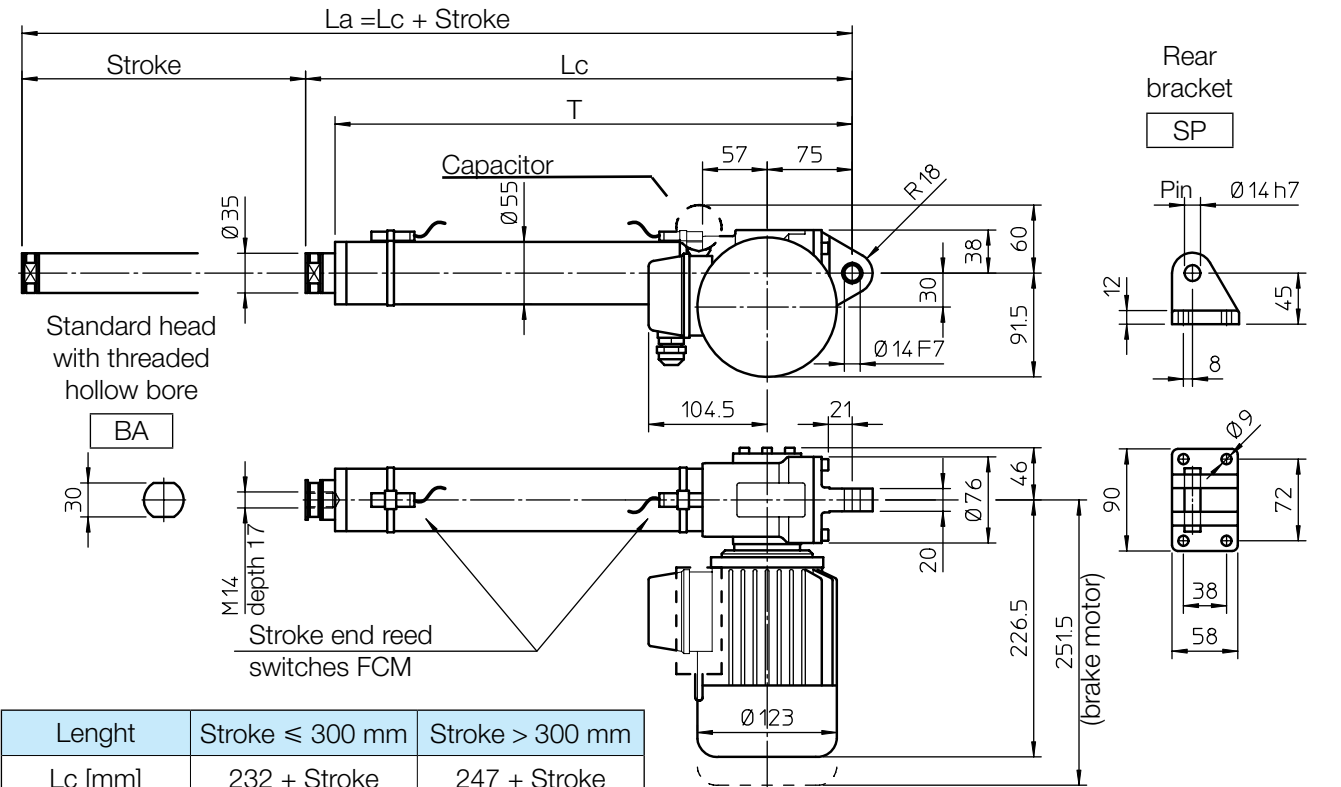
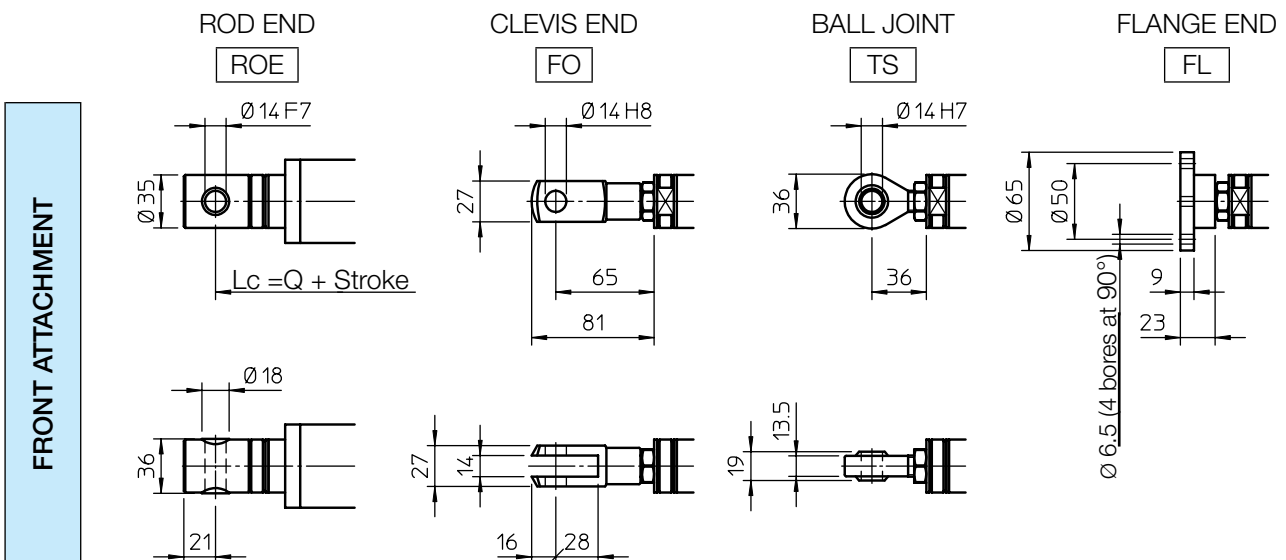
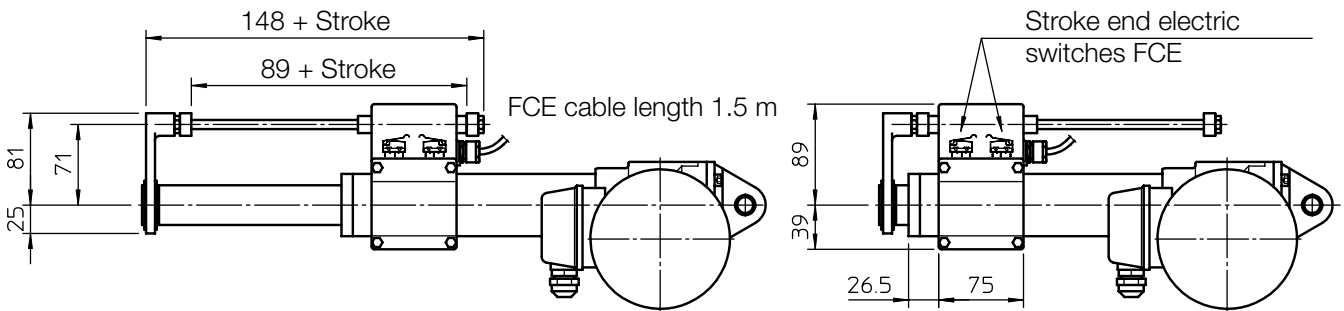


## OVERALL DIMENSIONS



Lenght	Stroke $\leq 300$ mm	Stroke $> 300$ mm
$Lc$ [mm]	$232 + \text{Stroke}$	$247 + \text{Stroke}$
$T$ [mm]	$206 + \text{Stroke}$	$206 + \text{Stroke}$
$Q$ [mm]	252	267



### PERFORMANCES AND FEATURES

- Push load up to 11 000 N
- Pull load up to 8 000 N
- Linear speed up to 93 mm/s
- Standard stroke lengths:  
100, 150, 200, 300, 400, 500, 600, 700, 800 mm  
(for different /longer stroke lengths please contact us)
- Aluminium alloy housing and rear attachment,  
with bronze bush
- Anodized aluminium outer tube
- Chrome-plated steel push rod – tolerance f7
- Standard front head BA or rod end ROE  
in stainless steel AISI 303 with bronze bush
- AC 3-phase or 1-phase motor  
(motor features on page 70)
- Standard protection IP55 (IP54 with brake)
- Duty cycle with max load:  
30% over 10 min at (-10 ... +40) °C
- Standard motor mounting position as per sketch  
(right-hand, code RH)
- 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)
- Brake motor
- Two adjustable stroke end reed switches  
(code FCM)
- Extra switches for intermediate positions
- Electro-mechanical stroke end switch  
for linear speed up to 30 mm/s  
(code FCE)  
(technical data on page 72)

### 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

1-start acme screw Tr 18x4				
RATIO	0.18 kW - 4 pole motor		0.25 kW - 2 pole motor	
	LOAD [N]	SPEED [mm/s]	LOAD [N]	SPEED [mm/s]
RV1	3130	23	2450	47
RN1	9620	5.5	7320	11
RL1	11000	2.5	11000	5.5

2-starts acme screw Tr 18x8 (P4)				
RATIO	0.18 kW - 4 pole motor		0.25 kW - 2 pole motor	
	LOAD [N]	SPEED [mm/s]	LOAD [N]	SPEED [mm/s]
RV2	2070	47	1590	93
RN2	6710	11	4500	22
RL2	10280	5.5	7660	11

### Self-locking conditions

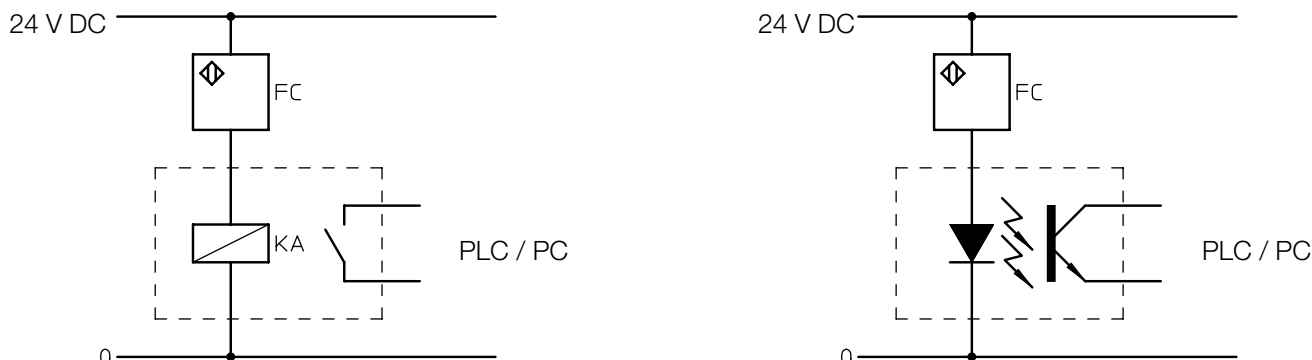
Information about statically self-locking conditions with pull or push load on page 68.

### ORDERING CODE EXAMPLE

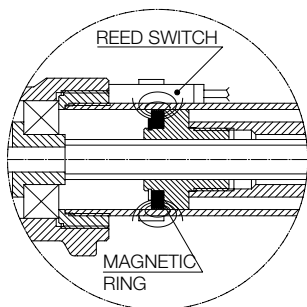
ATL 12	RL1	C200	CA 230/400 V	FCM					
Actuator	Selected ratio	Required stroke	Motor	Stroke end switches	Accessories			Options	

## 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	

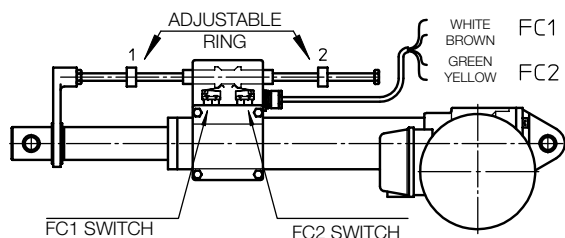
**Standard: NC switch** (normally closed contact) equipped with signalling LEDs and protective varistor against voltage peaks.

**Standard cable length 2 m; wires 2 × 0.75 mm<sup>2</sup>**

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 mm<sup>2</sup>**

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!