

RA-47X

In-line actuator series



Equal Push
Pull force



High ingress
protection



High speed



Maintenance free



Position control



Easy installation



Compact size



Customizable



Short movements for high speed

The RA-47X has become a benchmark linear actuator due to its power density and high performance.

Reaching 70 mm/s (3 in), this **high-speed** actuator features a 12 VDC permanent magnet motor and a ball screw that converts rotary motion into linear motion with low friction losses, translating into high electromechanical efficiency. By distributing the effort between several balls, the screw is capable of withstanding thrust loads of up to 1.000 N (225 lbf).

Main features



Powerful

Loads of up to 1.000 N
(225 lbf)



Compact

Retracted length
of 240,5 mm (9,5 in)
+ stroke



Safe

Integrated limit switches
Hall sensor



Resistant

IP65 rating
Aluminum housing
Stainless steel rod

General specifications

Stroke	50 mm	2 in
Max. load	1.000 N at 2 mm/s	225 lbf at 0,08 in/s
Max. speed (no load)	70 mm/s	3 in/s
Power supply	12 VDC	
Max. current	13 A	
Starting current	15 A	
Integrated limit switch	At stroke end points	
Connector	Molex 39-01-2066	
IP Rating	IP65	
Retracted length	240,5 mm + stroke	9,5 in + stroke
Weight	1.500 g	3,3 lb
Housing material	Aluminium	
Rod material	Polished stainless steel	
Color	Anodized silver	
Mounting holes diameter	12 mm	0,47 in/s
Cable length	300 mm	12 in/s
Operating temperature	-20°C to 60°C	-4°F to 140°F
Storage temperature	-30°C to 70°C	-22 to 158°F
Duty cycle	10% (2 out of 20 min.)	
Lead	5 mm	0,2 in



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.

Customizable upon request

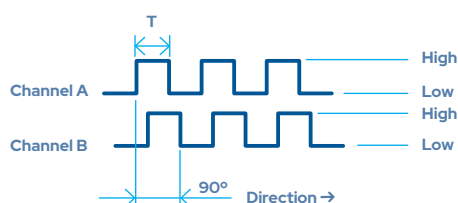
Stroke length
Dimensions
Anodized colors
Connectors
Cable length
Brackets

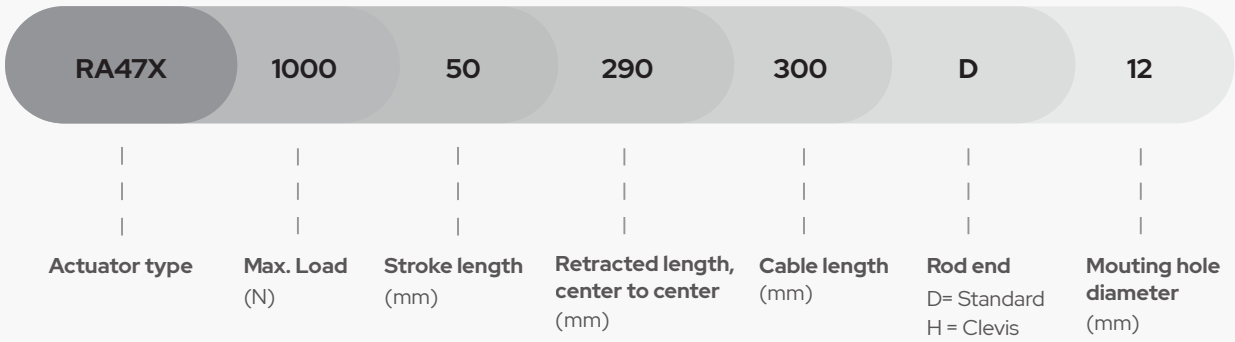
Please, contact info@regner.es for customized configurations.

Hall sensor specifications

Power supply	4,5 - 5,5 VDC \pm 3 %
Current consumption	< 30 mA
Max. output current	4 mA
Control signal levels	< 0,4 VDC (low), > 4,5 VDC (high)
Max. frequency (no load)	3.040 KHz
Phase shift, channel A to B	90° \pm 45°
Rise/fall time (CLOAD = 20 pF)	100 ns / 100 ns
Pulses per revolution (PPR)	32
Resolution	24 μ m / pulse

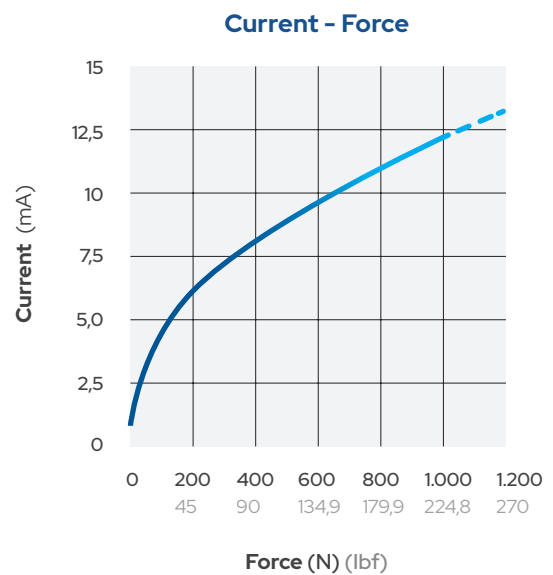
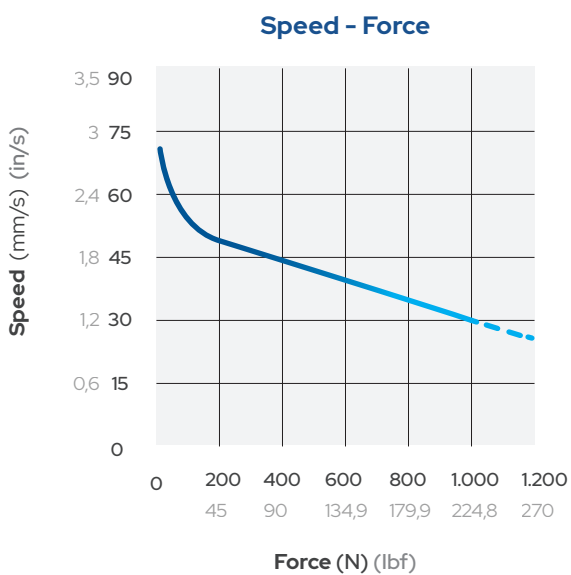
Output signal





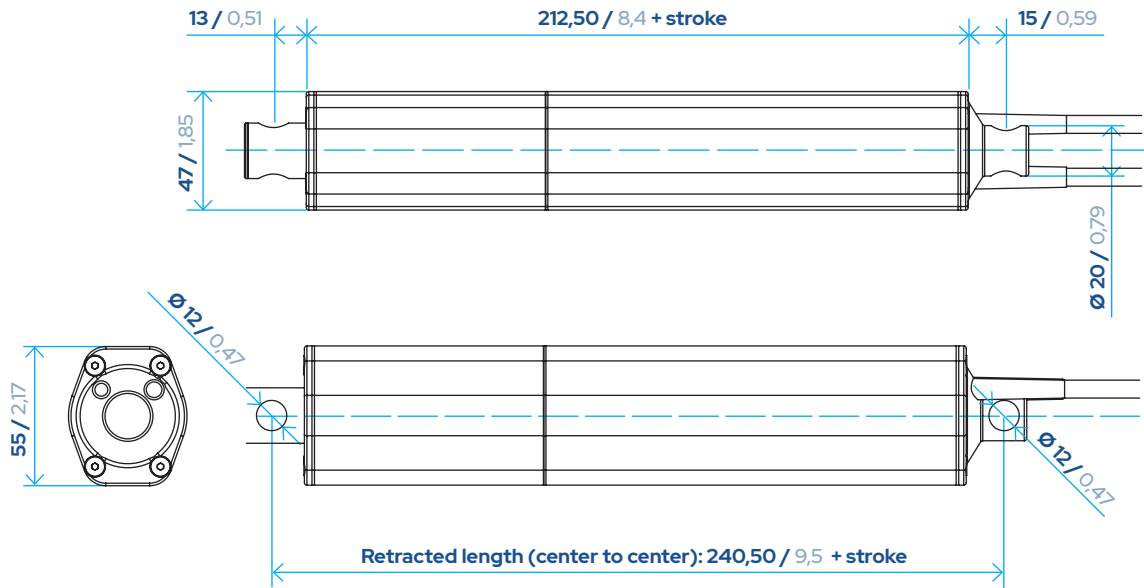
Force, speed and current

	No load	200 N	400 N	600 N	800 N	1.000 N
Force (N) (lbf)	No load	45 lbf	90 lbf	135 lbf	180 lbf	225 lbf
Average current (mA)	0,6	6,9	8,2	9,2	10,3	12,3
Speed (mm/s) (in/s)	70 - 2,8	48,6 - 1,9	45,1 - 1,8	39,8 - 1,6	34 - 1,3	29,8 - 1,2



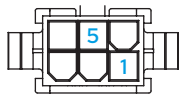
Use in the dashed area is not recommended.
The above values are with a room temperature of 20 °C / 68 °F.

Dimensions (mm) (in)



1. Power

(Front view)

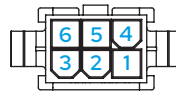


1 Motor -
2 Motor +

Molex 39-01-2066

2. Position control

(Front view)



1 Limit switch 1 4 VCC
2 Limit switch 2 5 Hall sensor A
3 GND 6 Hall sensor B

Molex 39-01-2066



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-47X** undergoes strict QC assessments during production in order to guarantee optimal performance and durability.

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