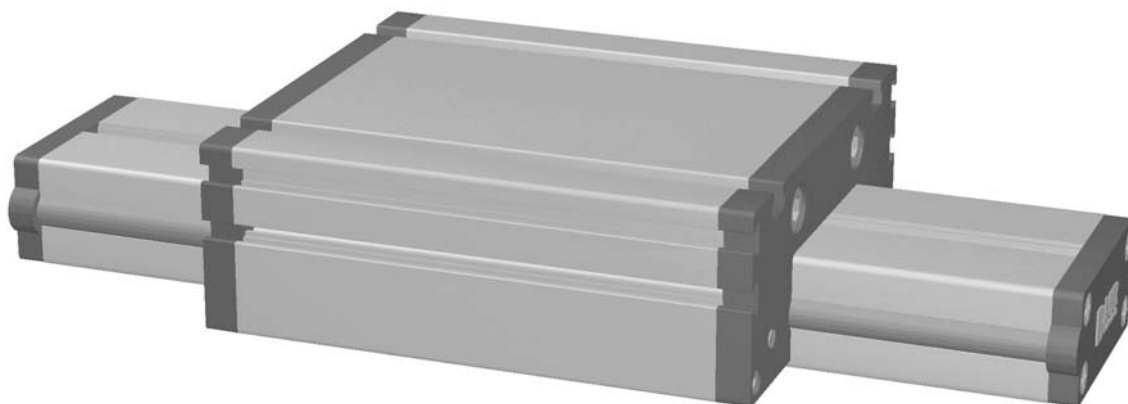


Positioning system E 40, 60, 80, 80S

Specifications

Roller guide unit without drive

2.1



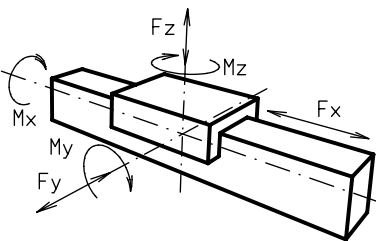
Function:

Very low building system achieved by an aluminium guide body with integrated, hardened steel guide rods. The carriage, which has internal linear ball bearings that can be adjusted free of play, moves along the body.

Fitting position: As required, max. length 6.000 mm.

Carriage connection: By T-slots.

Unit mounting: By tapped holes in the mounting surface, bottom surface with T-slots.

| Forces and torques | Size | E 40 | | E 60 | | E 80 | | E 80S | |
|---|----------------|--|---------|----------------------|---------|-----------------------|---------|-----------------------|---------|
| | Forces/Torques | static | dynamic | static | dynamic | static | dynamic | static | dynamic |
|  | F_x (N) | - | - | - | - | - | - | - | - |
| | F_y (N) | 1200 | 700 | 3000 | 2000 | 3000 | 2000 | 4600 | 3600 |
| | F_z (N) | 900 | 650 | 1700 | 1100 | 1700 | 1100 | 3000 | 1800 |
| | M_x (Nm) | 25 | 20 | 67 | 43 | 90 | 55 | 170 | 140 |
| | M_y (Nm) | 32 | 18 | 90 | 70 | 110 | 80 | 270 | 230 |
| | M_z (Nm) | 35 | 25 | 120 | 100 | 150 | 120 | 300 | 220 |
| All forces and torques relate to the following: | | | | | | | | | |
| existing values | | $\frac{F_y}{F_{y_{dyn}}} + \frac{F_z}{F_{z_{dyn}}} + \frac{M_x}{M_{x_{dyn}}} + \frac{M_y}{M_{y_{dyn}}} + \frac{M_z}{M_{z_{dyn}}} \leq 1$ | | | | | | | |
| values of table | | | | | | | | | |
| Speed | | | | | | | | | |
| max. (m/s) | | 4 | | 5 | | 6 | | 8 | |
| Geometrical moments of inertia of aluminium profile | | | | | | | | | |
| I_x mm ⁴ | | 0,157x10 ⁵ | | 1,71x10 ⁵ | | 2,8x10 ⁵ | | 2,8x10 ⁵ | |
| I_y mm ⁴ | | 0,654x10 ⁵ | | 6,1x10 ⁵ | | 10,59x10 ⁵ | | 10,59x10 ⁵ | |
| E-Modulus N/mm ² | | 70000 | | 70000 | | 70000 | | 70000 | |

For life-time calculation of rollers use our CD-ROM or homepage!

Formula: E

$$f = \frac{F \cdot L^3}{E \cdot I \cdot 192}$$



- f = deflection (mm)
- F = load (N)
- L = free length (mm)
- E = elastic modulus 70000 (N/mm²)
- I = second moment of area (mm⁴)

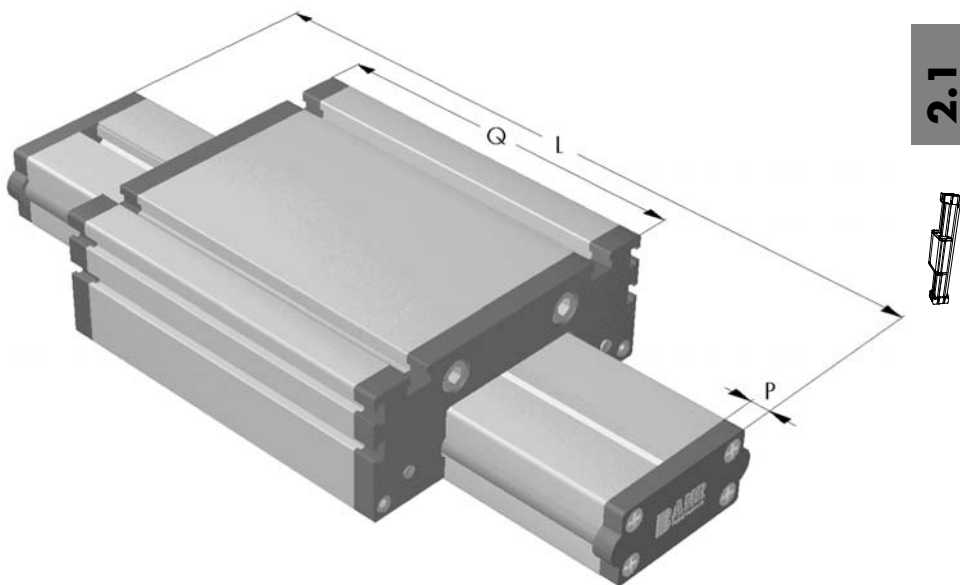
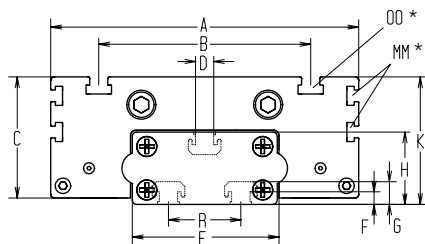


Positioning system E 40, 60, 80, 80S

Dimensions (mm)

Increasing the carriage length will increase the basic length by the same amount.

2.1



*For slide-nuts refer to chapter 2.2 page 2

| Size | Basic length L | A | B | C | D | E | F | G | H | K | MM for | OO for | P | Q | R | Basic weight | Weight per 100 mm |
|-------|----------------|-----|-----|------|----|----|---|------|----|----|--------|--------|----|-----|----|--------------|-------------------|
| E 40 | 136 | 100 | 66 | 34,5 | 10 | 40 | 7 | 12,5 | 22 | 37 | - | M 6 | 6 | 122 | - | 1,0 kg | 0,13 kg |
| E 60 | 186 | 144 | 96 | 48,0 | 10 | 60 | 7 | 12,5 | 30 | 49 | - | M 8 | 8 | 168 | - | 2,2 kg | 0,20 kg |
| E 80 | 215 | 170 | 117 | 66,5 | 10 | 80 | 7 | 12,5 | 40 | 70 | M 6 | M 10 | 10 | 194 | 40 | 3,4 kg | 0,48 kg |
| E 80S | 245 | 190 | 126 | 67,5 | 10 | 80 | 7 | 12,5 | 40 | 71 | M 6 | M 8 | 10 | 214 | 40 | 4,4 kg | 0,48 kg |

Choice of guide body profile:

- 0** (0) Standard (1) stainless guide rods (2) stainless guide rods and screws (3) stainless guide rods, rollers and screws

1500 Basic length + stroke = total length

E 40 0 0 0 0 0 0 0 0 1500
Pos. 1 2 3 4 5 6 7

For combination kits and connecting elements refer to chapter 2.2

Sample ordering code:

E 40, non driven system, standard body profile, 1364 mm stroke

