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Linear Actuators

ALI5-P Cross Gears and ALI5-PB Belt Drive

Features and Options:



- ✓ Three phase or single-phase motor CE
- ✓ Cross gears (ALI5-P)
- ✓ Belt drive (ALI5-PB)
- ✓ Acme lead screw or balls crew (VRS)
- ✓ Chrome plated steel push road
- ✓ Grease (standard) or oil (VRS continuous duty S1) lubricated only P version
- ✓ IP65, 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% (5min) a +30°C acme lead screw version
- ✓ Continuous duty S1 +30°C balls crew version
- ✓ Limit switch, potentiometer, encoder on request
- ✓ At-Ex II 3 D T4 version (AC Motor) on request

For any special duty requests, please contact our Sales Department for more assistance.

ALI5P - AC - ACME LEAD SCREW - S3 30% (5 MIN) 30°C					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
2700 ¹	113	M11	IEC71	0.55	2800
4000 ¹	57	M12	IEC71	0.37	1400
6600	28	M13	IEC71	0.37	1400
15000	14	M14	IEC71	0.37	1400
15000	9	M15	IEC71	0.37	1400
15000	5	M16	IEC71	0.25	1400

ALI5P - AC - BALLSCREW - S1					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
3900 ¹	113	M56	IEC71	0.55	2800
5500 ¹	57	M57	IEC71	0.37	1400
7000	28	M58	IEC71	0.37	1400
9000	14	M59	IEC71	0.25	1400
10000	9	M60	IEC71	0.25	1400

ALI5PB - AC - ACME LEAD SCREW - S3 30% (5 MIN) 30°C					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
2700 ¹	113	M11	IEC71	0.55	2800
4000 ¹	57	M12	IEC71	0.37	1400
6600 ¹	28	M13	IEC71	0.37	1400
15000 ¹	14	M14	IEC71	0.37	1400
15000 ¹	9	M15	IEC71	0.37	1400
15000 ¹	5	M16	IEC71	0.25	1400

ALI5PB - AC - VRS - BALLSCREW - S1					
FMAX (N)	SPEED (MM/S)	VERSION	MOTOR SIZE	MOTOR POWER (KW)	MOTOR SPEED (RPM)
3900 ¹	113	M56	IEC71	0.55	2800
5500 ¹	57	M57	IEC71	0.37	1400
7000 ¹	28	M58	IEC71	0.37	1400
9000 ¹	14	M59	IEC71	0.25	1400
10000 ¹	9	M60	IEC71	0.25	1400

¹When speed is more than 40 mm/s and/or strokes longer than 350mm, check STROKE SETUP section; BRAKEMOTOR IS RECOMMENDED

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

THIS DOCUMENT DISPLAYS THE MOST TYPICAL STANDARD FEATURES AND SETUPS. PLEASE CONTACT OUR SALES TEAM FOR MORE INFORMATION

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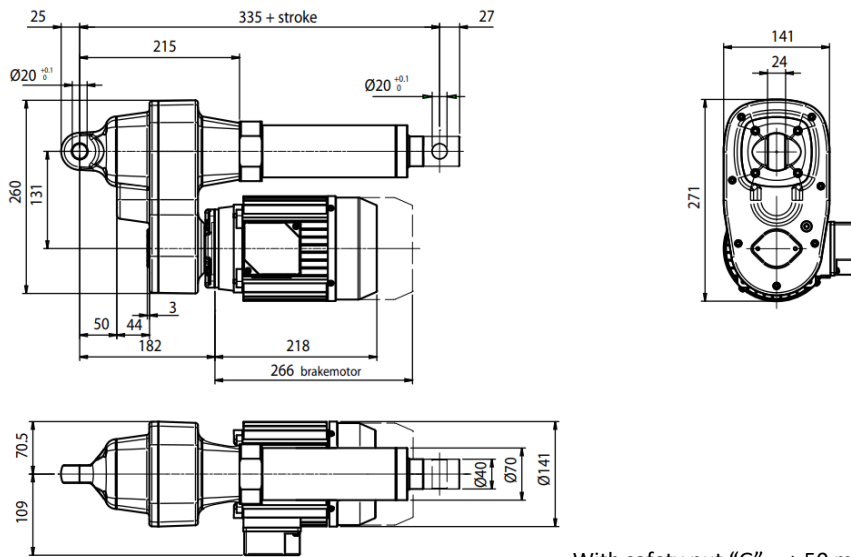
ALI5-P Cross Gears and ALI5-PB Belt Drive

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GEARED MOTORS - LINEAR ACTUATORS - CONTROLS

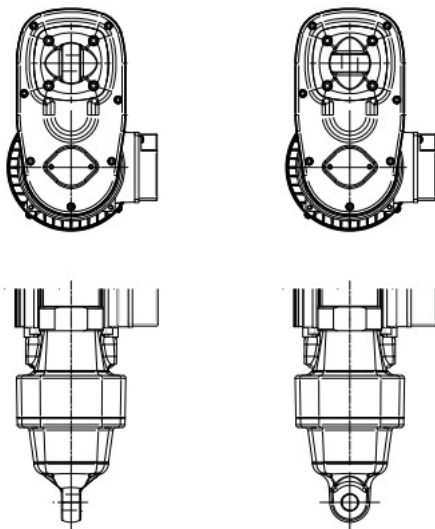
- Over 40 Years of Supplying Africa -

ALI5-P-PB Version without limit switches



With safety nut "G" = + 50 mm
Bellows + 25mm

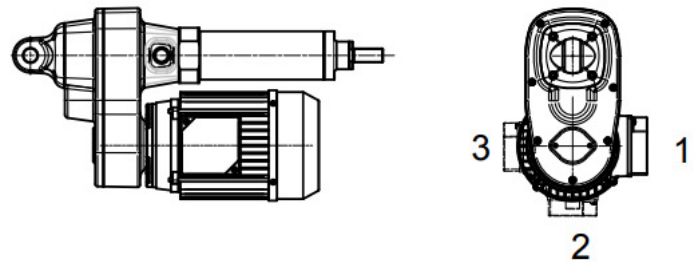
REAR ENDS



P1 Standard

P2 Ruotato 90°

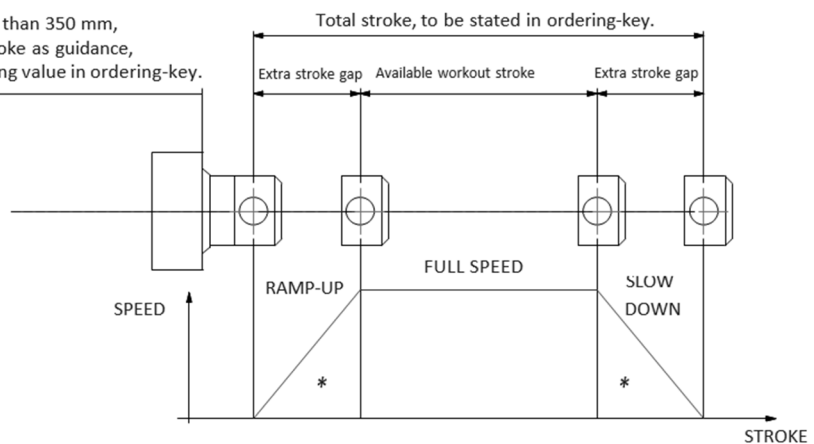
E-BOX POSITION



Stroke Setup:

Useful tips for handling stroke and avoid 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 STROKELENGTH:
Ramps are extremely important when speed is > 40mm/s. Inverter or PWM drive recommended.

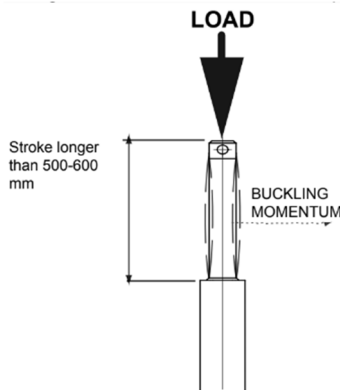
* The more speed raises the more extra stroke must raise too

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Buckling:

When stroke is longer than 500 mm, BUCKLING can be a risk
Please check mounting with our Sales Department.



IMPORTANT:

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

This happens when actuator is in its all-opened position: that's the reason why we recommend 100 mm extra-stroke.

Pushtube will have this 100 mm-portion always inside the overtube, improving guidance against buckling.

For more information on this, please contact our Sales Department.

Ordering Key:

ALI5-P / 0300 / M01 / CA-400-50-T-71-2-0,55 / B5 + AB / 1 / E05 / 2FCM0 / POT01A / P1 / A1

MODEL:

ALI5-P / ALI5-PB / ALI5-P-FCM / ALI5-P-FCI
ALI5-P-VRS / ALI5-P-VRS
ALI5--P-VRS-FCM / ALI5-P-VRS-FCI

STROKE:

es. 300 mm = 0300

VERSION:

Advise: choose among - Flanged Version = Rpm
Advise reduction ratio and screw pitch (ALI5)

MOTOR:

Advise only if with motor: version, voltage, type, size, n°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 IEC71 B14 put 71B14
No 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 LIMIT SWITCHES POSITION:

M0-FC1 / M1-FC2

None: Leave blank

E-BOX POSITION:

1 No Motor: Leave blank

ENCODER:

None: Leave blank

LIMIT SWITCHES:

None: Leave blank

POTENTIOMETER:

POT01A (1Kohm) POT10A (10Kohm)

None: Leave blank

REAR END:

P1 = Eyelet P2 = Eyelet (90°)

FRONT END:

A1 = Eyelet A3 = Yoke + Clip

A4 = Rod end A7 = M20x1.5 male

NOTE: COMPLETE THE ORDERING KEY ADDING THE OPTIONS YOU CAN FIND IN THE "ACCESSORIES AND OPTIONS" SECTION ON THE BIRDCRAFT WEBSITE.

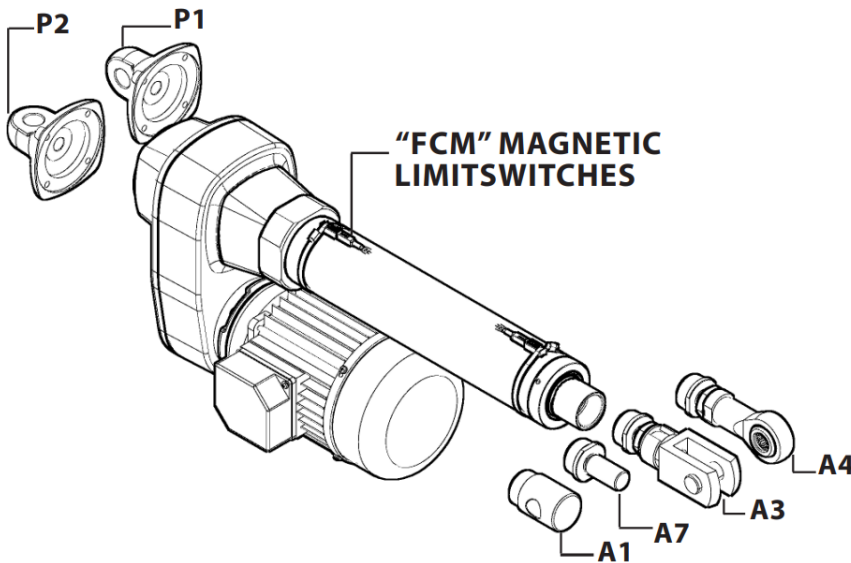
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NOTES:

"B" dimension variations depending on model

- ALI5-P = See pictures
- ALI5-P stroke > 500 = + 20 mm
- ALI5-P-FCM stroke < 500 = + 40 mm
- ALI5-P-FCM stroke > 500 = + 60 mm
- ALI5-P-FCI stroke < 500 = + 30 mm
- ALI5-P-FCI stroke > 500 = + 50 mm
- ALI5-P-VRS stroke < 500 = + 88 mm
- ALI5-P-VRS stroke > 500 = + 108 mm
- ALI5-P-VRS-FCM stroke < 500 = + 128 mm
- ALI5-P-VRS-FCM stroke > 500 = + 148 mm
- ALI5-P-VRS-FCI stroke < 500 = + 118 mm
- ALI5-P-VRS-FCI stroke > 500 = + 138 mm
- with safety nut "G" = + 50 mm (i.e. ALI5-P "G" option = +50)
- ant rotation device "L" = + 15 mm
- Bellows = + 25 mm

