

Electric cylinder SLZ 63

Maximum flexibility,
minimum dimensions
and optimal performance



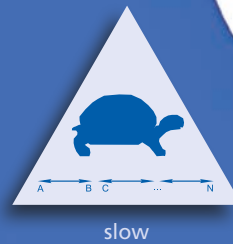
Greater application flexibility



Width, length and height adjustment

Move-Tec

continued on page 8

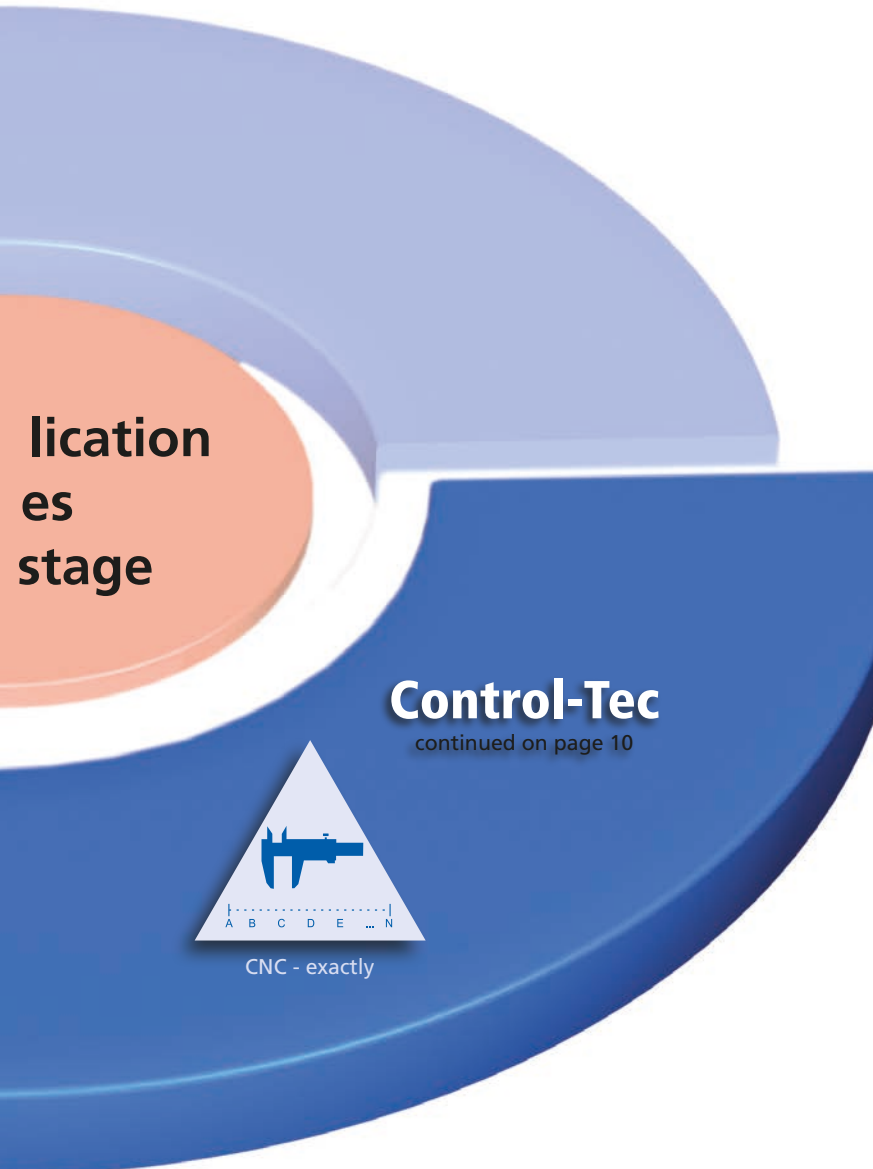


Features:

- ✓ Low adjustment speeds
- ✓ Low duty cycle
- ✓ Impact resistant
- ✓ Cost-effective applications
- ✓ High forces

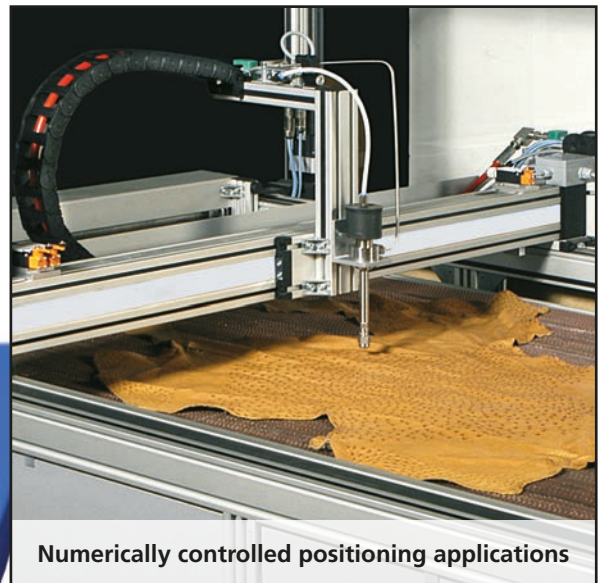
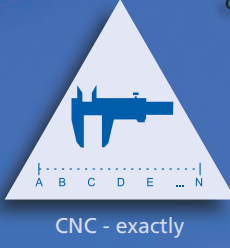
Heavy duty linear cylinder with trapezoidal screw

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Control-Tec
continued on page 10



Numerically controlled positioning applications

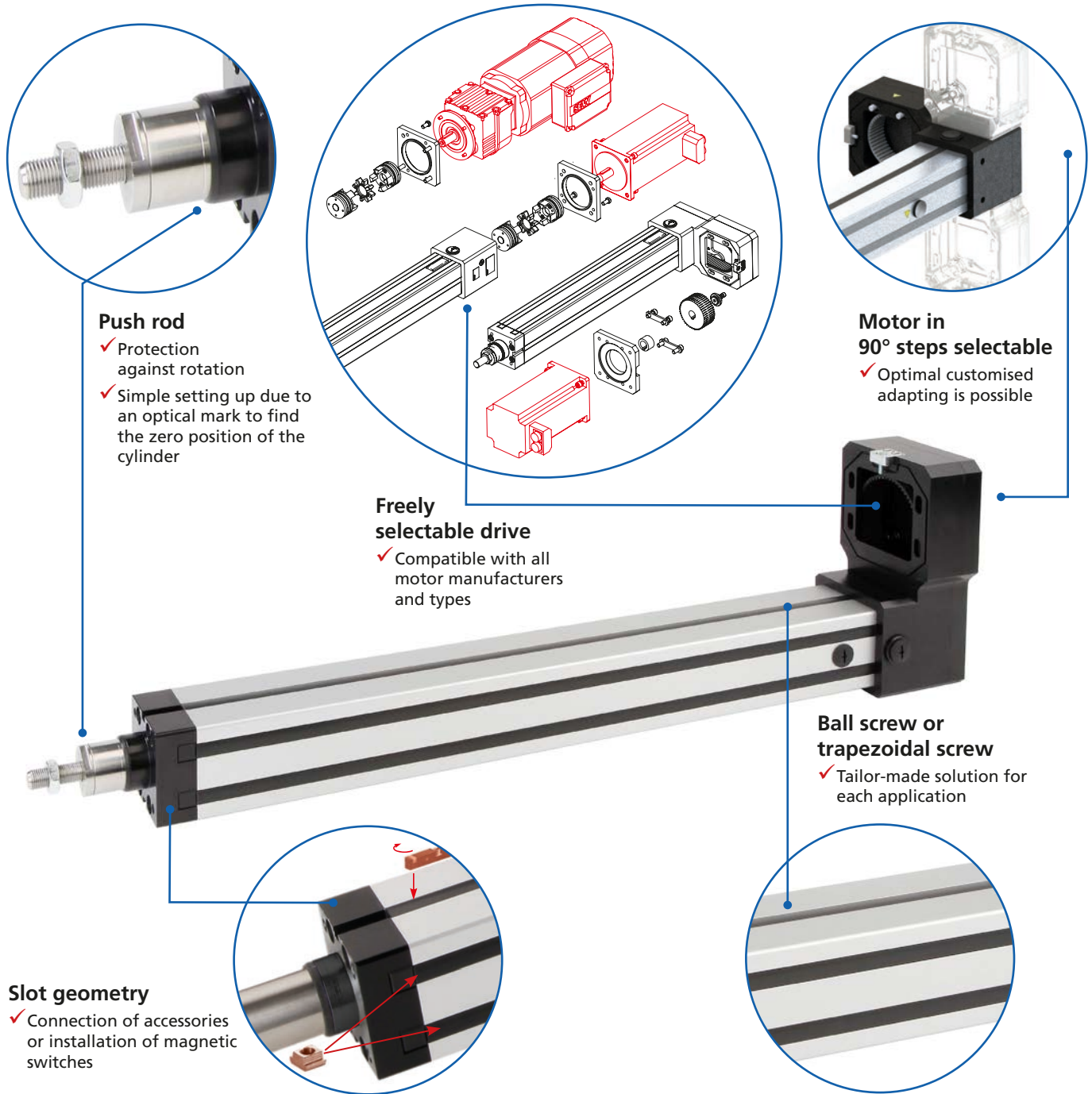
Merkmale:

- ✓ High adjustment speeds
- ✓ High duty cycle
- ✓ High repeat accuracy and positioning accuracy
- ✓ Highly dynamic applications
- ✓ High level of efficiency

Heavy duty linear cylinder with ball screw

Key features / technical benefits

The new industrial heavy duty linear cylinder



Push rod

- ✓ Protection against rotation
- ✓ Simple setting up due to an optical mark to find the zero position of the cylinder

Freely selectable drive

- ✓ Compatible with all motor manufacturers and types

Motor in 90° steps selectable

- ✓ Optimal customised adapting is possible

Ball screw or trapezoidal screw

- ✓ Tailor-made solution for each application

Slot geometry

- ✓ Connection of accessories or installation of magnetic switches

Features:

- Freely selectable drive (three-phase motor / servo motor / stepper motor)
- Short installation height due to parallel motor adaption
- Variable fixation options
- DIN ISO 15552
- Non-rotating stainless steel push rod
- Service life of up to 8 million double strokes (500 mm stroke with KG spindles)
- Protection class IP 54
- Integrated magnetics for external magnetic switches

Options:

- Optional: IP 65
- Special stroke lengths available on request
- External magnetic switches
- Optional gear ratio $i = 1:1,5$ possible
- Position for maintenance point upon request

Elektrozylinder SLZ 63- Table of contents

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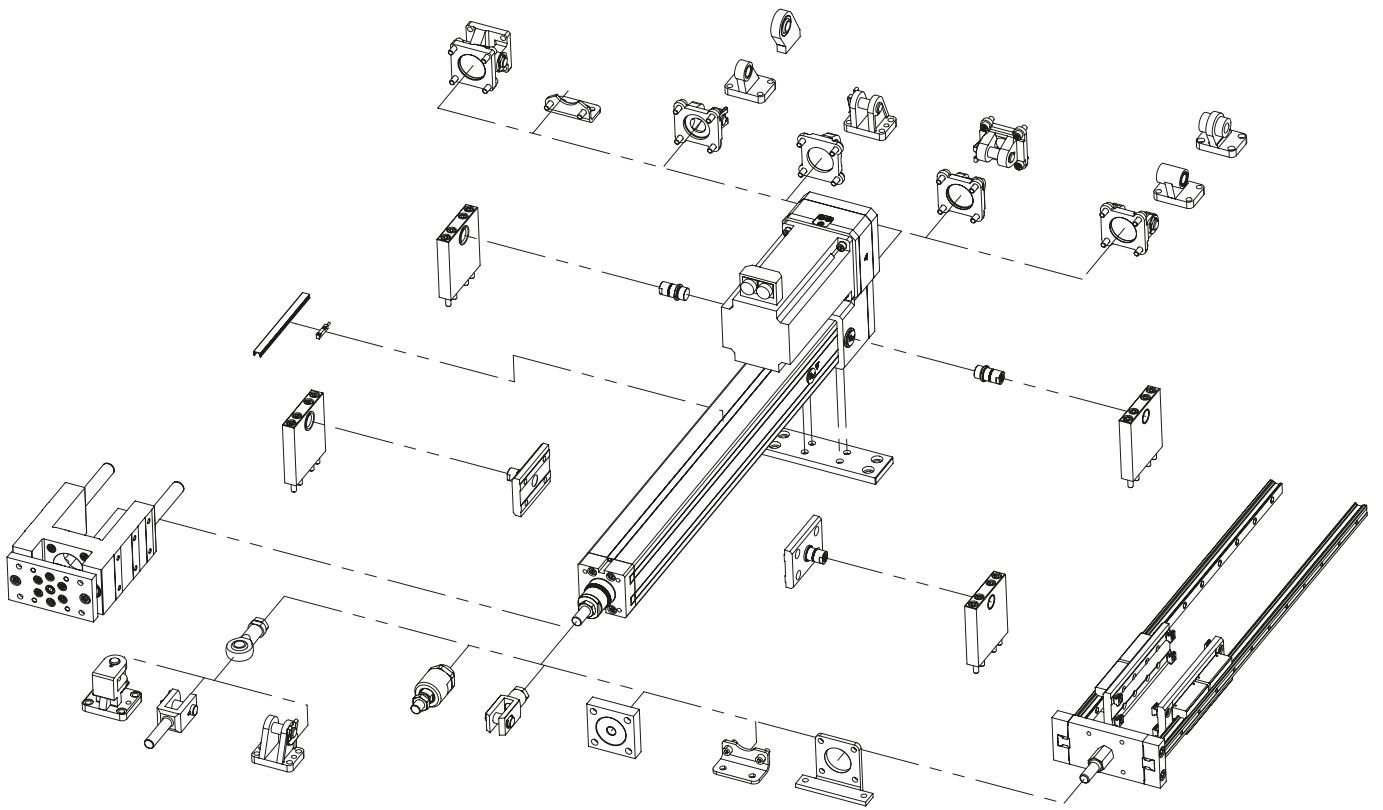
Key features / technical benefits

Peripherals overview

Unlimited options to adapt standard or customized accessories (front DIN ISO 15552)

- Swivels, trunnions
- Base fixings
- Clevis heads
- Swivel heads
- Guiding units
- Proximity switch

...and more...





Technical data Move-Tec / Control-Tec

General information / operating conditions

Heavy duty linear cylinder [with trapezoidal screw](#)
for robust, versatile moving applications (Move-Tec)

Type	SLZ 63 TR PL	SLZ 63 TR P PL*	SLZ 63 TR FL	SLZ 63 TR P FL*
Max. compressive force / tensile force	15.000 N		6.000 N	
Max. driving torque	40 Nm		30 Nm	
Max. speed	27 mm/s		58 mm/s	
Max. acceleration	3 m/s ²			
Repeatability	± 0,2 mm			
Max. no-load torque	-	< 1,5 Nm	-	< 1,5 Nm
Drive	TR 28x5		TR 28x10	
Lead accuracy	≤ 0,05 mm / 300 mm		≤ 0,2 mm / 300 mm	
Duty cycle	S3 15%		S3 40%	
Ambient temperature	+ 0 °C to + 60 °C			
Degree of protection	IP 54 (optional IP 65)			
Continuous sound pressure level	< 65 dB (A)			

Heavy duty linear cylinder [with ball screw](#)
for precision positioning applications (Control-Tec)

Type	SLZ 63 KG PL	SLZ 63 KG P PL*	SLZ 63 KG FL	SLZ 63 KG P FL*
Max. compressive force / tensile force	10.000 N		6.000 N	
Max. driving torque	20 Nm		30 Nm	
Max. speed	500 mm/s		1250 mm/s	
Max. acceleration	10 m/s ²			
Repeatability	± 0,04 mm			
Max. no-load torque	-	< 1,0 Nm	-	< 1,0 Nm
Drive	KG 25x10		KG 25x25	
Lead accuracy	T7 (≤ 0,052 mm / 300 mm)			
Duty cycle	S3 100%			
Ambient temperature	+ 0 °C to + 50 °C			
Degree of protection	IP 54 (optional IP 65)			
Continuous sound pressure level	< 75 dB (A)			

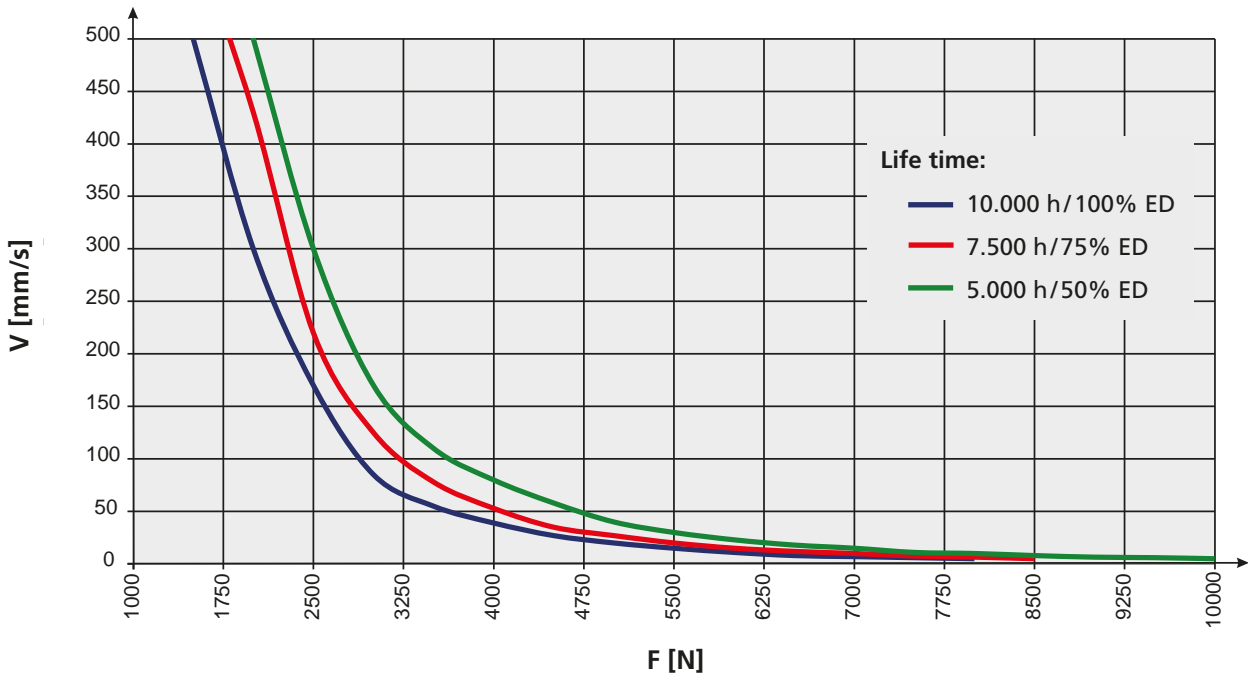
* P FL : parallele motor connection / Fastline-version (high spindle pitch)

* P PL : parallele motor connection / Powerline-version (low spinle pitch)

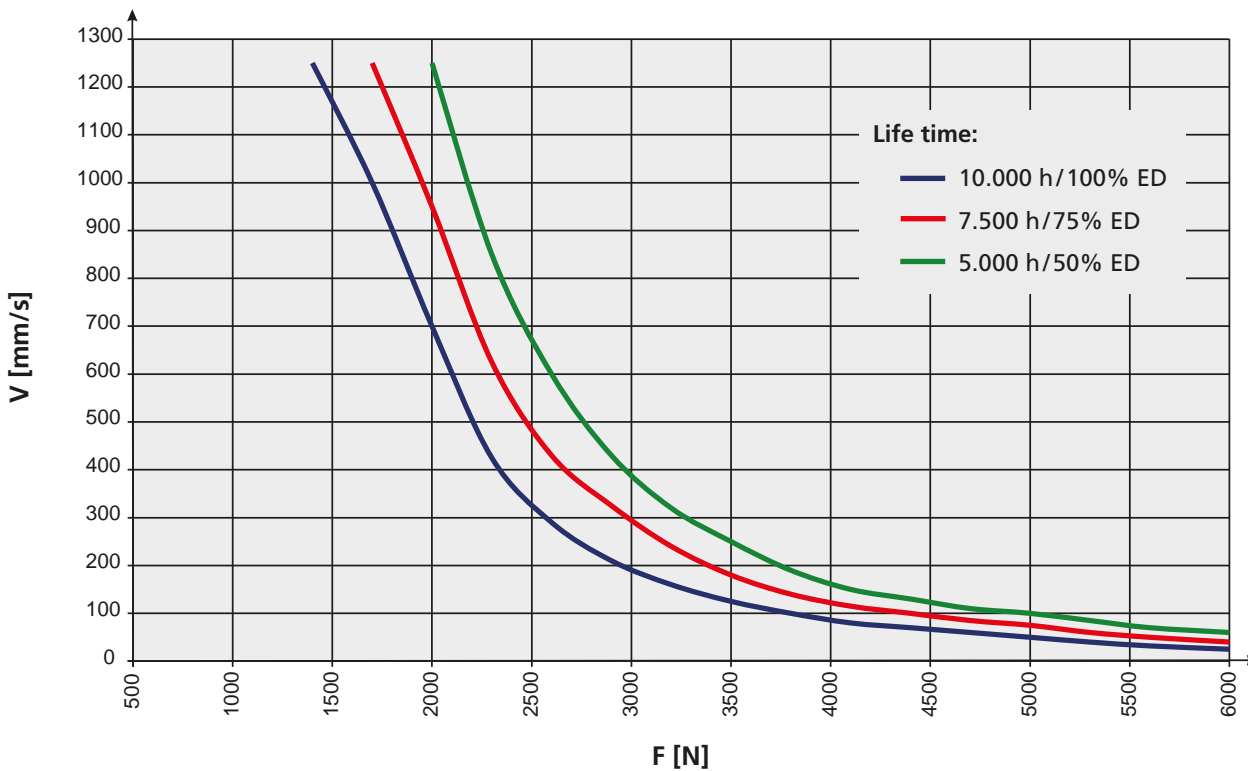
Subject to modifications. Latest version on www.rk-rose-krieger.com

Speed/Force diagram for SLZ 63 KG PL (KG 25x10)

For stroke lengths >700 mm, see diagram "Critical speed"


Speed/Force diagram for SLZ 63 KG PL (KG 25x25)

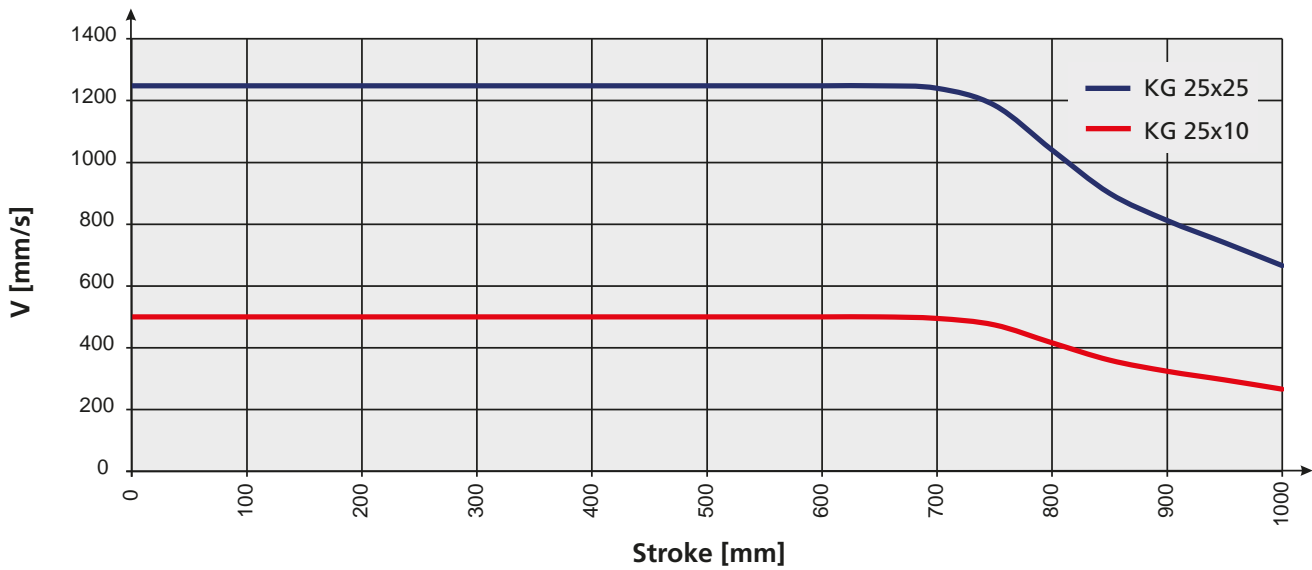
For stroke lengths >700 mm, see diagram "Critical speed"



Power diagrams Move-Tec / Control-Tec

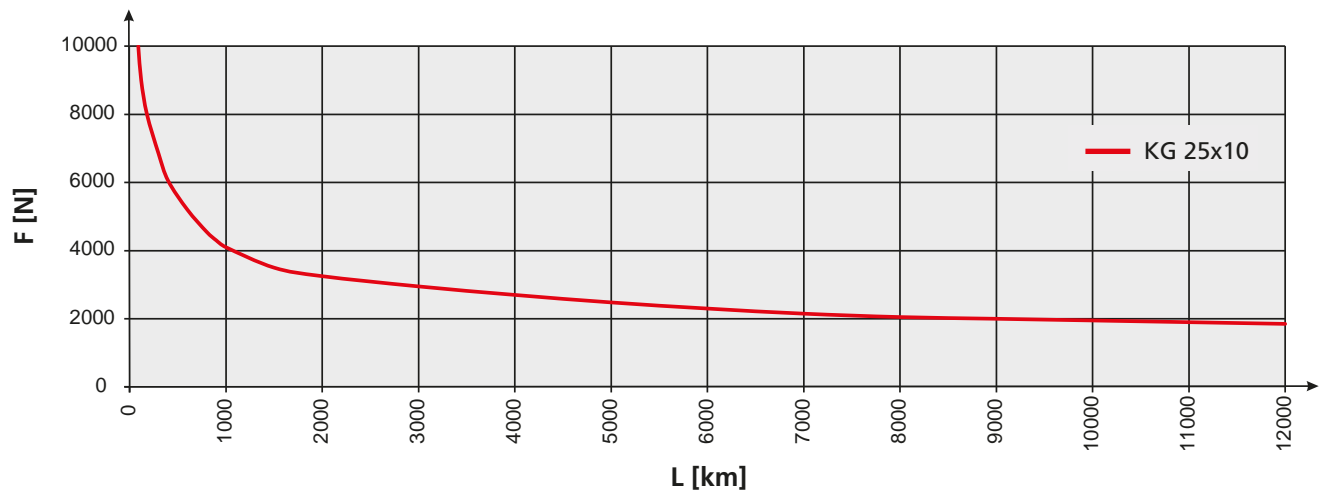
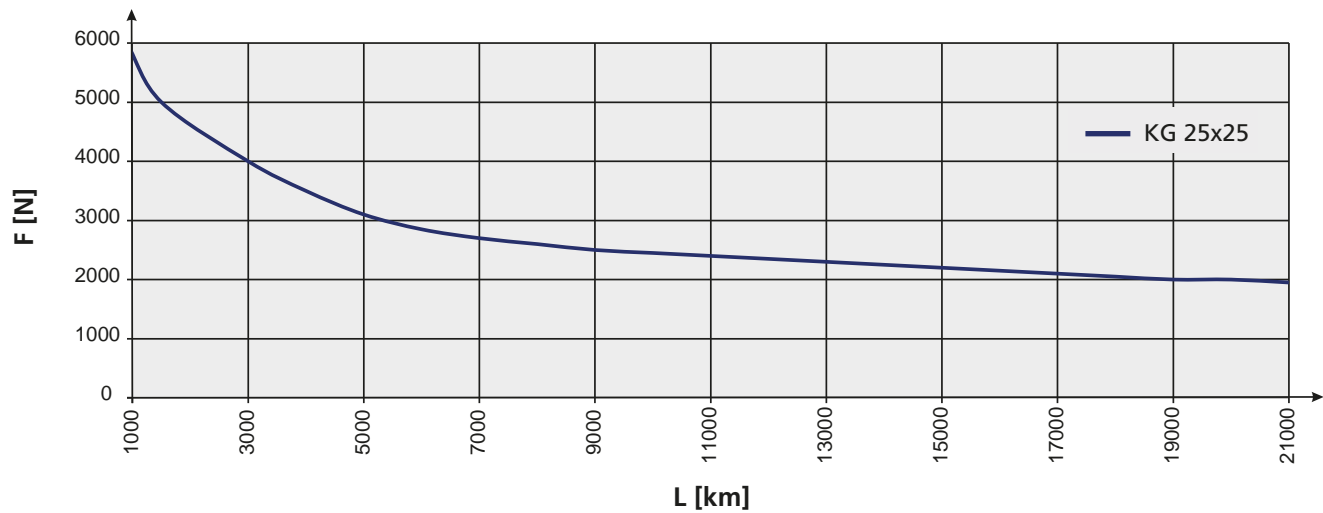
Speed/Stroke diagram for SLZ 63 KG FL/PL (KG 25x25 and KG 25x10)

Critical speed



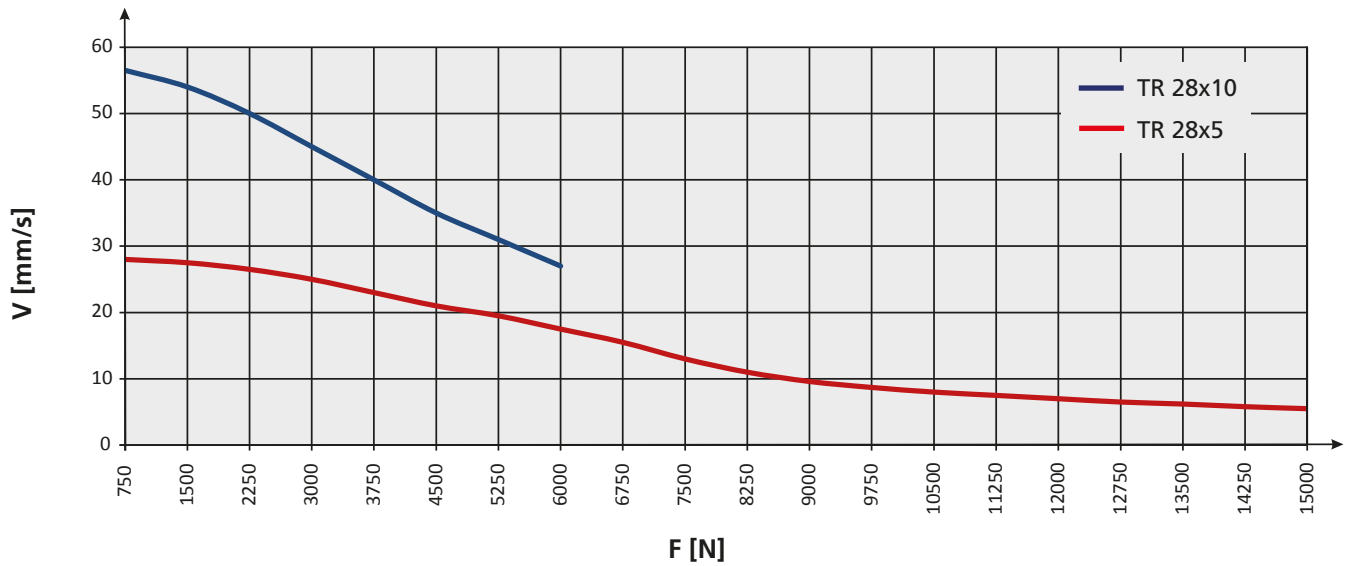
Force/Performance diagram for SLZ 63 KG FL/PL (KG 25x25 and KG 25x10)

All data are theoretical, practical differences are possible.



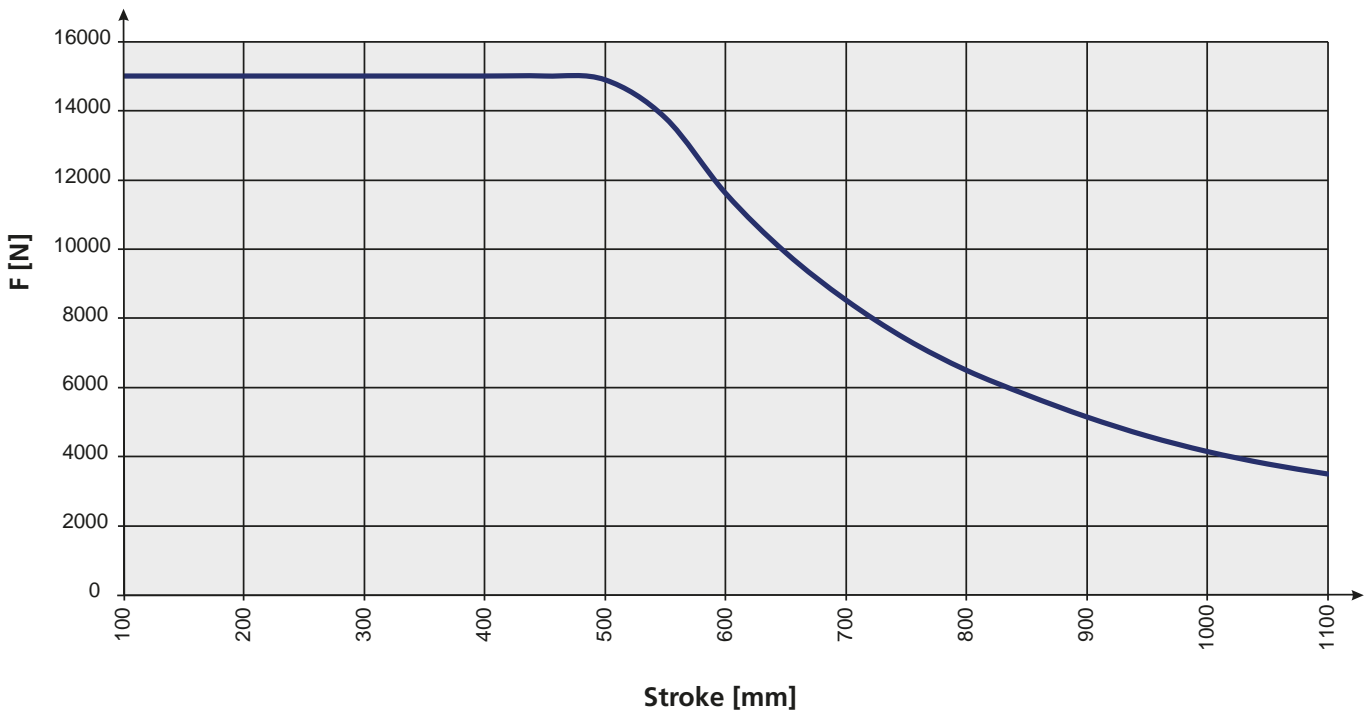
Speed/Force diagram for SLZ 63 TR FL/PL

Note: SLZ 63 TR FL (Tr 28x10) has no self-locking effect.



Force/Stroke diagram for SLZ 63 TR FL/PL and SLZ 63 KG FL/PL

Spindle buckling



Note:

The specifications are based on experimentally determined and theoretically calculated data at room temperature.

The running performance that can be achieved in practice can deviate from the specified curves under different parameters.

Dimensions / ordering data

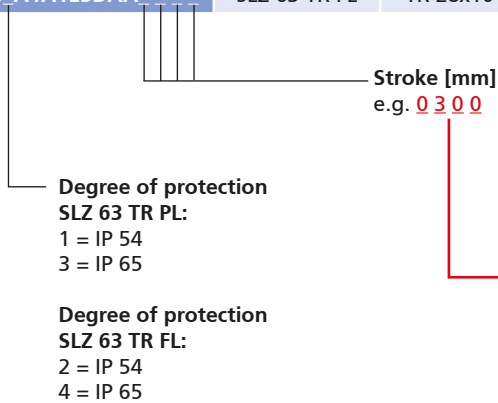
Order information:

- Change of maintenance opening for SLZ 63 upon request

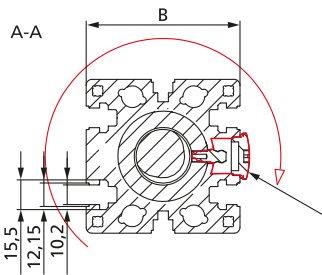
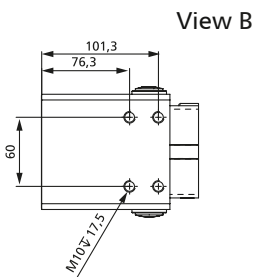
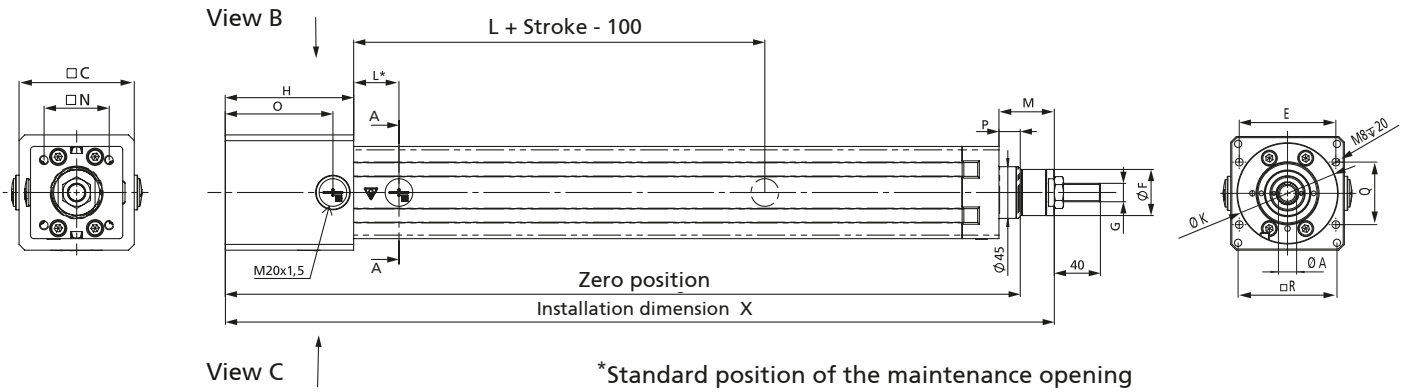
Electric cylinder SLZ 63 with trapezoidal screw Move-Tec



Code No.	Type	Spindle	A	B	C	E	F
TQ3_A1A1E3AAA_ _ _ _	SLZ 63 TR PL	TR 28x5	16	80	100	85	40
TQ3_A1A1E3DAA	SLZ 63 TR FL	TR 28x10	16	80	100	85	40

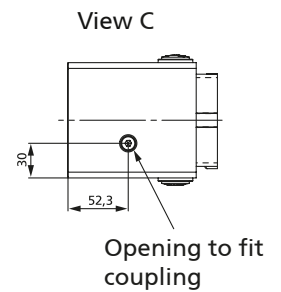


Travel [mm]	Installation dimension X [mm]	Weight [kg]
100	380	6,5
200	480	8,0
300	620	10,0
400	720	11,5
500	860	13,5
600	960	15,0
700	1100	17,0
800	1200	18,5
900	1340	20,5
1000	1440	22,0



Motor housing in 90 ° steps selectable on request

Standard position:
Motor 180°
Maintenance opening 270°
(see page 30)



[mm]

G	H	K	L	M	N	O	P	Q	R
M16x1,5	112	88	40	48	56,5	94	18,5	55	87
M16x1,5	112	88	40	48	56,5	94	18,5	55	87

Dimensions / ordering data

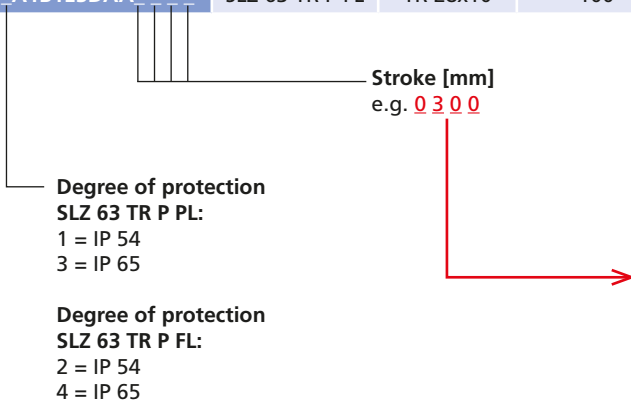
Electric cylinder SLZ 63 P with trapezoidal screw Move-Tec

Order information:

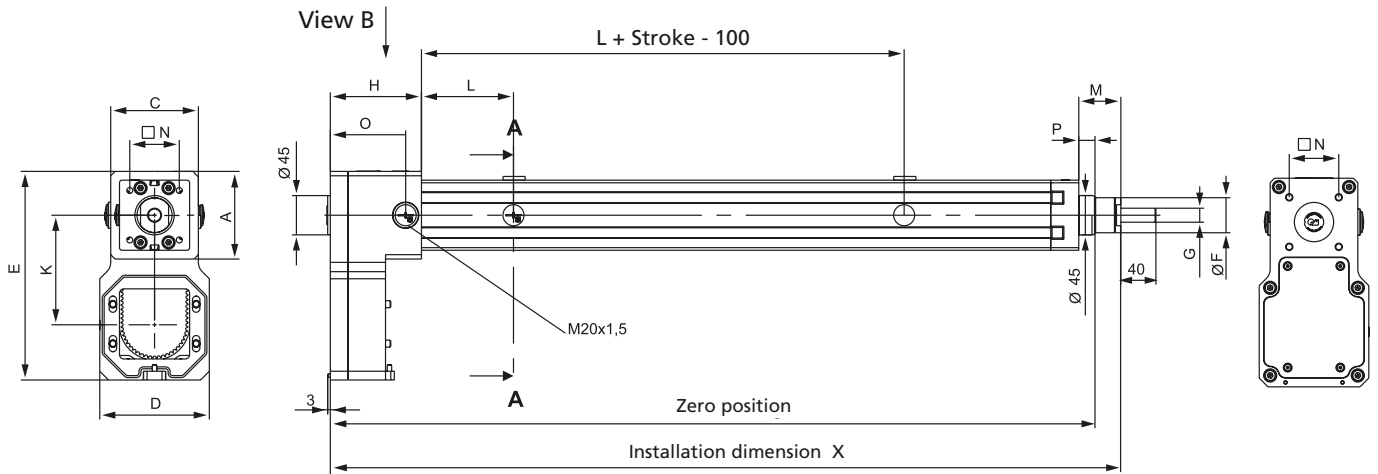
- Change of maintenance opening for SLZ 63 upon request
- Motor housing in 90° steps upon request selectable (see page 30)



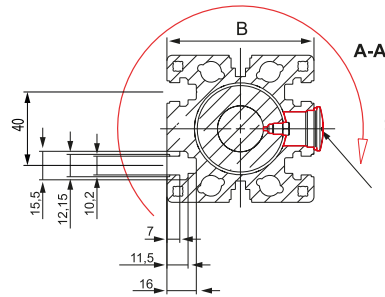
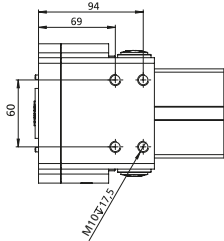
Code No.	Type	Spindle	A	B	C	D	E
TQ3_A1B1E3AAA_ _ _ _	SLZ 63 TR P PL	TR 28x5	100	80	100	125	238
TQ3_A1B1E3DAA	SLZ 63 TR P FL	TR 28x10	100	80	100	125	238



Travel [mm]	Installation dimension X [mm]	Weight [kg]
100	375	8,5
200	475	10,0
300	615	12,0
400	715	13,5
500	855	15,5
600	955	17,0
700	1095	19,0
800	1195	20,0
900	1335	22,5
1000	1435	24,0



View B



Motor housing in 90 ° steps selectable on request

Standard position:
 Motor 180°
 Maintenance opening 270°
 (see page 30)

[mm]

F	G	H	K	L	M	N	O	P
40	M16x1,5	104	125	40	48	56,5	86	18,5
40	M16x1,5	104	125	40	48	56,5	86	18,5

Dimensions / ordering data

Order information:

- Change of maintenance opening for SLZ 63 upon request

Electric cylinder SLZ 63 with ball screw Control-Tec



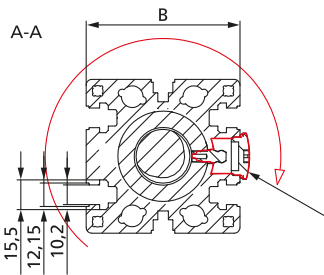
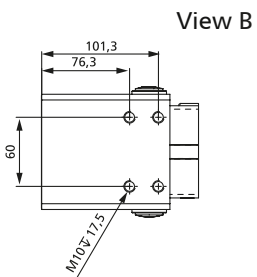
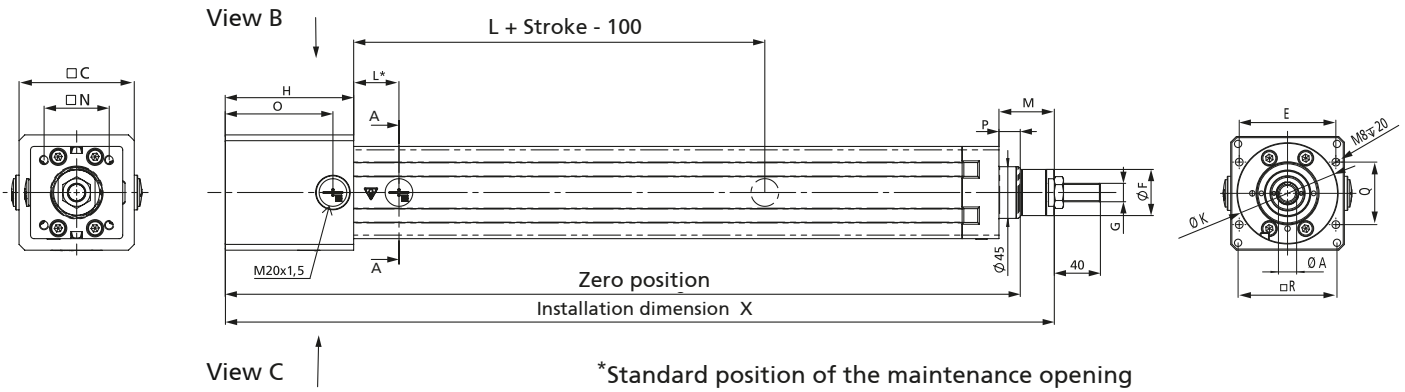
Code No.	Type	Spindle	A	B	C	E	F
TQ3_A1A1E3CAA_ _ _ _	SLZ 63 KG PL	KG 25x10	16	80	100	85	40
TQ3_A1A1E3BAA_ _ _ _	SLZ 63 KG FL	KG 25x25	16	80	100	85	40

Stroke [mm]
e.g. 0 3 0 0

Degree of protection
SLZ 63 KG PL:
1 = IP 54
3 = IP 65

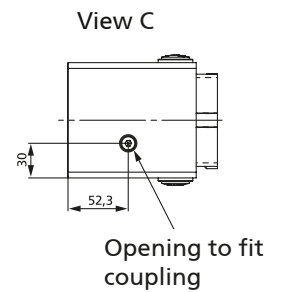
Degree of protection
SLZ 63 KG FL:
2 = IP 54
4 = IP 65

Travel [mm]	Installation dimension X [mm]	Weight [kg]
100	407	7,0
200	507	8,5
300	647	10,5
400	747	12,0
500	887	14,0
600	987	15,5
700	1127	17,5
800	1227	19,0
900	1367	21,0
1000	1467	22,5



Motor housing in 90 ° steps selectable on request

Standard position:
Motor 180°
Maintenance opening 270°
(see page 30)



[mm]

G	H	K	L	M	N	O	P	Q	R
M16x1,5	112	88	95	48	56,5	94	18,5	55	87
M16x1,5	112	88	95	48	56,5	94	18,5	55	87

Dimensions / ordering data

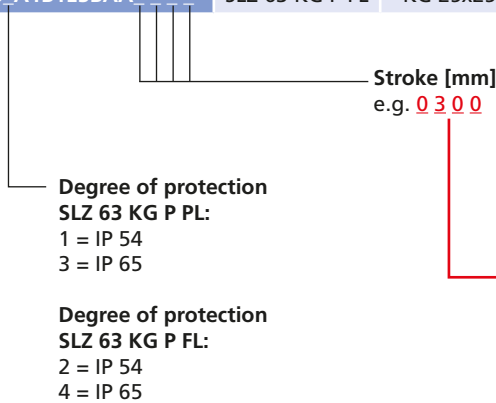
Electric cylinder SLZ 63 P with ball screw Control-Tec

Order information:

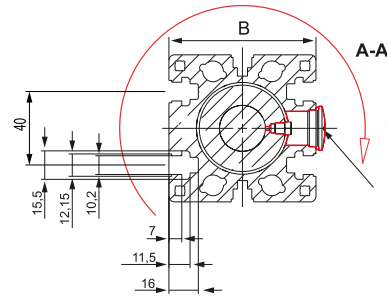
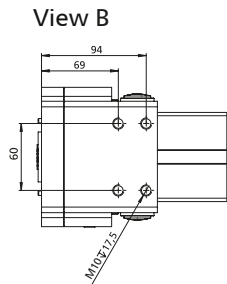
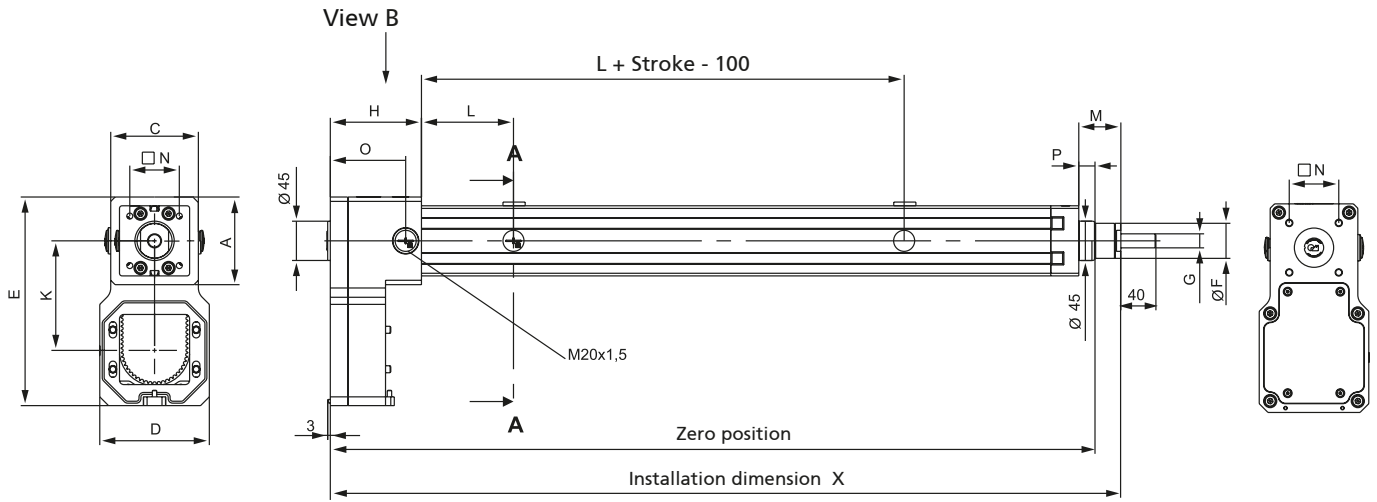
- Change of maintenance opening for SLZ 63 upon request
- Motor housing in 90° steps upon request selectable (see page 30)



Code No.	Type	Spindle	A	B	C	D	E
TQ3_A1B1E3CAA_	SLZ 63 KG P PL	KG 25x10	100	80	100	125	238
TQ3_A1B1E3BAA	SLZ 63 KG P FL	KG 25x25	100	80	100	125	238



Travel [mm]	Installation dimension X [mm]	Weight [kg]
100	402	9,0
200	502	10,5
300	642	12,5
400	742	14,0
500	882	16,0
600	982	17,5
700	1122	19,5
800	1222	21,0
900	1362	23,0
1000	1462	24,5



Motor housing in 90 ° steps selectable on request

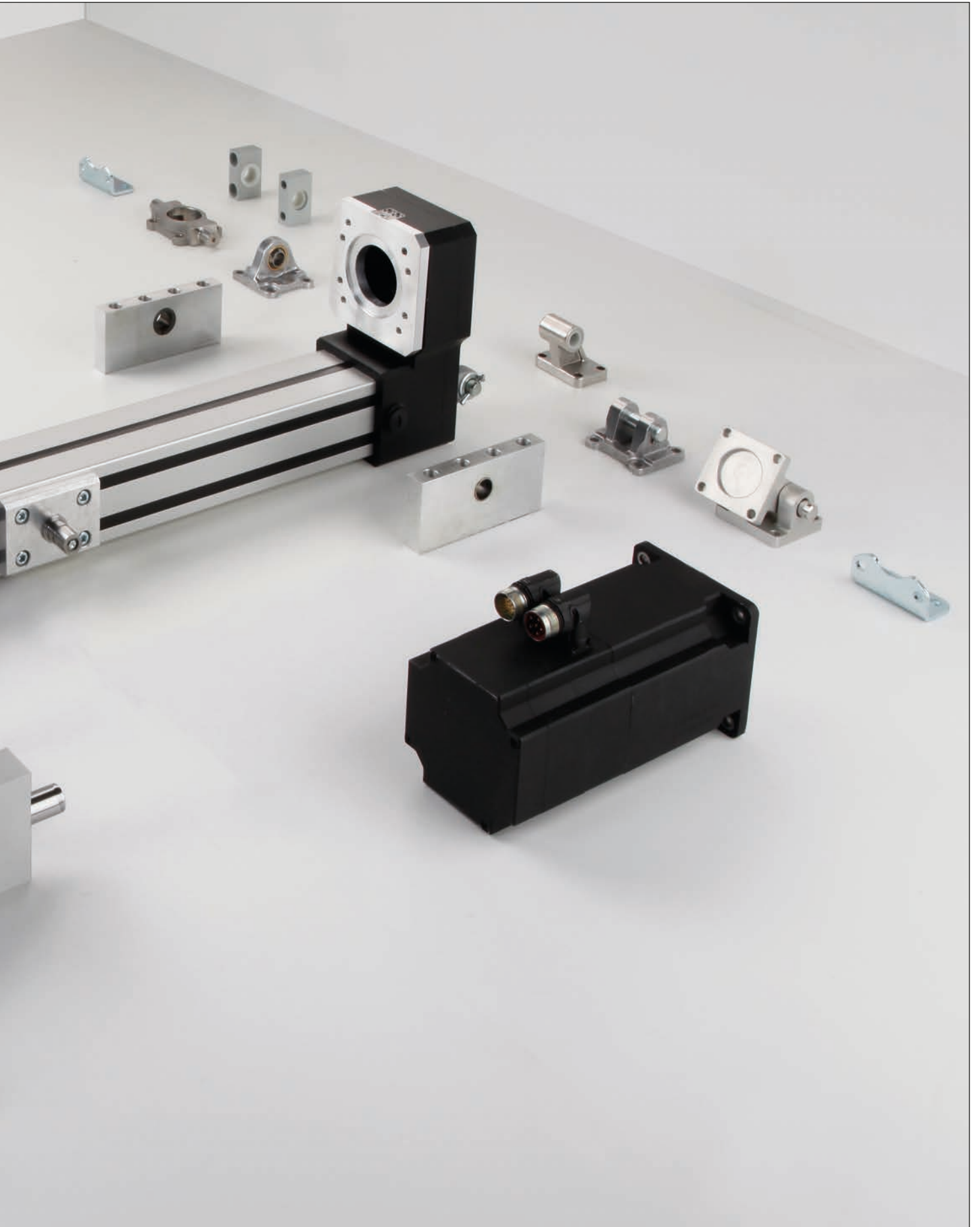
Standard position:
Motor 180°
Maintenance opening 270°
(see page 30)

[mm]

F	G	H	K	L	M	N	O	P
40	M16x1,5	104	125	95	48	56,5	86	18,5
40	M16x1,5	104	125	95	48	56,5	86	18,5

SLZ 63 Accessories / Fittings

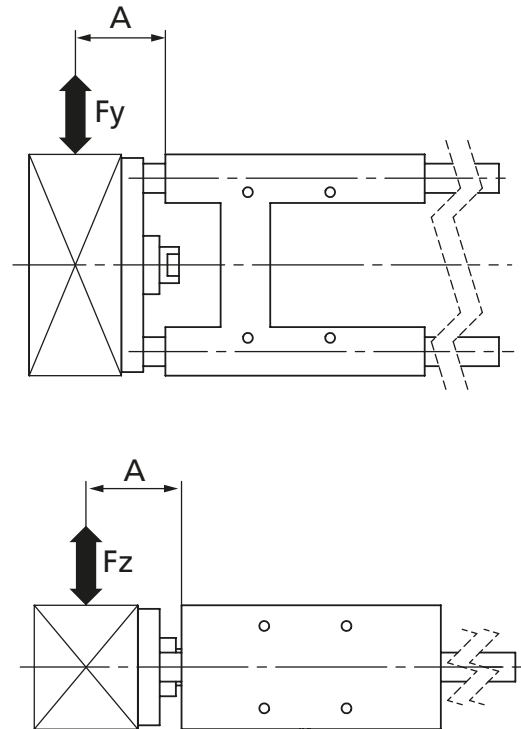
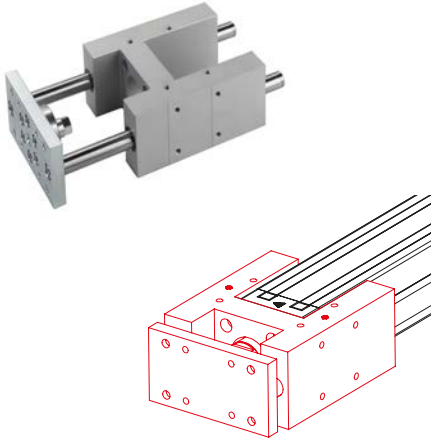




SLZ 63 Accessories / Fittings

Guide unit

Scope of delivery:
Guide unit, incl. fixing material



$$*M_z = F_y \times A$$

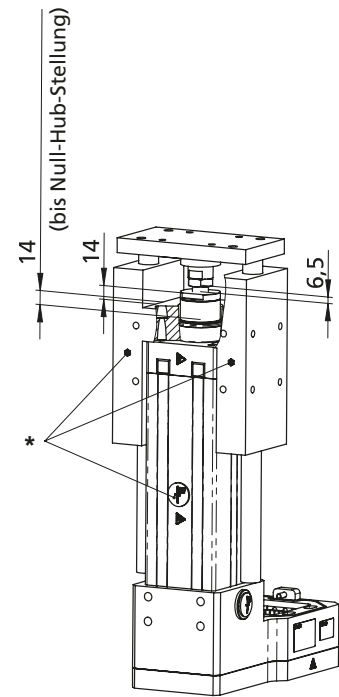
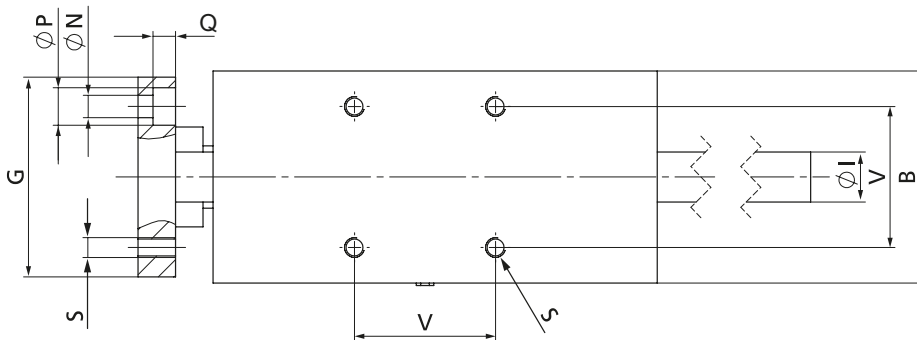
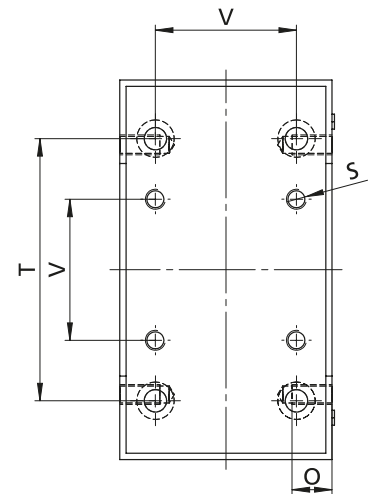
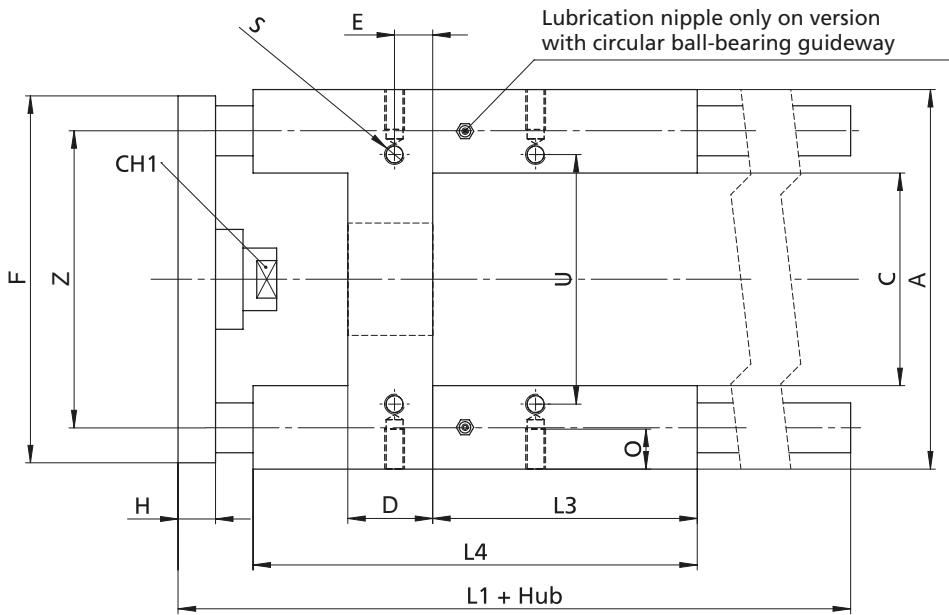
$$M_y = F_z \times A$$

Version	Permissible dynamic load		Mass of guide units		Suitable for SLZ 63
	Mz (Nm)	My (Nm)	0-stroke (kg)	per 100 mm (kg)	
Slide guide	60	54	4.6	0.5	Trapezoidal screw
Ball bearing guide	48	43	4.4	0.5	Ball screw

***Note:**
The moments Mz and My are the permissible dynamic loads; the statistic loads are twice that.

Code No.	Type	Stroke
QZD05_100	Guide unit for SLZ 63	100
QZD05_200		200
QZD05_300		300
QZD05_400		400
QZD05_500		500
QZD05_600		600
QZD05_700		700
QZD05_800		800
QZD05_900		900
QZD05_1000		1000

1 = Slide guide
2 = Ball bearing guide



***Note:**
 To keep access to the maintenance opening of the cylinder free, the housing must be mounted at an angle of 90° (see page 30 „Orientation”). Ensure that the lubrication nipple of the guide unit is on the same side as the maintenance opening.

G = Slide guide
 K = Ball bearing guide

[mm]

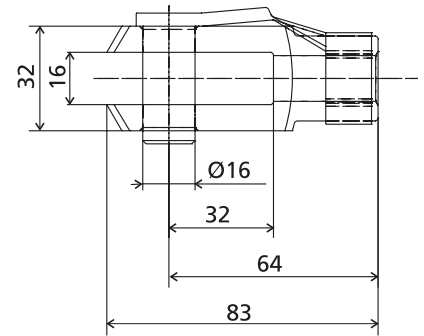
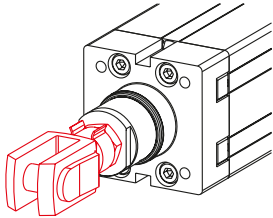
A	B	C	D	E	F	G	H	I	L1
152	85	85,2	34	15,3	147	80	15	20	243 (G) 225 (K)

[mm]

L3	L4	N	O	P	Q	S	T	U	V	Z	CH1
106	178	9	16	15	9	M8	105	100	56,5	119	20

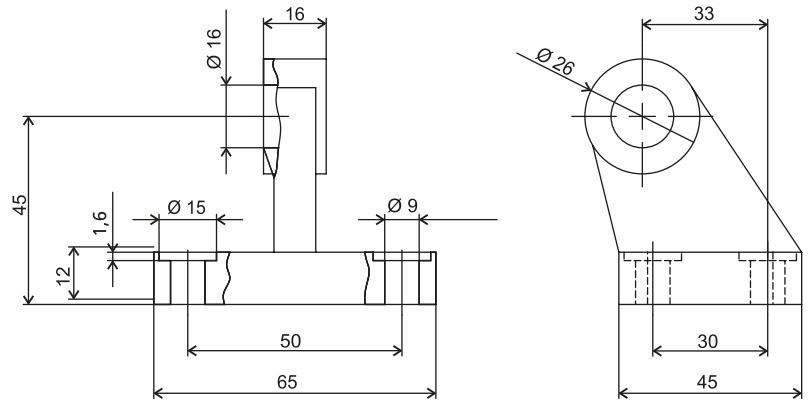
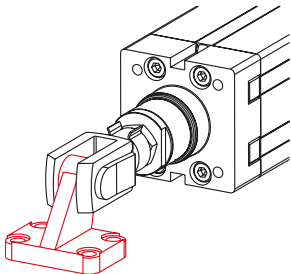
SLZ 63 Accessories / Fittings

Clevis



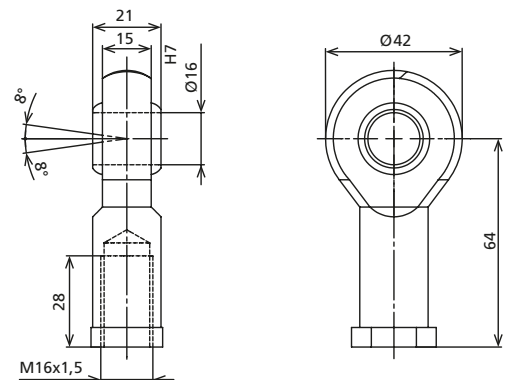
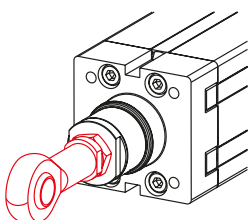
Code No.	Type	
QZD050644	SLZ 63	Clevis M16x1,5

Bearing block for clevis



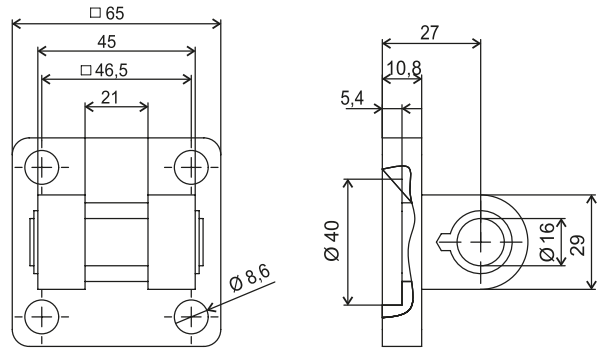
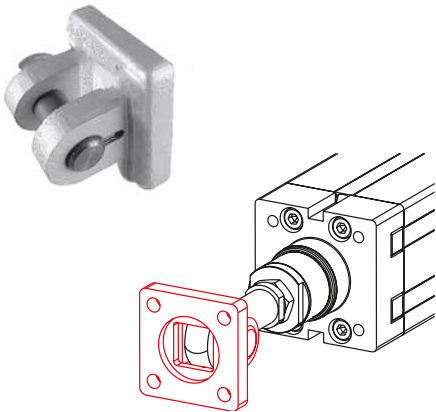
Code No.	Type	
QZD050573	SLZ 63	Bearing block Ø16

Swivel head



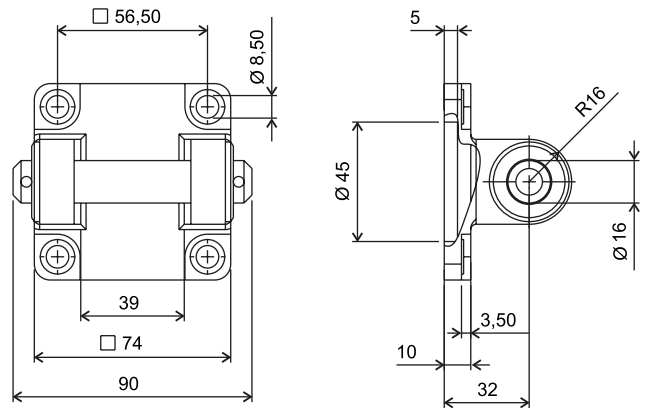
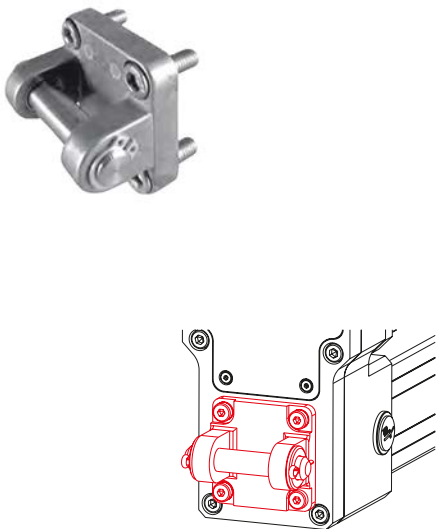
Code No.	Type	
QZD050645	SLZ 63	Swivel head M16x1,5

Clevis mounting for swivel head



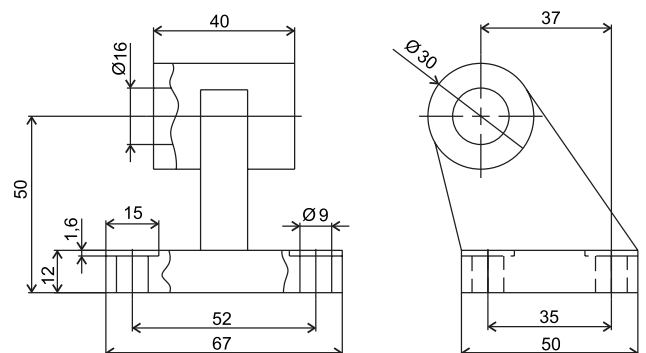
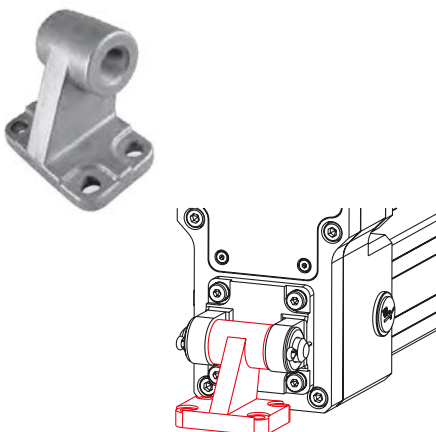
Code No.	Type	
QZD050577	SLZ 63	Fork attachment $\varnothing 16$

Swivel flange



Code No.	Type	
QZD050580	SLZ 63	Swivel $\varnothing 16$

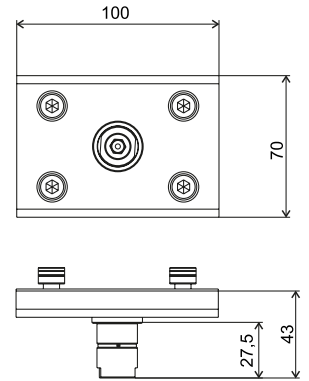
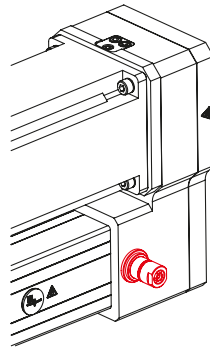
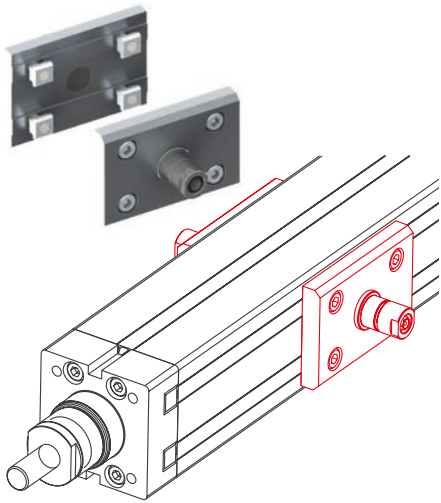
Bearing block for clevis mounting



Code No.	Type	
QZD050585	SLZ 63	Bearing block wide $\varnothing 16$

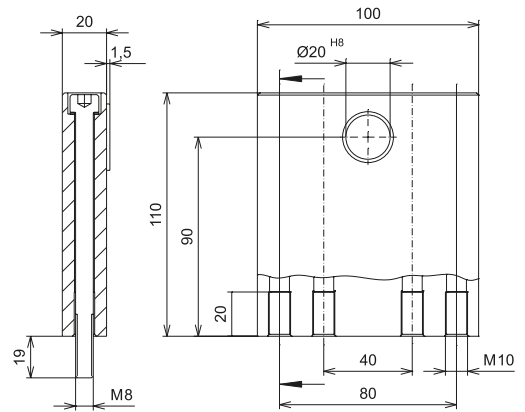
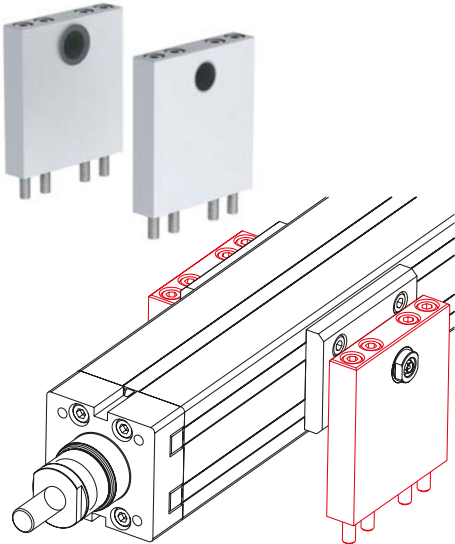
SLZ 63 Accessories / Fittings

Trunnion support blocks



Code No.	Type
QZD050646	Trunnion support blocks SLZ 63
QZD050647	Trunnion SLZ 63

Support blocks for trunnion mounting



Code No.	Type
QZD050589	Support blocks SLZ 63

Order instruction slot stones:

- Purchase only in lot sizes and a multiple of that, see product table below

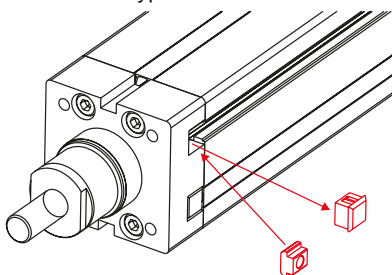
- Slot stones facilitate the attachment of fittings to the cylinder.
- They can be slid into the lateral slots (Type -N-) or swivelled into the slot from above (Type -R-).

Slot stones



Type -N-

Type -R-



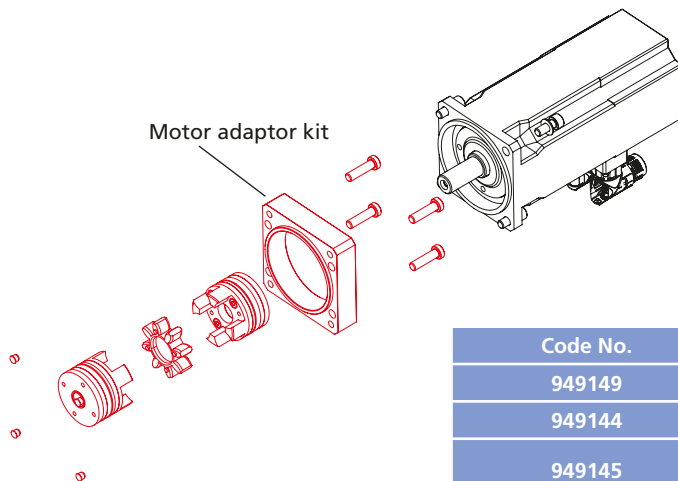
Code No.	Type	lot sizes	F [N]
4006201	Slot stone -N- M5	10, 20, 30... pcs	4000
4006203	Slot stone -N- M6	10, 20, 30... pcs	4000
4026207	Slot stone -N- M5	10, 20, 30... pcs	4000
4026203	Slot stone -N- M6	10, 20, 30... pcs	9000
4026206	Slot stone -N- M8	10, 20, 30... pcs	9000
4026221	Slot stone -R- M6	10, 20, 30... pcs	8000
4026222	Slot stone -R- M8	10, 20, 30... pcs	8000

Drive / Position determination

Motor adaptor kit for 3 phase and servo motors

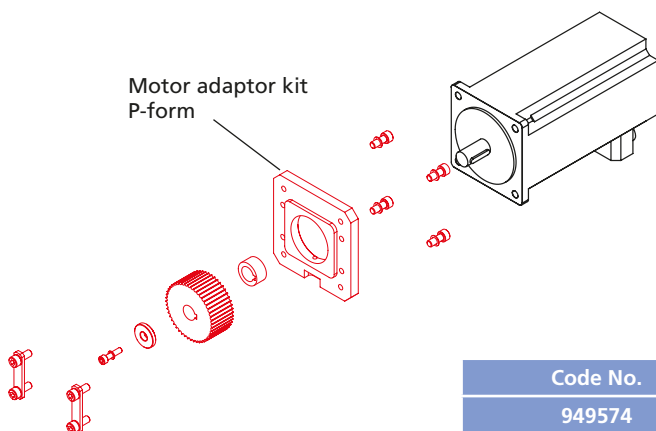
- Servomotors from the RK standard range can be easily connected
 - Complete motor adaptor kits manufactured to your specifications on request
 - Motor adaptors offer degree of protection IP 54 (IP 65 available on request)
- Scope of delivery:** Motor adaptor, elastomer coupling or gear and fixing material

3 phase motor / Servo motor



Code No.	3 phase motor / Servo motor or gear for SLZ 63
949149	for RK AC 345/470 (Servo motor)
949144	for RK AC 800 (Servo motor)
949145	for RF17 und WF20 (SEW - Drehstrommotoren) Motor adaptor fits all SEW flanges Ø120 with shaft Ø20x40
949148	for RF17 und WF20 (SEW- 3 phase motor)* Motor adaptor fits all SEW flanges Ø120 with shaft Ø20x40
949146	for PLE 80 (gear)
949147	for PLE 120 (gear)

***Note:**
The motor adaptor must be used in combination with SLZ 63 TR FL/PL.

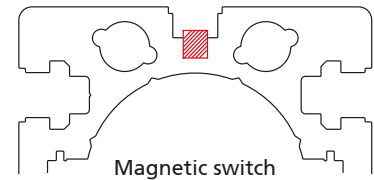
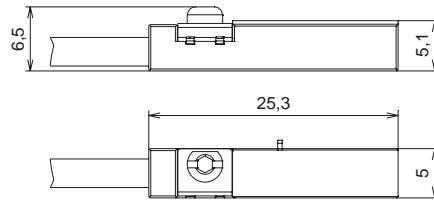


Code No.	3 phase motor / Servo motor or gear for SLZ 63
949574	for RK AC 345/470 (Servo motor)
949570	for RK AC 800 (Servo motor)
949571	for RF07, RF17 and RF 27 (SEW- 3 phase motor) Motor adaptor fits all SEW flanges Ø120 with shaft Ø20x40
949572	for PLE 80 (gear)
949573	for PLE 120 (gear)

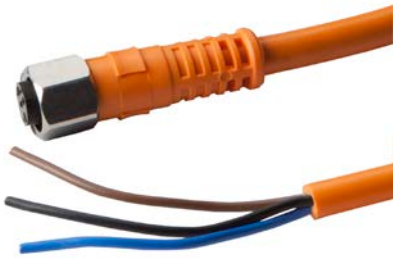
SLZ 63 Accessories / Fittings

Magnetic switch

- Signals from the magnetic switch can be collected and evaluated by a customer-provided control unit (such as a PLC).
- The switch can be retrofitted in the lateral slot (protected by a cover profile as standard)
- Magnets are already integrated within the cylinder as standard.



Extension for magnetic switch



Magnetic switch – Technical data

	NC contact
Voltage	10-30 V DC
Current consumption	< 10 mA
Output current	Max. 100 mA
Output type	PNP
Function indication	LED
Ambient temperature	-20°C to +70°C
Degree of protection	IP 67

Code No.	Type
QZD050602	Magnetic switch, NC contact, incl. extension for magnetic switch, cable length 5,3 m



Enquiry form

Fax: +49 (0)571 9335-119

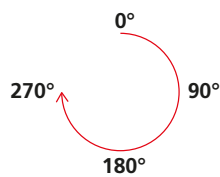
Telephone: +49 (0)571 9335-0

E-mail: anfrage.vertrieb@rk-online.de

Company..... Cust. No.....
 Street City
 Telephone Fax
 Contact..... Dept.....
 Remarks

1.) What is the cylinder required to move?

2.) Orientation

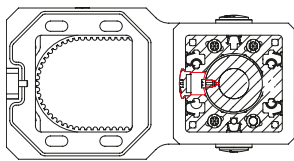


- Motor 270°
- Maintenance opening 270°
(only possible if maintenance opening is relocated)

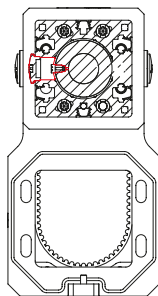
- Motor 180°
- Maintenance opening 270°
(Standard position)

- Motor 0°
- Maintenance opening 270°

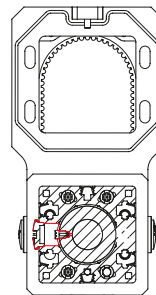
- Motor 90°
- Maintenance opening 270°



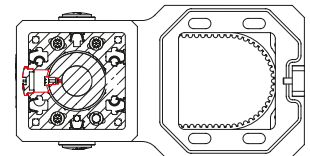
○ 1



○ 2



○ 3



○ 4

- 3.) Max. lifting force [N].....
- 4.) Static load [N]
- 5.) Lifting speed [mm/s]
- 6.) Stroke length [mm]
- 7.) Type of fastening
- 8.) Ambient temperature °C
- 9.) Operating voltage [V]
- 10.) Required protection class
(standard IP54)
- 11.) Frequency converter operation planned
- 12.) Operating cycles = no. of double strokes (forwards and backwards movement)
 per minute hour day
 average / max.
- 13.) Radial forces [N]
(avoid if possible)
- 14.) No. of units required
- 15.) Is there a risk of personal injury if the drive fails?
(to avoid in any case)
- 16.) Compliance with any specific regulations required?

Submission of offer / date:

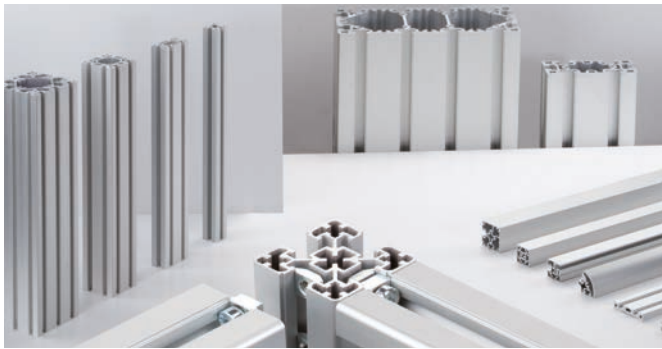
Remarks:

Our product ranges



LINEAR TECHNOLOGY

- ✓ Manual adjustment units
- ✓ Electric cylinders
- ✓ Lifting columns
- ✓ Linear axes
- ✓ We can move loads for you of up to 3 t and up to 12 m dynamically, reliably and with great precision



PROFILE TECHNOLOGY

- ✓ The tried and tested BLOCAN® aluminium assembly system
- ✓ Sections from 20 mm to 320 mm for all applications
- ✓ Connecting technology with an unsurpassed combination of flexibility and reliability



CONNECTING TECHNOLOGY

- ✓ Fittings for the secure clamp connection of round and square tubes
- ✓ Elements made of aluminium, stainless steel and plastic
- ✓ Sizes from 8 mm to 80 mm



MODULE TECHNOLOGY

- ✓ Machine frames
- ✓ Workstations
- ✓ Machine guards
- ✓ Multidimensional linear axis modules
- ✓ Complete drive solutions



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