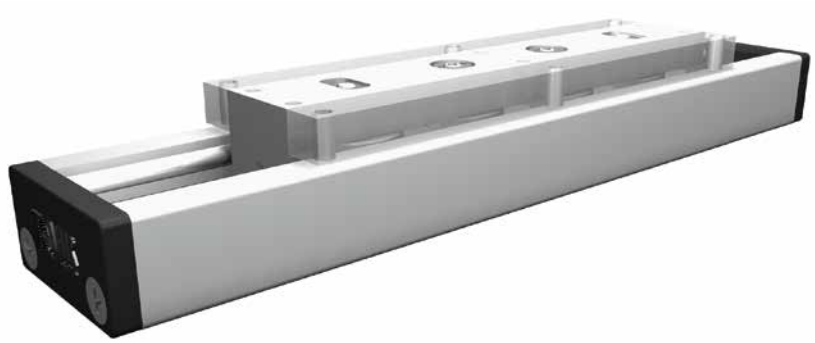
Linear system **UL 40, 60, 80**

TECHNICAL SUMMARY
REFERENCE ONLY

ROLLER GUIDE UNIT WITHOUT DRIVE

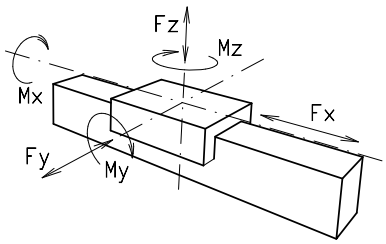
SPACE SAVING



Function:
Very low building roller 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 tapped holes
Unit mounting: Afterwards by holes or tapped holes

Forces and torques



Size	UL 40		UL 60		UL 80	
Forces/Torques	static	dynamic	static	dynamic	static	dynamic
F_x (N)	-	-	-	-	-	-
F_y (N)	1200	700	3000	2000	3000	2000
F_z (N)	900	650	1700	1100	1700	1100
M_x (Nm)	25	20	67	43	90	55
M_y (Nm)	32	18	90	70	110	80
M_z (Nm)	35	25	120	100	150	120

All forces and torques relate to the following:

existing values / table values

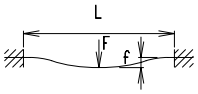
$$\frac{Fy}{Fy_{dyn}} + \frac{Fz}{Fz_{dyn}} + \frac{Mx}{Mx_{dyn}} + \frac{My}{My_{dyn}} + \frac{Mz}{Mz_{dyn}} \leq 1$$

Speed			
max. (m/s)	4	5	6
Geometrical moments of inertia of aluminium profile			
I_x mm^4	0,157x10^5	1,71x10^5	2,8x10^5
I_y mm^4	0,654x10^5	6,1x10^5	10,59x10^5
E-Modulus N/mm^2	70000	70000	70000

For life-time calculation of rollers use our homepage.

Deflection:

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



f = deflection (mm)
F = load (N)
L = free length (mm)
E = elastic modulus 70000 (N/mm^2)
I = second moment of area (mm^4)

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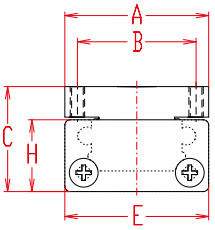
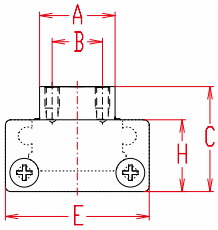
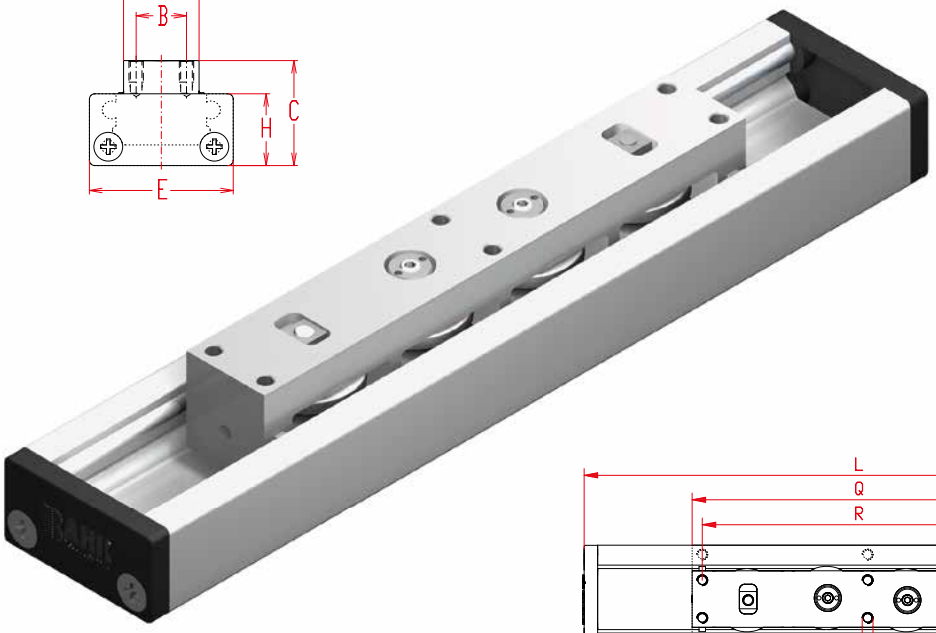
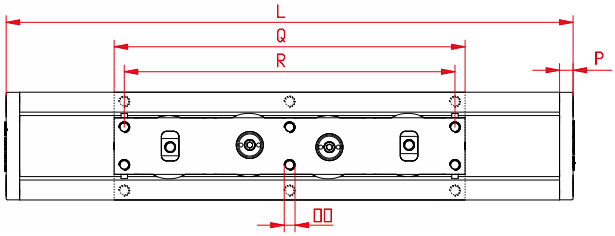
Dimensions (mm)









Size	Basic length L	A	B	C	E	H	OO for	P	Q	R	Basic weight	Weight per 100 mm
UL 40	160	40/20	31/13	33	40	22	M 5/M 5x8	6	146*	120	1,2 kg	0,13 kg
UL 60	215	60/29	48/20	43	60	30	M 6/M 6x10	8	194*	180	2,1 kg	0,20 kg
UL 80	285	80/42	66/28	58,5	80	40	M 8/M 8x12	10	260*	245	4,2 kg	0,48 kg

* = the carriage is not available in different lengths

0 **Choice of guide body profile:**
(0) Standard **(2)** corrosion-protected guide rods and screws
(4) expanded corrosion-protected version (depending on the availability of components)

0 **Choice of carriage:**

(0) Standard

(1) harrow carriage

UL	40	0	0	0	0	0	0	0	01500
	Pos.	1	2	3	4	5	6	7	

Basic length + stroke = total length

Sample ordering code:
UL 40, non driven system, standard body profile, standard carriage (wide version), 1340 mm stroke

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