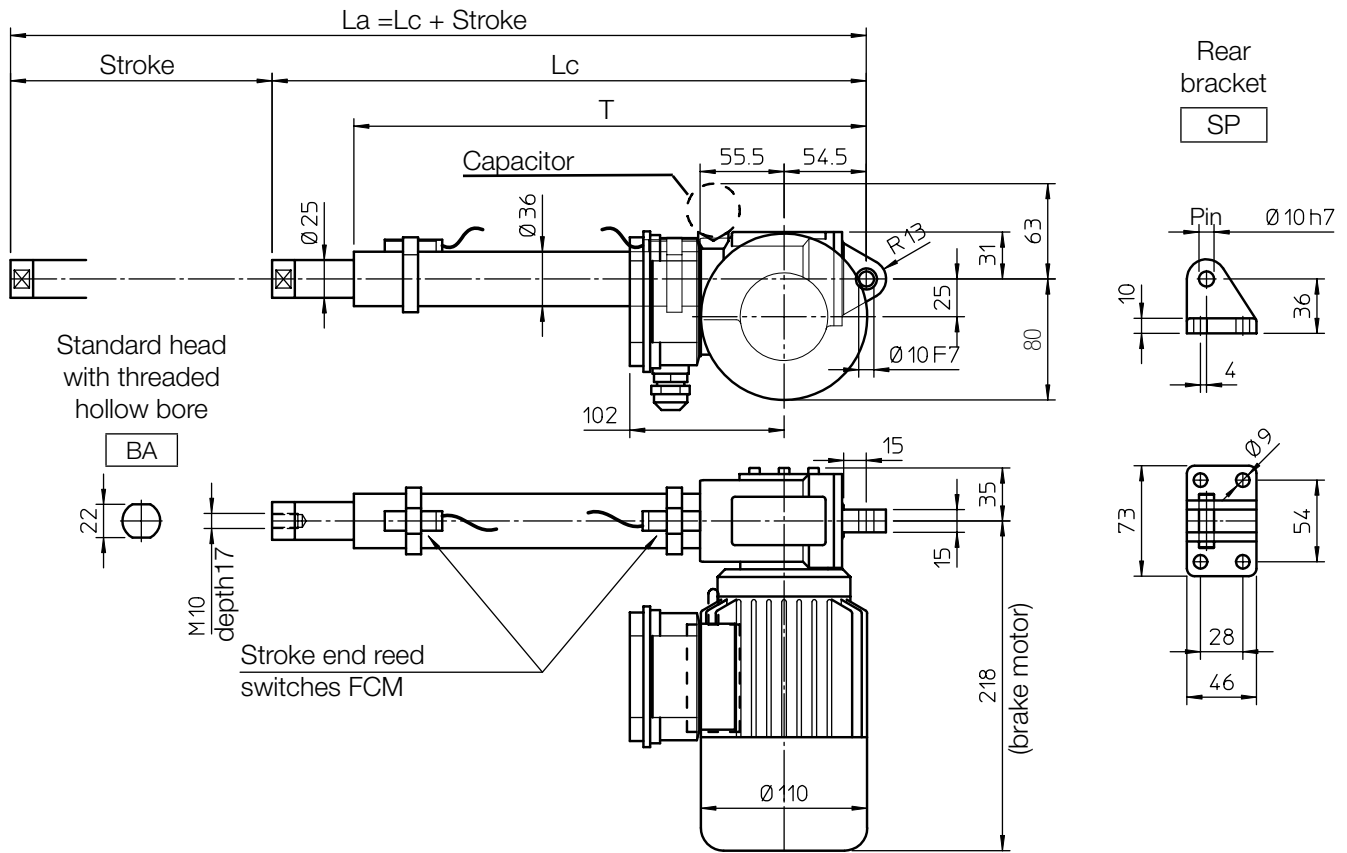


OVERALL DIMENSIONS



Length [mm]	
Lc	243 + Stroke
T	212 + Stroke

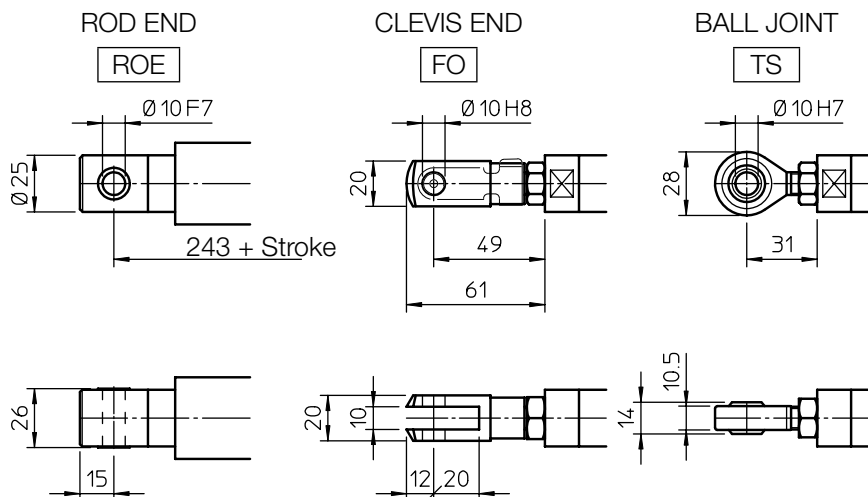
STROKE CODE	STROKE [mm]	LENGTH		T [mm]	MASS [Kg]
		Lc [mm]	La [mm]		
C100	100	343	443	312	5.4
C150	150	393	543	362	5.5
C200	200	443	643	412	5.7
C250	250	493	743	462	5.8
C300	300	543	843	512	6.0
C400	400	643	1043	612	6.3
C500	500	743	1243	712	6.6

Self-locking conditions

Self-locking condition is achievable with brake motor only.

Information about statically self-locking conditions with pull or push load on page 68.

FRONT ATTACHMENT



PERFORMANCES AND FEATURES

- Push load up to 5 000 N
- Pull load up to 4 000 N
- Linear speed up to 117 mm/s
- Standard stroke lengths:
100, 150, 200, 250, 300, 400, 500 mm
(for different / longer stroke lengths please contact us)
- Ball screw BS 14 x 10 (technical details on page 66)
- Aluminium alloy housing and rear attachment with bronze bush
- Anodized aluminium outer tube
- Chrome-plated steel push rod – tolerance f7
- Standard head BA or rod end ROE in stainless steel AISI 303 with bronze bush
- AC 3-phase or 1-phase brakemotor (motor features details on page 70)
- Duty cycle with max load:
100% over 10 min at (-10 ... +40) °C

- Standard motor mounting position as per sketch (right-hand, code RH)
- Standard protection IP 54
- Long-life lubrication, maintenance free

ACCESSORIES

- Different front attachments
- Stainless steel push rod (code SS)
- Rear bracket (code SP)
- Mechanical overload protection: safety clutch (code FS)
- Two adjustable stroke end reed switches (code FCM)
- Extra switch for intermediate position

OPTIONS

- Motor mounting position on opposite side (left-hand, code LH)
- Fixing attachment turned at 90° (code RPT 90)

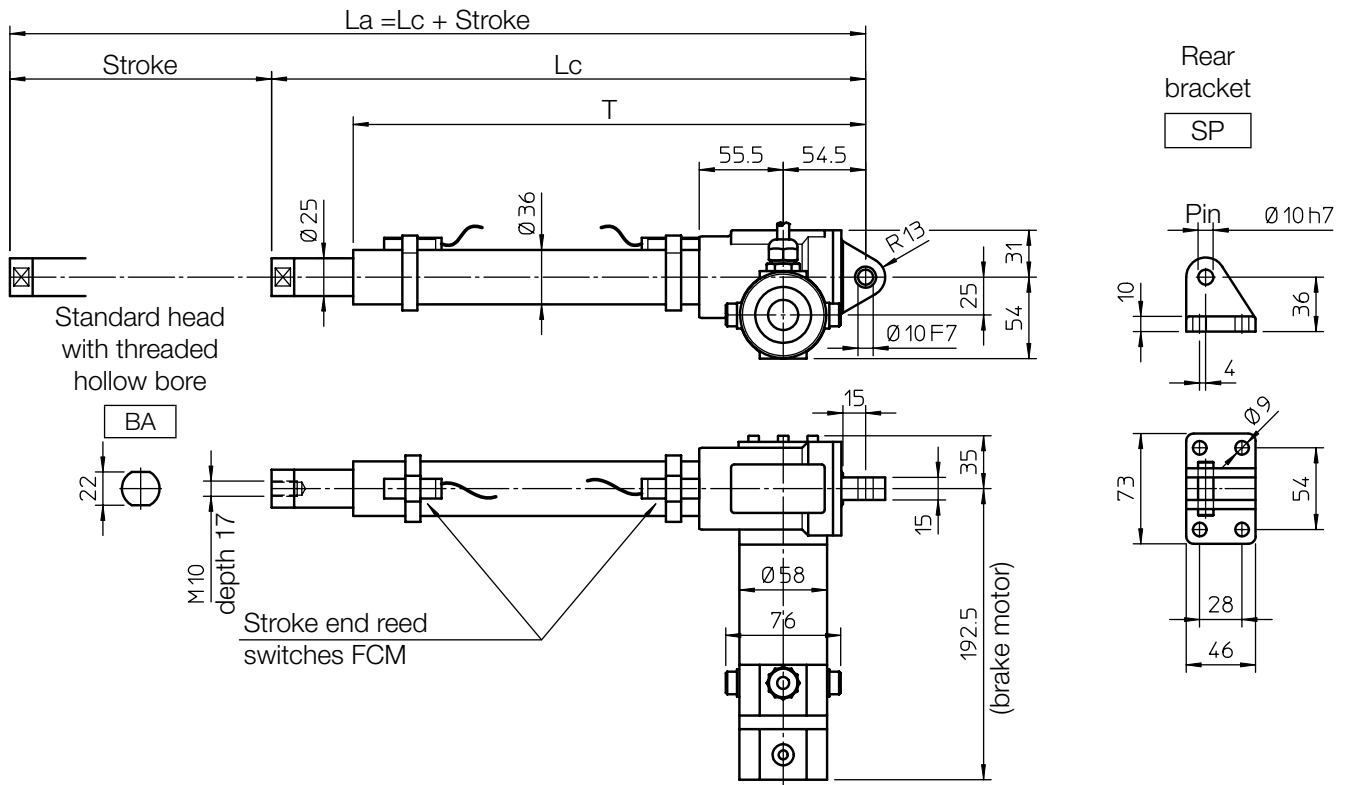
PERFORMANCES with AC 3-phase 50 Hz 230/400 V or 1-phase 50 Hz 230 V motor

Ball screw BS 14 x 10				
RATIO	0.09 kW - 4 pole motor		0.12 kW - 2 pole motor	
	LOAD [N]	SPEED [mm/s]	LOAD [N]	SPEED [mm/s]
RH2	1120	58	760	117
RV2	1730	37	1170	75
RN2	3100	19	2220	37
RL2	5000	9.5	3790	19

ORDERING CODE EXAMPLE

BSA 11	RL1	C200	CA 230/400 V	FCM				
Actuator	Selected ratio	Required stroke	Motor	Stroke end switches	Accessories			Options

OVERALL DIMENSIONS



Length [mm]	
Lc	243 + Stroke
T	212 + Stroke

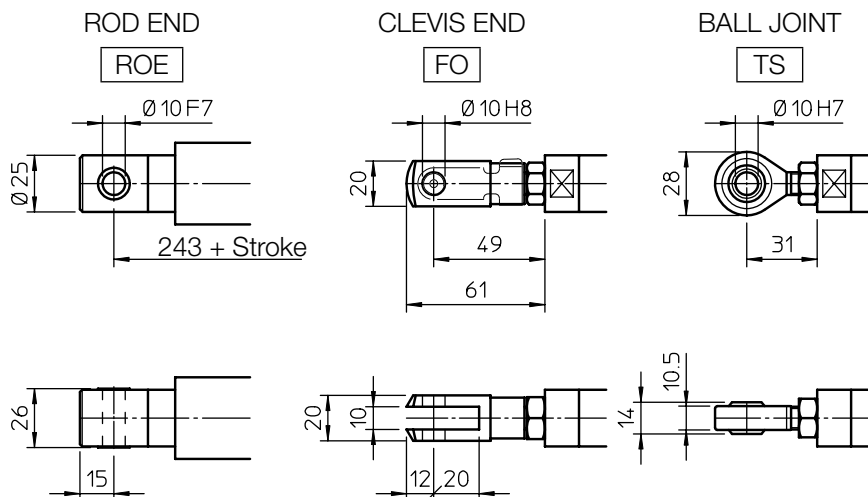
STROKE CODE	STROKE [mm]	LENGTH		T [mm]	MASS [Kg]
		Lc [mm]	La [mm]		
C100	100	343	443	312	4.1
C150	150	393	543	362	4.2
C200	200	443	643	412	4.4
C250	250	493	743	462	4.5
C300	300	543	843	512	4.7
C400	400	643	1043	612	5.0
C500	500	743	1243	712	5.3

Self-locking conditions

Self-locking condition is achievable with brake motor only.

Information about statically self-locking conditions with pull or push load on page 68.

FRONT ATTACHMENT



PERFORMANCES AND FEATURES

- Push-Pull load up to 5 000 N
- Linear speed up to 125 mm/s
- Standard stroke lengths: 100, 150, 200, 250, 300, 400, 500 mm (for different / longer stroke lengths please contact us)
- Ball screw BS 14 x 10 (technical details on page 66)
- Aluminium alloy housing and rear attachment with bronze bush
- Anodized aluminium outer tube
- Chrome-plated steel push rod – tolerance f7
- Standard head BA or rod end ROE in stainless steel AISI 303 with bronze bush
- 12 or 24 V DC brakemotor (motor features details on page 69)
- Duty cycle with max load: 100% over 10 min at (-10 ... +40) °C

- Standard motor mounting position as per sketch (right-hand, code RH)
- Standard protection IP 54
- Long-life lubrication, maintenance free

ACCESSORIES

- Different front attachments
- Stainless steel push rod (code SS)
- Rear bracket (code SP)
- Mechanical overload protection: safety clutch (code FS)
- Two adjustable stroke end reed switches (code FCM)
- Extra switch for intermediate position

OPTIONS

- Motor mounting position on opposite side (left-hand, code LH)
- Fixing attachment turned at 90° (code RPT 90)

PERFORMANCES with 24 V DC motor

(Performances with 12 V DC motor: same load, linear speed 10 % less, electrical consumption 2 times more)

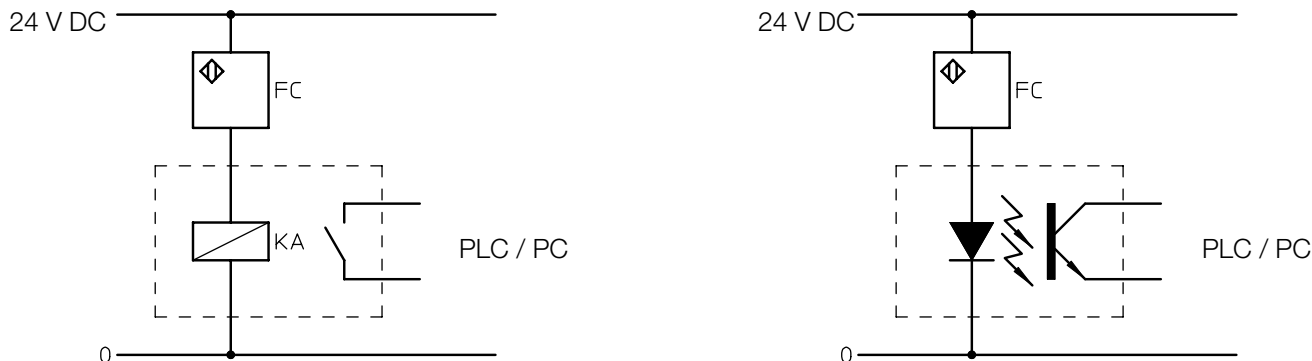
Ball screw BS 14 x 10			
RATIO	LOAD [N]	SPEED [mm/s]	CURRENT [A]
RH2	410	125	4
RV2	640	80	4
RN2	1200	40	4
RL2	2100	20	4

ORDERING CODE EXAMPLE

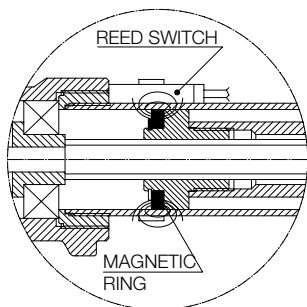
BSA 11	RL1	C200	CA 230/400 V	FCM					
Actuator	Selected ratio	Required stroke	Motor	Stroke end switches	Accessories			Options	

GENERAL NOTE

In case the linear actuator is used in an application where the stroke end switches must be connected to PLC or PC, we suggest to make the connection with a galvanic separation circuit.



13.1 Magnetic stroke end switches (reed) FCM (linear actuators ATL, BSA, UAL, UBA Series, LMI 02 and LMP 03)



The magnetic field of the ring fixed on the nut activates the reed contact of the switch locked on the protective tube with a clamp.

The position of the switches along the tube is easily adjustable.

The switches used to determine any intermediate position (between L_c and L_a) will switch over in two different positions, depending on the push rod motion direction (extending or retracting).

WARNING! The magnetic reed-switches can work only if connected to a wiring control circuit in order to activate the electric relay. Do not connect them in series between the power supply and the electric motor!

REED CONTACT RATED VALUE

	DC	AC
Rated voltage	(3 ... 130) V	(3 ... 130) V
Max. commutable power	20 W	20 VA
Max. commutable current	300 mA (resistive load)	
Max. inductive load	3 W	

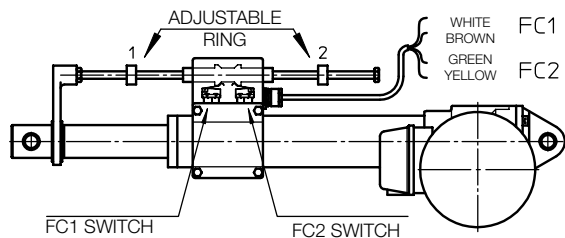
Standard: NC switch (normally closed contact) equipped with signalling LEDs and protective varistor against voltage peaks.

Standard cable length 2 m; wires 2 × 0.75 mm²

Different configurations available on request: NO (normally open); CS (exchanging contact).

For more information please contact our Technical Dpt.

13.2 Electric stroke end switches FCE (actuators ATL 10, ATL 12, BSA 10, BSA 12)



Two electric switches, installed inside a sealed plastic box, are activated by two adjustable rings through a shaft collar.

Standard switches are wired on the NC contact, cable length 1.5 m; wires 4 × 0.75 mm²

On request, they can be wired on the NO contact or on the switch-over contact CS (for available configurations please contact our Technical Dpt).

Min retracted length L_c is adjusted by ring 1. FC1 switch is connected with the WHITE and the BROWN cables.

Max extended length L_a is adjusted by ring 2. FC2 switch is connected with the YELLOW and the GREEN cables.

The position of the brass rings along the stainless steel supporting rod is easily adjustable.

CONTACT RATED VALUE

Voltage	Max current	
	Resistive load	Inductive load
250 Vac	5 A	3 A
30 Vdc	5 A	0.1 A
125 Vdc	1.4 A	-

WARNING! The electric reed switches can work only if connected to a wiring control circuit in order to activate the electric relay. Do not connect them in series between the power supply and the electric motor!