LINACT-G2

Data Sheet



LINEAR ACTUATORS
SOUTH AFRICA

Contents

10 Other Models

09 Inquiry Table

08 Control & Connector

07 Position Feedback

06 Install. Size

05 Rear Mount. End

04 Front Mount. End

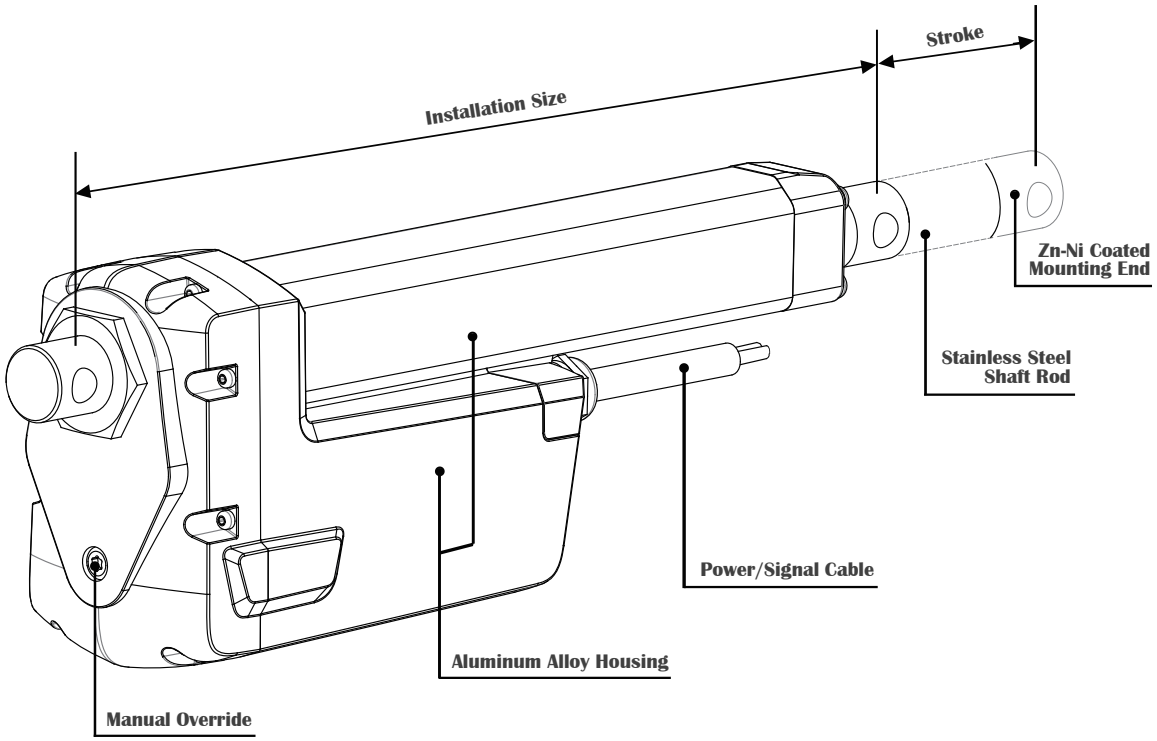
03 Chart of Load, Speed and Current

02 Configs. Load & Speed

01 Definitions



Definitions



[Figure 1]

Stroke	The maximum distance the actuator can move. Customizable. Stroke and max load is dependable on each other.
Installation Size	Fully closed size. Customizable.
Front Mount. End	Optional. See page 4.
Rear Mount. End	Optional. See page 5.
Manual Override	An optional hand crank can be inserted in this position instead of electric control, which can be used as auxiliary drive in emergency situations.
Mount. Holes	Can be rotated by 90°. See page 4 and page 5.
Dynamic Force	The max force that actuator is able to carry when it is moving. Dependable on stroke length.
Static Force	Self-locking force. The maximum force that linear actuator is able to carry when it stops. Dependable on stroke length.
Weather Protection	Dynamic IP66
Duty Cycle	25% (2 minute on, 6 minutes off)
Speed	Include free-load speed and full-load speed. Negatively correlated with the maximum load.
Potentiometer Feedback [Optional]	Potentiometer is a three-terminal variable resistor with a rotating contact which is used to measure the displacement of actuators.
Hall Effect Sensor [Optional]	Provide pulse signals. Displacement measurement is achieved through pulse counting, and the phase difference of the waveform can be used to identify the rotation direction of motor.

Configs.

Color	■ Silver & Grey	□ Black	□ Customized			
Lead Screw	■ Acme Screw	■ Ball Screw				
Operation Mode	□ Electrical	■ Electrical + Manual				
Application	■ Industrial	□ Furniture	□ Medical			
Operational	□ 5 to 40℃	□ -20 to 65℃	■ -40 to 65℃			
Operating Noise	□ ≤45 dB	□ ≤50 dB	■ ≤65 dB			
Stroke Range	■ 50-600 mm	■ 600-1,000 mm				
Dynamic Load	□ ≤1,200N	□ ≤2,000N	□ ≤4,000N	□ ≤7,000N	■ ≤12,000N	□ ≤20,000N
Duty Cycle	□ 10%	□ 20%	■ 25%	□ 50%	□ 100%	
Motor Type	■ Brushed DC	□ Stepper Motor	□ Brushless	□ Servo Motor		
Overload Protection	□ None	□ Clutch	■ Electronic	□ Thermistor		
Weather Protection	□ IP20	□ IP43	□ IP54	□ IP65	■ IP66	
Position Feedback	■ None	□ Limit Switch	■ Hall Sensor	■ Potentiometer	□ Reed Switch	□ Encoder
Input Voltage	■ 12VDC	■ 24VDC	■ 36VDC	■ 48VDC	□ 110VAC	□ 220VAC

[Table 1]

Parameters

Fill in code:

Code	Max. Dynamic Load	Max. Static Load	Reduction Ratio	Pitch	Speed±10% ①② (mm/s)		Max. Stroke w/o Pot. ③	Max. Stroke with Pot. ③
	(N)	(N)	(mm)	(mm)	Free Load	Full Load	(mm)	(mm)
A	12,000	15,000	43:1	4	6.0	4.0	1,000	175
B	11,000	12,000	31:1	4	8.0	5.2	1,000	175
C	7,500	9,000	21:1	4	12.0	8.0	1,000	175
D	10,000	12,000	43:1	8	12.0	7.0	1,000	350
E	7,000	8,000	31:1	8	17.0	9.5	1,000	350
F	5,000	6,000	21:1	8	25.0	14.0	1,000	350
G	6,500	8,000	43:1	12	18.5	11.0	1,000	530
H	4,500	5,500	31:1	12	25.0	13.0	1,000	530
I	3,200	4,000	21:1	12	37.0	23.0	1,000	530

[Table 2]

① Measurements are made with actuators in connection with stable power supplies and ambient temperature at 20°C.

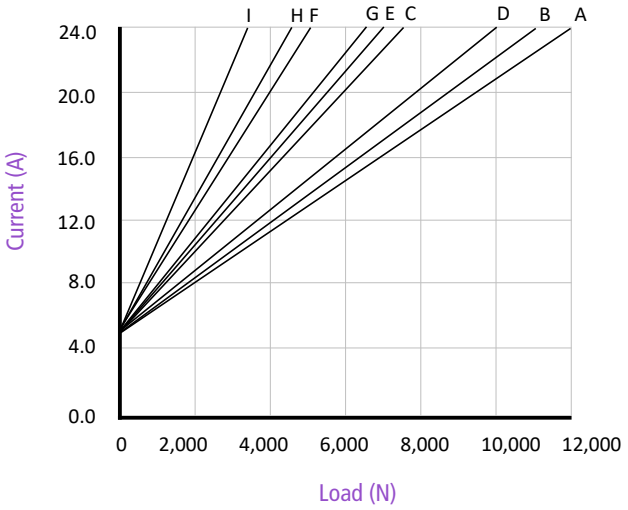
② For example, when real load is 10,000N, choosing code (D) is fine. Of course, you can also choose (A) or (B) which bring you more load buffer, higher safety factor and longer product service time.

③ There are many factors affecting the 'customizable maximum stroke', such as load, speed, force direction, etc., so the real application scenarios should be considered. If the parameters you required are not listed, please contact our sales engineers.

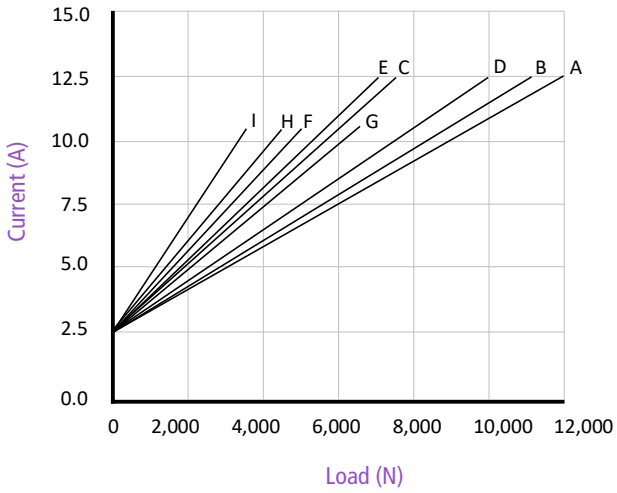
Charts

Fill in code:

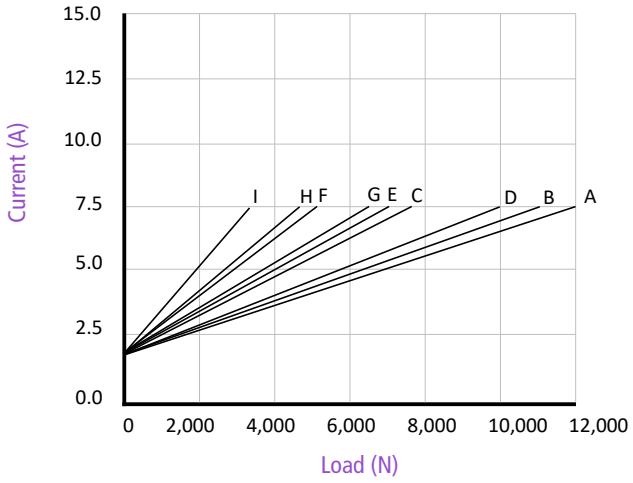
1 = 12v



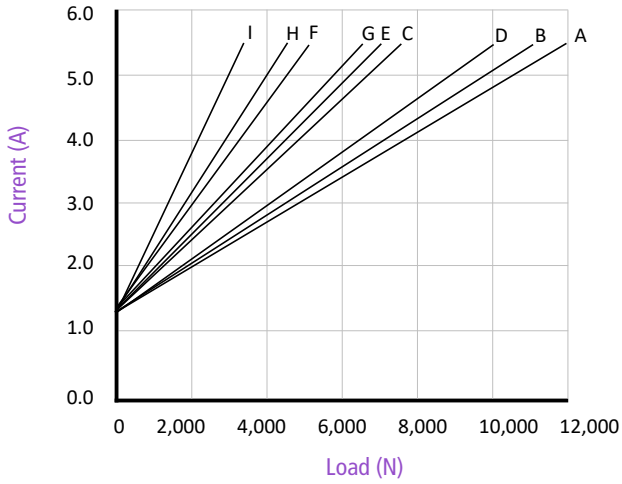
2 = 24v

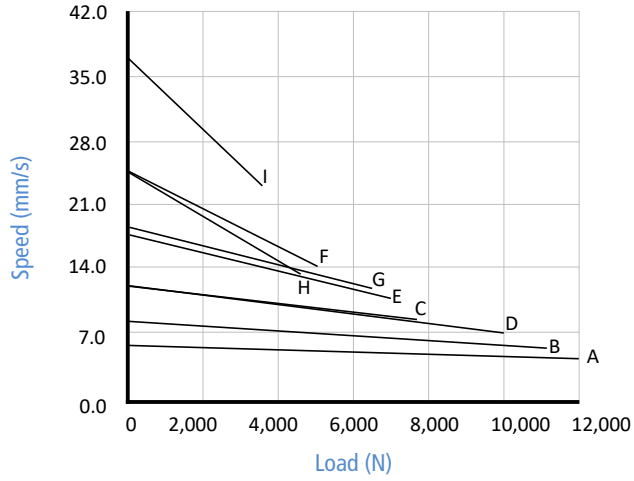


3 = 36v



4 = 48v



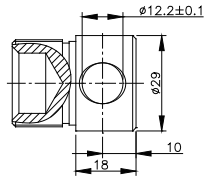


* Measurements are made with actuators in connection with stable power supplies and ambient temperature at 20°C.

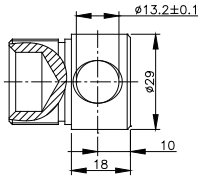
Front Mounting End

Fill in code:

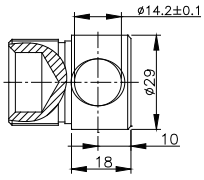
1. Please contact our sales team if none of the options below meet your requirements.



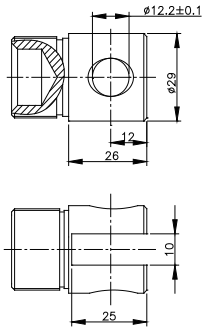
F01



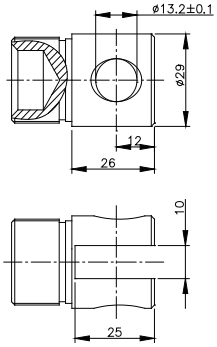
F02



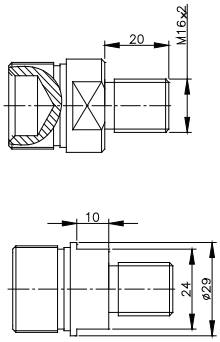
F03



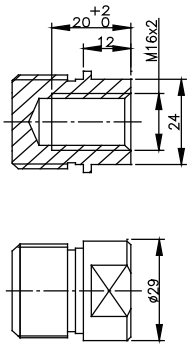
F04



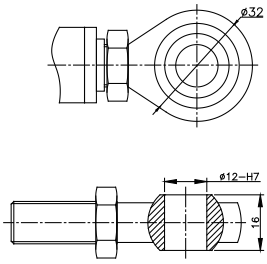
F05



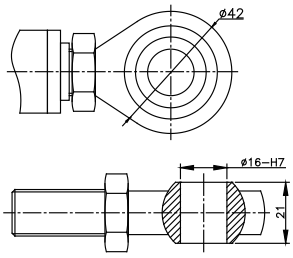
F06



F07

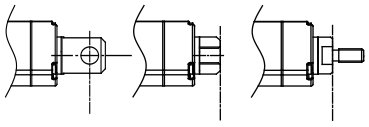


F08



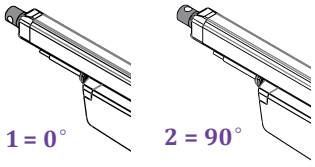
F09

2. Start of Installation Size



3. Hole Directions

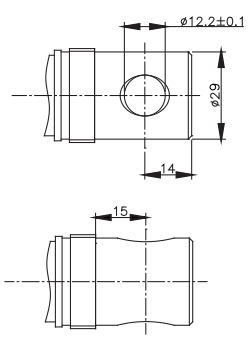
Fill in code:



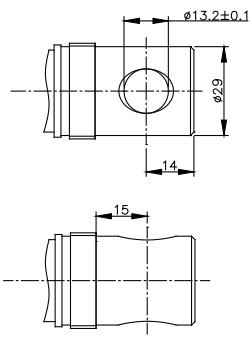
Rear Mounting End

Fill in code:

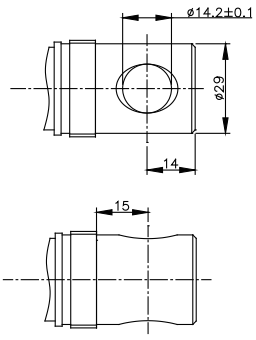
1. Please contact our sales team if none of the options below meet your requirements.



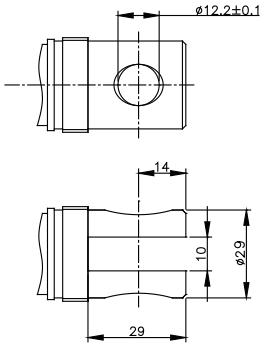
R01



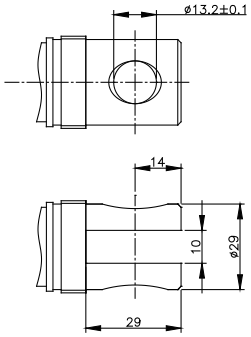
R02



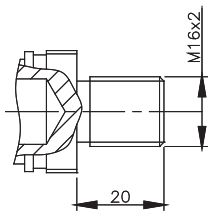
R03



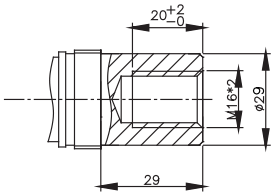
R04



R05

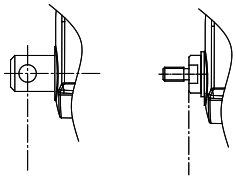


R06



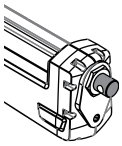
R07

2. End of Installation Size

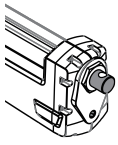


3. Hole Directions

Fill in code:



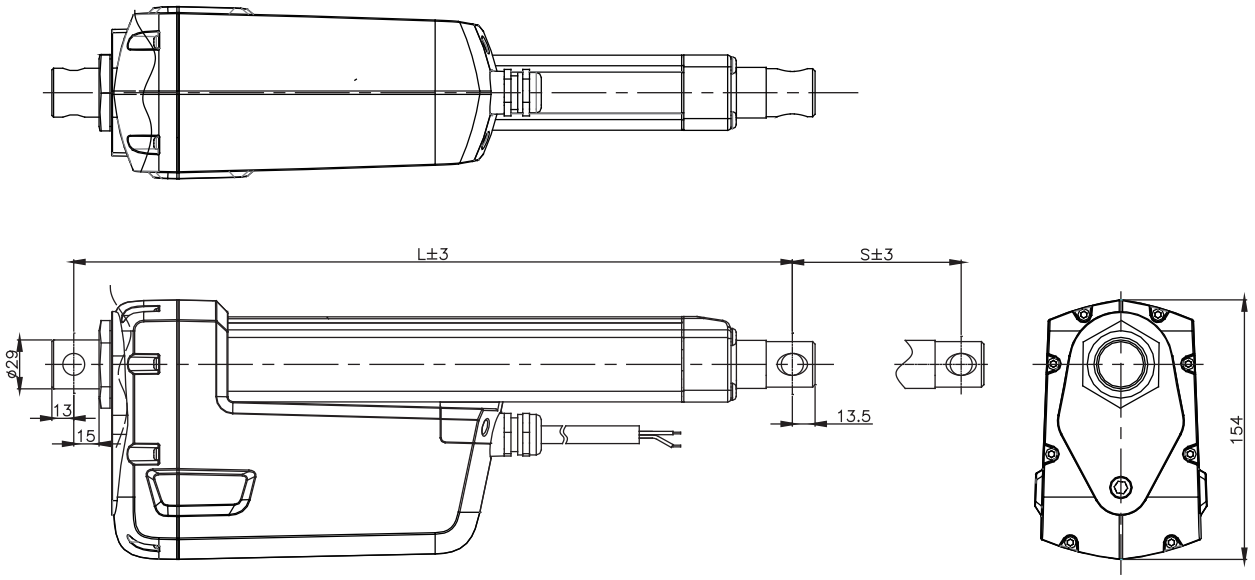
1 = 0°



2 = 90°

Dimension

Fill in: Stroke = mm; Install. Size = mm



A. Mounting Ends VS Install. Size

	Rear Mount. Ends
Front Mount. Ends	R01, R02, R03, R04, R05, R06 R07
F01, F02, F03, F04 F05, F06, F07	A≥S+200 Min Install Length: 300mm
F08, F09	A≥S+240 Min Install Length: 350mm

[Table 3]

B. Stroke VS Install. Size

Stroke (S) (mm)	Install. Length (L) (mm)
50 - 300	+ 0
301 - 600	+ 50
601 - 1000	+ 100

[Table 4]

How to calculate 'Install. Length'

S = Stroke
L = Install. Length
L ≥ A + B

Signal Feedback

Fill in code:

1. None
2. Hall Sensor
3. Potentiometer

Hall Sensor (standard dual-hall-sensor)

A. Gear Hall Sensor (Standard)

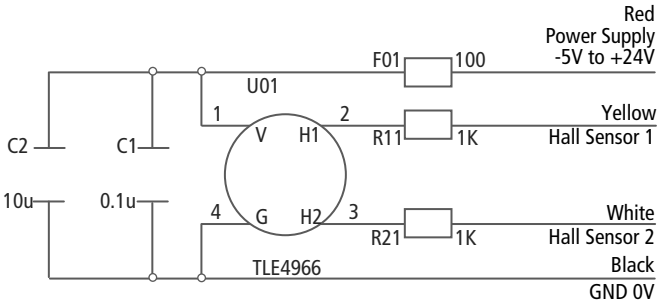
	Min.	Max.	Typical	Test Condition
Power Supply	5 V	24 V	12 V / 24 V	I_0=0
Signal Voltage Output	< 0.7 V			I_0=0, Vin>10V
Signal Current Output		500 mA		
Operating Current	2 mA	6 mA	4 mA	I_0=0

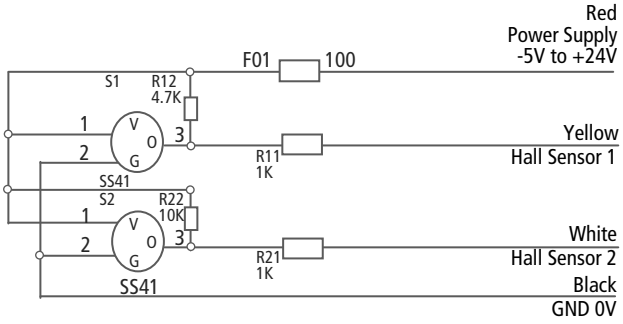
Table 5

B. Motor Hall Sensor

	Min.	Max.	Typical	Test Condition
Power Supply	3.3 V	24 V	5 V / 12 V	I_0=0
Signal Voltage Output	< 0.7 V			I_0=0, Vin>5V
Signal Current Output		20 mA		Vin=12V
Operating Current	2 mA	6 mA	4 mA	I_0=0

Table 6





Gear Ratio		Pitch	Equivalent (pulse/mm)	
Linear Actuator	Hall Sensor		1 Pole Pair	4 Pole Pairs
20:1	27:47	4	0.435	1.741
31:1	20:54		0.675	2.700
43:1	16:58		0.906	3.625
20:1	27:47	8	0.218	0.870
31:1	20:54		0.338	1.350
43:1	16:58		0.453	1.813
20:1	27:47	12	0.145	0.580
31:1	20:54		0.225	0.900
43:1	16:58		0.302	1.209

Table 7

Gear Ratio	Pitch	Equivalent (pulse/mm)	
		1 Pole Pair	4 Pole Pairs
20:1	4	5.2	20.8
31:1		7.8	31.1
43:1		10.9	43.4
20:1	8	2.6	10.4
31:1		3.9	15.6
43:1		5.4	21.7
20:1	12	1.7	6.9
31:1		2.6	10.4
43:1		3.6	14.5

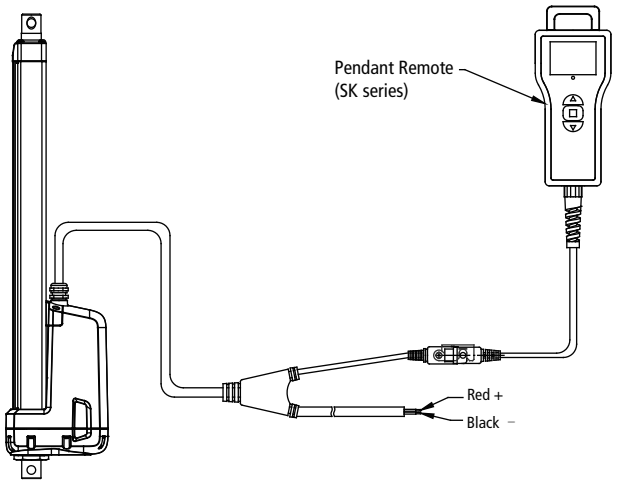
Table 8

Control & Connector

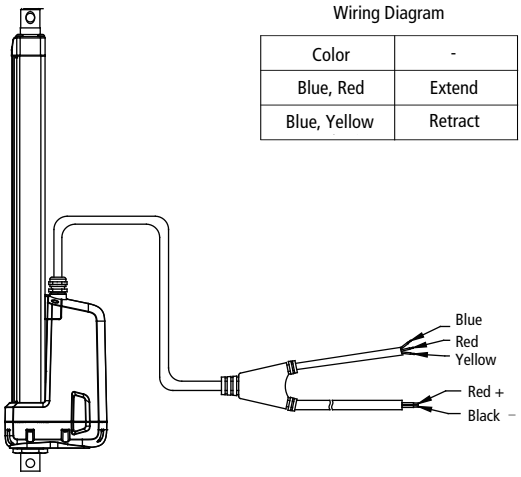
Fill in code:

1. None with bared wires
2. Go with SK control
3. Logic level control
4. Synchronized control

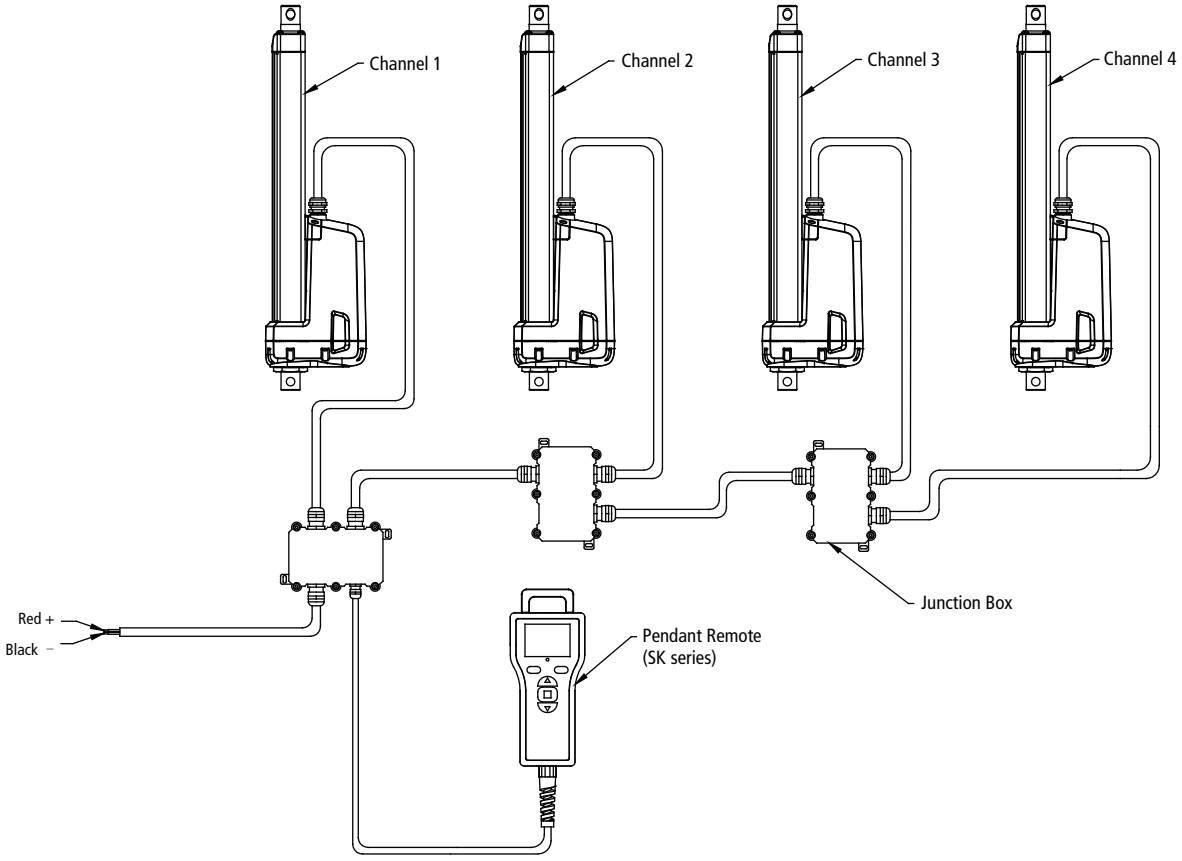
- Go with SK control



- Logic level control



- Synchronized control (2-4 actuators)



Enquiry Table

RESET

	Voltage	1 = 12V 2 = 24V 3 = 36V 4 = 48V
	Load & Speed	See page 2
	Stroke (mm)	Not exceed the limit See page 2
	Install. Size (mm)	See page 6
	Front Mount. End	F01 - F09 or FX = Customized See page 4
	Rear Mount. End	R01 - R07 or RX = Customized See page 5
	Mount. Hole Direction	Front 1 = 0° 2 = 90° Rear 1 = 0° 2 = 90° Example: 1 1 or 2 1
	Signal Feedback	0 = None 1 = Hall Sensor 1 = Potentiometer See page 7
	Cable Length	1 = 600 mm 2 = 1000 mm 3 = 1500 mm 4 = 2000 mm 5 = Customized
	Control & Connector	1 = None with bared wires 4 = Synchronized control (S2, S3, S4) 2 = Go with SK control 3 = Logic level control X = Customized
App.	Working Frequency	Estimated cycles work per day
	Application	Please describe
	Your contact	Company Name Tel. Email

LINEAR ACTUATORS SOUTH AFRICA
Tel: 082 879 4435
E-mail: info@linact.co.za
Website: www.linact.co.za

