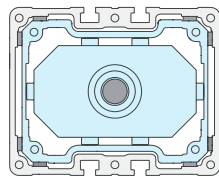


Industrial lifting actuators - product information

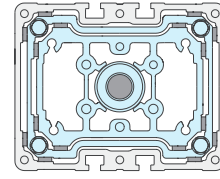
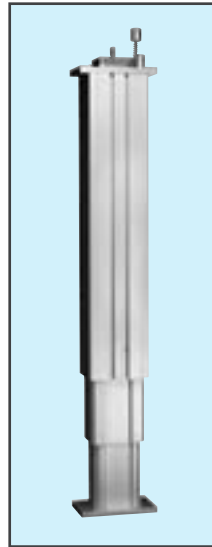
MovoZ Z2



Screw drive, sliding guide

- Telescopic movement (double profiles)
- Can be installed in any desired direction
- Built in end of stroke limit switches
- Short retracted length
- High load
- High side load capacity
- Space-saving
- High torsion strength

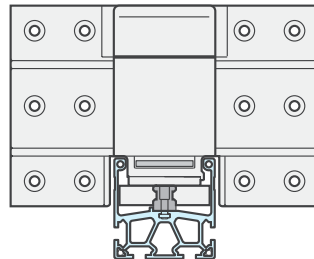
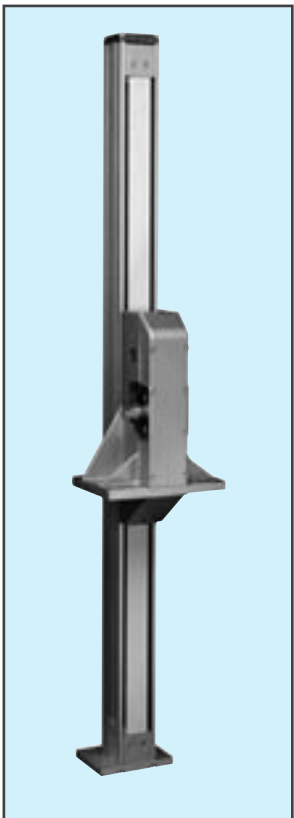
MovoZ Z3



Screw drive, sliding guide

- Telescopic movement (triple profiles)
- Only for lifting applications
- Very short retracted length
- High load
- High side load capacity
- Space-saving
- High torsion strength

MovoZ ZB



Belt drive, ball guide

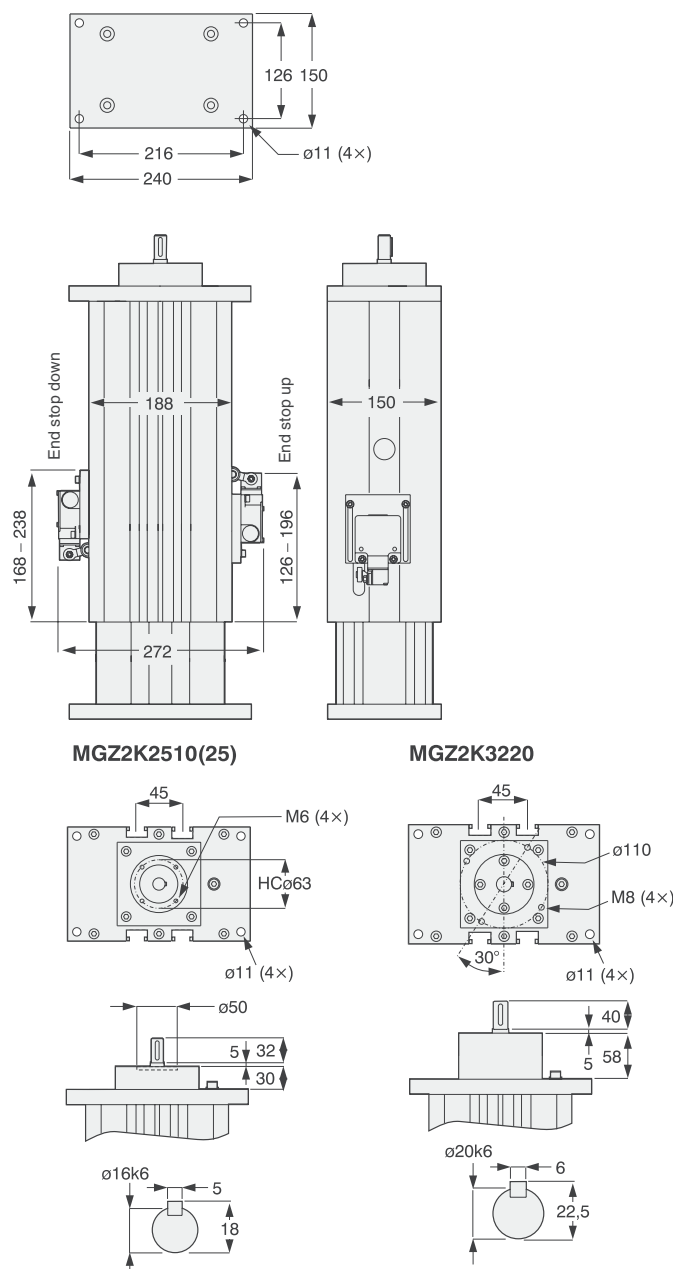
- Movement along the Z-axis
- High side load capacity
- High speed
- Low friction
- Silent
- No stick-slip
- Space-saving

MovoZ Z2

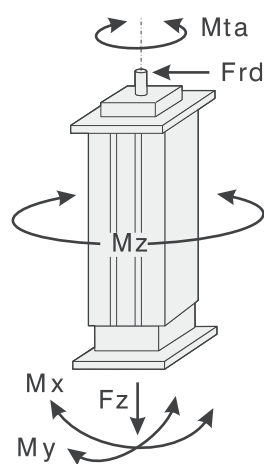
Technical data

	Z2		
Designation	MGZ2K2510	MGZ2K2525	MGZ2K3220
Max. stroke Smax [m]	1,5	1,5	1,5
Max. length Lmax [m]	4000	4000	4000
Max. speed [m/s]	0,5	1	1
Max. input speed [rpm]	3000	2400	3000
Temperature range [°C]	-20 – +70	-20 – +70	-20 – +70
Weight [kg] (Lmin in cm)	9,5 + 0,25 × Lmin	9,5 + 0,25 × Lmin	13 + 0,28 × Lmin
Max. load Fz [N]	5000	5000	7500
Max. load torque Mx [Nm]	700	700	700
Max. load torque My [Nm]	700	700	700
Max. load torque Mz [Nm]	330	330	330
Max. torque Mta [Nm]	45	45	93
Max. force Frd [N]	1000	1000	1200
Screw diameter [mm]	25	25	32
Screw lead [mm/rev.]	10	25	20
Repeatability [± mm]	0,1	0,1	0,1
Resolution [mm]	0,1	0,1	0,1

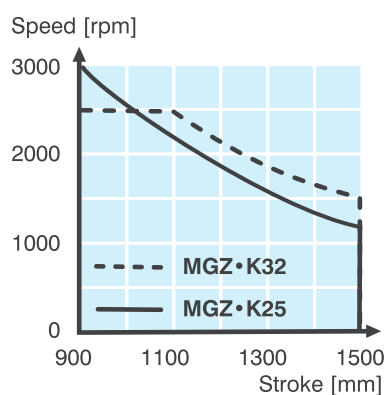
Dimensions



Forces



Critical speed

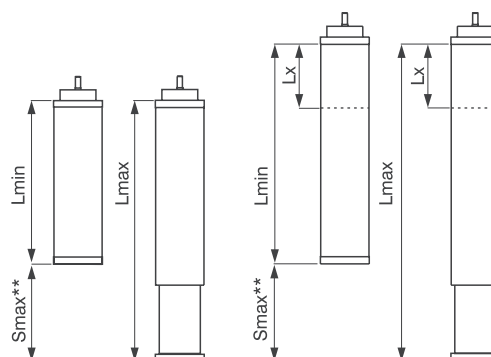


Ordering length in millimetres

		Min. retracted length	Max. extended length
Z2	MGZ2K	$L_{min} = S_{max} + 380 + Lx^*$	$L_{max} = L_{min} + S_{max}$

* Lx = optional extra length which makes the unit longer but does not add to the stroke.
** Smax = maximum stroke between the mechanical stops of the unit (theoretical stroke).
Safe stroke is normally 100 mm shorter (practical stroke).

Standard version Elongated version

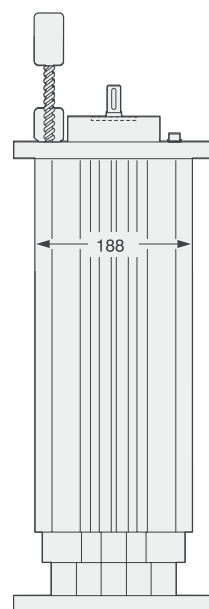
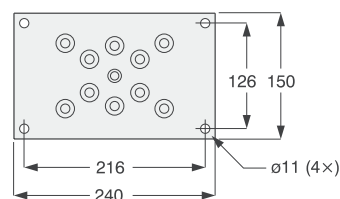


MovoZ Z3

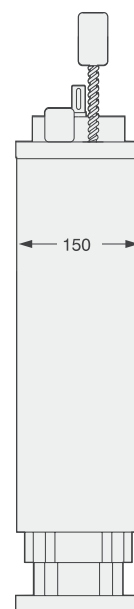
Technical data

	Z3		
Designation	MGZ3K2510	MGZ3K2525	MGZ3K3220
Max. stroke Smax [m]	1,5	1,5	1,5
Max. length Lmax [m]	4000	4000	4000
Max. speed [m/s]	0,5	1	1
Max. input speed [rpm]	3000	2400	3000
Temperature range [°C]	-20 – +70	-20 – +70	-20 – +70
Weight [kg] (Lmin in cm)	14 + 0,42 × Lmin	14 + 0,42 × Lmin	15 + 0,45 × Lmin
Max. load Fz [N]	5000	5000	7500
Max. load torque Mx [Nm]	2000	2000	2000
Max. load torque My [Nm]	2000	2000	2000
Max. load torque Mz [Nm]	330	330	330
Max. torque Mta [Nm]	45	45	93
Max. force Frd [N]	1000	1000	1200
Screw diameter [mm]	25	25	32
Screw lead [mm/rev.]	10	25	20
Repeatability [± mm]	0,1	0,1	0,1
Resolution [mm]	0,1	0,1	0,1

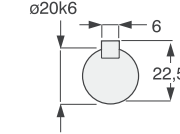
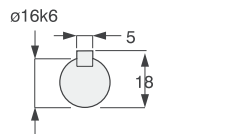
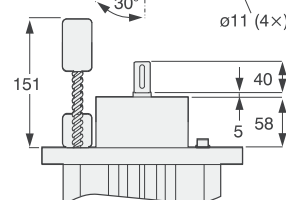
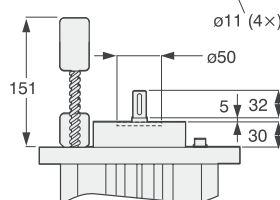
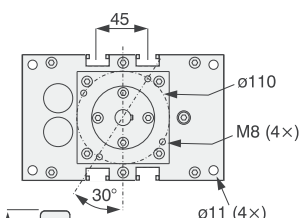
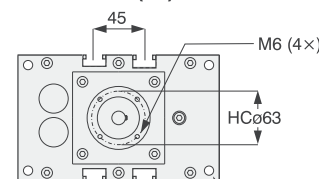
Dimensions



MGZ3K2510(25)



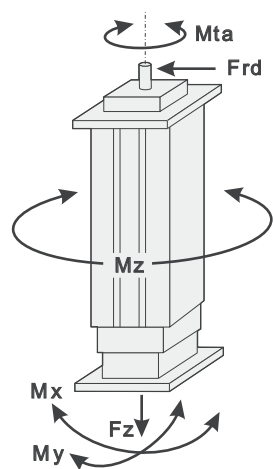
MGZ3K3220



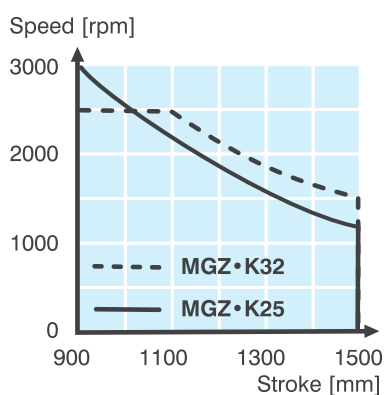
Standard version

Elongated version

Forces



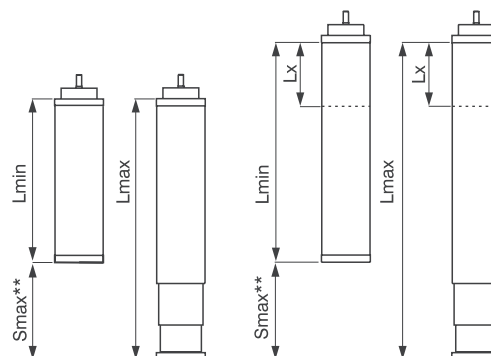
Critical speed



Ordering length in millimetres

		Min. retracted length	Max. extended length
Z3	MGZ3K	$L_{min} = S_{max} + L_{x^*} + 170$	$L_{max} = 2 \times S_{max} + L_{x^*} + 170$

* Lx = optional extra length which makes the unit longer but does not add to the stroke.
 ** Smax = maximum stroke between the mechanical stops of the unit (theoretical stroke).
 Safe stroke is normally 100 mm shorter (practical stroke).

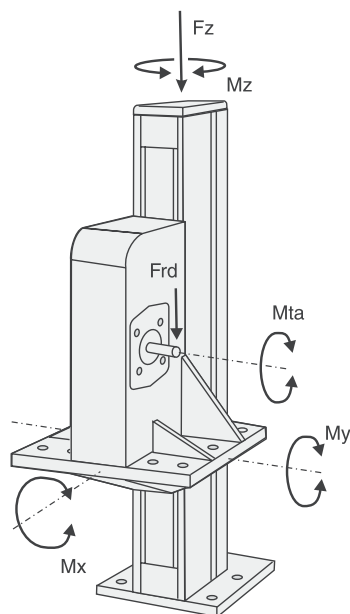


MovoZ ZB

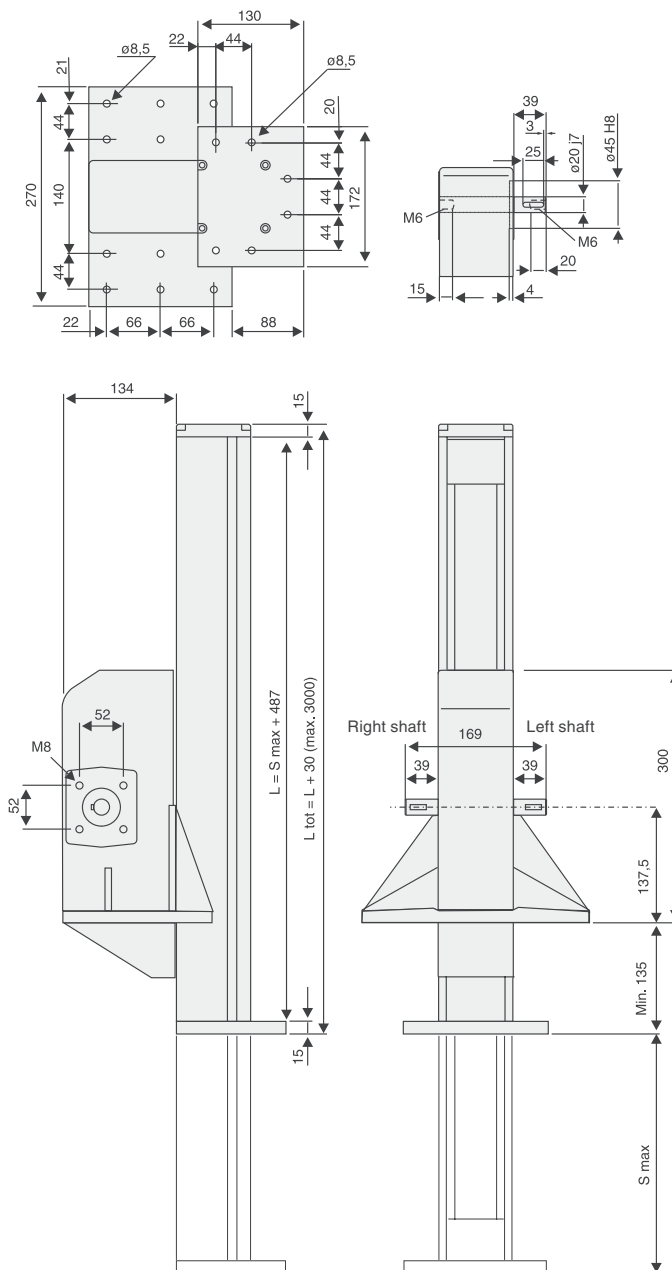
Technical data

	ZB
Designation	MF-ZB
Max. stroke [m]	2,5
Max. speed [m/s]	3
Max. input speed [rpm]	900
Temperature range [°C]	-20 – +70
Weight (L in m) [kg]	11,3 + 8,6 × L
Weight lift profile [kg]	8,6 × L
Max. load Fz [N]	500
Max. load torque Mx [Nm]	700
Max. load torque My [Nm]	700
Max. load torque Mz [Nm]	80
Max. torque Mta [Nm]	34
Max. force Frd [N]	600
Move [mm/rev.]	200
Belt weight [kg/m belt]	0,56
Repeatability [± mm]	0,1
Resolution [mm]	0,2

Forces



Dimensions



Ordering length in millimetres

Model	Designation	Total length	Length to order
		L tot	L
ZB	MF-ZB	L tot = L + 30	L = S max + 487

Ordering keys

MovoZ Z2, Z3

Designation example	M	G	Z3	K	25109	250	450
Unit type Linear unit	M						
Guide type Sliding guide		G					
Size Z2 Z3			Z2 Z3				
Drive type Ball screw and ball nut				K			
Screw diameter / screw lead / tolerance class 25 mm / 10 mm / T9 25 mm / 25 mm / T9 32 mm / 20 mm / T7					25109 25259 32207		
Minimum retracted length in cm (L min.)						...	
Maximum extended length in cm (L max.)							...

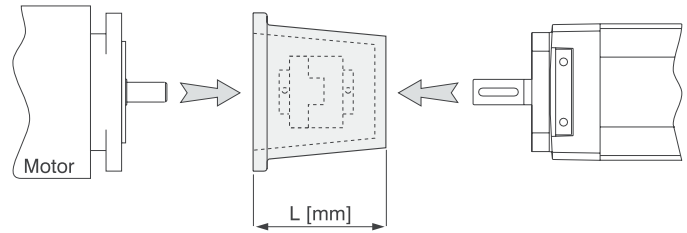
MovoZ ZB

Designation example	M	F	-Z	B	200	A00	X	150
Unit type Linear unit	M							
Guide type Prism guide		G						
Size ZB			-Z					
Drive type Belt drive				B				
Saddle movement per drive shaft revolution ZB = 200 mm					200			
Saddle type Standard saddle						A00		
Drive shaft configuration Shaft on both sides Shaft on left side Shaft on right side							X Q R	
Ordering length in cm (L)								...

Flanges and gears

Bell house flange

Bell houses are used when the motor shall drive the actuator directly without any gear in between. The bell house includes a coupling that match the selected motor/lifting actuator combination.

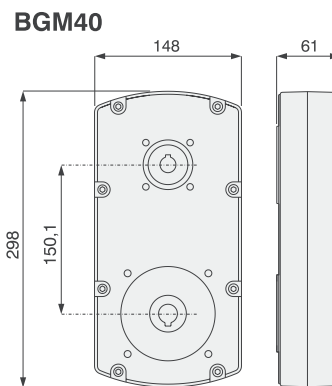
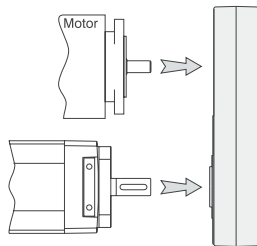


Part number table

	Motor size											
	IEC 63 B14	L	IEC 71 B14	L	IEC 80 B14	L	IEC 90 B14	L	Servo 80	L	Servo 90	L
ZB			D390 827	86	D390 828	96	D390 829	106	D390 830	86	D390 831	96

Belt gear type BGM

The belt gear is installed directly on to the shafts of the motor and the actuator. No couplings are required. The belt gears are maintenance free.



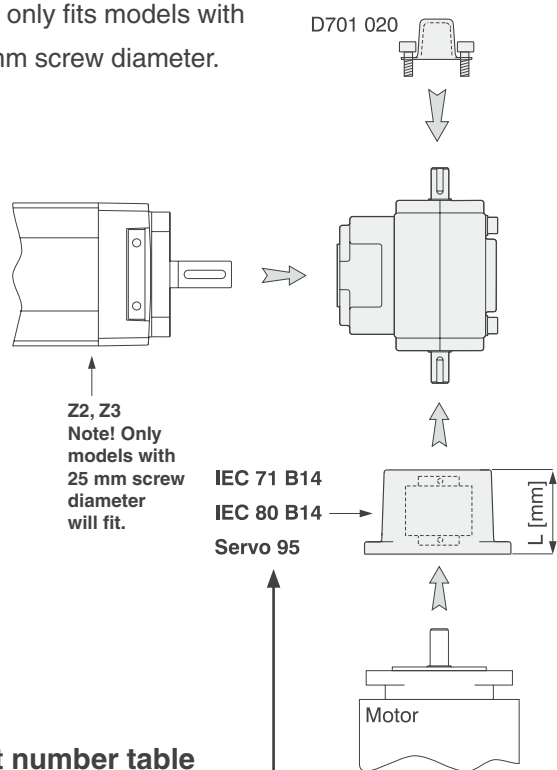
Ordering key

Example:	BGM40-	2	-KK	080	P	07
Gear ratio		1	2	3		
1,00		1				
2,14		2				
3,00		3				
Motor size			071	080	S80	S95
IEC 71 B14			071			
IEC 80 B14			080			
Servo 80			S80			
Servo 95			S95			
Linear drive unit						07
Z2 (only models with 25 mm screw diameter)						07

Flanges and gears

Worm gear type TBS40

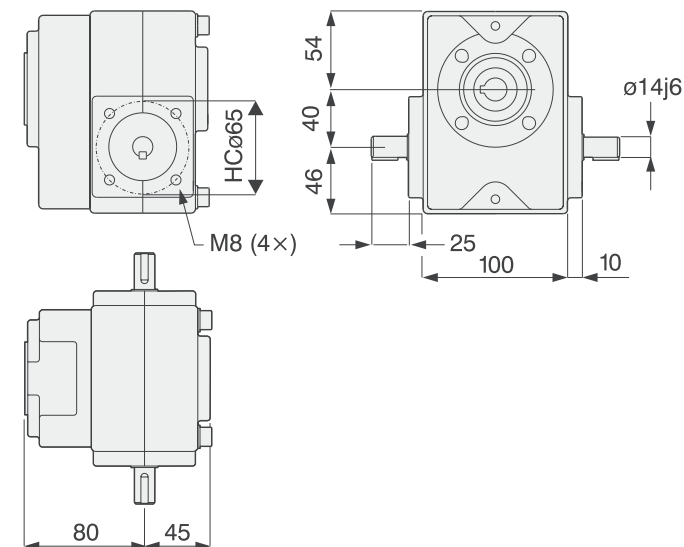
The worm gear is installed directly to the unit while the motor has to be installed to an intermediate bell house flange which includes a matching coupling. The gear and the bell house are ordered separately. Note! The worm gear only fits models with 25 mm screw diameter.



Part number table for bell house

Bell house		
IEC 71 B14	IEC 80 B14	Servo 95
L = 58	L = 68	L = 78
D701 011	D701 015	D389 825

TBS40



Ordering key for worm gear TBS40

Example: TBS40- 5,5 -216

Gear ratio	
3	3
5,5	5,5
7,5	7,5
10	10
15	15
20	20
24	24
30	30
40	40
48	48
60	60

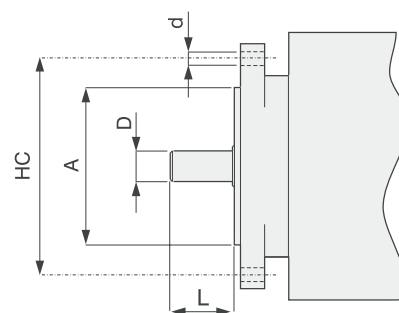
Motor size table



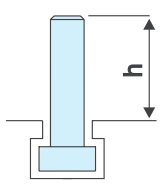
Keep in mind that heavy motors will need extra support in order not to break the flange or gear due to the load torque created.

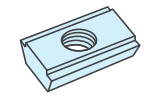
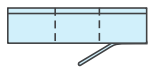
Motor size	A	D	L	HC	d
IEC 63 B14	60	11	23	75	M5
IEC 71 B14	70	14	30	85	M6
IEC 80 B14	80	19	40	100	M6
IEC 90 B14	95	24	50	115	M8
IEC 100/112 B14	110	28	60	130	M8
Servo 80*	80	14	30	100	ϕ 7
Servo 95*	95	19	40	115	ϕ 9
Servo A200	130	24	50	165	ϕ 11

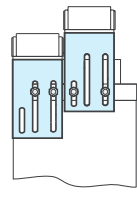
* Measures according to DIN 42950.



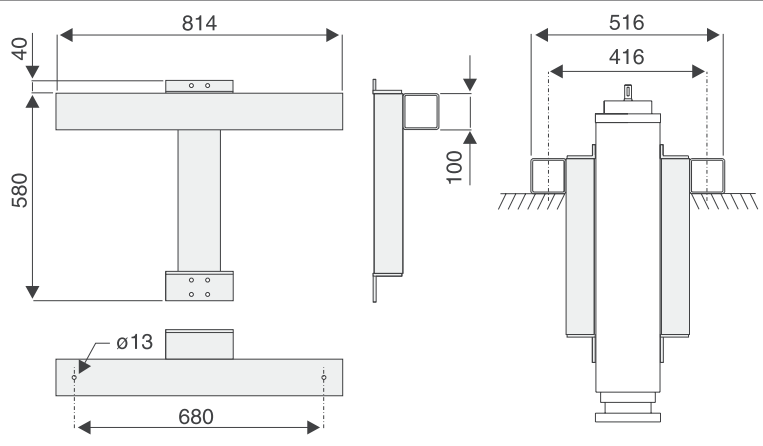
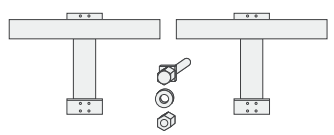
Accessories and mounting kits

T-slot bolts	Z2/Z3
	M10, h = 28 D800 089

T-slot nuts	ZB
	M6 D900 151
	M8 D900 150

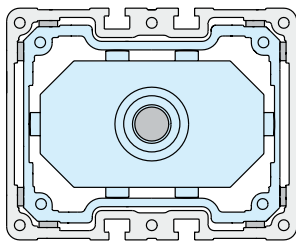
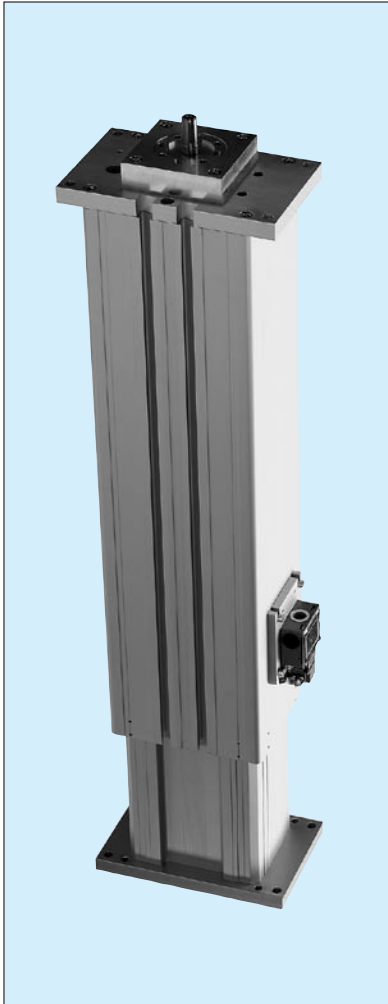
Limit switch bracket*	Z3
	D800 042

* Suitable limit switch: Telemecanique XCK-M115 (XCM-A115 for M50).

Z2 and Z3 mounting frame	
	Z2/Z3
	D800 250

MovoZ - general product information

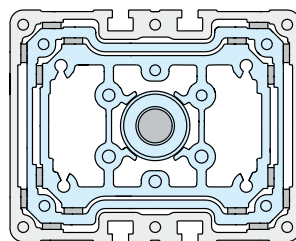
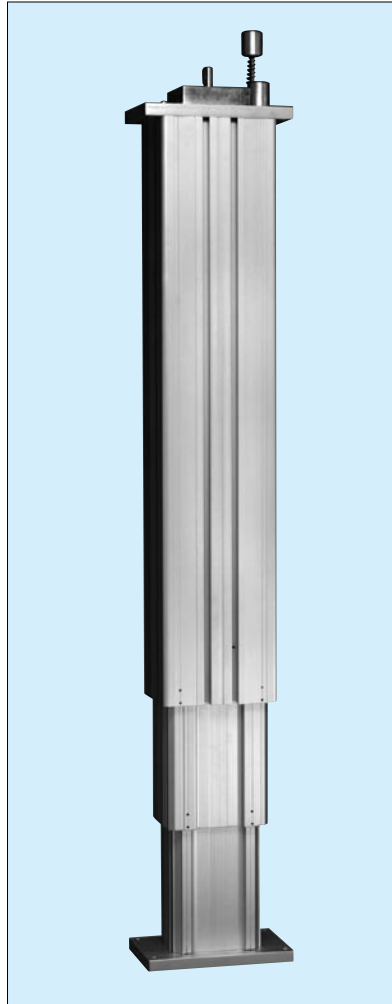
MovoZ Z2



Screw drive, sliding guide

- Telescopic movement (double profiles)
- Can be installed in any desired direction
- Built in end of stroke limit switches
- Short retracted length
- High load
- High side load capacity
- Space-saving
- High torsion strength

MovoZ Z3



Screw drive, sliding guide

- Telescopic movement (triple profiles)
- Only for lifting applications
- Very short retracted length
- High load
- High side load capacity
- Space-saving
- High torsion strength

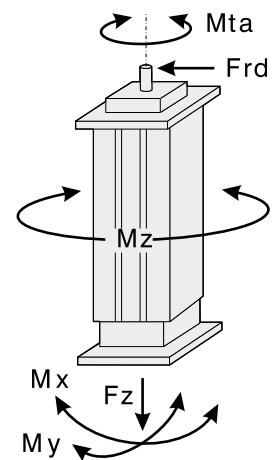
MovoZ Z2

General

Parameters	MGZ2K2510	MGZ2K2525	MGZ2K3220
Max. input speed (rpm)	3000	2400	3000
Ambient temperature (°C)	-20 to 70	-20 to 70	-20 to 70
Weight (kg)	9,5 + 0,25 × L min.	9,5 + 0,25 × L min.	13 + 0,28 × L min.

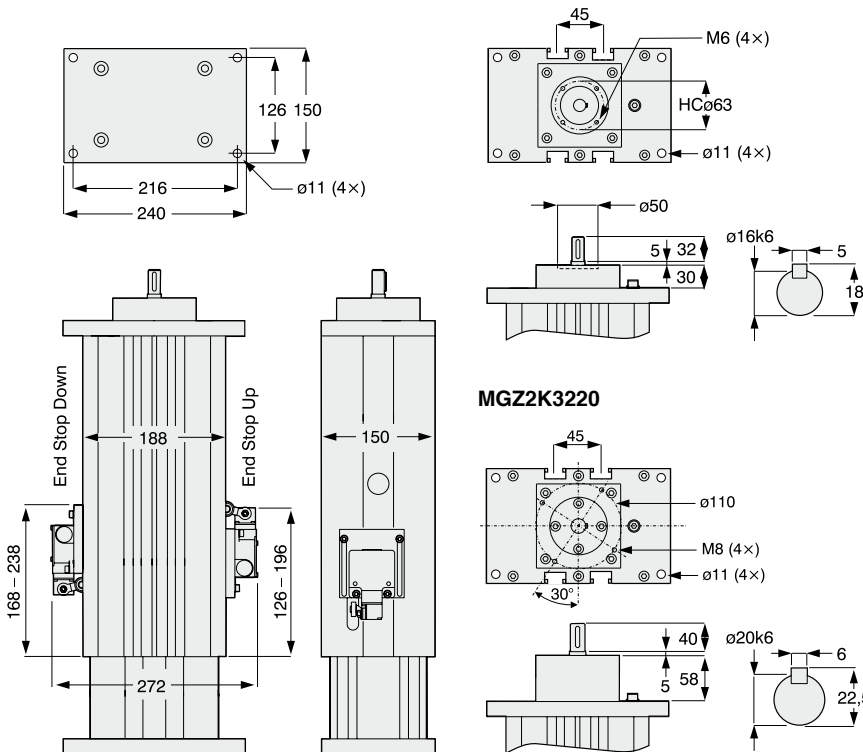
Load capacity

Parameters	MGZ2K2510	MGZ2K2525	MGZ2K3220
Max. stroke (m)	1,5	1,5	1,5
Fz max. (N)	5000	5000	7500
L max. (mm)	4000	4000	4000
Mx max. (Nm)	700	700	700
My max. (Nm)	700	700	700
Mz max. (Nm)	330	330	330
Mta max. (Nm)	45	45	93
Frd max. (N)	1000	1000	1200
Max. speed (m/s)	0,5	1,0	1,0
Repeatability (±mm)	0,1	0,1	0,1
Screw lead (mm/rev.)	10	25	20
Screw diameter (mm)	25	25	32

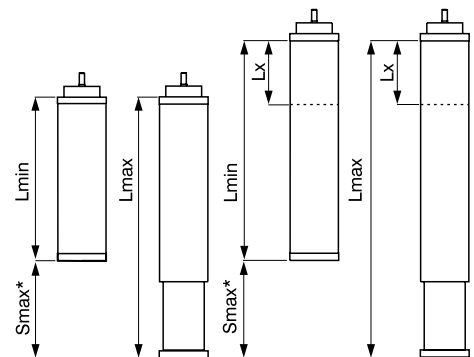


Dimensions

Designation: MGZ2K MGZ2K2510(25)



Standard version Elongated version



* Smax = maximum stroke between the mechanical stops of the unit (theoretical stroke). Safe stroke is normally about 100 mm shorter (practical stroke).

Ordering length (all dimensions in cm)

Min. retracted length	Max. extended length
$L_{min} = S_{max} + L_x^{**} + 38$	$L_{max} = L_{min} + S_{max}$

** Lx = optional extra length which makes the unit longer but does not add to the stroke.

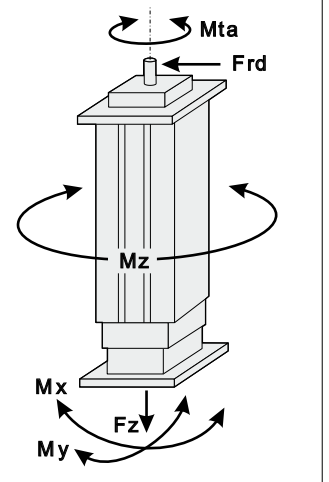
MovoZ Z3

General

Parameters	MGZ3K2510	MGZ3K2525	MGZ3K3220
Max. input speed (rpm)	3000	2400	2500
Ambient temperature (°C)	-20 to 70	-20 to 70	-20 to 70
Weight (kg)	14 + 0,42 × L min.	14 + 0,42 × L min.	15 + 0,45 × L min.

Load capacity

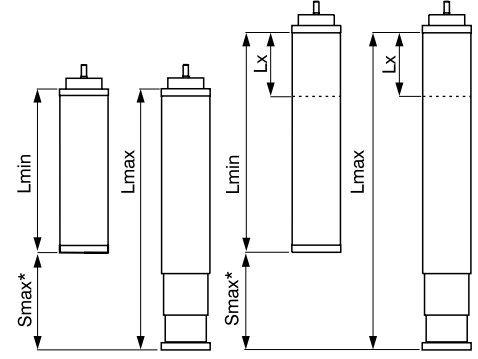
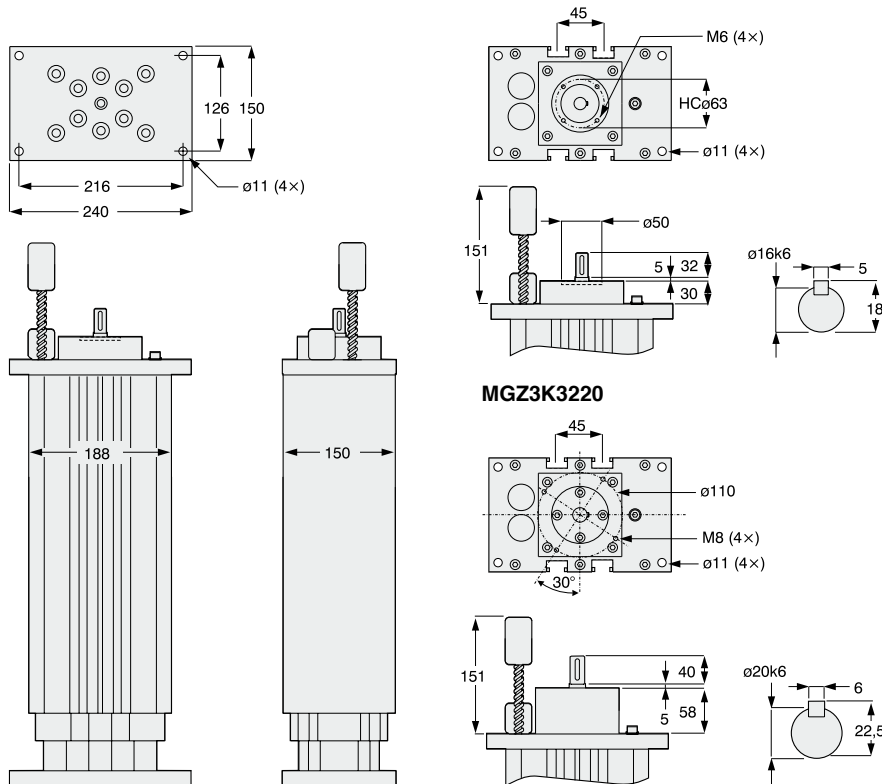
Parameters	MGZ3K2510	MGZ3K2525	MGZ3K3220
Max. stroke (m)	1,5	1,5	1,5
Fz max. (N)	5000	5000	7500
L max. (mm)	4000	4000	4000
Mx max. (Nm)	2000	2000	2000
My max. (Nm)	2000	2000	2000
Mz max. (Nm)	330	330	330
Mta max. (Nm)	45	45	93
Frd max. (N) 1000	1000	1000	1200
Max. speed (m/s)	0,5	1,0	0,8
Repeatability (±mm)	0,1	0,1	0,1
Screw lead (mm/rev.)	10	25	20
Screw diameter (mm)	25	25	32



Dimensions

Designation: MGZ3K MGZ3K2510(25)

Standard version Elongated version



* Smax = maximum stroke between the mechanical stops of the unit (theoretical stroke). Safe stroke is normally about 100 mm shorter (practical stroke).

Ordering length (all dimensions in cm)

Min. retracted length	Max. extended length
$L_{min} = S_{max} + L_{x^{**}} + 17$	$L_{max} = 2 \times S_{max} + L_{x^{**}} + 17$

** Lx = optional extra length which makes the unit longer but does not add to the stroke.

Designation information

MovoZ Z2 and Z3

Designation example	M	G	Z3	K	25109	250	450
Unit type Linear unit	M						
Guide type Sliding guide		G					
Size Z2 Z3			Z2 Z3				
Drive type Ball screw and ball nut				K			
Screw diameter / screw lead / tolerance class 25 mm / 10 mm / T9 25 mm / 25 mm / T9 32 mm / 20 mm / T7					25109 25259 32207		
Minimum retracted length in cm (L min.)						...	
Maximum extended length in cm (L max.)							...

Flanges and gears

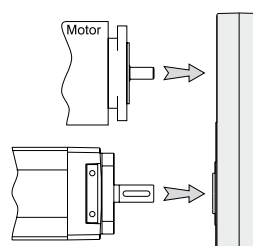
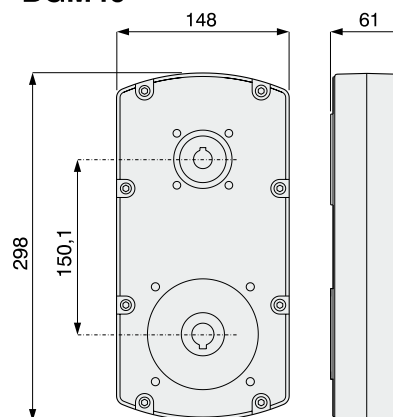
Belt gear type BGM40

The belt gear is installed directly on to the shafts of the motor and the actuator. No couplings are required. The belt gears are maintenance free.

Ordering key

Example:	BGM40-	2	-KK	080	P	07
Gear ratio 1,00 2,14 3,00		1 2 3				
Motor size IEC 71 B14 IEC 80 B14 Servo 80 Servo 95			071 080 S80 S95			
Linear drive unit Z2 (only models with 25 mm screw diameter)						07

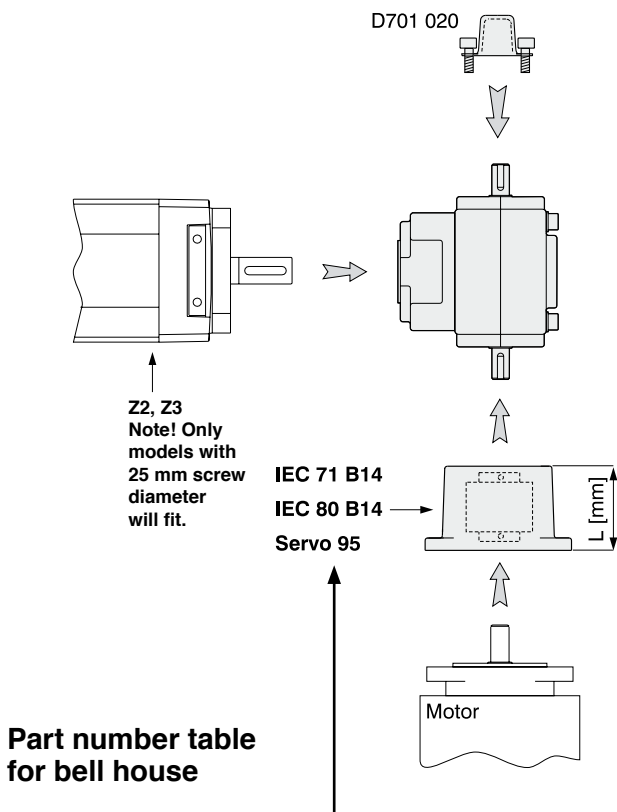
BGM40



Flanges and gears

Worm gear type TBS40

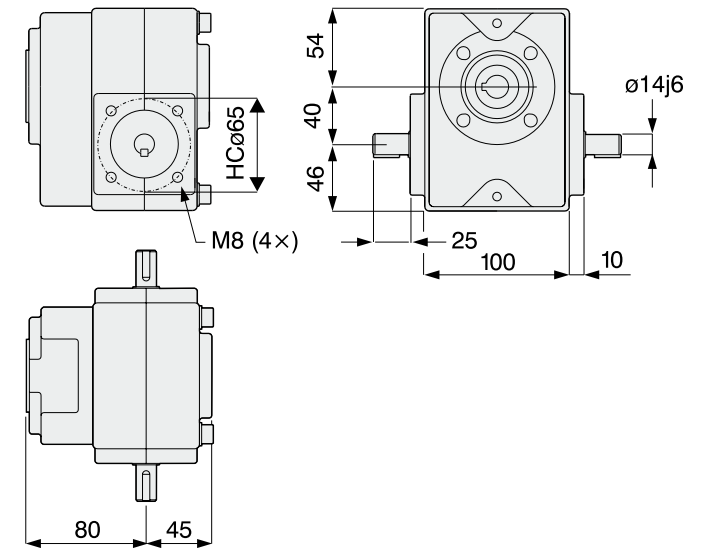
The worm gear is installed directly to the unit while the motor has to be installed to an intermediate bell house flange which includes a matching coupling. The gear and the bell house are ordered separately. Note! The worm gear only fits models with 25 mm screw diameter.



Part number table for bell house

Bell house		
IEC 71 B14	IEC 80 B14	Servo 95
L = 58	L = 68	L = 78
D701 011	D701 015	D389 825

TBS40



Ordering key for worm gear TBS40

Example: TBS40- 5,5 -216

Gear ratio	
3	3
5,5	5,5
7,5	7,5
10	10
15	15
20	20
24	24
30	30
40	40
48	48
60	60

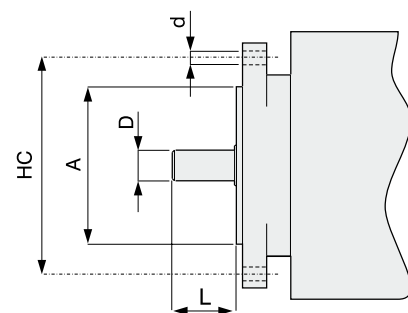
Motor size table



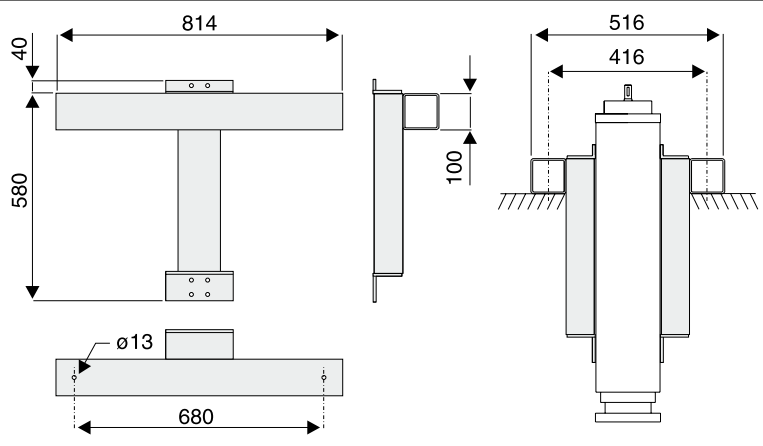
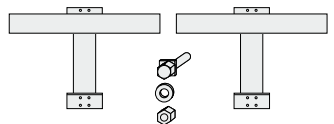
Keep in mind that heavy motors will need extra support in order not to break the flange or gear due to the load torque created.

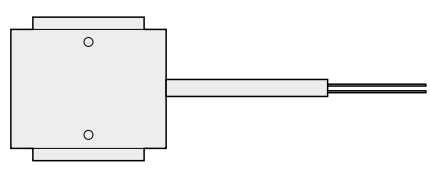
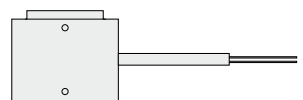
Motor size	A	D	L	HC	d
IEC 63 B14	60	11	23	75	M5
IEC 71 B14	70	14	30	85	M6
IEC 80 B14	80	19	40	100	M6
IEC 90 B14	95	24	50	115	M8
IEC 100/112 B14	110	28	60	130	M8
Servo 80*	80	14	30	100	ø7
Servo 95*	95	19	40	115	ø9
Servo A200	130	24	50	165	ø11

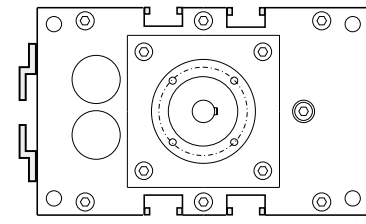
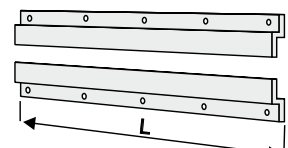
* Measures according to DIN 42950.

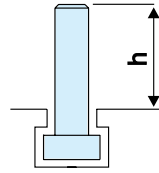


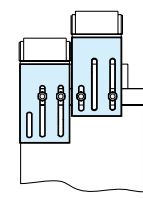
Accessories and mounting kits

Z2 and Z3 mounting frame 	
Z2/Z3	
	D800 250

Magnetic sensor 		
Max. power: 10 W Max. voltage: 100 Vdc Max. current: 0,5 A Lead data: 2 x 0,12 mm ²		
Z2/Z3		
	Normally open D535 070	Normally closed D535 071

Mounting rail for magnetic sensor 	
Z2/Z3	
	L = 1000 D800 223

T-slot bolts 		Z2/Z3
		M10 h = 28 D800 089

Limit switch bracket* 		Z3
		D800 042

* Suitable limit switch: Telemecanique XCK-M115