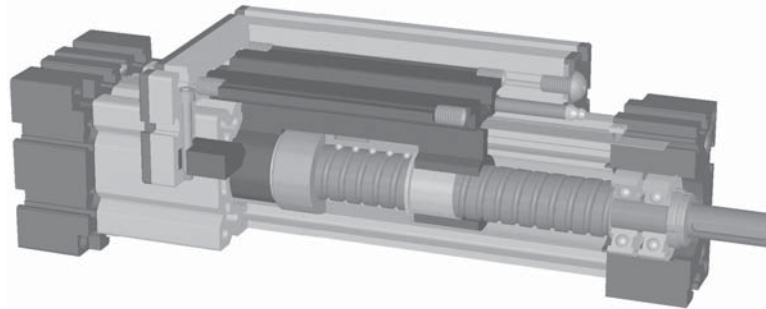


Modular Linear Actuator EGT/EGK 30, 40, 60, 80

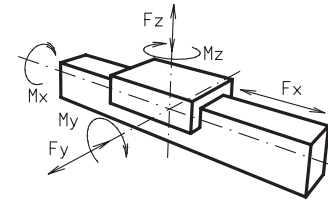
Acme or Ball Screw Driven



Function:

This unit consists of an aluminium extrusion body with lateral V-guides. The carriage, which is driven by means of an acme threaded lead screw or ball screw, moves along the unit guided by V-slides that are adjustable free of play. Where two linear units are used in parallel or where two carriages are mounted on one unit, the leading-nut receiver can be used to adjust the alignment of the carriages. The linear opening of the unit is sealed with a stainless steel cover band to make the unit splash-proof and dust-tight.

- Fitting length:** As required. Max. length 3,000 mm
Carriage mounting: T-slots (M6 tapped holes on EGT/EGK 40)
Unit mounting: T-slots

Forces and torques	Size	EG 30		EG 40		EG 60		EG 80	
	Forces / Torques	static	dynamic	static	dynamic	static	dynamic	static	dynamic
	F _x (N)	750	600	1500	1200	2500	2000	4200	3500
	F _y (N)	90	60	350	315	500	450	1000	900
	F _z (N)	90	60	500	450	750	675	1125	1000
	M _x (Nm)	10	5	20	18	33	30	82	75
	M _y (Nm)	13	6	44	40	77	70	220	200
	M _z (Nm)	14	7	33	30	55	50	165	150
No-load torque									
Acme Screw	10x3	-	18x4	18x8	24x5	24x10	28x5	28x10	
(Nm)		0,4	-	0,70	0,70	0,50	0,80	0,80	1,0
Ball Screw	8x2,5	-	16x5	16x10	25x5	25x10	32x5	32x10	
(Nm)		0,25	-	0,40	0,60	0,40	0,70	0,80	1,0
Geometrical moments of inertia of aluminium profile									
I _x mm ⁴		4,09x10 ⁴		1,35x10 ⁵		5,65x10 ⁵		19,14x10 ⁵	
I _y mm ⁴		4,00x10 ⁴		1,48x10 ⁵		6,12x10 ⁵		20,12x10 ⁵	
Elastic-modulus N/mm ²		70000		70000		70000		70000	

Formula: EGT/K

Driving torque:

$$M_a = \frac{F \cdot P \cdot S_f \cdot w}{2000 \cdot \pi \cdot \mu} + M_{leer}$$

$$P_a = \frac{M_a \cdot n}{9550}$$

- F = force (N)
- P = thread pitch (mm)
- S_f = safety factor 1,2 ... 2
- M_{leer} = no-load torque (Nm)
- n = rpm of screw (min⁻¹)
- M_a = driving torque (Nm)
- μ = screw efficiency (~ 1,22)
- w = friction coefficient (KW)
- P_a = motor power

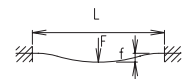
Efficiency (M)

Ball Screws = 0.900

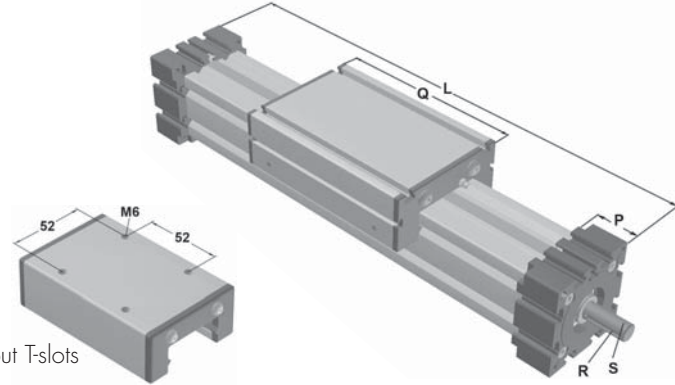
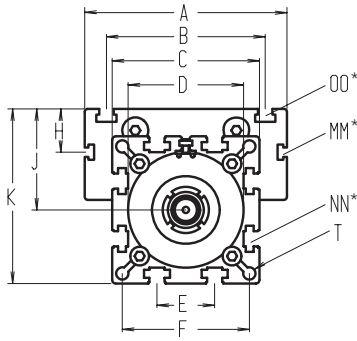
Acme Screws

- Tr 10x3 = 0.375
- Tr 18x4 = 0.399
- Tr 24x5 = 0.384
- Tr 28x5 = 0.349
- Tr 18x8 = 0.565
- Tr 24x10 = 0.550
- Tr 28x10 = 0.513

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



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



Size 40 without T-slots

* For T-nuts refer to the accessory section

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

Size	Basic length L	A	B	C	D	E	F	H	J	K	MM	NN	OO	P	Q	R	S Ø x length	T Ø	Basic weight	Additional Weight per 100 mm
EG 30	120	70	56	42	40x1	13	35	-	26	47	-	M6	M6	18	82	-	5x16	4,2	0,6 kg	0,16 kg
EG 40	170	70	-	58	48x1	18	47	-	35	64	-	M6	M6	25	118	3x3x25	10x27	6,5	1,3 kg	0,36 kg
EG 60	235	100	80	82	62x1	30	69	-	49	90	-	M8	M8	35	164	5x5x28	14x35	8,5	4,0 kg	0,67 kg
EG 80	285	140	110	102	80x1	40	88	30	70	121	M6	M10	M10	45	193	6x6x40	18x45	8,5	6,7 kg	1,14 kg

Screw type:

- T** (T) Acme Screw (K) Ball Screw

Selection of screw hand:

- 1** (1) righthand (2) left-hand (Ball Screw by inquiry)

Choice of guide body profile:

- 0** (0) standard (1) stainless guide rods (only size 30) (2) stainless guide rods and screws (only size 30)

Choice of carriages:



For standard carriage length see 'Q' in table. The carriages can be provided in any non-standard length on request; the longer the carriage, the greater the load capacity.



Top and bottom carriages are rigidly joined, thus enabling higher loads to be applied. This increases the basic length by 12-16 mm. For thickness of jointing plate refer to accessory section.

Choice of journal:

- 0** (0) one shaft (2) shaft on both sides

Selection of screw:

Size	Standard		Multistart-screw	
	acme screw (trapezoidal)		ball screw	
30	(0) Tr 10x3	(0) 8x2,5	(1) Tr 18x8	(1) 16x10
40	(0) Tr 18x4	(0) 16x5	(1) Tr 24x10	(1) 20x20
60	(0) Tr 24x5	(0) 25x5	(1) Tr 28x10	(1) 25x25
80	(0) Tr 28x5	(0) 32x5	(1) Tr 28x10	(1) 25x25 (2) 32x10

Ball Screw pitch accuracy:

- 0** (0) 0,1 mm / 300 mm (Standard) (1) 0,05 mm / 300 mm (2) 0,025 mm / 300 mm

End play of ball nut:

- 0** (0) 0,04 mm (Standard), (1) < 0,02 mm, (2) 2% preload

Repeatability:

- ± 0,2 mm Acme Screw
± 0,025 mm Ball Screw

1500 basic length + stroke = total length

EG T 40 1 0 0 0 0 0 0 0 1500

Pos. 1 2 3 4 5 6 7

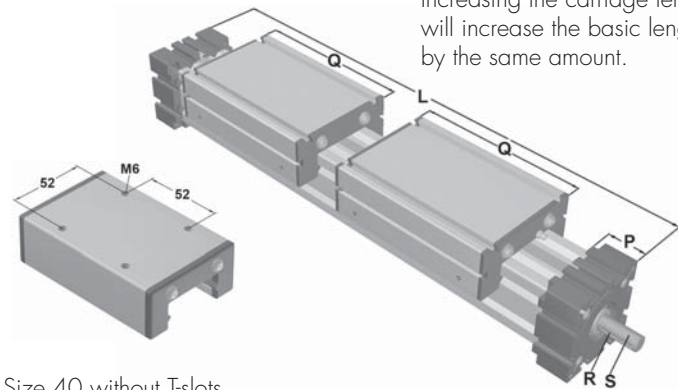
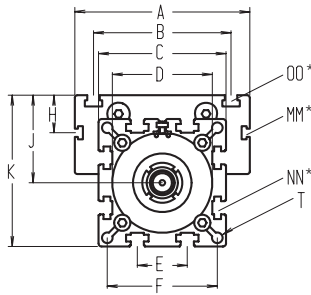
Sample ordering code:

EGT40 with acme righthand screw, standard body profile, top carriage, one shaft, 18x4 screw, 1330 mm stroke

Modular Linear Actuator EGT/EGK 30, 40, 60, 80

Acme or Ball Screw Driven, Right and Left-handed Thread or Divided Screws

Dimensions (mm)



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

*For T-nuts refer to the accessory section

Size 40 without T-slots

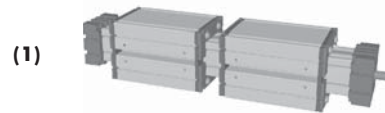
Size	Basic length L	A	B	C	D	E	F	H	J	K	MM	NN	OO	P	Q	R	S ∅ x length	T ∅	Basic weight	Additional Weight per 100 mm
EG 30	202	70	56	42	40x1	13	35	-	26	47	-	M6	M6	18	82	-	5x16	4,2	1,0 kg	0,16 kg
EG 40	290	70	-	58	48x1	18	47	-	35	64	-	M6	M6	25	118	3x3x25	10x27	6,5	2,5 kg	0,36 kg
EG 60	400	100	80	82	62x1	30	69	-	49	90	-	M8	M8	35	164	5x5x28	14x35	8,5	6,2 kg	0,67 kg
EG 80	480	140	110	102	80x1	40	88	30	70	121	M6	M10	M10	45	193	6x6x40	18x46	8,5	12,0 kg	1,14 kg

T Screw type:
(T) Acme Screw (K) Ball Screw

3 Selection of screw hand:
(3) right/left hand (4) divided screw type

0 Choice of guide body profile:
(0) standard (1) stainless guide rods (only size 30) (2) stainless guide rods and screws (only size 30)

Choice of carriages:



For standard carriage length see 'Q' in table. The carriages can be provided in any non-standard length on request; the longer the carriage, the greater the load capacity.

Top and bottom carriages are rigidly joined, thus enabling higher loads to be applied. This increases the basic length by 24-32 mm. Thickness of jointing plate refer to accessory section.

0 Choice of journal:
(0) shaft righthand thread (1) shaft lefthand thread (2) shaft on both sides

0 Selection of screw:

Size	Standard acme screw (trapezoidal)	Multistart-screw	Standard	Multistart-screw ball screw
30	(0) Tr 10x3		(0) 8x2,5	
40	(0) Tr 18x4	(1) Tr 18x8	(0) 16x5	(1) 16x10
60	(0) Tr 24x5	(1) Tr 24x10	(0) 25x5	(1) 20x20 (2) 25x10
80	(0) Tr 28x5	(1) Tr 28x10	(0) 32x5	(1) 25x25 (2) 32x10

0 Ball Screw pitch accuracy:
(0) 0,1 mm / 300 mm (Standard) (1) 0,05 mm / 300 mm (2) 0,025 mm / 300 mm

0 End play of ball nut:
(0) 0,04 mm (Standard), (1) < 0,02 mm, (2) 2% apply preload

Repeatability:
± 0,2 mm Acme Screw
± 0,025 mm Ball Screw

2200 basic length + stroke = total length

EG T 40 3 0 0 0 0 0 0 0 2200
Pos. 1 2 3 4 5 6 7

Sample ordering code:
EGT40 with acme right/left thread, standard body profile, 2 top carriage, one shaft on righthand side, 18x4 screw, 1910 mm stroke

