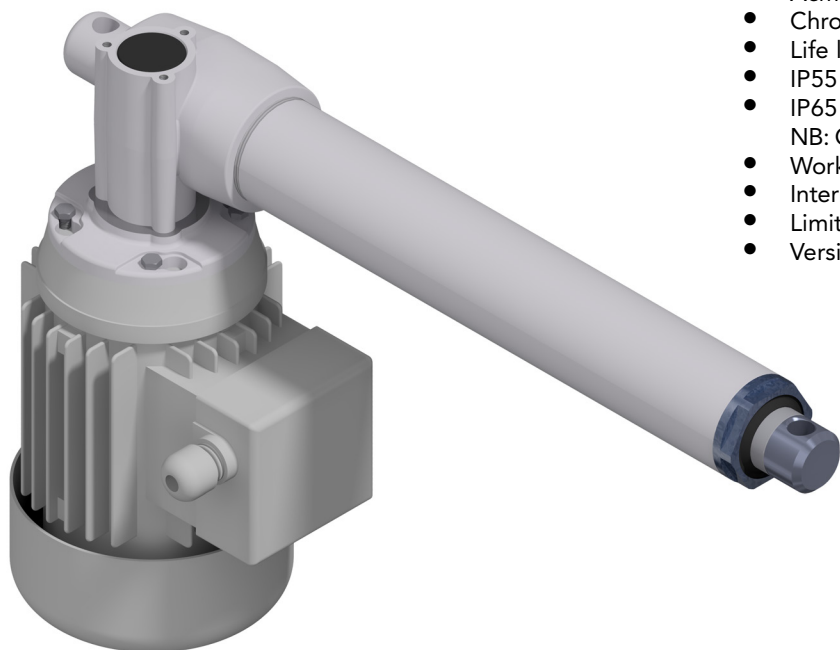


- Permanent magnet DC motor 24 V
- Three phase and single phase AC motor
- Worm gearbox
- Acme lead screw or ballscrew (VRS)
- Chrome plated steel push rod
- Life long grease lubricated
- IP55 CC
- IP65 DC, tested according to rule CEI EN 60529
- NB: Only for brake motors Standard IP54, IP65 on request
- 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 triphase)				
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 triphase)				
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 type M (see motor choice guideline in paragraph ACCESSORIES) performances are 20% lower than the three-phase motor.

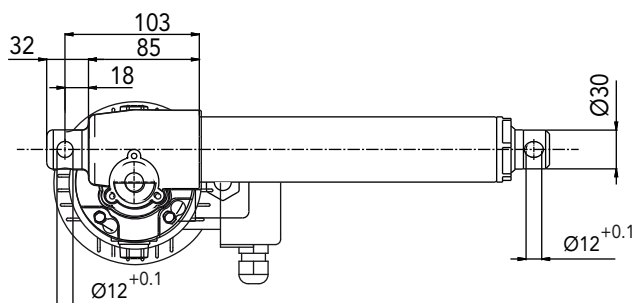
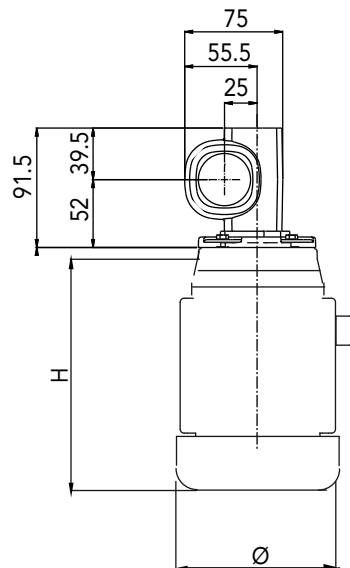
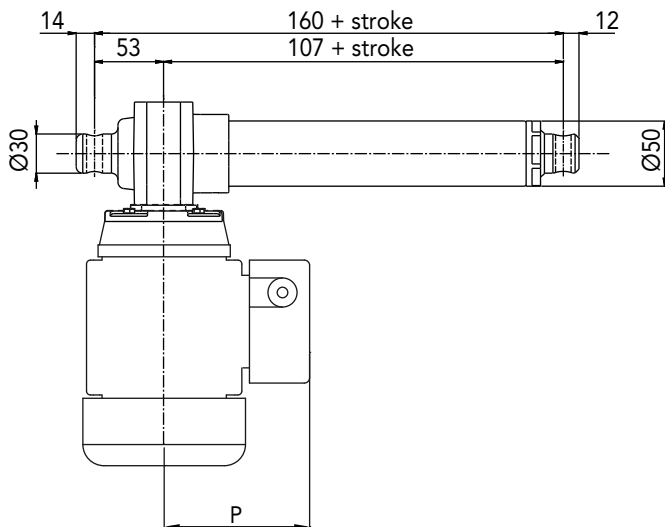
→ The brakemotor is strongly recommended

THIS DOCUMENT DISPLAYS MOST TYPICAL STANDARD FEATURES AND SETUPS: CONTACT OUR OFFICES FOR MORE. ACTUATOR SHALL NOT COME TO MECHANICAL STROKE-END, TO AVOID FAILURES.

BEFORE OPERATING ACTUATOR MAKE SURE YOU READ AND UNDERSTOOD BASIC OPERATIONAL INSTRUCTIONS SHOWN ON USERMANUALS, AVAILABLE FROM WEBSITE. CONSIDER MECVEL's LIMITSWITCHES ( MODEL ALI4-F or ALI4-FCM) OR PUT THEM ON MACHINE/FRAME

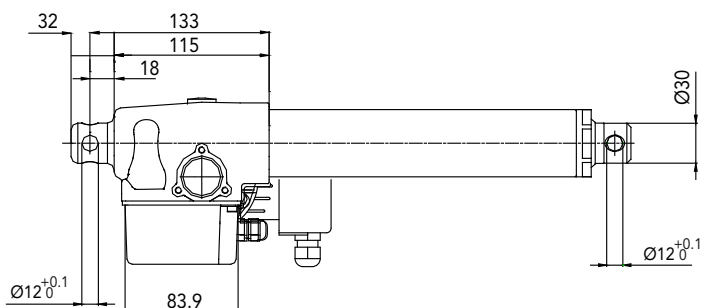
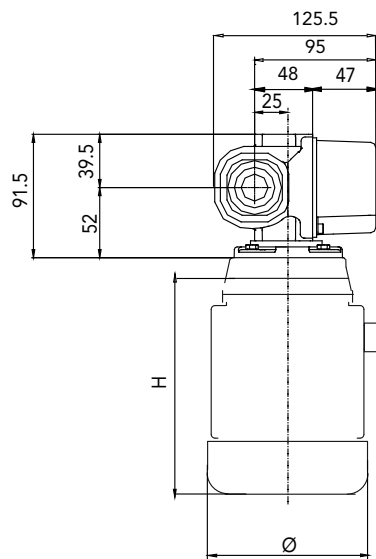
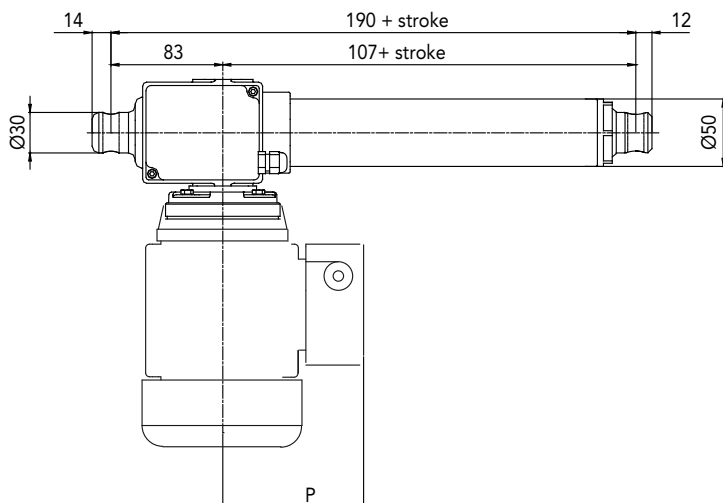
 MecVel reserves the right to change products information and/or features without notice; all data contained in this catalogue are purely indicative and not binding for the company.

VERSION WITHOUT LIMITSWITCHES



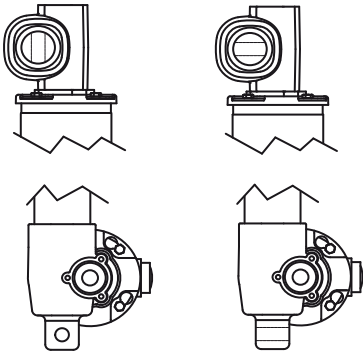
A.C. MOTORS DIMENSIONS				
GR. / SIZE	TYPE	H	Ø	P
56	Standard	168	116	108
	Brake motors	200		
63	Standard	190	129	110
	Brake motors	235		
71	Standard	220	146	121
	Brake motors	267		

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		

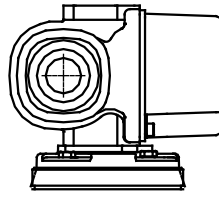
## REAR END



P1 (standard)

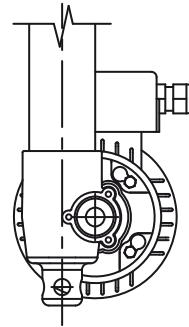
P2 (rotated 90°)

## MOTOR POSITION



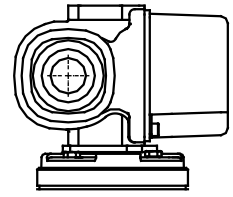
M0

## E-BOX POSITION



1 (standard)

## LIMIT-SWITCH POSITION

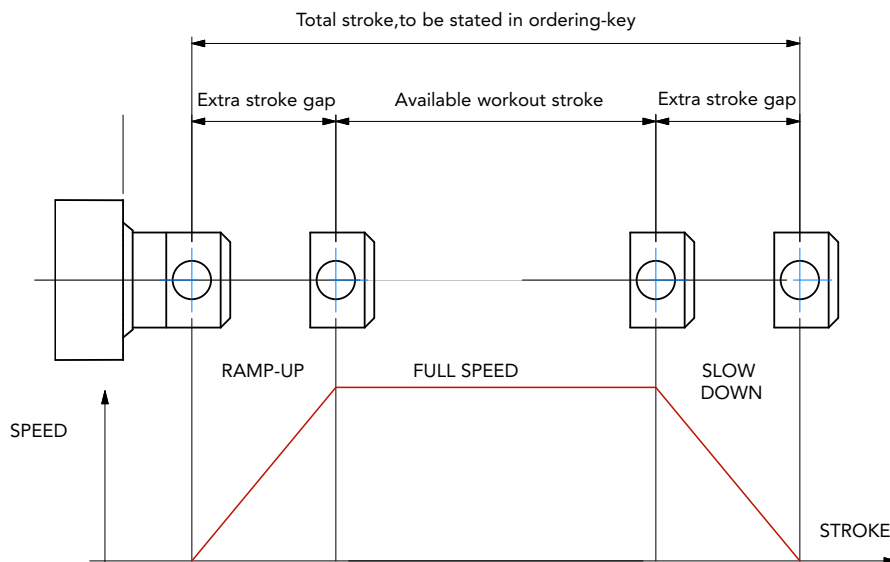


M0 FC1 (standard)

## STROKE SETUP

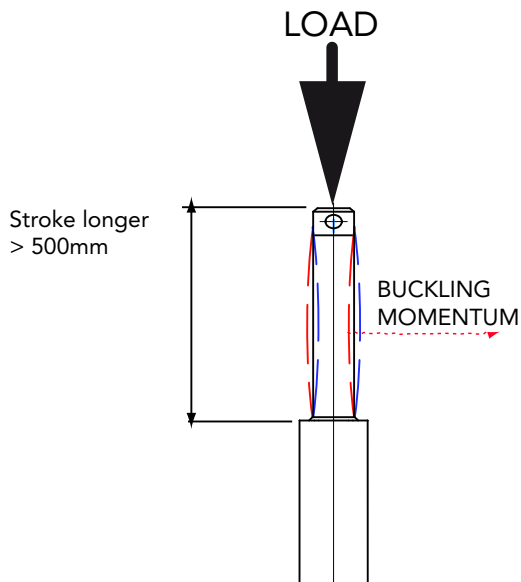
Useful tips for handling stroke and avoid run-on-block collision.

- 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 >30 mm/s! Inverter or PWM drive recommended!
- The more speed raises the more extra stroke has to raise too.



## BUCKLING

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



### IMPORTANT:

Long strokes, even if load is low, can generate significant buckling momentums, as sketch slows. 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, contact our office.

**ALI4/0250/M06/CA-400/50-T-63-4-0,13/AB/M0/1/E06/2FC1/POT01A/FC1/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, n°pole, power  
 With motorflange only put 0  
 With special motorflange put: PD

**AC MOTOR OPTIONS** \_\_\_\_\_  
 Motorflange: for motorflange version only advise size - i.e.for IEC56 B14 put 56B14  
 Protection Degree: IP65, for selfbrake motor IP54 standard  
 Brake type: for brakemotors 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

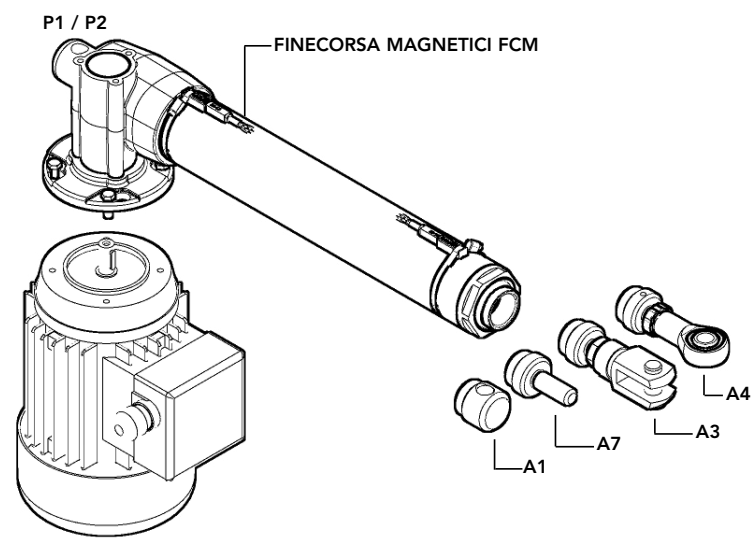
**ENCODER** \_\_\_\_\_  
 Options pg.76 None: Leave blank

**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) = + 55 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)

