The “light option” for simple manual adjustments

Aluminium screw
- Low-weight option thanks to aluminium screw and plastic slide bearing

Screw cover
- An elastic plastic sealing lip protects the screw

Choice of guiding tube clear or black anodised
- Reduced reflection (e.g. for operation in areas of photography)

Carriage/fixing elements
- Wide range of models facilitates connection to your set-up

Features:
- Unit for “light” moving applications
- Low-cost manual adjustment
- For applications where the focus is on “weight reduction”
- Suitable for use in areas susceptible to corrosion

Options:
- Additional non driven carriage as torque support.
**RK LightUnit - Table of contents**

### Properties/Technical data
- General information/operating conditions ..... 30
- Loaddata .......................................................... 31

### Versions
(Dimensions, order numbers)
- Right or lefthand thread ...................... 32 - 33
- Right and lefthand thread ................. 34 - 35

### Accessories

#### Fixing
- Carriage ...................................................... 36 - 37
- Fixing elements ...................................... 38 - 39
- Reducing bushes ................................. 40
- Clamping lever ........................................ 41

#### Drive
- Handwheel ................................................. 42

#### Position determination
- Positioningindicator .............................. 43
**RK LightUnit – Technical data**

### General information/operating conditions

<table>
<thead>
<tr>
<th>Design</th>
<th>Actuator with aluminium ACME screw in a slotted aluminium profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guide</td>
<td>Slide guide</td>
</tr>
<tr>
<td>Installation position</td>
<td>Any position</td>
</tr>
<tr>
<td>Lead accuracy</td>
<td>± 0.3 mm/300 mm travel</td>
</tr>
<tr>
<td>Screw lead</td>
<td>3 mm</td>
</tr>
<tr>
<td>Self-locking</td>
<td>Yes</td>
</tr>
<tr>
<td>No-load torque</td>
<td>0.35 Nm</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>0°C to +60°C</td>
</tr>
</tbody>
</table>
**RK LightUnit - Technical data**

**Load data***

<table>
<thead>
<tr>
<th>Type</th>
<th>Fx</th>
<th>Fy</th>
<th>Fz</th>
<th>Mx</th>
<th>My</th>
<th>Mz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total length [mm]</td>
<td>300</td>
<td>500</td>
<td>800</td>
<td>1000</td>
<td>300</td>
<td>500</td>
</tr>
<tr>
<td>Deflection [mm]</td>
<td>1.0</td>
<td>2.5</td>
<td>4.0</td>
<td>5.0</td>
<td>1.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Force</td>
<td>300</td>
<td>700</td>
<td>550</td>
<td>270</td>
<td>1390</td>
<td>1210</td>
</tr>
</tbody>
</table>

**Geometric moment of inertia**

<table>
<thead>
<tr>
<th>Type</th>
<th>Iy</th>
<th>Iz</th>
</tr>
</thead>
<tbody>
<tr>
<td>RK LightUnit</td>
<td>1.90</td>
<td>1.88</td>
</tr>
</tbody>
</table>

* with reference to carriage (static, resting on end elements)
Order information:
- Choice of carriage - this must be ordered separately
- Standard lengths in stock!
  Take advantage of our fast delivery times.

Standard lengths

- Guiding tube clear anodised: Total length 300, 500, 800 or 1000 mm
- Guiding tube black anodised: Total length 300 mm
- Righthand thread screw with a drive shaft

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>Screw</th>
<th>Travel</th>
<th>Total length</th>
<th>Mass [kg]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFA 3000 T_0300</td>
<td>30</td>
<td>14 x 3</td>
<td>220</td>
<td>300</td>
<td>0.31</td>
</tr>
<tr>
<td>TFA 3000 TA0500</td>
<td>30</td>
<td>14 x 3</td>
<td>420</td>
<td>500</td>
<td>0.51</td>
</tr>
<tr>
<td>TFA 3000 TA0800</td>
<td>30</td>
<td>14 x 3</td>
<td>720</td>
<td>800</td>
<td>0.81</td>
</tr>
<tr>
<td>TFA 3000 TA1000</td>
<td>30</td>
<td>14 x 3</td>
<td>920</td>
<td>1000</td>
<td>1.01</td>
</tr>
</tbody>
</table>

Guiding tube
A = clear anodised
C = black anodised
Variable lengths

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>Screw</th>
<th>Basic length</th>
<th>Max. travel</th>
<th>Mass [kg]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TF_3000</td>
<td>30</td>
<td>14 x 3</td>
<td>80</td>
<td>920</td>
<td>0.097</td>
</tr>
</tbody>
</table>

Total length = basic length + travel [mm]

Guiding tube
- A = clear anodised
- C = black anodised

Shafts:
- T = 1 shaft
- U = 2 shafts

Screw:
- A = righthand thread
- H = lefthand thread
**RK LightUnit – Versions**

**Order information:**
- Choice of carriage - this must be ordered separately
- Please specify total travel when placing an order

**Version**
- Right and lefthand thread

---

**Code No.** | **Type** | **Screw** | **Basic length** | **Max. travel** | **Mass [kg]**
---|---|---|---|---|---
TFC 3000 | 30 | 14 x 3 | 130 | 870 | 0.113 | 0.099

Total length = basic length + total travel [mm]

**Guiding tube**
- \(A\) = clear anodised
- \(C\) = black anodised

**Screw:**
- \(S\) = 1 shaft on the lefthand thread side
- \(T\) = 1 shaft on the righthand thread side
- \(U\) = 2 shafts

---
Total length = basic length + travel
Order information:

- The carriages are fitted with screws as standard. These can be replaced with clamping levers if required. For clamping lever, please see page 41.
- Screws in stainless steel on inquiry
- Suitable reducing bushes on page 40

Carriage

- A wide range of models facilitate mounting

Material: Reinforced polyamide, black; fastenings galvanised or stainless steel

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>13001200CSR30</td>
<td>K-KU 30</td>
</tr>
<tr>
<td>13009200CS</td>
<td>FK-KU 30</td>
</tr>
</tbody>
</table>

K-KU

FK-KU
### RK LightUnit - Fixing

**W-KU**

![W-KU Diagram]

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>13007200CSR30</td>
<td>W-KU 30</td>
</tr>
</tbody>
</table>

**FS-KU**

![FS-KU Diagram]

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>13011200CS</td>
<td>FS-KU 30</td>
</tr>
</tbody>
</table>

**LW-KU**

![LW-KU Diagram]

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>13014200CS</td>
<td>LW-KU 30</td>
</tr>
</tbody>
</table>

**GW-KU**

![GW-KU Diagram]

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>13016200CSR30</td>
<td>GW-KU 30</td>
</tr>
</tbody>
</table>
Order information:

- The carriages are fitted with screws as standard. These can be replaced with clamping levers if required. For clamping lever, please see page 41.
- Purchase only in lot sizes and a multiple of that, see product table below

Fixing elements

- A special reducing bush system enables connection to a range of tube diameters
- A wide range of models facilitate mounting

Material: Reinforced polyamide, black; fastenings galvanised or stainless steel

**K-KU**

![K-KU Diagram](image)

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>Lot sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>K00030ACSR30R30</td>
<td>K-KU 30</td>
<td>5, 10, 15... pcs</td>
</tr>
</tbody>
</table>

**FK-KU**

![FK-KU Diagram](image)

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>Lot sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>K20030ACSR30</td>
<td>FK-KU 30</td>
<td>5, 10, 15... pcs</td>
</tr>
</tbody>
</table>
**Fixing elements**  

**W-KU**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>lot sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>K10030ACSR30R30</td>
<td>W-KU 30</td>
<td>5, 10, 15... pcs</td>
</tr>
</tbody>
</table>

**FS-KU**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>lot sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>K30030ACSR30</td>
<td>FS-KU 30</td>
<td>5, 10, 15... pcs</td>
</tr>
</tbody>
</table>

**GF-KU**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>lot sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>K80230ACSR30</td>
<td>GF-KU 30</td>
<td>5, 10, 15... pcs</td>
</tr>
</tbody>
</table>
Reducing bushes

- Simply replace the reducing bush to modify the tube diameter on carriages or fixing elements.
- In the case of fixing elements, the reducing bushes are included in the scope of delivery when entering the order number and do not need to be ordered separately.

Material: PA6.6 GF30

Axial and rotation locking

Tube diameter data

Version “R”

Version “V”

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>Version</th>
<th>lot sizes</th>
<th>A+0,1</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>96204AC</td>
<td>30</td>
<td>R20</td>
<td>5, 10, 15... pcs</td>
<td>20,25</td>
<td>30</td>
<td>3,5</td>
<td>18,9</td>
<td>3,4</td>
<td>45</td>
</tr>
<tr>
<td>96206AC</td>
<td>30</td>
<td>R25</td>
<td>5, 10, 15... pcs</td>
<td>25,25</td>
<td>30</td>
<td>3,5</td>
<td>18,9</td>
<td>3,4</td>
<td>45</td>
</tr>
<tr>
<td>96208AC</td>
<td>30</td>
<td>V20</td>
<td>5, 10, 15... pcs</td>
<td>20,25</td>
<td>30</td>
<td>3,5</td>
<td>18,9</td>
<td>3,4</td>
<td>45</td>
</tr>
</tbody>
</table>
Clamping lever

- For the equipping of fixing elements and carriages

**Material:** Handle made of PA, black

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
<th>Screw</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>G</th>
<th>H</th>
<th>K</th>
<th>L</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>902381</td>
<td>30</td>
<td>steel</td>
<td>65</td>
<td>48.5</td>
<td>36.5</td>
<td>M8</td>
<td>14</td>
<td>20°</td>
<td>25</td>
<td>13</td>
<td>52.5</td>
<td>18</td>
</tr>
</tbody>
</table>
Handwheel

- Rotating cylindrical grip
- Fully turned wheel rim
- Machined hub

Material: Aluminium die cast, black powder-coated

**RK LightUnit – Drive**

<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>G</th>
<th>P</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>90903</td>
<td>30</td>
<td>80</td>
<td>8</td>
<td>23</td>
<td>11</td>
<td>17</td>
<td>35</td>
<td>2 x 2</td>
<td>42</td>
</tr>
</tbody>
</table>
Positioning indicator

- max. ambient temperature +80°C
- Figure height 6 mm
- Indicating accuracy ± 0.1 mm

Material: Housing polyamide 6
Orange RAL 2004,
Steel parts, corrosion protected

Scope of delivery: Positioning indicator, clamping ring, shaft extension and fastenings

Note: “rising” and “falling” versions refer to the clockwise rotation of the drive shaft.

RK LightUnit - Position determination

**Positioning indicator**

- max. ambient temperature +80°C
- Figure height 6 mm
- Indicating accuracy ± 0.1 mm

**Material:** Housing polyamide 6
Orange RAL 2004,
Steel parts, corrosion protected

**Scope of delivery:** Positioning indicator, clamping ring, shaft extension and fastenings

**Note:** “rising” and “falling” versions refer to the clockwise rotation of the drive shaft.

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**RK LightUnit - Position determination**

**Positioning indicator**

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**Scope of delivery:** Positioning indicator, clamping ring, shaft extension and fastenings

**Note:** “rising” and “falling” versions refer to the clockwise rotation of the drive shaft.

---

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Installation position</th>
<th>Version*</th>
</tr>
</thead>
<tbody>
<tr>
<td>91043</td>
<td>Horizontal</td>
<td>3 mm rising</td>
</tr>
<tr>
<td>91053</td>
<td>Vertical</td>
<td>3 mm falling</td>
</tr>
<tr>
<td>91063</td>
<td>Vertical</td>
<td>3 mm rising</td>
</tr>
<tr>
<td>91073</td>
<td>Horizontal</td>
<td>6 mm rising</td>
</tr>
<tr>
<td>91010</td>
<td>Vertical</td>
<td>6 mm falling</td>
</tr>
<tr>
<td>91029</td>
<td>Vertical</td>
<td>6 mm falling</td>
</tr>
<tr>
<td>91020</td>
<td>Vertical</td>
<td>6 mm falling</td>
</tr>
<tr>
<td>91019</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Version with double lead e.g. for installation on righthand/lefthand thread screws

---

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- max. ambient temperature +80°C
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