

RA-90

Actuator series



Analog feedback



Limit switches



Advanced electronics



Adjustable stroke



High ingress protection



High lifting force



Compact size



Quiet operation



The actuator with regulation, innovative and compact

Unique in its category, the RA-90 is a high-performance linear actuator for loads of up to 2.500 N (562 lbf), extremely compact and with an innovative stroke regulation system. This system means that the RA-90 can adapt to any application quickly and reliably.

The RA-90 features advanced electronics and a digital encoder with analogue output for precise and intuitive position control, as well as internal limit switches to ensure safe operation.

Main features



Powerful

Loads up to 2.500 N
(562 lbf)



Controllable

Innovative adjustable endstops without programming



Safe

Integrated limit switches and analog position control



Resistant

IPX4 rating
Polyamid housing
Stainless steel rod

Actuator specifications

Max. load	2.500 N at 2 mm/s	562 lbf at 0,08 in/s
Lead	1,55 mm	0,06 in
Max. speed (no load)	3,6 mm/s	0,14 in/s
Max. current	3,2 A ± 20%	
Starting Current	5 A	
Power Supply	24 VDC	
Strokes	10 - 170 mm	0,4 - 6,7 in
Duty cycle	10% (2 min out of 18 min)	

Mechanical specifications

Weight	950 g (75 mm stroke)	2 lb (3 in)
Housing material	Polyamide and aluminium	
Rod Material	Polished stainless steel	
Color	Black	
Limit Switches	At stroke end points	

Limit switches

When the actuator reaches its fully extended or fully retracted position, an electronic limit switch automatically cuts off the current to prevent damage to the motor.

Environment specifications

IP Rating	IPX4	
Operating temperature	5 °C to 40 °C	41°F to 104°F
Storage temperature	-30 °C to 70 °C	-22°F to 158°F

Adjustable stroke

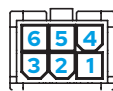
The front endstop or the rear endstop can be easily manually adjusted using a screwdriver to limit the stroke of the actuator up to 22 mm (0,9 in).

Connector

Molex 39-01-3069

Positive voltage
Extends

Negative voltage
Retracts



Front view

Pin No.	Hall encoder analog output	Limit switches external signal	Limit switches only
1	Motor -	Motor -	Motor -
2	-	-	-
3	GND	Common	-
4	Feedback signal	Switch push	-
5	Motor +	Motor +	Motor +
6	5 VDC	Switch pull	-

Position feedback specifications

Hall encoder with analog output (Optional)

Supply voltage	4,5 VDC - 5,5 VDC
Output signal	3,3 VDC (extended) 0,3 VDC (retracted)

Limit switches external signal (Optional)

Supply voltage	0 VDC - 24 VDC
Output signal	Same as supply voltage

RA90	2500	75	193	250	H 10	E	FA	22
Actuator type	Max. Load (N)	Stroke length (mm)	Min. Built-in Dimension (mm)	Cable length (mm)	(H) Rod end type D = Blind hole H = Clevis (10) Hole diameter (mm)	Position control E = Encoder with analog output ES = External limit switch signal Ø = Limit switches only	Stroke adjustment FA = Front adjustment RA = Rear adjustment Ø = None	Stroke regulation length (mm)

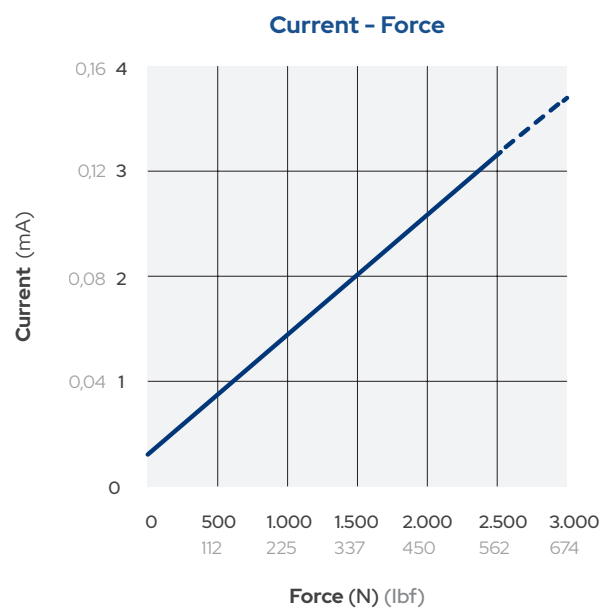
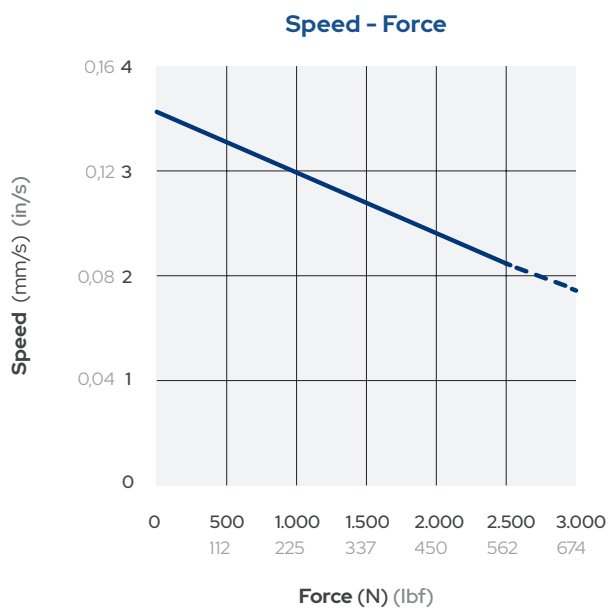
Preset configurations

Please, contact info@regner.es for customized configurations.

RA90.2500.75.193.250.H10.RA22 RA90.2500.16.168.400.H10.ES RA90.2500.170.288.800.H10.E
 RA90.2500.50.168.140.H10.FA22 RA90.2500.75.193.1200.H10.E

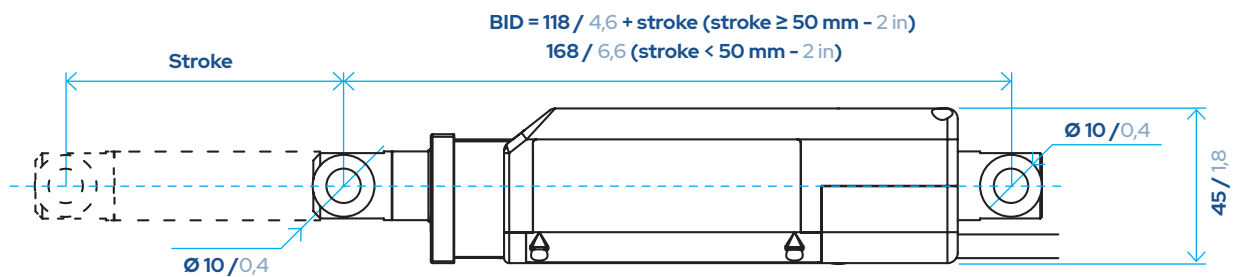
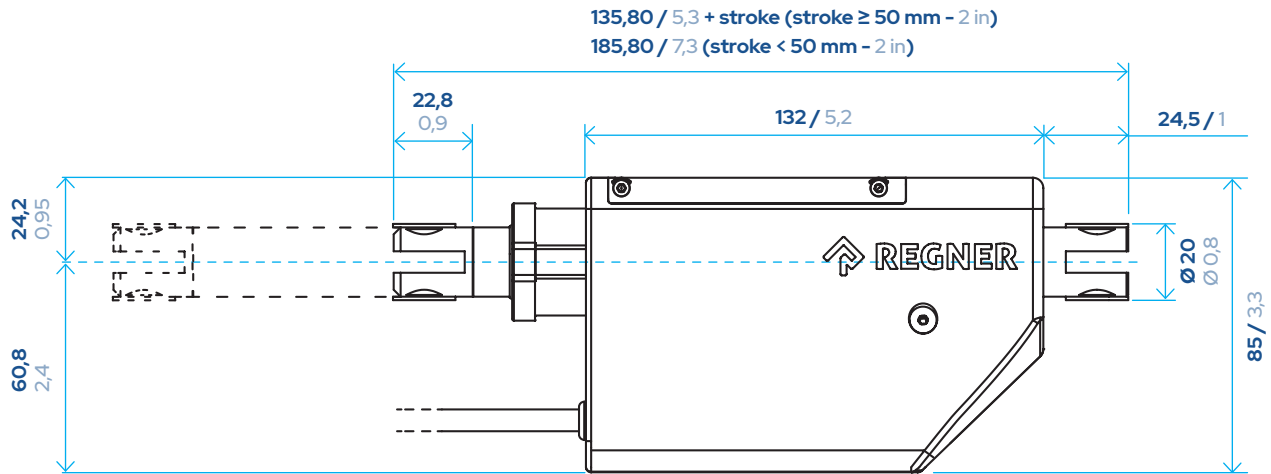
Force, speed and current

Force (N) (lbf)	No load No load	500 N 112 lbf	1.000 N 225 lbf	1.500 N 337 lbf	2.000 N 450 lbf	2.500 N 562 lbf
Average current (mA)	0,3	0,8	1,5	2,0	2,4	3,2
Speed (mm/s - in/s)	3,6 - 0,14	3,3 - 0,13	3,0 - 0,12	2,8 - 0,11	2,5 - 0,09	2,1 - 0,08



Use in the dashed area is not recommended.
 The above values are with a room temperature of 20 °C / 68°F.

Dimensions (mm) (in)



Forging ahead to achieve high quality

ISO 9001 Quality management
 ISO 14001 Environmental management system
 ISO 13485 Medical devices

We use **high quality components and apply semiautomatic production** and rigorous testing to verify and validate each motion control solution before they leave our premises. Plus, our management systems, which are continuously audited, ensure optimized agile manufacturing. All these measures translate into high quality products.

Every single **RA-90** undergoes strict QC assessments during production in order to guarantee optimal performance and durability.

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