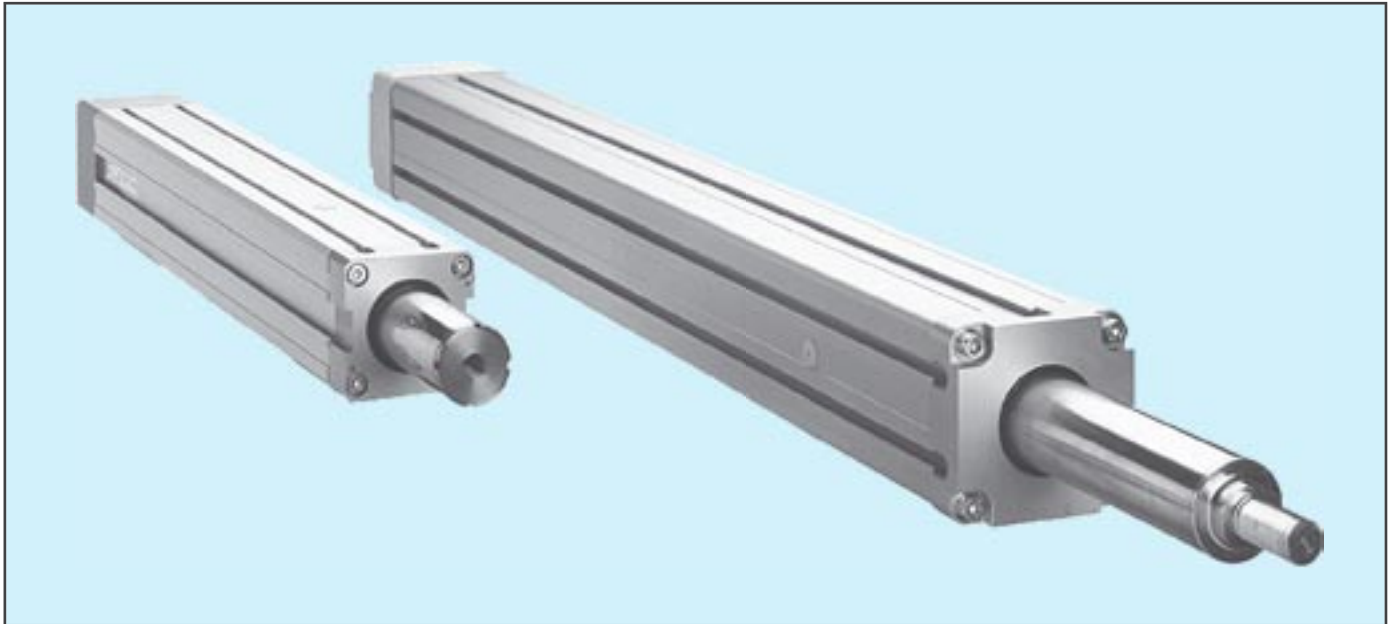


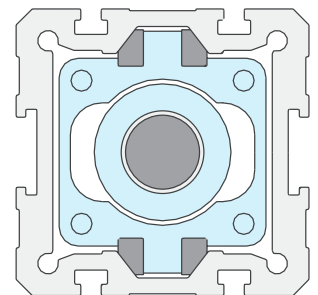
Precision actuators - product information

Precision actuators T90 and T130



Screw drive, sliding guide

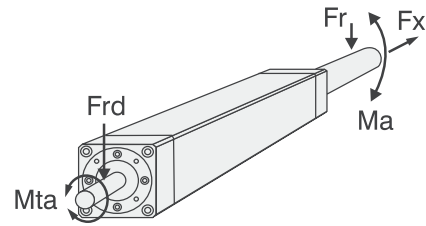
- Hard-chromed extension tube
- High load
- High speed
- 100% duty cycle
- Push or pull operation
- High sealing degree
- Extension tube anti rotation mechanism
- Resistant to shock loads and vibrations
- Silent
- Lubricated for life
- T-slot for magnetic sensor



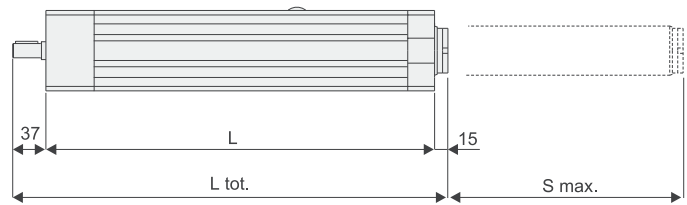
Technical data

	LA90	
	LA09-B2510	LA09-B2525
Designation	LA09-B2510	LA09-B2525
Max. stroke [m]	1,5	1,5
Max. speed [m/s]	0,5	1,25
Max. input speed [rpm]	3000	3000
Temperature range [°C]	-20 – +70	-20 – +70
Weight (L in m) [kg]	4 + 16,2 × L	4 + 16,2 × L
Weight extension tube [kg]	5,5 × L	5,5 × L
Max. load Fx [N]	10000	10000
Max. load Fr [N]	60	60
Max. torque Mta [Nm]	35	35
Max. force Frd [N]	800	800
Screw diameter [mm]	25	25
Screw lead [mm/revolution]	10	25
Repeatability [± mm]	0,05	0,05
Resolution [mm]	0,1	0,1

Forces

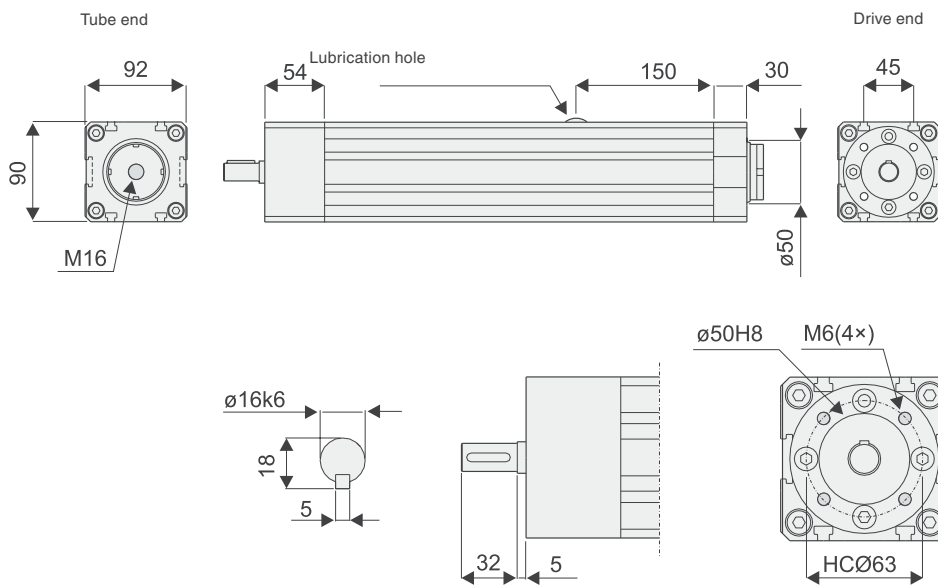


Ordering length in millimetres



Model	Designation	Total length	Length to order
		L tot	L
LA90	LA09-B	L tot = L + 52	L = S max + 195

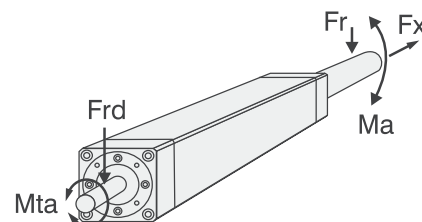
Dimensions



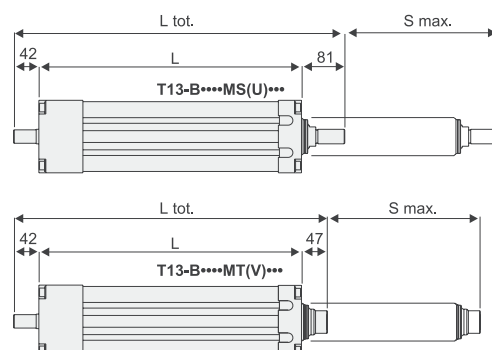
Technical data

	T130	T130	T130
Designation	T13-B4010M****	T13-B4020M****	T13-B4040M****
Max. stroke [m]	2	2	2
Max. speed [m/s]	0,4	1	2
Max. input speed [rpm]	2500	3000	3000
Temperature range [°C]	-20 – +70	-20 – +70	-20 – +70
Weight (L in m) [kg]	18,5 + (30 × (L - 0,293))	18,5 + (30 × (L - 0,293))	18,5 + (30 × (L - 0,293))
Max. dynamic load Fx [N]	40000	35000	15000
Max. static load Fx [N]	45000	45000	45000
Max. load Fr [N]	800	800	800
Max. torque Ma [Nm]	300	300	300
Max. torque Mta [Nm]	140	140	140
Max. force Frd [N]	2000	2000	2000
Screw diameter [mm]	40	40	40
Screw lead [mm/revolution]	10	20	40
Repeatability [± mm]	0,05	0,05	0,05
Resolution [mm]	0,1	0,1	0,1

Forces

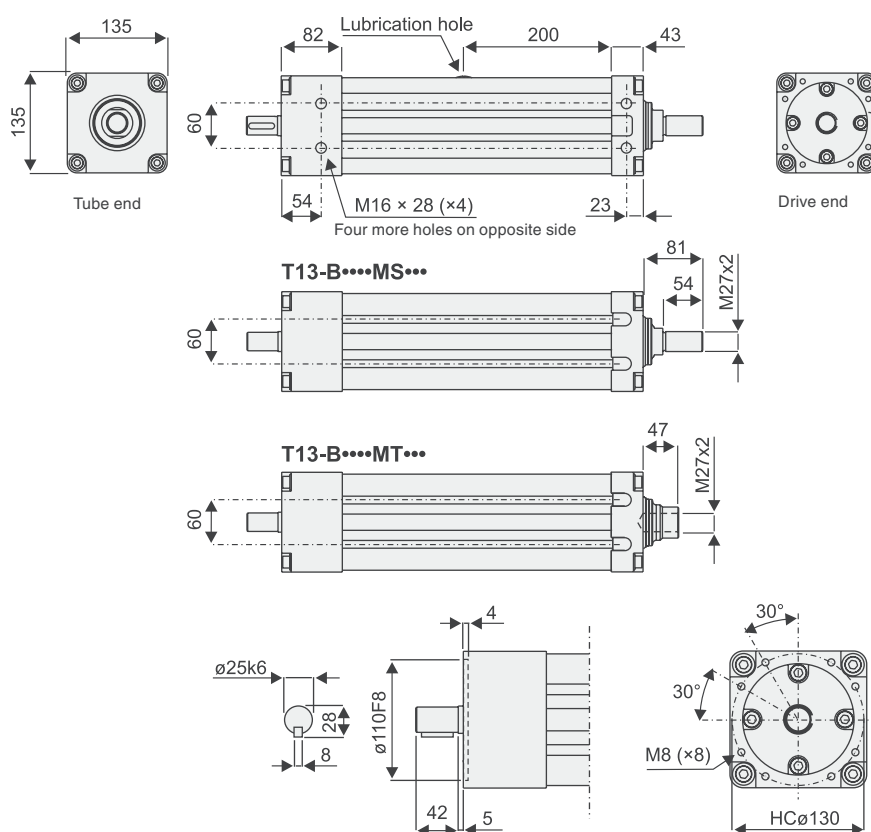


Ordering length in millimetres



Designation	Total length	Length to order
T13-B****MS(U)***	L tot. = L + 123	L = S max. + 293
T13-B****MT(V)***	L tot. = L + 89	L = S max. + 293

Dimensions



Ordering keys

T90

Designation example	T	09	-	B	2525	M	450
Unit type Linear actuator	T						
Size 90		09					
Hyphen			-				
Drive type Ball screw and ball nut				B			
Screw diameter / screw lead 25 mm / 10 mm 25 mm / 25 mm					2510 2525		
Engineering unit Metric						M	
Ordering length in cm (L)							...

T130

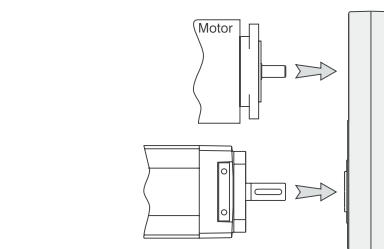
Designation example	T	13	-	B	4010	M	S	520
Unit type Linear actuator	T							
Size 130		13						
Hyphen			-					
Drive type Ball screw and ball nut				B				
Screw diameter / screw lead 40 mm / 10 mm 40 mm / 20 mm 40 mm / 40 mm					4010 4020 4040			
Engineering unit Metric						M		
Adapter type M27x2 outside thread M27x2 inside thread M33x2 outside thread M33x2 inside thread							S T U V	
Ordering length in cm (L)								...

Flanges and gears

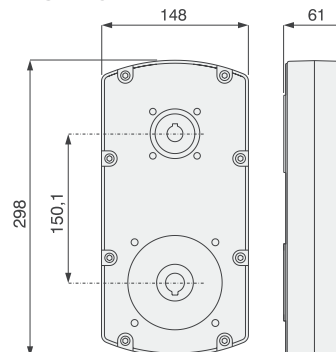
Belt gear type BGM

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.

Example:	BGM40-	2	-KK	080	P	-C
Gear ratio		1				
1,00		1				
2,14		2				
3,00		3				
Motor size						
IEC 71 B14				071		
IEC 80 B14				080		
Servo 80				S80		
Servo 95				S95		
Matching actuator type						09
T90						09

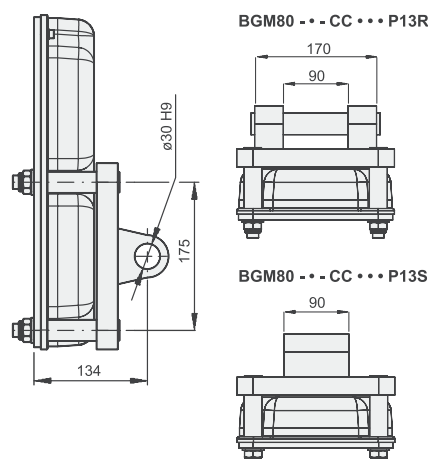
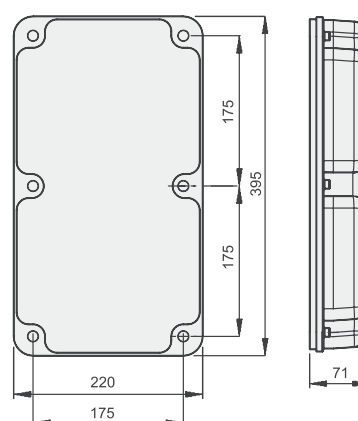


BGM40



Example:	BGM80-	2	-CC	090	P	13	X
Gear ratio		1					
1,00		1					
2,25		2					
3,13		3					
Motor size							
IEC 90 B14				090			
IEC 100/112 B14				100			
Servo A200				A20			
Matching actuator type						13	
T130						13	
Mounting option							X
No option							R
Clevis, double pin holders							S
Clevis, single pin holder							S

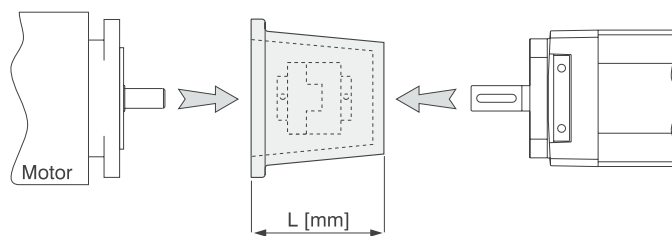
BGM80



Flanges and gears

Bell house flange

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

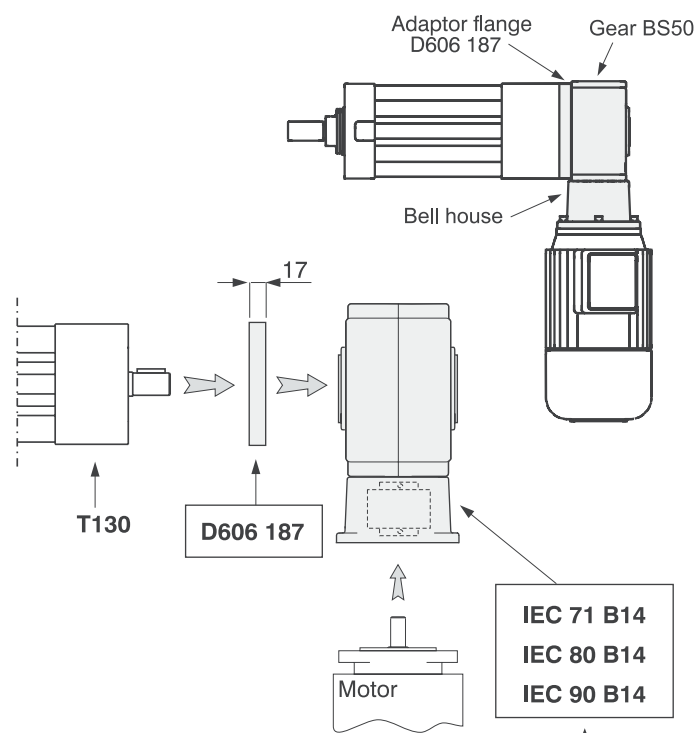


Part number table

	Motor size													
	IEC 71 B14	L	IEC 80 B14	L	IEC 90 B14	L	IEC 100/112 B14	L	Servo 80	L	Servo 90	L	Servo A200	L
T90	D390 823	83	D390 824	93	D390 825	103			D390 832	83	D390 826	93		
T130					D606 180	115	D606 181	125					D606 182	115

Worm gear type BS50

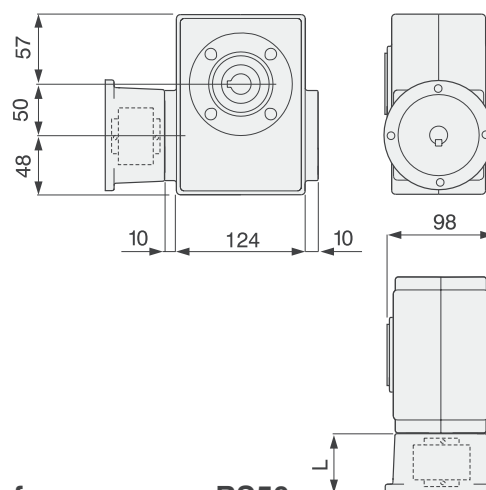
The worm gear is installed to the T130 actuator by an adaptor flange while the motor is installed to a bell house flange which includes a matching coupling. The complete worm gear box includes the gear box, a bell house flange and a coupling while the adaptor flange are ordered separately.



Bell house sizes

Bell house		
IEC 71 B14	IEC 80 B14	IEC 90 B14
L = 78	L = 88	L = 98

BS50



Ordering key for worm gear BS50

Example: BS50- 10,5 -71

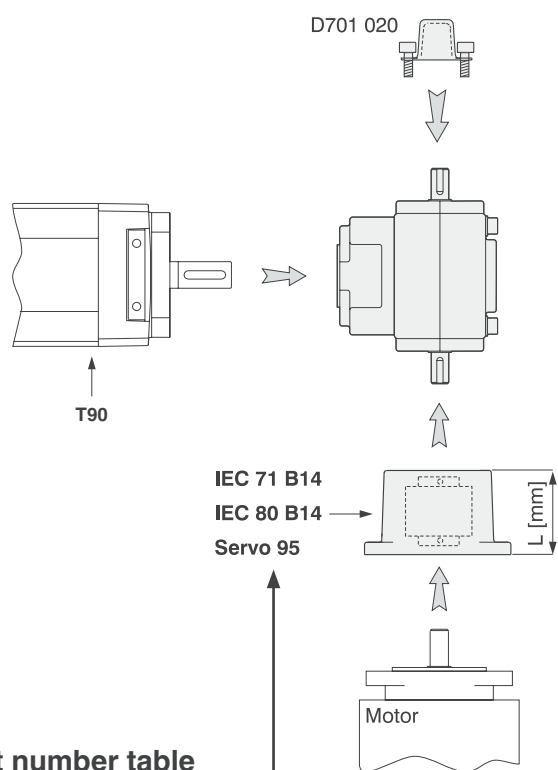
Gear ratio	
8	8
10,5	10,5
14	14
21	21
24	24
32	32
37	37
42	42
54	54
64	64
81	81

Bell house size	
IEC 71 B14	-71
IEC 80 B14	-80
IEC 90 B14	-90

Flanges and gears

Worm gear type TBS40

The worm gear is installed directly to the T90 actuator 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.



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

Motor size table

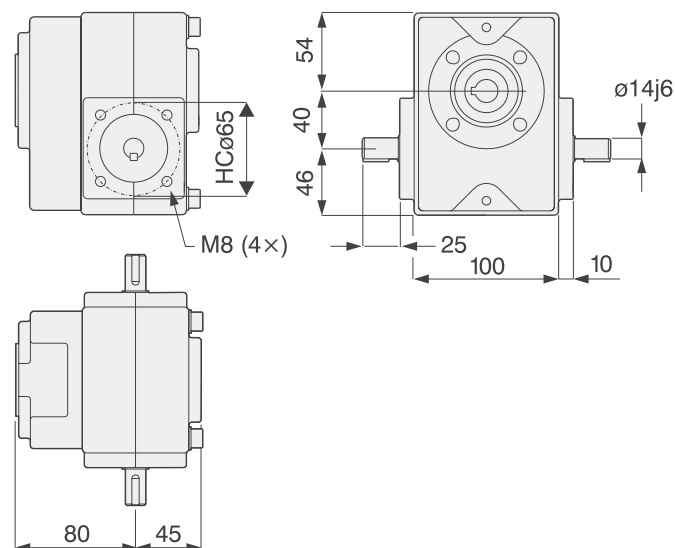


Keep in mind that heavy motors will need extra support in order not to break the flange or gear due to the load torque created.

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.

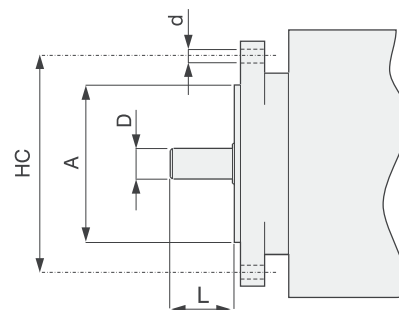
TBS40



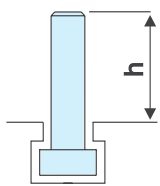
Ordering key for worm gear TBS40

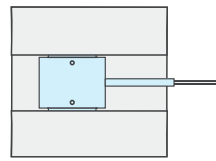
Example: TBS40- 5,5 -216

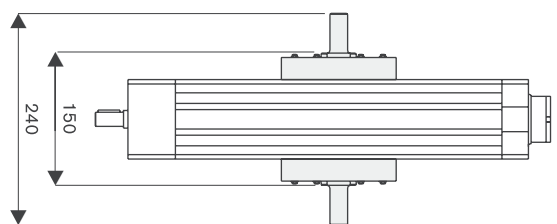
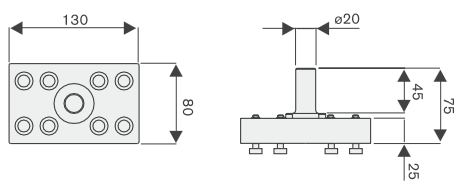
Gear ratio	
3	3
5,5	5,5
7,5	7,5
10	10
15	15
20	20
24	24
30	30
40	40
48	48
60	60

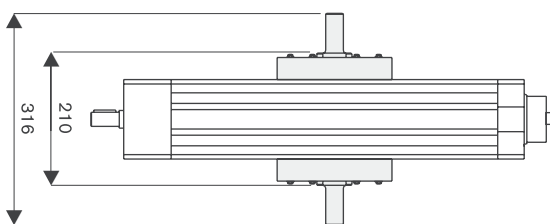
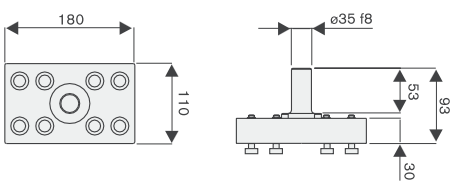


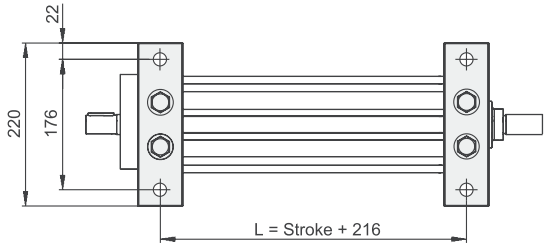
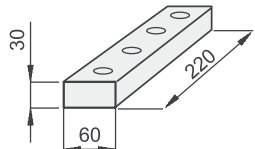
Accessories and mounting kits

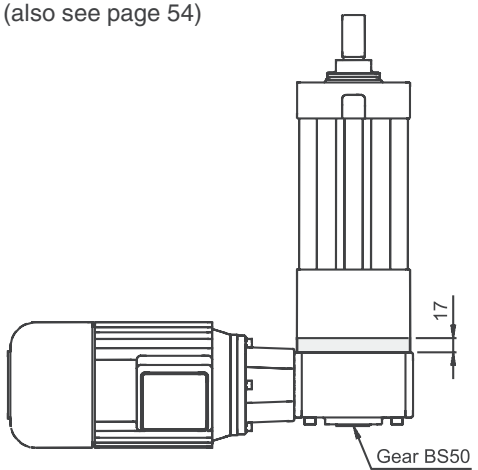
T-slot bolts 	T90/T130 M6, h = 18 D310 314
	M6, h = 26 D310 311

Magnetic sensors 	T90/T130 Max. power: 10 W Max. voltage: 100 Vdc Max. current: 0,5 A Lead data: 2x 0,12 mm ²	
	Normally open D535 070	Normally closed D535 071

T90 trunnions, pair 	T90 D606 030
	

T130 trunnions, pair 	T130 D606 155
	

T130 foot plates, pair 	T130 D606 157
	

BS50 worm gear connection interface (also see page 54) 	T130 D606 187
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