Electrical height adjustment
...easy & reliable

Multilift II telescope
Multilift II
Synchron
The Multilift lifting column has been tried-and-tested over many years in many customer applications. Now there are two more versions available: the Multilift II and the Multilift II telescope. The installation dimension of the three-stage telescope lifting column is only 560 mm retracted, with a maximum stroke of 650 mm and a maximum lifting force of up to 3,000 N per drive. Thus the maximum extension of 1,210 mm conforms to the applicable standards for workplace ergonomics in many applications for assembly workstations, equipment, control rooms, and many more.

Despite the stroke length, overlap of the profiles – which is important for the stability – has been measured perfectly and permits high bending moments for static and dynamic loading. Furthermore, the Multilifts can be subjected to tensile and compressive forces in equal measure, even with self-locking up to max. load. The profile ends either have sturdy assembly plates with M8 holes for fixing or you can connect them directly with the existing M8 screw channels in the internal profile.
### Multilift II telescope / Multilift II - Table of contents

#### Properties / Technical data
- General information/operating conditions...Page 5
- Load data..........................................................Page 5

#### Versions
(Dimensions, order numbers)
- Multilift II telescope synchronous package. Page 6
- Multilift II telescope..............................................Page 7
- Multilift II synchronous package......................Page 8
- Multilift II..........................................................Page 9

#### Accessories
- Controls .........................................................Page 10
- Hand switches ...............................................Page 11

#### Position determination
- RK SyncFlex ..................................................Page 12
- Assembly plate. .............................................Page 13
- Foot..................................................................Page 14
Multilift II telescope / Multilift II

✓ Sloping cap to minimize crushing
✓ Covered Bloca® 30 slot geometry
✓ All versions with base plate for compressive and tensile forces
✓ Fixed motor cable (3m) with plug
✓ Motor housing with impact-resistant plastic

Highlights / Features:
- Integrated limit switches
- Self-locking, even at max. load
- Lateral fixing slot in external profile
- Optimised height/stroke length ratio conforms to the ergonomic standard for workbenches (DIN EN 527-1:2011)

Options:
- Special stroke lengths available on request
- With controlbox compact -e-3:
  - Cascading of several columns
## General information/operating conditions

<table>
<thead>
<tr>
<th>Type</th>
<th>Multilift II telescope</th>
<th>Multilift II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>Slim lifting column</td>
<td></td>
</tr>
<tr>
<td>Guide</td>
<td>Quadruple bearings with POM slide bearing shells</td>
<td></td>
</tr>
<tr>
<td>Installation position</td>
<td>Any position / hanging only with drop protection provided by the customer</td>
<td></td>
</tr>
<tr>
<td>Push force</td>
<td>optionally 3,000 N / 1,000 N</td>
<td>3,000 N / 1,000 N</td>
</tr>
<tr>
<td>Pull force</td>
<td>2,000 N / 1,000 N</td>
<td>3,000 N / 1,000 N</td>
</tr>
<tr>
<td>Max. speed</td>
<td>optionally 8 mm/s</td>
<td>16 mm/s</td>
</tr>
<tr>
<td>Voltage</td>
<td>24 V DC</td>
<td></td>
</tr>
<tr>
<td>Current output</td>
<td>4 A</td>
<td></td>
</tr>
<tr>
<td>Protection class</td>
<td>IP 30</td>
<td></td>
</tr>
<tr>
<td>Self-locking (Push)</td>
<td>3,000 N</td>
<td></td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>+5°C to +40°C</td>
<td></td>
</tr>
<tr>
<td>Displacement during synchronous operation</td>
<td>0–2 mm</td>
<td></td>
</tr>
<tr>
<td>Duty cycle (Operation mode S 3)</td>
<td>At nominal load, 10% (1 min operating time, 9 mins rest time)</td>
<td></td>
</tr>
</tbody>
</table>

### Load data Multilift II telescope

- **Mx** = 200 Nm (dynamic)
- **Fpush** = 3000 N / 1000 N
- **Fpull** = 2000 N / 1000 N
- Support torque load 300 Nm (static)

- **My** = 100 Nm (dynamic)
- Support torque load 150 Nm (static)

### Load data Multilift II

- **Mx** = 200 Nm (dynamic)
- **Fpush** = 3000 N / 1000 N
- **Fpull** = 2000 N / 1000 N
- Support torque load 300 Nm (static)

- **My** = 130 Nm (dynamic)
- Support torque load 200 Nm (static)
Multilift II telescope – Synchronous package

Synchronous package consisting of:

- 2 Multilifts II telescope synchro
- 1 Controller box Compact-e-3-EU
- 4 Cover profiles
- Plug & work (factory-initialised)
- 4 Slot stones
- 1 Assembly instruction

Option:

- Control versions US/JP

Order information:

Please select mains cable and hand switch separately (Page 11)

Multilift II telescope synchronous package

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>max. push force [N]</th>
<th>max. pull force [N]</th>
<th>max. lifting speed [mm/s]</th>
<th>Total travel [mm]</th>
<th>Installation height [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TS13B1C3C22CA0650</td>
<td>Multilift II telescope synchronous package 230V AC</td>
<td>3,000</td>
<td>2,000</td>
<td>8</td>
<td>650</td>
<td>560</td>
</tr>
<tr>
<td>TS13B1C2C22CA0650</td>
<td>Multilift II telescope synchronous package 230V AC</td>
<td>1,000</td>
<td>1,000</td>
<td>16</td>
<td>650</td>
<td>560</td>
</tr>
</tbody>
</table>

Note: The load value information is referring to the individual lifting column. For combined applications a safety factor of up to 0.6 has to be considered.
The fixing slots on the side allow an easy attachment of accessories. For example, a screen, CPU bracket or system reinforcements can be fixed to the lifting columns by using slot stones. The 30 slot geometry is also compatible with the RK BLOCAN® aluminium profile system.
Multilift II – Synchronous package

Synchronous package consisting of:
- 2 Multilifts II synchro
- 1 Controller box Compact -e-3-EU
- 4 Cover profiles
- Plug & work (factory-initialised)
- 4 Slot stones
- 1 Assembly instruction

Option:
- Control versions US/JP

Order information:
Please select mains cable and hand switch separately (Page 11)

Multilift II synchronous package

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>max. push force [N]</th>
<th>max. pull force [N]</th>
<th>max. lifting speed [mm/s]</th>
<th>Total travel [mm]</th>
<th>Installation height [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TS22B1C3C22CA0355</td>
<td>Multilift II synchronous package 230V AC</td>
<td>3,000</td>
<td>3,000</td>
<td>8</td>
<td>355</td>
<td>558</td>
</tr>
<tr>
<td>TS22B1C3C22CA0400</td>
<td>Multilift II synchronous package 230V AC</td>
<td>1,000</td>
<td>1,000</td>
<td>16</td>
<td>400</td>
<td>603</td>
</tr>
<tr>
<td>TS22B1C2C22CA0450</td>
<td>Multilift II synchronous package 230V AC</td>
<td>1,000</td>
<td>1,000</td>
<td>16</td>
<td>452</td>
<td>658</td>
</tr>
<tr>
<td>TS22B1C3C22CA0500</td>
<td>Multilift II synchronous package 230V AC</td>
<td>1,000</td>
<td>1,000</td>
<td>16</td>
<td>497</td>
<td>703</td>
</tr>
<tr>
<td>TS22B1C2C22CA0355</td>
<td>Multilift II synchronous package 230V AC</td>
<td>1,000</td>
<td>1,000</td>
<td>16</td>
<td>355</td>
<td>558</td>
</tr>
<tr>
<td>TS22B1C2C22CA0400</td>
<td>Multilift II synchronous package 230V AC</td>
<td>1,000</td>
<td>1,000</td>
<td>16</td>
<td>400</td>
<td>603</td>
</tr>
<tr>
<td>TS22B1C2C22CA0450</td>
<td>Multilift II synchronous package 230V AC</td>
<td>1,000</td>
<td>1,000</td>
<td>16</td>
<td>452</td>
<td>658</td>
</tr>
<tr>
<td>TS22B1C2C22CA0500</td>
<td>Multilift II synchronous package 230V AC</td>
<td>1,000</td>
<td>1,000</td>
<td>16</td>
<td>497</td>
<td>703</td>
</tr>
</tbody>
</table>

Note: The load value information is referring to the individual lifting column. For combined applications a safety factor of up to 0,6 has to be considered.
The fixing slots on the side allow an easy attachment of accessories. For example, a screen, CPU bracket or system reinforcements can be fixed to the lifting columns by using slot stones. The 30 slot geometry is also compatible with the RK BLOCAN® aluminium profile system.
Controller box Compact-e-3-EU

1 Motor socket 1 (M1)
2 Motor socket 2 (M2)
3 Motor socket 3 (M3)
S Hand switch socket (HS)
P Power socket
F Cable lug for earthing of table frame (6.3 x 0.8 mm cable lug)

Features:
- Synchronous control of up to two drives
- Duty cycle monitoring as overload protection
- Highly efficient switched-mode power supply (SMPS)
- The hand switches with display support storage of four different intermediate positions (memory) which can be called up at the touch of a button
- Acoustic status massage thanks to Click Codes

Additional functions:
Adjustable by customer
- Relative or absolute height display on hand switch with display
- Programmable software end positions

2 drives synchronised
Controller box Compact-e-3-EU

General information / operating conditions

<table>
<thead>
<tr>
<th>Type</th>
<th>Compact-e-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal voltage</td>
<td>EU: 230V / 50Hz</td>
</tr>
<tr>
<td></td>
<td>US: 120V / 60Hz (on request)</td>
</tr>
<tr>
<td></td>
<td>JP: 100V / 60 Hz (on request)</td>
</tr>
<tr>
<td>Standby power,</td>
<td>0,5 W</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>0 – 30°C</td>
</tr>
<tr>
<td>Relative humidity (for operation)</td>
<td>5 – 90% (not condensing)</td>
</tr>
<tr>
<td>Protection class (with earth terminal)</td>
<td>I</td>
</tr>
<tr>
<td>IP class</td>
<td>IP 20</td>
</tr>
<tr>
<td>Dimensions (L, B, H) [mm]</td>
<td>264 x 103 x 37</td>
</tr>
<tr>
<td>Tolerances according to DIN ISO 2768-1 c</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>523 g</td>
</tr>
<tr>
<td>Duty cycle (Operation mode S 3)</td>
<td>At nominal load, 10% (1 min operating time, 9 mins rest time)</td>
</tr>
</tbody>
</table>

IEC cable

<table>
<thead>
<tr>
<th>Code No</th>
<th>Version</th>
<th>Typ</th>
<th>Cable lenth</th>
</tr>
</thead>
<tbody>
<tr>
<td>QZD070618</td>
<td>IEC cable (Europe version, earthed plug)</td>
<td>F</td>
<td>1.80 m</td>
</tr>
<tr>
<td>QZD020159</td>
<td>IEC cable (Switzerland version, earthed plug)</td>
<td>J</td>
<td>1.80 m</td>
</tr>
<tr>
<td>QZD070619</td>
<td>IEC cable (Great Britain version, earthed plug)</td>
<td>G</td>
<td>1.80 m</td>
</tr>
</tbody>
</table>

Hand switches / Accessories

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Version</th>
<th>Description / information</th>
<th>Additional functions (see page 10)</th>
<th>Cable lenth</th>
<th>Fig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>QZB30E07BM126</td>
<td>HSU-OD-2</td>
<td>2 Up/Down function</td>
<td></td>
<td>1.90 m</td>
<td>1</td>
</tr>
<tr>
<td>QZB30E07BR126</td>
<td>HSU-MDF-4M2</td>
<td>Up to 4 memory positions</td>
<td>Display</td>
<td>1.90 m</td>
<td>2</td>
</tr>
<tr>
<td>QZB30E07BN126</td>
<td>TOUCHbasic UD</td>
<td>2 Up/Down function</td>
<td></td>
<td>1.80 m</td>
<td>3</td>
</tr>
<tr>
<td>QZB30E07BP126</td>
<td>TOUCH UD</td>
<td>Up to 4 memory positions</td>
<td>Display</td>
<td>2.00 m</td>
<td>4</td>
</tr>
</tbody>
</table>

Features:

- **HSU-OD-2**
  - 2 Up/Down function
  - Membran key pad
  - Robust and slim

- **HSU-MDF-4M2**
  - Up to 4 memory positions
  - 3-digit display
  - Membrane key pad slim design

- **TOUCHbasic UD**
  - 2 Up/Down function
  - Large keys

- **TOUCH UD**
  - Up to 4 memory positions
  - 4-digit display for „inch“ or „cm"
  - Key Lock

- **TOUCH UD (retractable)**
  - Mounting under table top
  - Ultra-flat design
**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 floating bearings supplement the application.
- The horizontal compensation in the Z-axis enables the mobility required when moving the lifting columns.

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

**Option:**
Pressure plate (see table) can be ordered separately

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>QZD020471</td>
<td>Multilift II telescope/Multilift II</td>
<td>70</td>
<td>280</td>
<td>36</td>
<td>40</td>
<td>260</td>
<td>M10</td>
</tr>
</tbody>
</table>

**RK SyncFlex V**

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

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

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

**Option:**
Pressure plate (see table) can be ordered separately

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>QZD020620</td>
<td>Multilift II telescope/Multilift II</td>
<td>110</td>
<td>328</td>
<td>90</td>
<td>280</td>
<td>–</td>
<td>10-15</td>
<td>–</td>
<td>M10</td>
</tr>
<tr>
<td></td>
<td>Pressure Plate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QZD020621</td>
<td>Multilift II telescope/Multilift II</td>
<td>110</td>
<td>–</td>
<td>90</td>
<td>280</td>
<td>15-20</td>
<td>–</td>
<td>300</td>
<td>–</td>
</tr>
</tbody>
</table>
Multilift II telescope / Multilift II – Fixing

Multilift assembly plates

- The assembly plates are for easy assembling in customer applications.

Material:
black powder-coated, zinc die cast, galvanised fixing set

Scope of delivery:
Plate with fixing set

Top assembly plate

Counterbore DIN 74 - F8

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>QZD020549</td>
<td>Top assembly plate</td>
</tr>
</tbody>
</table>

Multilift II telescope / Multilift II
Foot

- Different foot versions for the Multilift
- No modifications of the Multilift required

**Material:**
Type 1/2 GK-AlSi12/3.2583.02, black powder-coated
Type 3/4 steel tube, ends capped black powder-coated

**Scope of delivery:**
one foot with fixing set

---

**Base**

Distance to base

**Type 1**

External profile
Internal profile

**Type 2**

**Type 3**

---

**Distance to base**

- min. 20 mm / max. 25 mm

**Base**

- min. 27 mm / max. 40 mm

---

**External profile**

Type 3

**Internal profile**

Type 2
Type 4

Type 6

Position of the lifting columns freely selected

Slot geometry 40

*Additional note to Type 6:
The application example shown—internal profile mounted on Type 6—is only in combination with an assembly plate possible (see page 13)

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>Max. load</th>
<th>Multilift II</th>
<th>Multilift II telescope</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Internal profile</td>
<td>External profile</td>
</tr>
<tr>
<td>QZD020252</td>
<td>1</td>
<td>1,000 N</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>QZD020253</td>
<td>2</td>
<td>1,000 N</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>QZD020254</td>
<td>3</td>
<td>1,000 N</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>QZD020255</td>
<td>4</td>
<td>1,000 N</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>QZD020256</td>
<td>6</td>
<td>3,000 N</td>
<td>●*</td>
<td>●</td>
</tr>
</tbody>
</table>
FAX reply form

Yes, I would like to know more about RK linear technology, please:

☐ send me the linear technology lifting columns and electric cylinders catalogue

☐ send me details of your product range in PDF format on a CD-ROM

Contact me

Company: ____________________________________________

Contact partner: ______________________________________

Department: _______________________________________

Address: __________________________________________

Tel. + Fax: __________________________________________

E-mail: _____________________________________________

Connecting and positioning systems

RK Rose+Krieger GmbH
Postfach 15 64
32375 Minden, Germany
Telephone: +49 (0)571 93 35-0
Fax: +49 (0)571 93 35-119
E-mail: info@rk-online.de
Internet: www.rk-rose-krieger.com