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KNOW-HOW

Automation Technology



RK ROSE+KRIEGER

A Phoenix Mecano Company



RK Powerlift telescope

Two-stage lifting column

Multi-stage lifting column - RKPowerlift telescope

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

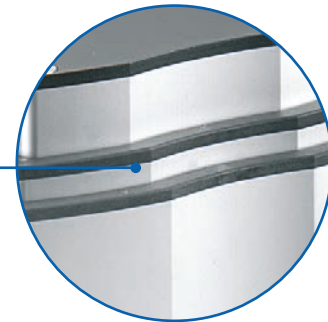


wave design



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

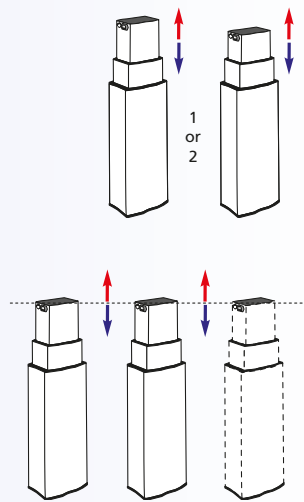
RKPowerlift telescope - Table of content

Properties/Technical data

- General information/operating conditions Page 88
- Load data..... Page 88
- Parallel and synchronous operation Page 89

Versions

(Dimensions, order numbers)



- *RKPowerlift telescope* Page 90
- *RKPowerlift telescope mono*..... Page 92
- *RKPowerlift telescope synchro*..... Page 93

Accessories

Fixing

- Fixing platee..... Page 94
- Base plate Page 95
- RK SyncFlex..... Page 96

Position determination

- Controls Page 92
- PLC/PC data interface..... Page 97
- Hand switches Page 97

RKPowerlift telescope – Technical data

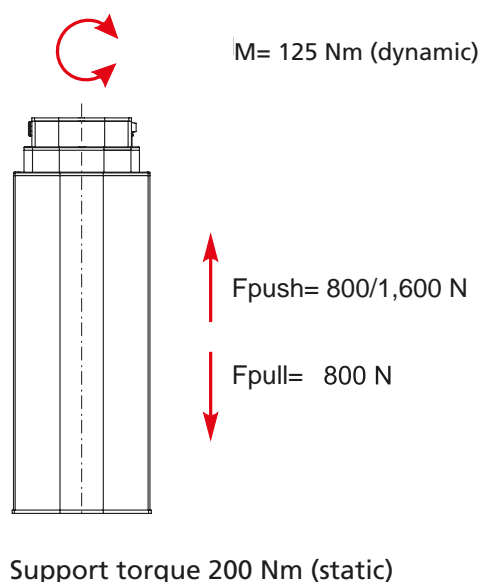
General information/operating conditions

| | |
|--|---|
| 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) |

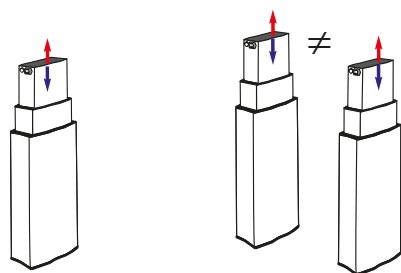
Note:

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

Load data



RKPowerlift telescope Mono

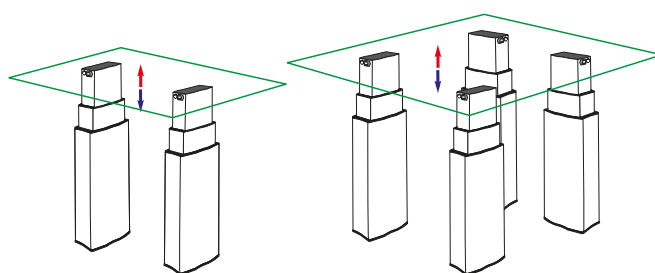


1-2 **RKPowerlifts** in single or parallel operation

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 148) 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

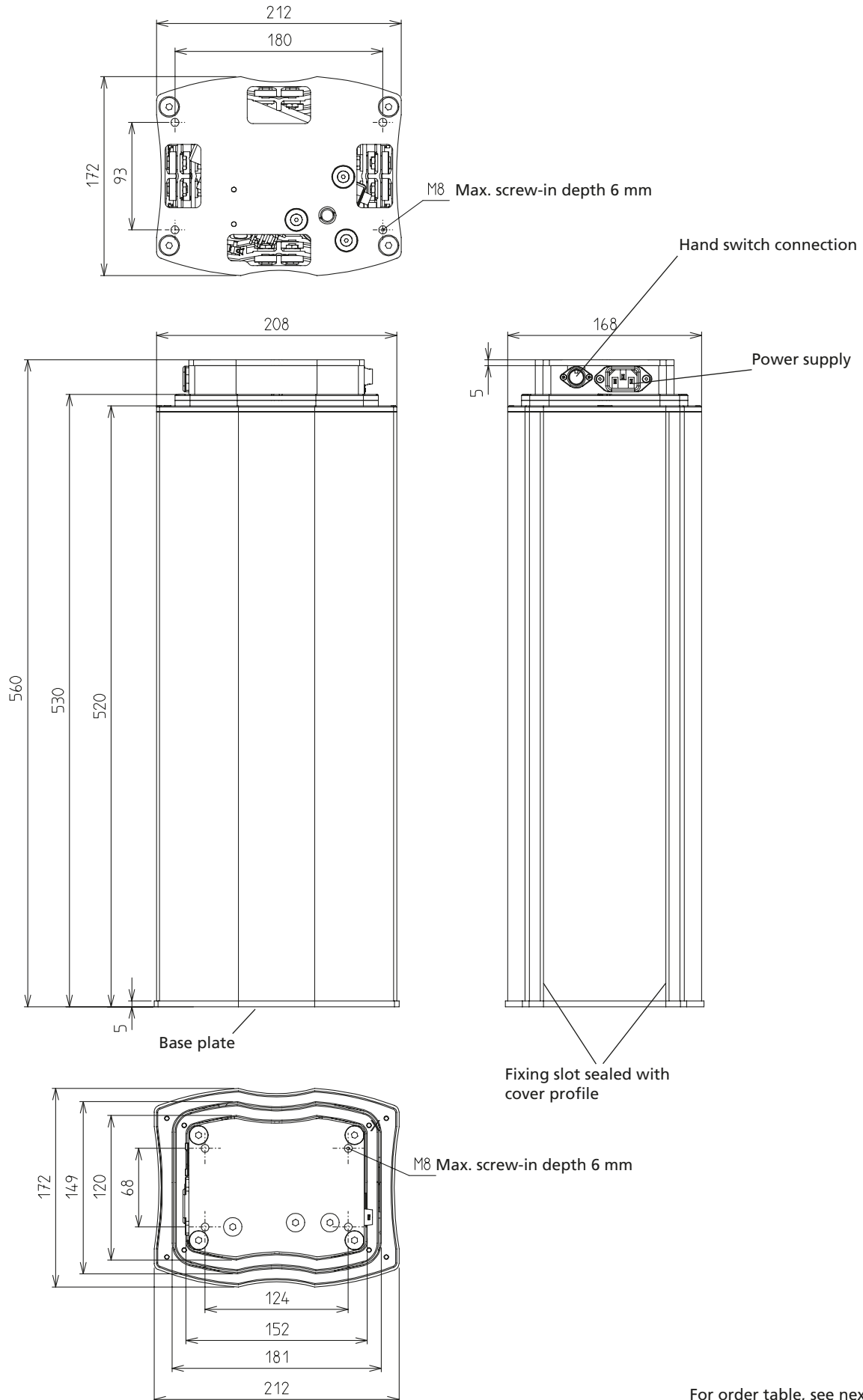
■ for external control

Hand switch connection / mains supply

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



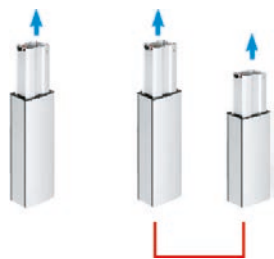
Steel base plate, 5 mm



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

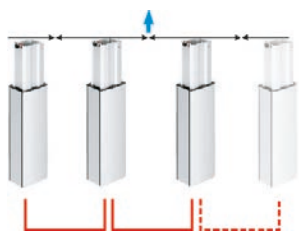


approx. 36 V DC

| 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 | <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)



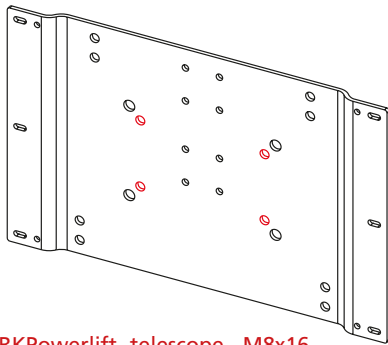
| Code No. | External control for telescopic screw drive | |
|---------------|--|---------------------------------------|
| QST43C02AA000 | MultiControl duo connection C, up to max. I = 12 A current output | for synchronous control of 1-2 drives |
| QST43C04AA000 | MultiControl quadro connection C, up 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 | |

RKPowerlift telescope – Fixing

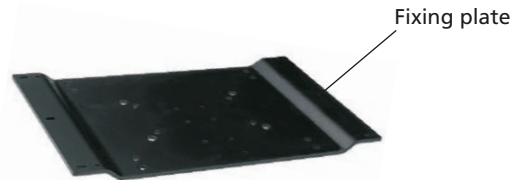
Frame/fixing plate for table top

■ 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.

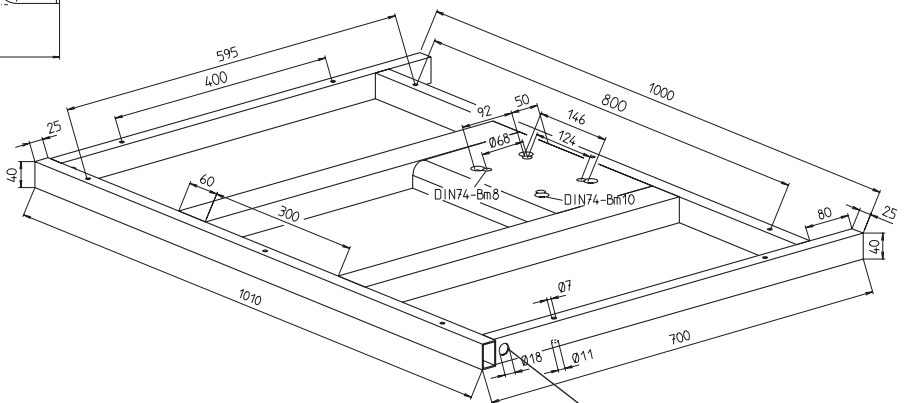
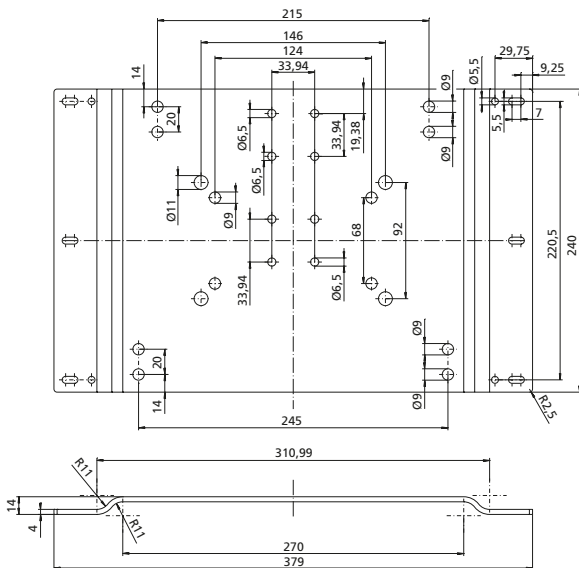
Material: steel, black powder-coated (RAL 9005)
Galvanised fastenings



RKPowerlift -telescope-, M8x16



Frame



Plug inlet for hand switch

| Code No. | Type |
|-----------|---|
| QZD100085 | Frame for RKPowerlift telescope, incl. fastenings |
| QZD100313 | Fixing plate |
| QZD100338 | Fixing set for fixing plate RKPowerlift telescope, M8 x 16 DIN 7984 |

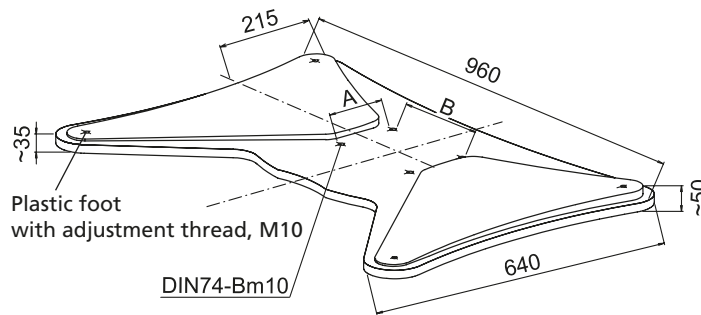
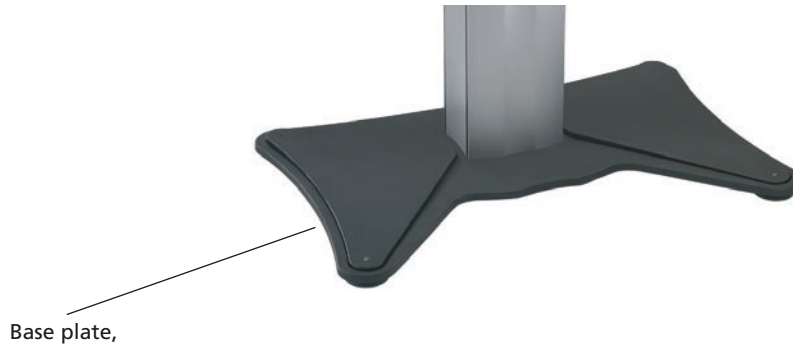


Base plate

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

Scope of delivery:
complete with fastenings

Order information:
Base plate only in combination
with "Type 0" possible
(see page 77)



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

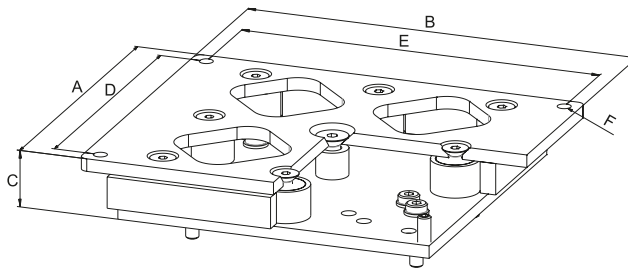
RK Powerlift telescope – Fixing

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 | 180 | 230 | M 10 |

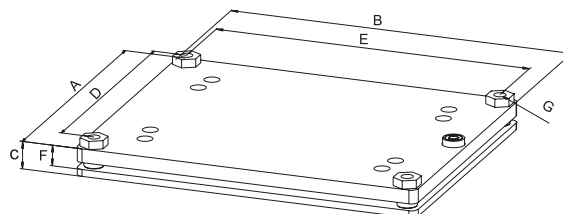
RK SyncFlex V

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.



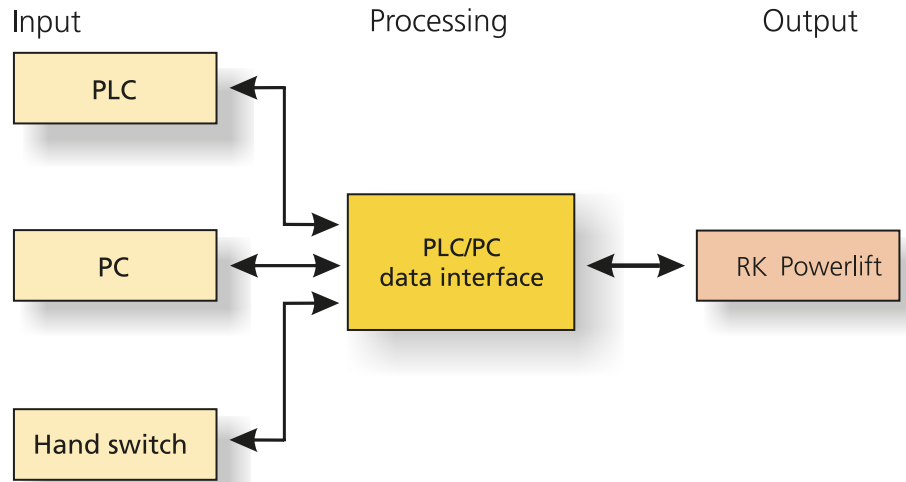
[mm]

| Code No. | Type | A | B | C | D | E | F | G |
|-------------------------------|---------------------|-----|-----|-------|-----|-----|-------|------|
| Without pressure plate | | | | | | | | |
| QZD100447 | Powerlift 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)

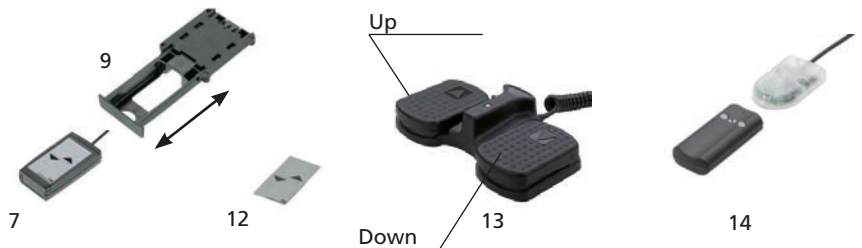
You will find further product information on page 184



| 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 |

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



RK ROSE+KRIEGER

A Phoenix Mecano Company

Connecting and positioning systems

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