TECHNICAL INFORMATION

Linear Guide System – Low Profile

Carriage glides smoothly on anodized aluminum rails without the need for lubricants. Their low profile design is ideal when space constraints are tight. The rails are offered in 4 widths.

Unique features include:
> Low friction without lubrication
> Resistance to dirt and dust
> Small mounting height and width
> Lightweight
> Replaceable polymer sliding elements
> Low-cost alternative to miniature ball bearing systems.

MAXIMUM LOAD PER CARRIAGE

<table>
<thead>
<tr>
<th>Size</th>
<th>Load per Rail (kg)</th>
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</thead>
<tbody>
<tr>
<td>Size 17</td>
<td>5 kg</td>
</tr>
<tr>
<td>Size 27</td>
<td>50 kg</td>
</tr>
<tr>
<td>Size 40</td>
<td>70 kg</td>
</tr>
<tr>
<td>Size 80</td>
<td>100 kg</td>
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APPLICATION HINT: The mounting surface for rails and bearings should have a very flat surface (e.g. milled surface) in order to enhance performance.
**LINEAR GUIDE SYSTEM • LOW PROFILE SIZE 17**

LOW-LOAD APPLICATIONS
REPLACEABLE GLIDE PADS
SELF-LUBRICATING
CORROSION-RESISTANT
LOW FRICTION

> **MATERIAL:**
  Rails - Anodized Aluminum
  Carriage Assembly - Plastic with Brass threaded inserts and J® Polymer Pads

> **OPERATING TEMPERATURE:**
-40°C to +90°C

> **SPECIFICATIONS:**
  Maximum Load: 50 N
  Maximum Speed: 15 m/s

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**LOAD DATA**

- \( I = \text{Moment of Inertia} \)
- \( W_b = \text{Section Modulus} \)
- \( M = \text{Max. Torque} \)

\[ M_1 = 0.06 \text{ kgf} \cdot \text{m} \]
\[ M_2 = 0.01 \text{ kgf} \cdot \text{m} \]

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**METRIC COMPONENT**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>L Length mm</th>
<th>L₁</th>
<th>Weight g</th>
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REV: 6.12.11 JC
LINEAR GUIDE SYSTEM • LOW PROFILE SIZE 27

LOW- TO MEDIUM-LOAD APPLICATIONS
REPLACEABLE GLIDE PADS
LOW FRICTION
MOUNTING THROUGH HOLES OR THREADED ADJUSTING STUDS FOR MOUNTING

> MATERIAL:
Rails - Anodized Aluminum
Carriage Assembly - Zinc, Chromated and J® Polymer Pads

> OPERATING TEMPERATURE:
-40°C to +90°C

> SPECIFICATIONS:
Maximum Load: 500 N
Maximum Speed: 15 m/s

FOR MACHINE SCREWS M4
DIN 7984 / DIN 6912
DIN 84 / EN ISO 1707

LOAD DATA:
WITH AND WITHOUT MOUNTING STUDS
I = Moment of Inertia
M = Max. Torque
Mx = 0.51 kg•m
My = 0.25 kg•m
Mz = 0.25 kg•m

Fig. 1

Without Mounting Studs

Fig. 2

With Mounting Studs

METRIC COMPONENT

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Fig. No.</th>
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**LINEAR GUIDE SYSTEM • LOW PROFILE SIZE 40**

**MEDIUM- TO HIGH-LOAD APPLICATIONS**
**REPLACEABLE GLIDE PADS**
**LOW FRICTION**

**MATERIAL:**
- Rails - Anodized Aluminum
- Carriage Assembly - Zinc, Chromated and J® Polymer Pads

**OPERATING TEMPERATURE:**
-40°C to +90°C

**SPECIFICATIONS:**
- Maximum Load: 700 N
- Maximum Speed: 15 m/s

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**LOAD DATA**
- \( I = \text{Moment of Inertia} \)
- \( W_b = \text{Section Modulus} \)
- \( M = \text{Max. Torque} \)

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**METRIC COMPONENT**

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Rev: 06.02.11 mh
LINEAR GUIDE SYSTEM • LOW PROFILE SIZE 80

HIGH-LOAD APPLICATIONS
REPLACEABLE GLIDE PADS
LOW FRICTION

Material:
Rails - Anodized Aluminum
Carriage Assembly - Zinc, Chromated and J® Polymer Pads

Specifications:
Maximum Load - 50 N
Maximum Speed - 15 m/s
Operating Temperature: -40°C to +90°C

Specifications:

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S99GNRM80802

S99GNCM80802

Metric Component

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