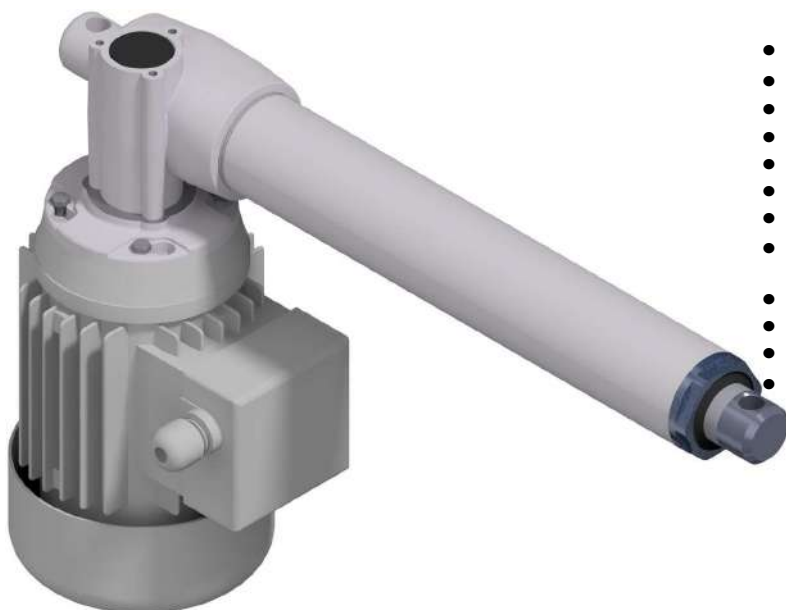


ALI-4

Industrial Linear Actuator



- Permanent magnet DC motor
- Three phase and single phase AC motor
- Worm gearbox
- Acme lead screw or ballscrew (VRS)
- Chrome plated steel push rod
- Life long grease lubricated
- IP55
- IP65 DC, tested according to rule CEI EN 60529
NB: Only for brake motors Standard IP54, IP65 on request
- Working temperature range -10°C +60°C
- Intermittent duty S3 30% (5 min) a +30°C for AC motor
- Limit switches, potentiometer and encoder on request
- Version At-Ex II 3 D T4 (AC motor) on request

ALI4 (Vac 3-phase)				
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor power (KW)
2100 *	93	M01	IEC71	0.55 2 poles
3900 *	47	M02	IEC71	0.55 2 poles
5300	23	M03	IEC63	0.37 4 poles
8600	9	M04	IEC63	0.22 4 poles
9400	6	M05	IEC63	0.22 4 poles
10000	3	M06	IEC63	0.13 4 poles

ALI4 (Vdc)						
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor speed (rpm)	Max Current for F max(A) 24Vdc	Fs % base 5 min.
600*	100	M20	77	3000	9	20
1100*	50	M21	77	3000	11	20
2800	20	M22	77	3000	12	20
4100	13	M23	77	3000	13	10
6800	7	M24	77	3000	12	20

ALI4 VRS (Vac 3-phase)				
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor power (KW)
2500 *	58	M08	IEC63	0.25 2 poles
3100	29	M09	IEC63	0.18 4 poles
3400	23	M10	IEC56	0.13 2 poles
5000	15	M11	IEC56	0.13 2 poles
6000	7	M12	IEC56	0.09 4 poles
7500	4	M13	IEC56	0.09 4 poles

ALI4 VRS (Vdc)						
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor speed (rpm)	Max Current for F max(A) 24Vdc	Fs % base 5 min.
2400*	63	M26	77	3000	11,5	20
3400	25	M27	77	3000	8	20
3900	16	M28	77	3000	7	30
6800	8	M29	77	3000	7	30
7500	5	M30	77	3000	6	30

* When speed is more than 30 mm/s and/or strokes longer than 350mm, check stroke SETUP section.

With single-phase motors performances are 20% lower than the three-phase motor.

→ The brake motor is strongly recommended

Before operating an actuator make sure you read and understand basic operational instructions shown on user manuals, available from our sales office.

This document displays most typical standard features and setups.

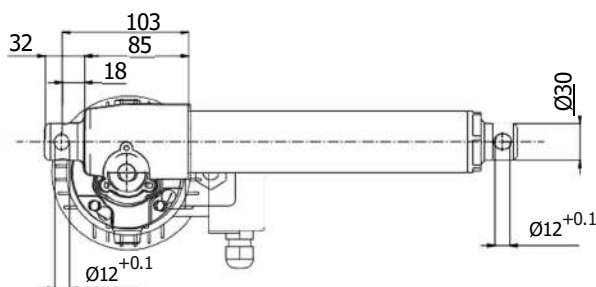
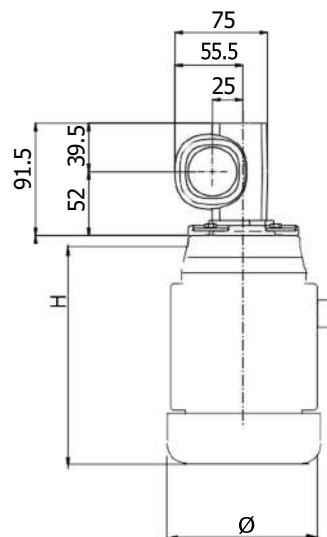
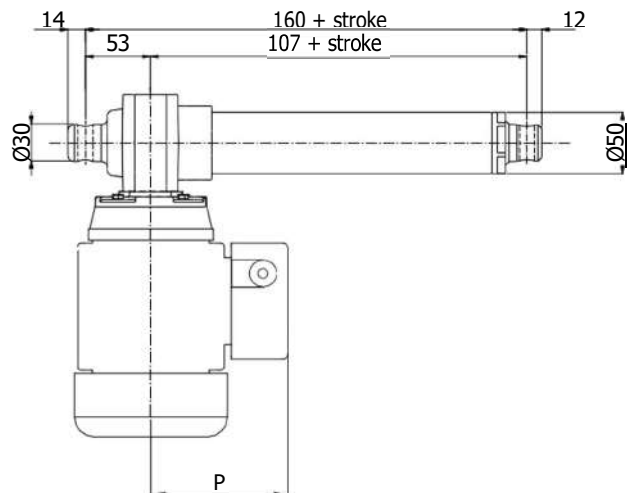
Actuators must not come to a mechanical stroke-end / mechanical lock to avoid failures.

Consider limit switches (MODEL ALI4-F or ALI4-FCM) or put them on a machine / frame.

t: + (27) 011 468 1881 c: + (27) 074 465 1744
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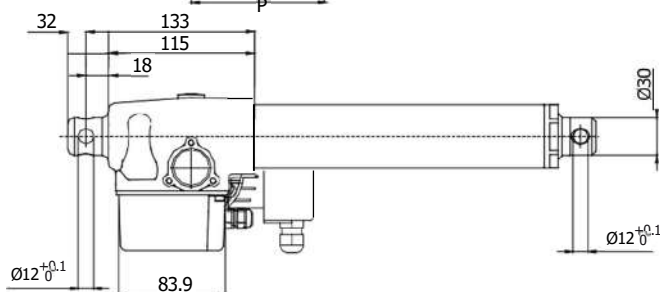
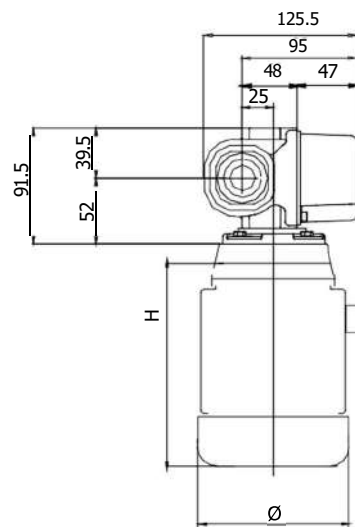
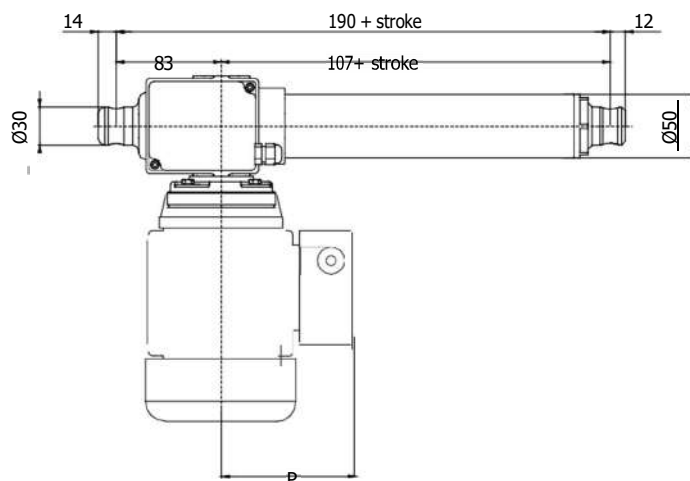
Address: 320 B Percheron Road, Kyalami, Midrand, 1684
GPS Coordinates: [S 25.98115° / E 028.06869°](https://www.google.com/maps/place/320+B+Percheron+Road,+Kyalami,+Midrand,+1684)

VERSION WITHOUT LIMITSWITCHES

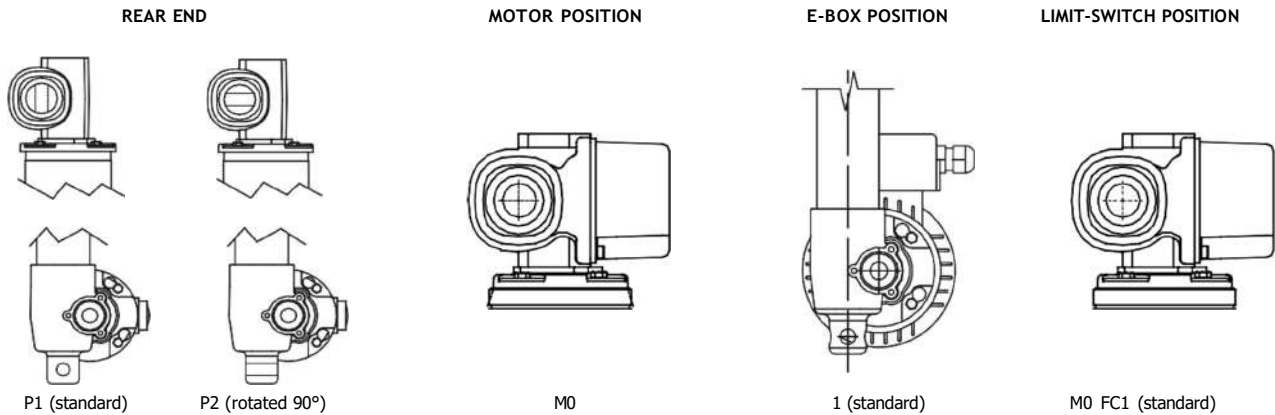


A.C. MOTORS DIMENSIONS				
GR. / SIZE	TYPE	H	Ø	P
56	Standard	168	116	108
	Brake motors	200		
63	Standard	190	129	110
	Brake motors	235		
71	Standard	220	146	121
	Brake motors	267		

VERSION WITH LIMITSWITCHES



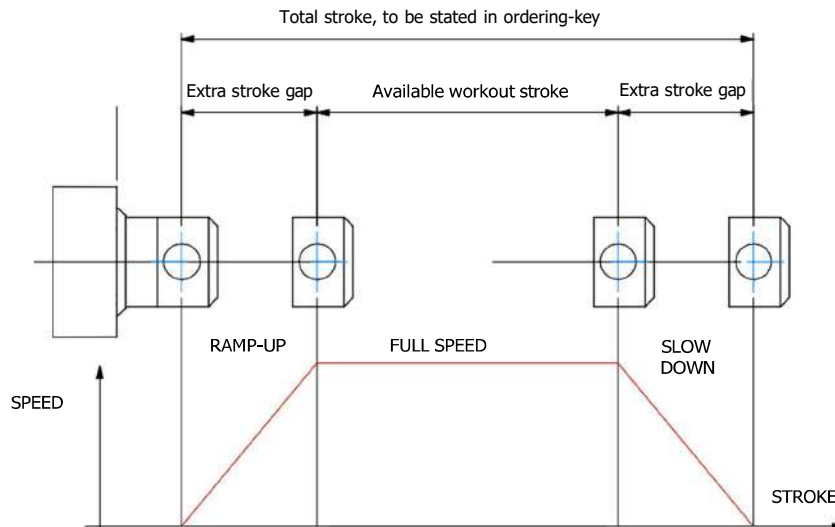
A.C. MOTORS DIMENSIONS				
SIZE	TYPE	H	Ø	P
56	Standard	168	116	108
	Brake motors	200		
63	Standard	190	129	110
	Brake motors	235		
71	Standard	220	146	121
	Brake motors	267		



STROKE SETUP

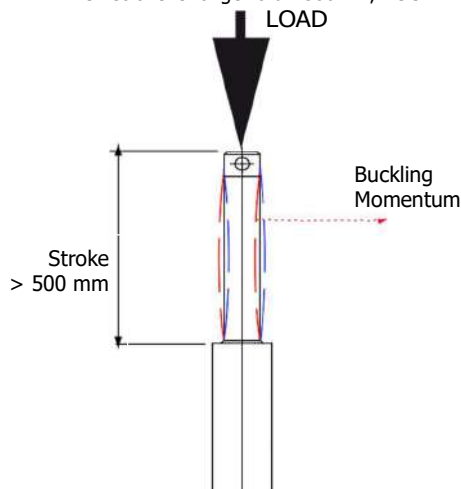
Useful tips for handling stroke length and avoiding run-on-block collision.

- When stroke is more than 350 mm, add 50 mm extra-stroke as guidance, and put corresponding value in ordering-key.
- **WARNING SPEED-TIMING ALONG STROKE LENGTH:** ramps are extremely important when speed is 30 mm/s! Inverter or PWM drive recommended!
- The higher the speed, the more safety stroke is required.



BUCKLING

When stroke is longer than 500mm, BUCKLING can be a risk: please check mounting with our offices and/or see user manuals.



IMPORTANT:

Long strokes, even if the load is low, can generate significant buckling momentum, as sketch shows.

This happens when the actuator is in its all-open position. Therefore, we recommend 100mm extra non-usable stroke to act as bushing. Push tube will have this 100 mm-portion always inside the outer tube, improving guidance against buckling.

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ORDERING KEY EXAMPLE

ALI4/0250/M06/AC-400/50-T-63-4-0,13/AB/M0 /2FC1/FC1/1/E06/POT01A /P1/A1/

MODEL

ALI4 / ALI4-F / ALI4-FCM / ALI4-FCI / ALI4-VRS /
ALI4-VRS-F / ALI4-VRS-FCM / ALI4-VRS-FCI

STROKE

es. 250 mm = 0250

VERSION

M01 / M02 / M03 / M04 / M06 / M08 / M09 / M10 / M11 / M12 / M13

M00 Not standard speed

Flanged version: indicate reduction ratio and screw pitch

MOTOR

AC: version, voltage, type, size, pole, power

With motor flange only put 0

With special motor flange put: PD

AC MOTOR OPTIONS

Motor flange: for motor flange version only advise size - i.e. For IEC56 B14 put 56B14

Protection Degree: IP65, for self-brake motor IP54 standard

Brake type: for brake motors only (es. FECA)

Options: Advise if needed (es. AB 2'shaft)

MOTOR POSITION

M0 None: Leave blank

LIMIT SWITCHES

2FC1 None: Leave blank

LIMIT SWITCHES POSITION

FC1 None: Leave blank

E-BOX POSITION

1 No Motor: Leave blank

ENCODER

Options pg.76 None: Leave blank

POTENTIOMETER

POT01A (1Kohm) POT10A (10Kohm) None: Leave blank

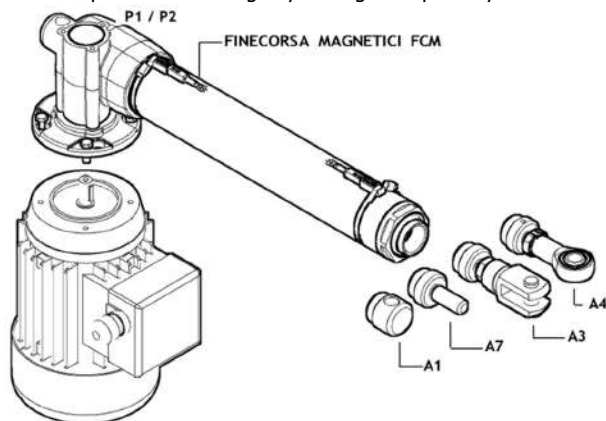
REAR END

P1 = Eyelet (standard) P2 = Eyelet (90°)

FRONT END

A1 = Eyelet (standard) A3 = Yoke + Clip A4 = Rod end A7 = M12 male

NOTE: Complete the ordering key adding the options you can find in the "Accessories and Options" section



Note: "B" dimension variations depending on model

ALI4 = see pictures

ALI4-F = + 30 mm

ALI4-FCM = + 42,5 mm

ALI4-FCI = + 42,5 mm

with safety nut "G" = + 30 mm

ALI4-VRS (versione 16x5) = + 25 mm

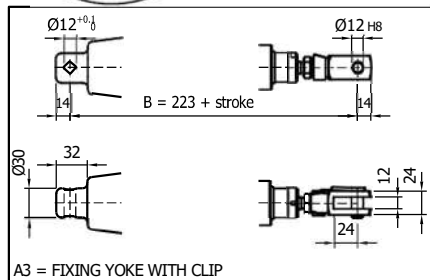
ALI4-VRS-F (versione 16x5) = + 53 mm

ALI4-VRS-FCM (versione 16x5) = + 53 mm

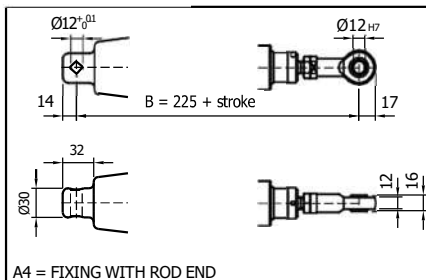
ALI4-VRS-FCI (versione 16x5) = + 53 mm

L = + 15 mm

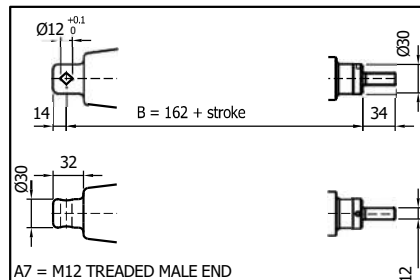
Bellows = + 15 mm (excluding FCM and FCI version)



A3 = FIXING YOKE WITH CLIP



A4 = FIXING WITH ROD END



A7 = M12 TREADED MALE END