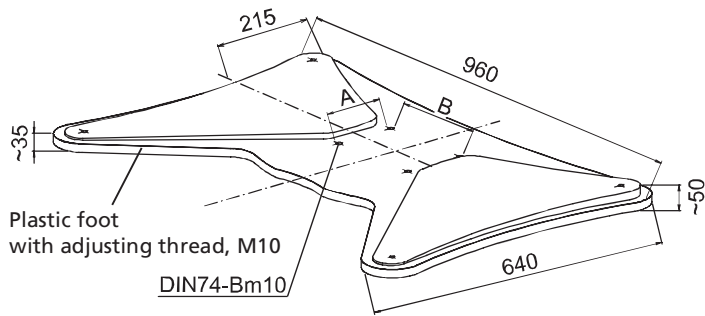
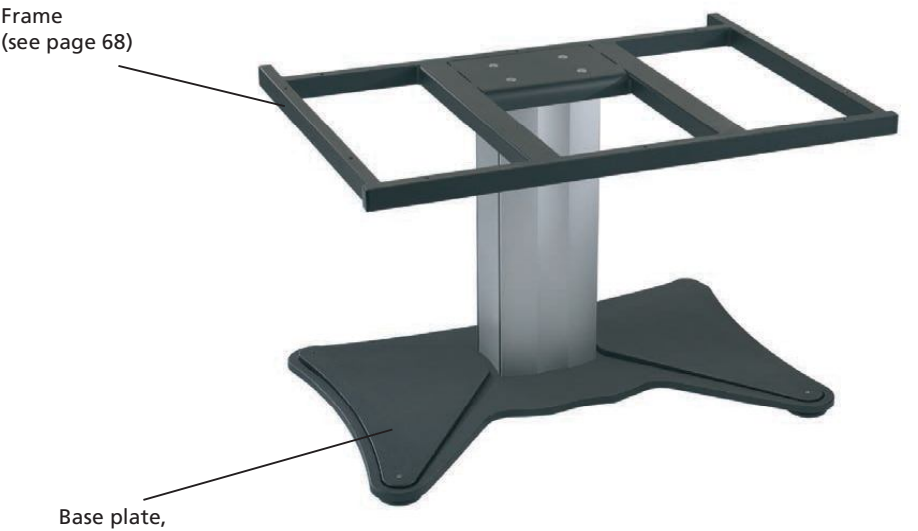
Code No.	Type
QZD 100085	Frame for <b>RKPowerlift</b> , incl. fastenings
QZD 100313	Fixing plate
QZD 100337	Fixing set for fixing plate <b>RKPowerlift</b> , M10 x 30 DIN 7984



Base plate

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

Scope of delivery: complete with  
fastenings



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

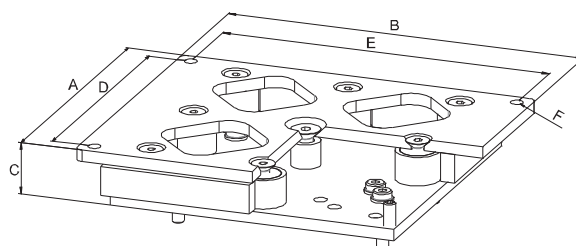
## RK SyncFlex H

**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

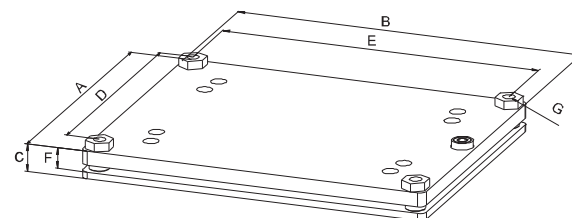
**Scope of delivery:**  
Adjuster plate, incl.  
fixing material

**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.
- 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.



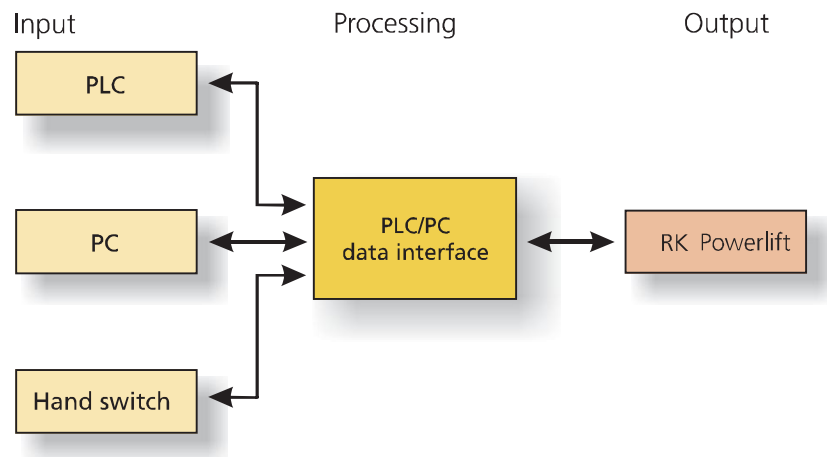
[mm]

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

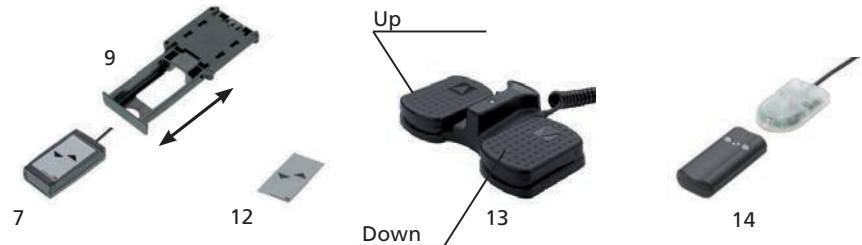
You will find further product information on page 182



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.
Hand switch for RKPowerlift mono		
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
Hand switch for RKPowerlift Standard (Start and Stop)		
QZB00D07BK141	Wireless hand switch – 2 function keys	14
Accessories for hand switches		
QZD000074	Hand switch drawer: Fig. 7 + 8	9

RKPowerlift synchro



Code No.	Version	Fig.
Hand switch for RKPowerlift synchro		
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*

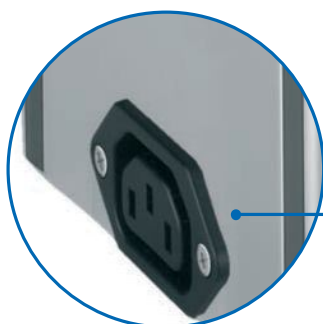


## Standard

- ✓ 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

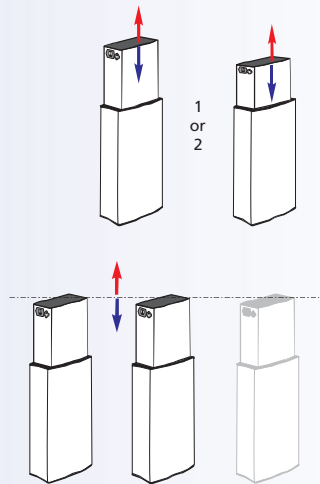
## RKPowerlift M - Table of contents

### Properties/Technical data

- General information/operating conditions... Page 74
- Load data..... Page 74
- Parallel and synchronous operation ..... Page 75

### Versions

(Dimensions, order numbers)



- *RKPowerlift M*..... Page 76
- *RKPowerlift M* mono ..... Page 78
- *RKPowerlift M* synchro ..... Page 79

### Accessories

#### Fixing

- Assembly plate ..... Page 80
- Base plate ..... Page 81
- Square nut..... Page 82
- RK SyncFlex..... Page 82

#### Position determination

- Controls ..... Page 78
- PLC/PC data interface..... Page 83
- Hand switches ..... Page 83

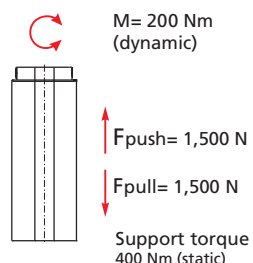


# RKPowerlift M – Technical data

## 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)	

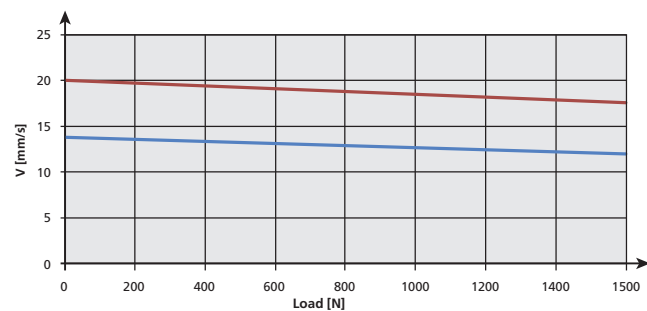
## Load data



\* 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

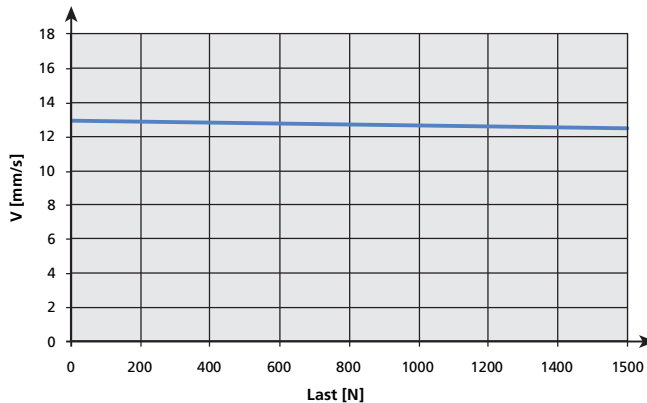
RKPowerlift M for external control



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

## Speed/Force diagram

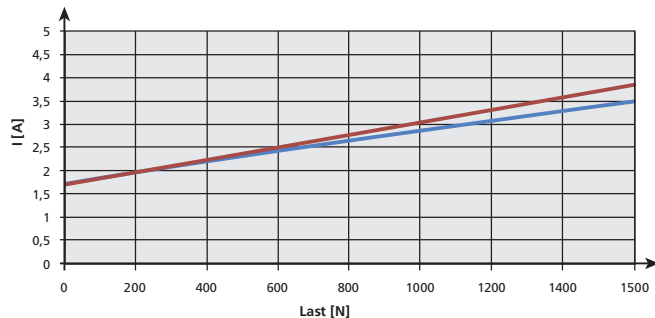
RKPowerlift M, for internal control



— Powerlift M 1,500N internal control

## Current output/Force diagram

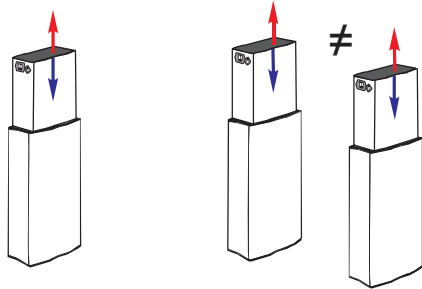
RKPowerlift M, for external control



— 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

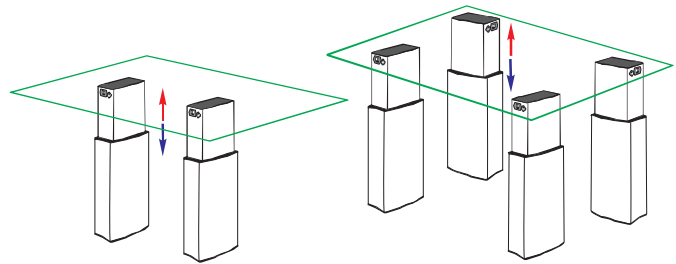


1-2 **RKPowerlifts** in single or parallel operation

### 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

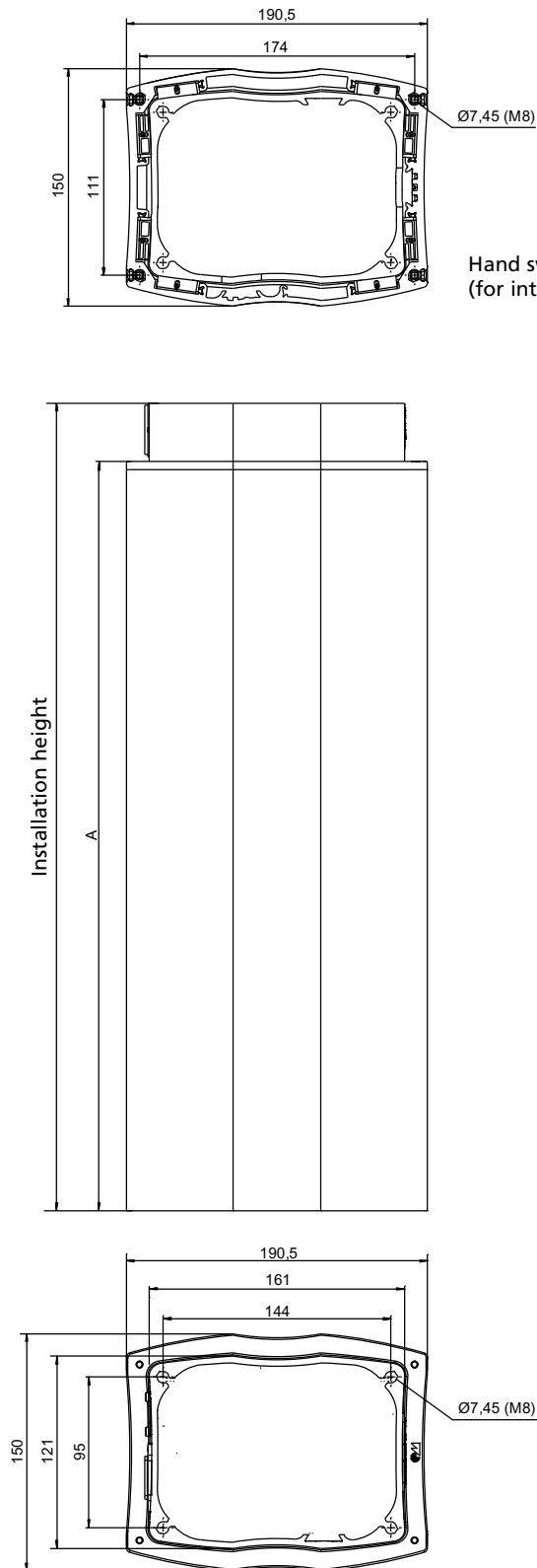
# RKPowerlift M - Versions

## Versions

■ with internal control

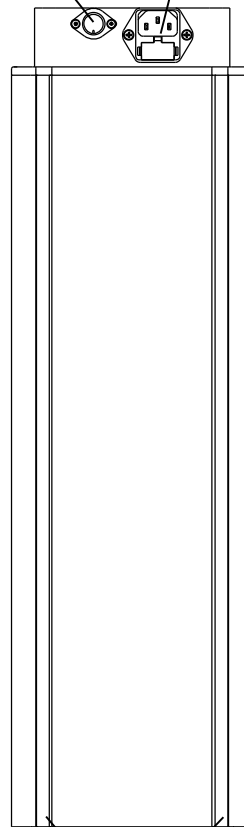
■ for external control





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

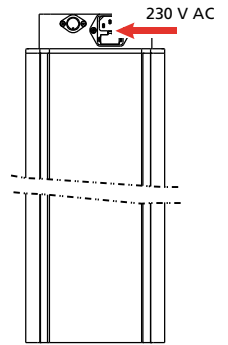
Hand switch connection (for internal control)



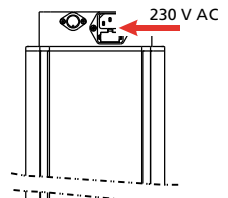
Fixing slot (sealed with cover profile) to accommodate square nuts (see page 82)

### Power supply - versions:

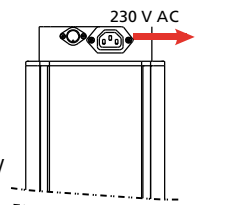
Type 0:  
Standard,  
Power supply, top



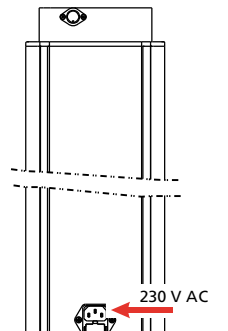
Type 1  
(cable feedthrough):  
Power supply, top/  
power output, bottom



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

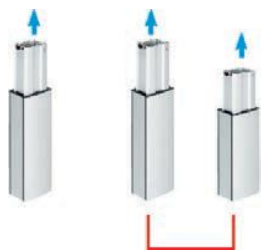


Type 4:  
Power supply, bottom



# 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	RKPowerlift M	1,500	1,500	13	300	510	473	~12.0
QPM13BC42_400	RKPowerlift M	1,500	1,500	13	400	610	573	~13.5
QPM13BC42_500	RKPowerlift M	1,500	1,500	13	500	710	673	~15.0
With internal control/memory (9 positions can be stored)								
QPM13BC46_300	RKPowerlift M	1,500	1,500	13	300	510	473	~12.0
QPM13BC46_400	RKPowerlift M	1,500	1,500	13	400	610	573	~13.5
QPM13BC46_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.	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	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

Transformer control 120 VA



approx. 24 V DC

MultiControl mono



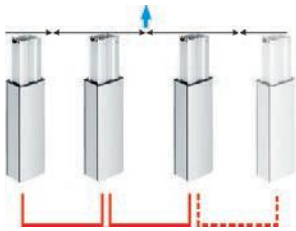
approx. 36 V DC

### 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	<i>RKPowerlift M</i>	1,500	1,500	13	300	510	473	~12.0
QPM13BC47_400	<i>RKPowerlift M</i>	1,500	1,500	13	400	610	573	~13.5
QPM13BC47_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.	Connecting cable (bus cable)
QZD 100093	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	<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

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

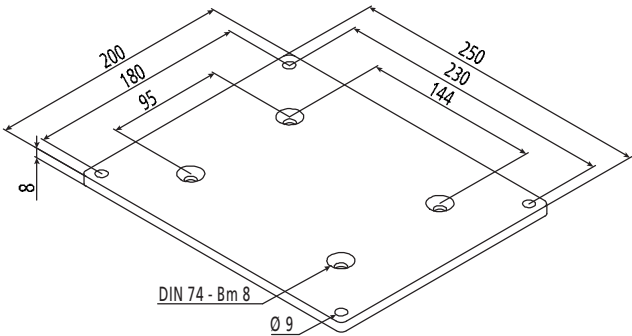
■ These mounting plates are fitted using the mounting kits supplied and fixed directly into the screw channels in the Powerlift „M”. A further 4 holes, in the mounting plate, allow easy connection, to brackets or corresponding fixture assembly work etc.

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

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



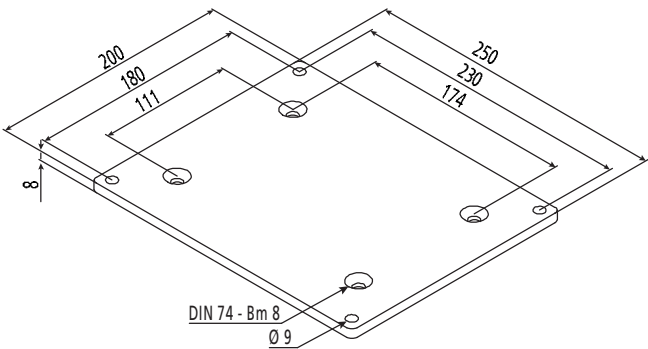
For internal profile



Code No.	Type
QZD100541	Top assembly plate



For external profile



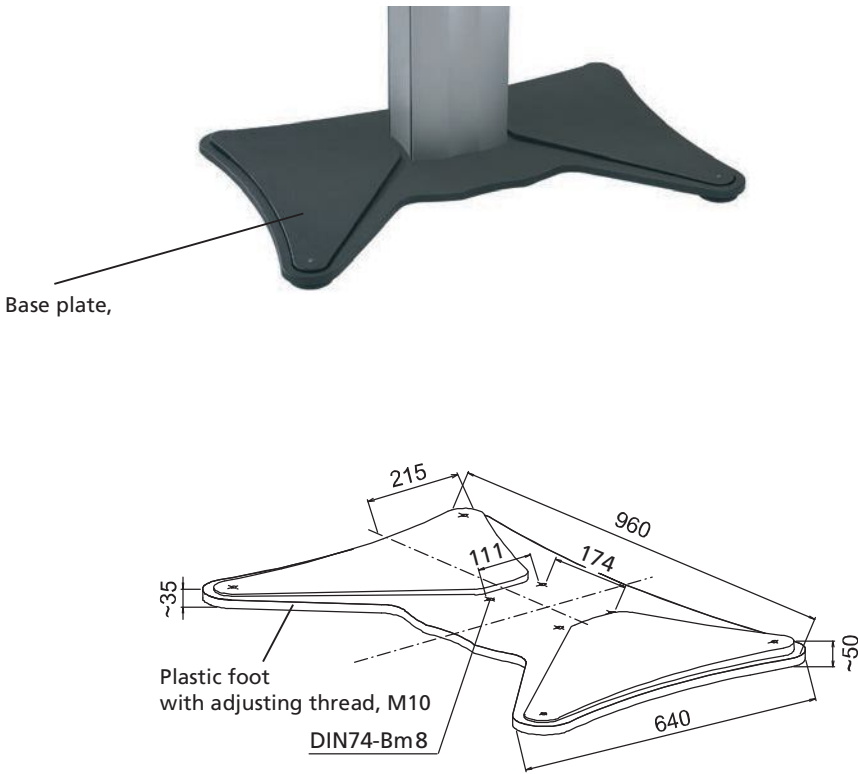
Code No.	Type
QZD100542	Bottom assembly plate



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

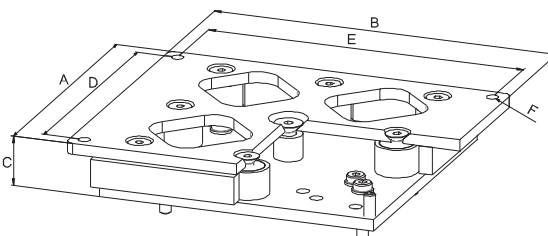


Code No.	Type
QZD100326	Square nut M4, DIN 562, pack of 10

## 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

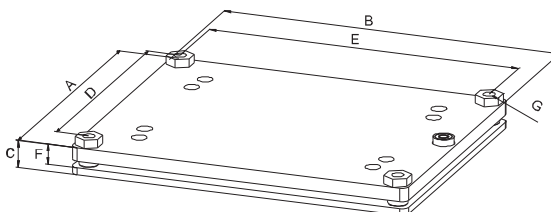
## RK SyncFlex V

**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.
  - 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.



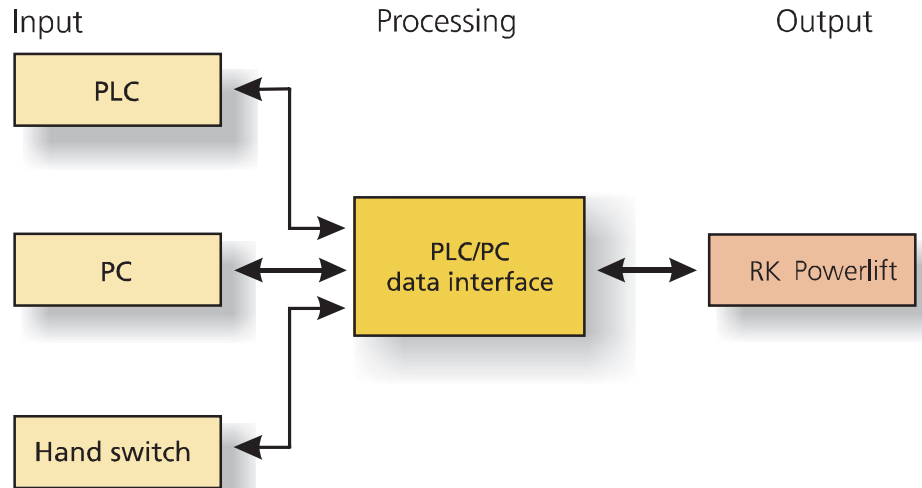
[mm]

Code No.	Type	A	B	C	D	E	F	G
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)

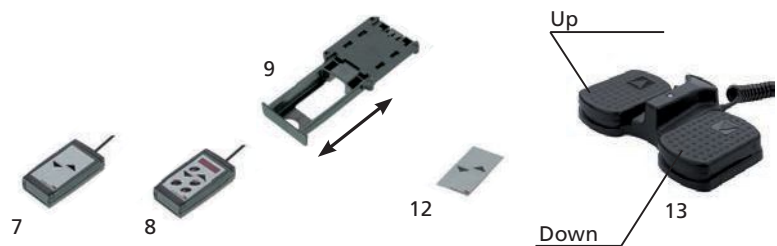
You will find further product information on page 182



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)

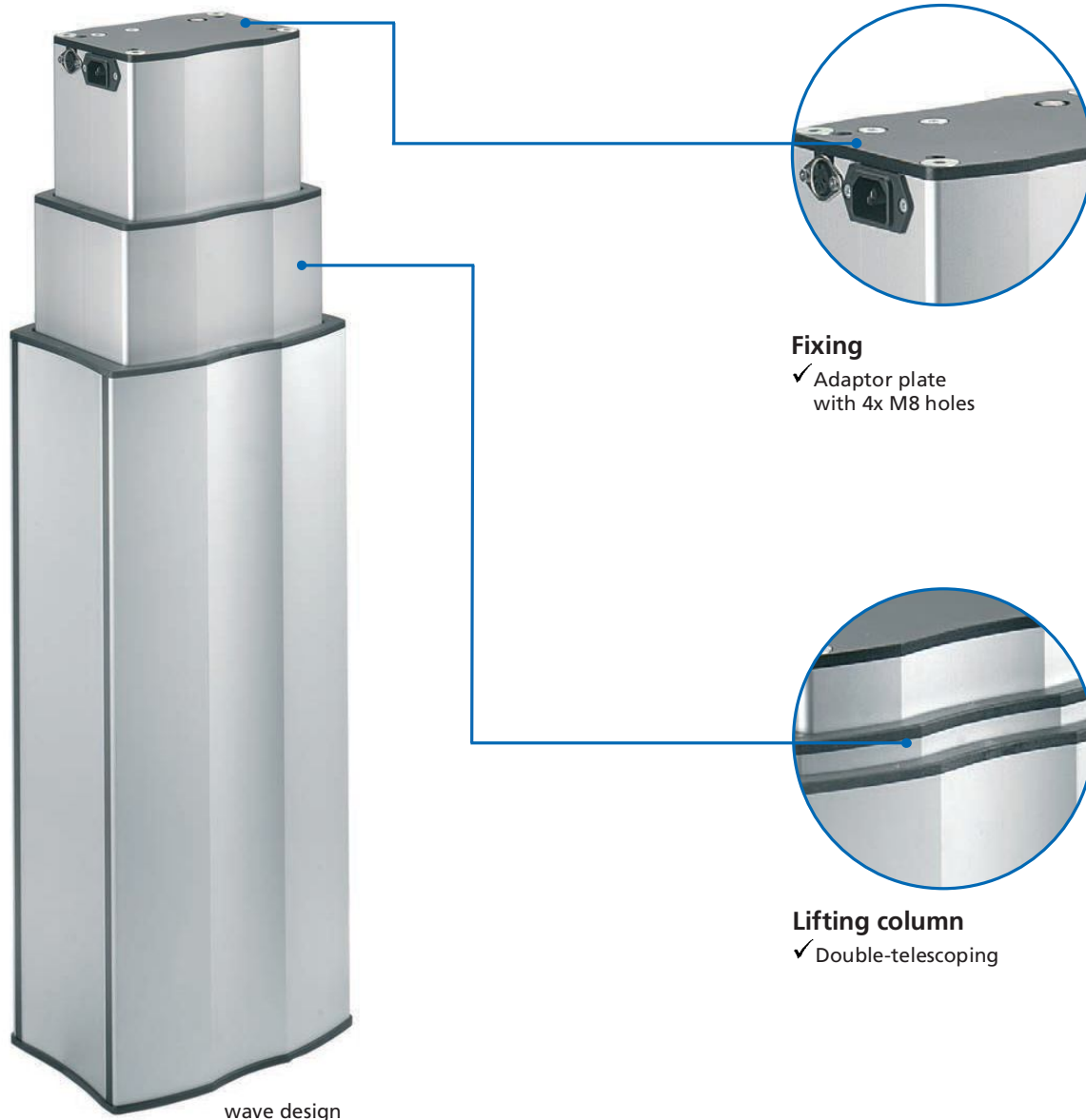


Code No.	Version	Fig.
Hand switch for RKPowerlift M mono		
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	12
QZB02C01AE114GS	Foot switch – 2 function keys	13
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	7
Hand switch for RKPowerlift M synchro		
QZB00D04AD041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



## **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

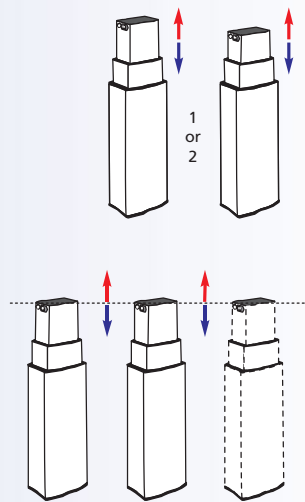
## RKPowerlift telescope - Table of content

### 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 plate ..... Page 92
- Base plate ..... Page 93
- RK SyncFlex ..... Page 94

#### Position determination

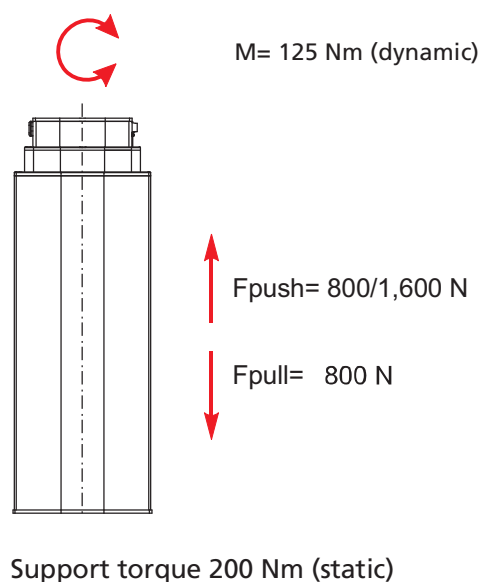
- Controls ..... Page 90
- PLC/PC data interface ..... Page 95
- Hand switches ..... Page 95

# RKPowerlift telescope – Technical data

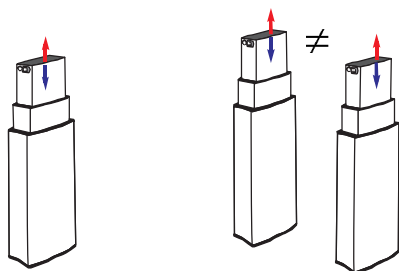
## General information/operating conditions

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

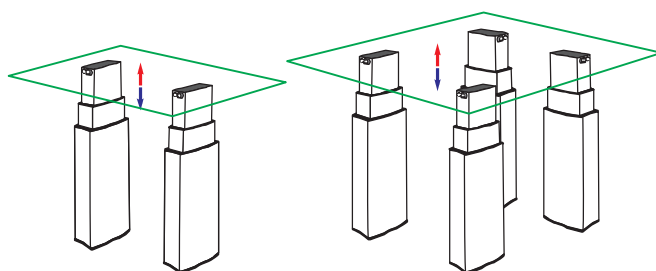


1-2 **RKPowerlifts** in single or parallel operation

### 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

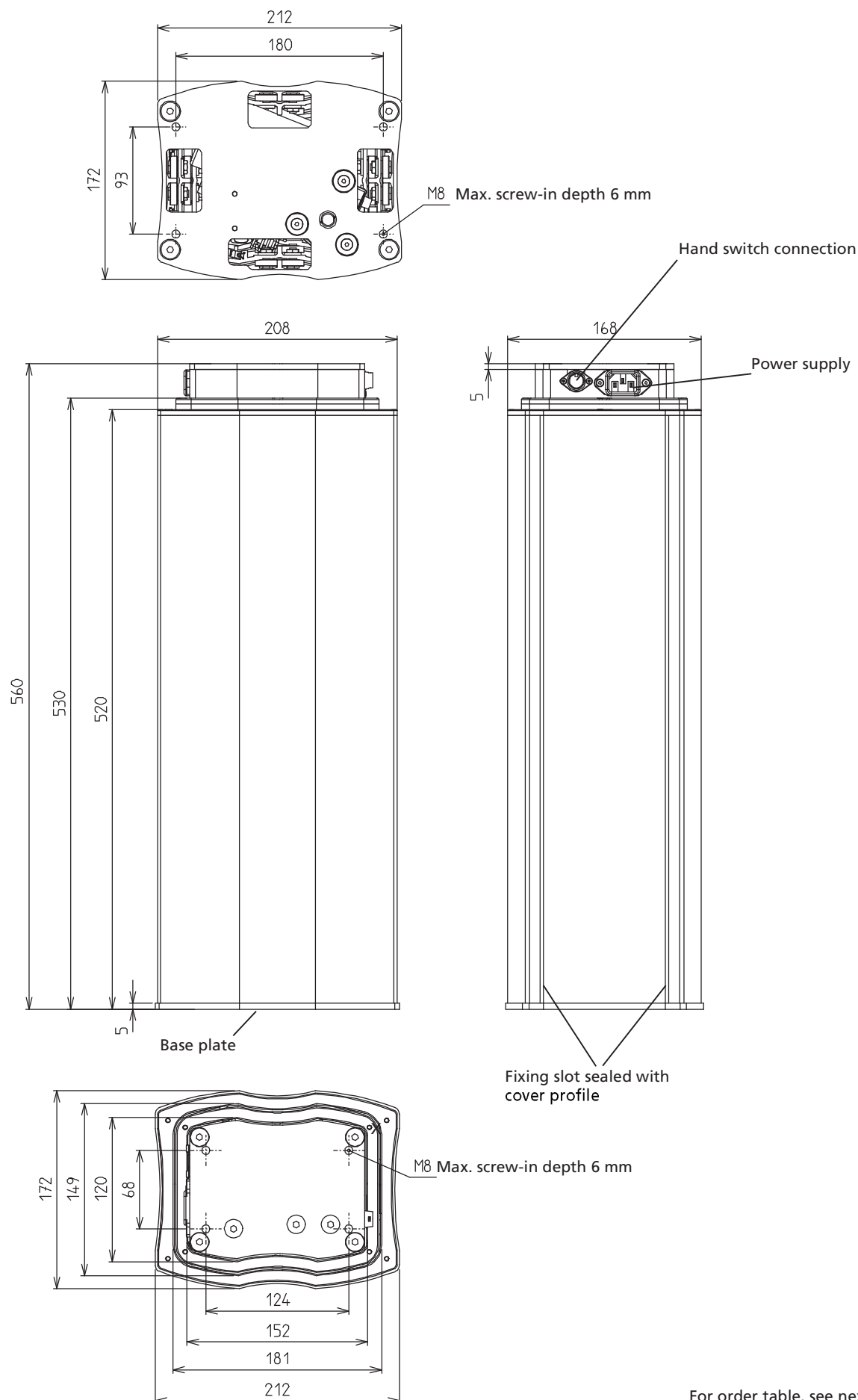
■ for external control

Hand switch connection / mains supply

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



Steel base plate, 5 mm



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

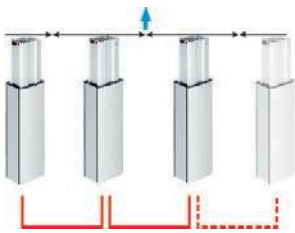
MultiControl mono



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	<b>RKPowerlift telescope 30</b>	800	800	30	650	560	~18
QPT15BE470650	<b>RKPowerlift telescope 15</b>	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	<b>RKPowerlift telescope 30</b>	800	800	30	650	560	~17
QPT15EE480650	<b>RKPowerlift telescope 15</b>	1,600	800	15	650	560	~17

## MultiControl (duo und quadro)



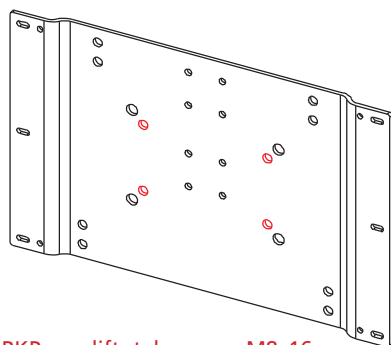
Code No.	External control for telescopic screw drive	
QST43C02AA000	MultiControl duo connection C, up to max. I = 12 A current output	for synchronous control of 1-2 drives
QST43C04AA000	MultiControl quadro connection C, up to max. I = 12 A current output	for synchronous control of 1-4 drives
Accessories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

# RKPowerlift telescope – Fixing

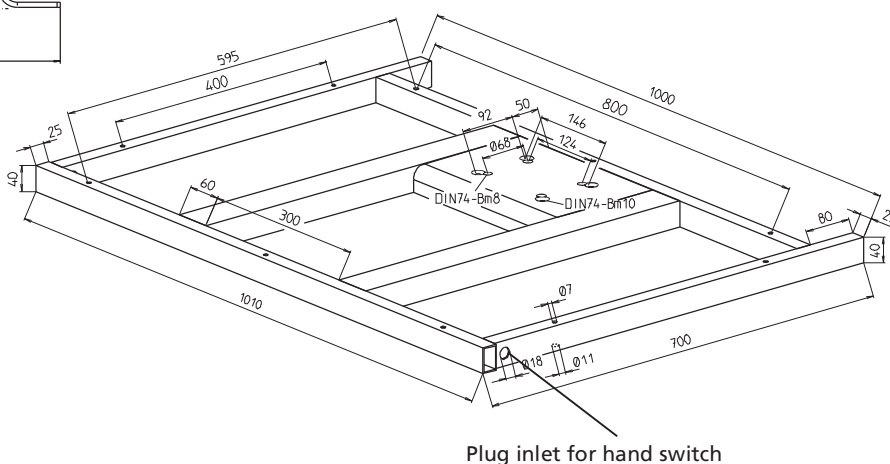
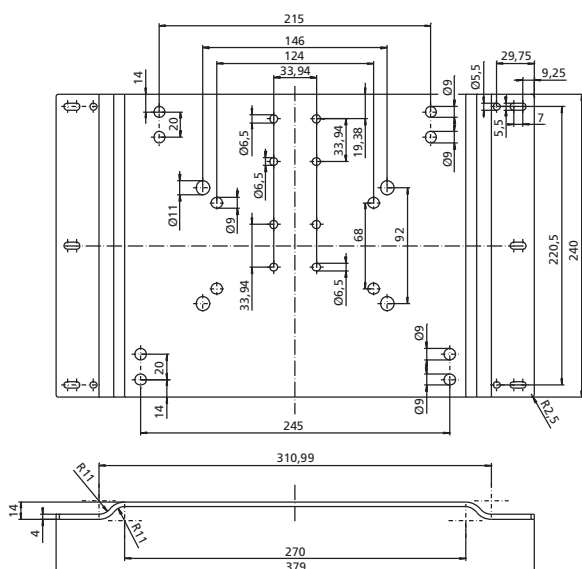
## Frame/fixing plate for table top

■ Our universal fixing plate and table frame provide two standard solutions for the attachment of table tops, brackets etc. to the lifting column without the need for any further modifications.

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



RKPowerlift -telescope-, M8x16



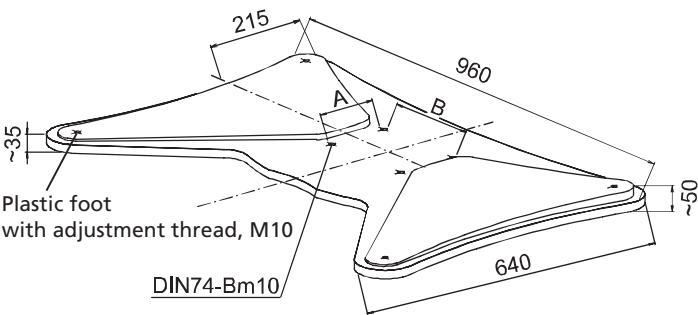
Code No.	Type
QZD100085	Frame for <i>RKPowerlift telescope</i> , incl. fastenings
QZD100313	Fixing plate
QZD100338	Fixing set for fixing plate <i>RKPowerlift telescope</i> , M8 x 16 DIN 7984



Base plate

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

Scope of delivery:  
complete with fastenings



Code No.	Type	[mm]	
		A	B
QZD 100257	Base plate for <i>RKPowerlift</i> telescope	93	180

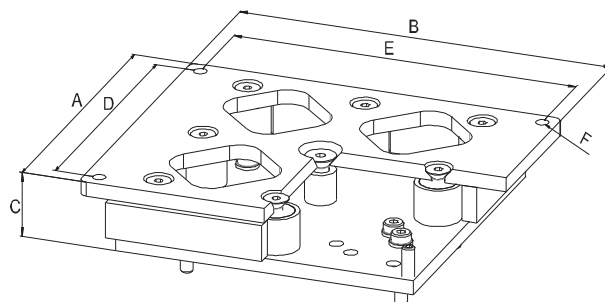
# RKPowerlift telescope – Fixing

## 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

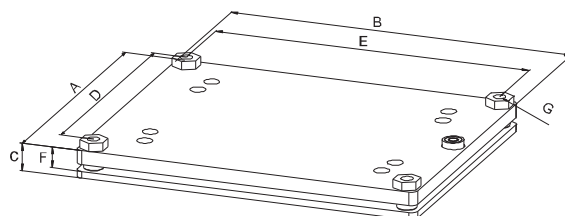
## RK SyncFlex V

**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.



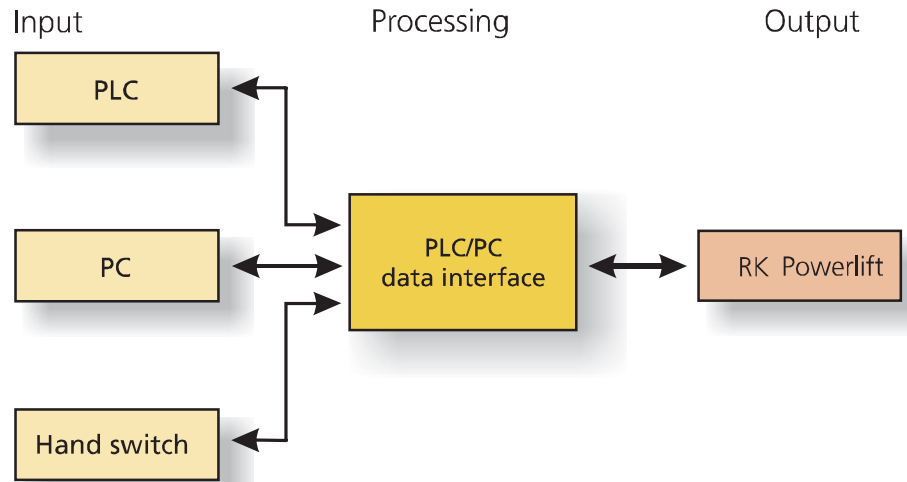
[mm]

Code No.	Type	A	B	C	D	E	F	G
Without pressure plate								
QZD100447	Powerlift telescope	200	250	-	180	230	10-15	M 10
With pressure plate								
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)

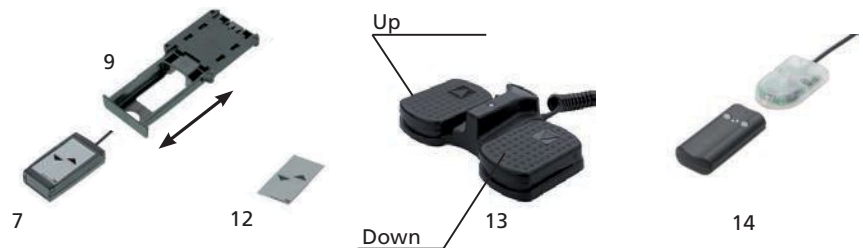
You will find further product information on page 182



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.
Hand switch for RKPowerlift telescope mono		
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
Hand switch for RKPowerlift telescope mono (Start and Stop)		
QZB00D07BK141	Wireless hand switch – 2 function keys	14
Accessories for hand switches		
QZD000074	Drawer for hand switch	9

## Hand switches/accessories

(external control  
RKPowerlift telescope synchro)



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