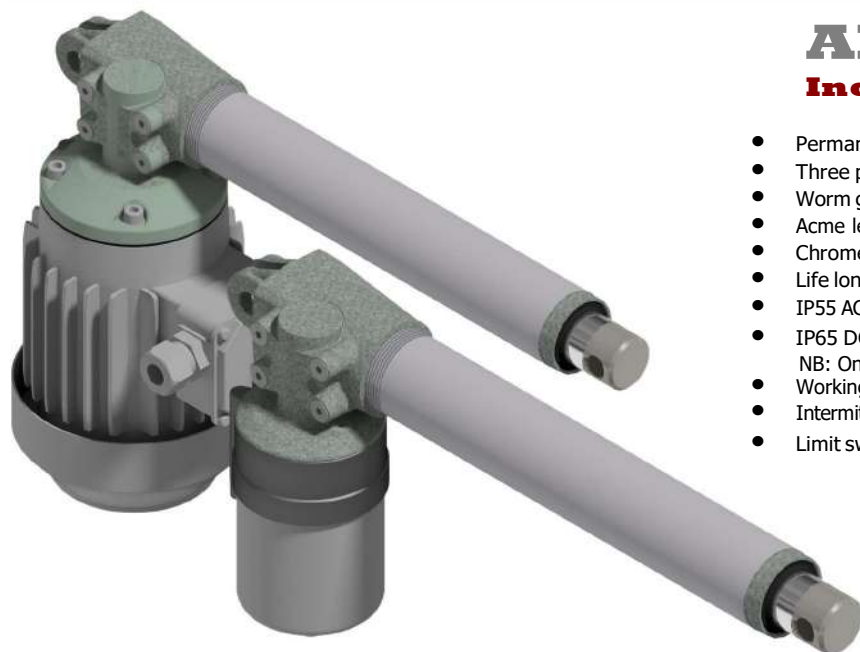




ALI-2

Industrial Linear Actuator

- Permanent magnet DC motor
- Three phase or single phase AC motor
- Worm gearbox
- Acme lead screw or ballscrew (VRS)
- Chrome plated steel push rod
- Life long grease lubricated
- IP55 AC
- 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 motors
- Limit switches, potentiometer and encoder on request

ALI2 (Vac tri-phase)				
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor power (KW)
450 *	110	M01	IEC56	0.09 2 poles
500 *	70	M02	IEC56	0.09 2 poles
650 *	50	M03	IEC56	0.09 2 poles
850 *	40	M04	IEC56	0.09 2 poles
1000	30	M05	IEC56	0.06 4 poles
1400	20	M06	IEC56	0.06 4 poles
2200	10	M07	IEC56	0.06 4 poles
2500	5	M08	IEC56	0.06 4 poles

ALI2 VRS (Vac tri-phase)				
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor power (KW)
1500 *	45	M01	IEC56	0.09 2 poles
1800	30	M02	IEC56	0.09 2 poles
2000	20	M03	IEC56	0.06 4 poles
2500	10	M04	IEC56	0.06 4 poles
2500	5	M05	IEC56	0.06 4 poles

ALI2 (Vdc)						
Fmax (N)	Speed (mm/s)	Version	Motor size	Motor speed (rpm)	Max Current for F max (A) 24Vdc**	Fs % base 5 min.
800 *	110	M08	59	3000	9	10
1100 *	55	M10	59	3000	7	30
1500 *	40	M11	59	3000	8,5	20
2000	30	M12	59	3000	8,5	20
2500	20	M13	59	3000	8	20
2500	10	M14	59	3000	5	30

* When speed is more than 40 mm/s and/or strokes longer than 350mm, check the stroke setup section.

** For 12 Vdc power supply currents are doubled, and loads are 20% lower.

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

For the DC models it is possible to add an IP20 brake.

→ 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.

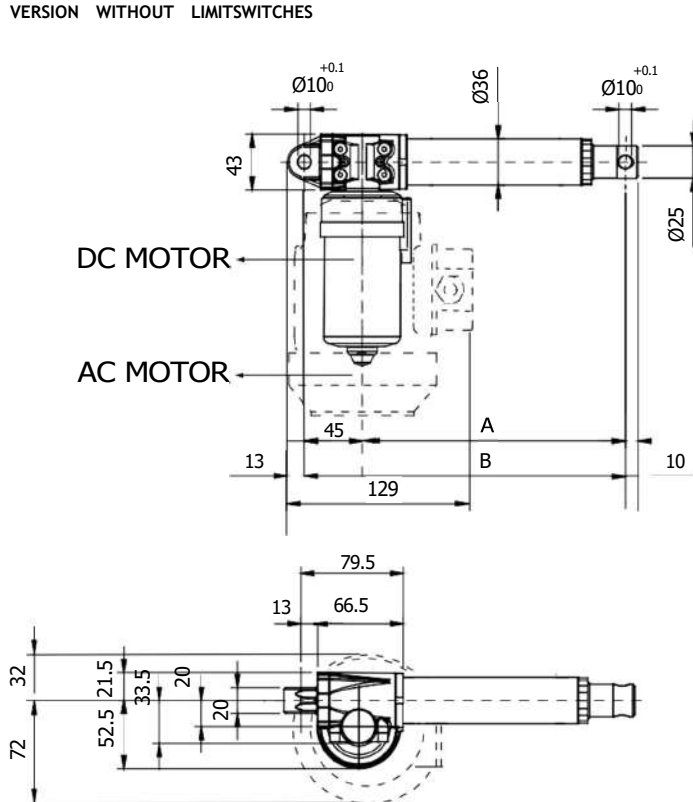
Actuators must not come to a mechanical stroke-end / mechanical lock to avoid failures.

Consider limit switches (MODEL ALI2-F or ALI2-FCM) or put them on a machine / frame.

t: + (27) 011 468 1881 c: + (27) 074 465 1744
e: 01@BirCraft.co.za w: www.BirCraft.co.za

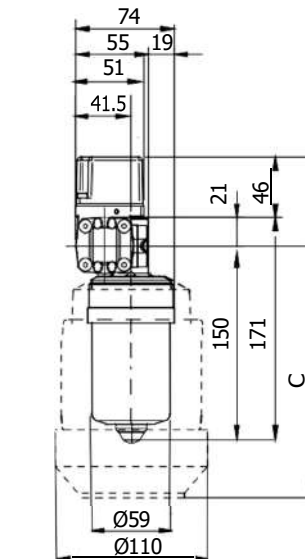
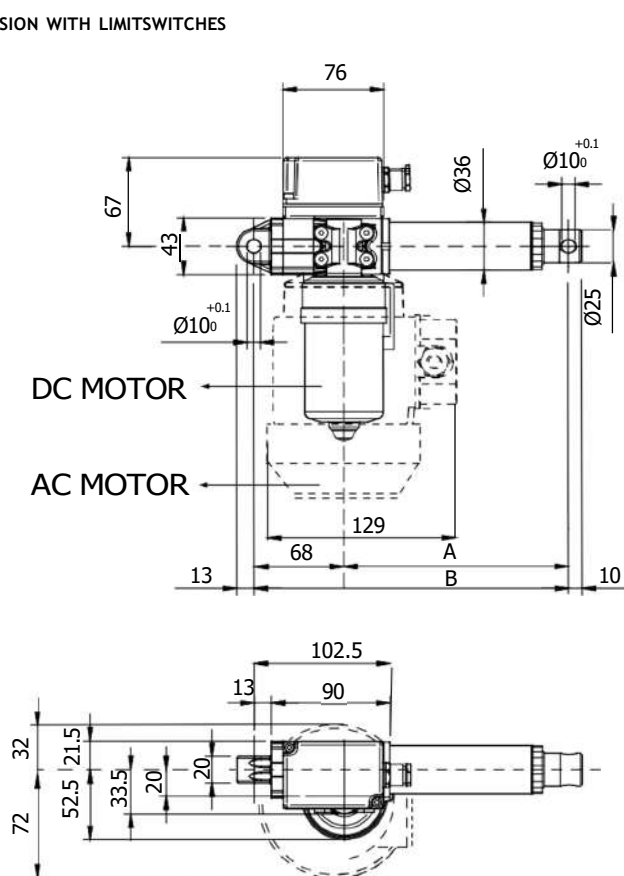
Address: 320 B Percheron Road, Kyalami, Midrand, 1684
GPS Coordinates: [S 25.98115° / E 028.06869°](https://www.google.com/maps/place/320+B+Percheron+Road,+Kyalami,+Midrand,+1684)

VERSION WITHOUT LIMITSWITCHES

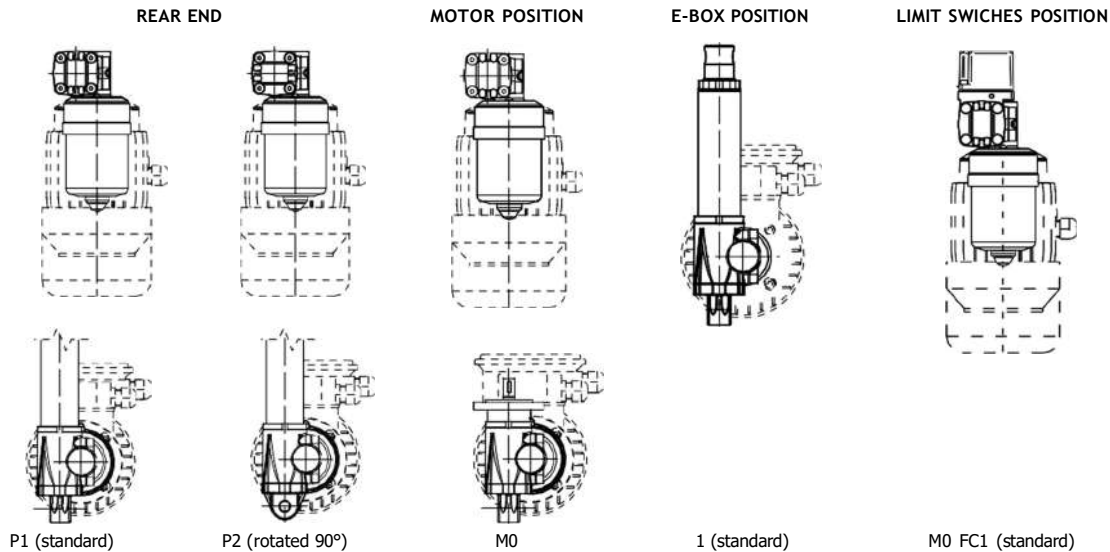


DIMENSION	Stroke < to 320 mm	Stroke > to 320 mm
A	70 + stroke	80 + stroke
B	115 + stroke	125 + stroke
C with brake	254.5	
C without brake	209.5	

VERSION WITH LIMITSWITCHES



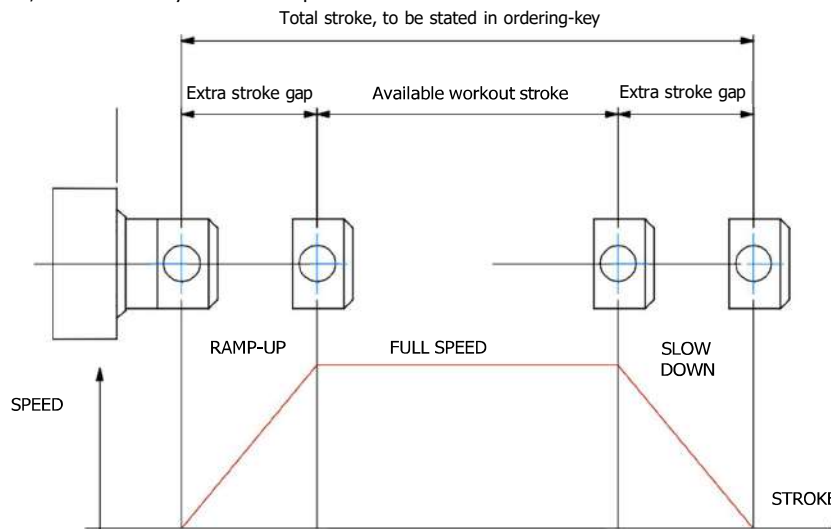
DIMENSION	Stroke < to 320 mm	Stroke > to 320 mm
A	70 + stroke	80 + stroke
B	138 + stroke	148 + stroke
C with brake	254.5	
C without brake	209.5	



STROKE SETUP

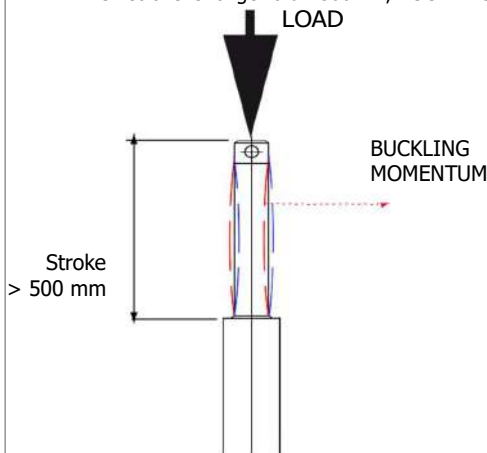
Useful tips for handling stroke length and avoiding run-on-block collision.

- 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.

t: + (27) 011 468 1881 c: + (27) 074 465 1744
e: 01@BirCraft.co.za w: www.BirCraft.co.za

Address: 320 B Percheron Road, Kyalami, Midrand, 1684
GPS Coordinates: [S 25.98115° / E 028.06869°](#)

ORDERING KEY EXSAMPLE

ALI2/0250/M04/AC-400/50-T-56-2-0,09/AB/M0/1/E06/2FC1/POT01A/FC1/P1/A1/

MODEL

ALI2 / ALI2-F / ALI2-VRS / ALI2-F- VRS / ALI2-FCM / ALI2-FCM-VRS

STROKE (mm)

es. 250 mm = 0250

VERSION

M08 / M10 / M11 / M12 / M13 / M14 (DC)

M01 / M02 / M03 / M04 / M05 / M06 / M07 / M08 (AC)

M00 = Not standard speed

MOTOR

A.C. version, voltage, type, size, no. of poles, power

D.C. version, voltage, size, Rpm

AC MOTOR OPTION

No motor or DC motor: leave all following parameters blank

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

E-BOX POSITION

1

ENCODER (Pag. ACCESSORIES)

Options pg.76 None: Leave blank

LIMIT SWITCHES (Pag. ACCESSORIES)

2FC1 None: Leave blank

POTENTIOMETER (Pag. ACCESSORIES)

POT01A (1Kohm)

POT10A (10Kohm)

None: / Leave blank

LIMIT SWITCHES POSITION

FC1 None: Leave blank

REAR END

P1 = Eyelet (standard)

P2 = Eyelet (90°)

FRONT END

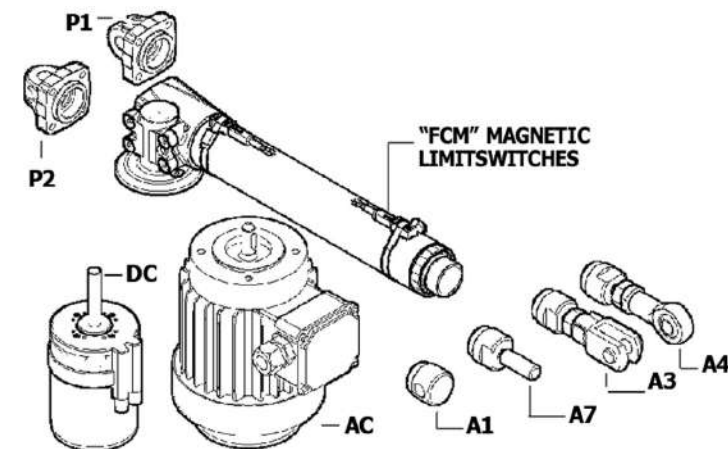
A1 = Eyelet

A3 = Yoke + Clip

A4 = Rod end

A7 = M10 male

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



Note: "B" dimension changes according to model

ALI2 = See pictures

ALI2 stroke > 320 mm = + 10 mm

ALI2-FCM = + 34 mm

ALI2-FCM stroke > 320 mm = +44

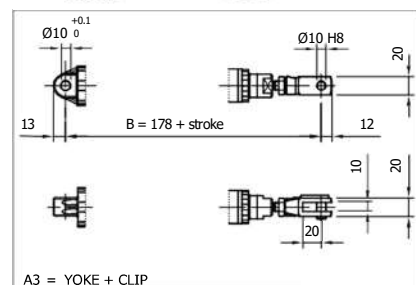
ALI2-F = + 23 mm

ALI2-F stroke > 320 mm = + 33 mm

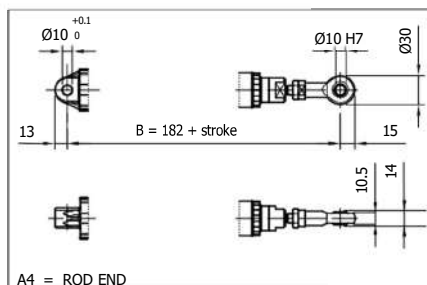
With safety nut "G" = + 30 mm

ALI2-F-VRS = + 63 mm

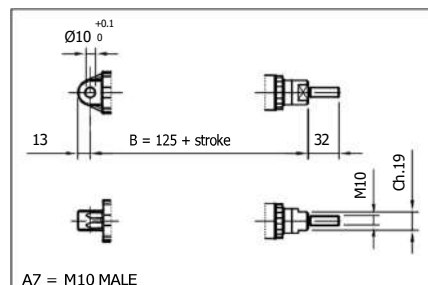
Bellows + 20mm



A3 = YOKE + CLIP



A4 = ROD END



A7 = M10 MALE