

# RA-47

## In-line actuator series



Equal Push  
Pull force



Compact size



Position control



Easy installation



Elegant design



Limit switches



High ingress  
protection



Customizable

## Robust design and analogue or digital positioning options

The RA-47 is an actuator with a robust design and a precise position control system. With a maximum load capacity of 2.500 N (562 lbf), it's truly one of a kind given that it offers a wide range of features in an in-line motor configuration: options for analogue or digital position control, integrated limit switches and a high degree of protection against both solids and liquids.



### Main features



#### Powerful

Loads of up to 2.500 N  
(562 lbf)



#### Controllable

Low impedance  
potentiometer or  
hall sensor available



#### Compact

Retracted length  
of 188 mm (7,4 in)  
+ stroke



#### Resistant

IP65 rating  
Aluminum housing  
Stainless steel rod

## General specifications

Stroke	100 mm	4 in
Max. load	2.500 N at 2 mm/s	562 lbf at 0,07 in/s
Max. speed (no load)	3,5 mm/s	0,14 in/s
Power supply	24 VDC	
Max. current	2,5 A	
Starting current	3 A	
Integrated limit switch	At stroke end points	
Connector	Molex 39-01-2066	
IP rating	IP65	
Retracted length	188 mm + stroke	7,4 in + stroke
Weight	1.250 g	2,8 lb
Housing material	Aluminium	
Rod material	Polished stainless steel	
Color	Anodized black	
Mounting hole diameter	10,1 mm	0,4 in/s
Cable length	100 mm	4 in/s
Operating temperature	-20°C to 50°C	-4°F to 122°F
Storage temperature	-30°C to 70°C	-22 to 158°F
Duty cycle	10% (2 out of 20 min.)	
Lead	1,5 mm	0,05 in

## Low-impedance analog potentiometer (Opt.)

Power supply	4,5 - 5,5 VDC
Output voltage	0,3 - 3,3 VDC $\pm$ 3 %
Current consumption	< 2 mA
Resolution	Infinite
Independent linearity	$\pm$ 3 %



### Limit switches

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

### Customizable upon request

Please, contact [info@regner.es](mailto:info@regner.es) for customized configurations.

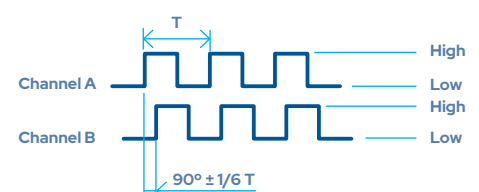
## Hall sensor specifications (Opt.)

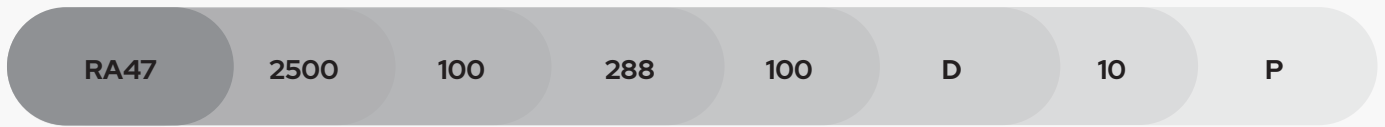
Power supply	3,5 - 20 VDC
Current consumption	< 20 mA
Max. output current	10 mA
Control signal levels	$\approx$ 0 (low), > 3,5 VDC (high)
Max. frequency (no load)	536,67 Hz
Phase shift, channel A to B	90° $\pm$ 1/6 T
Rise/fall time (CLOAD = 20 pF)	1,5 $\mu$ s / 1,5 $\mu$ s
Pulses per revolution (PPR)	7
Resolution	6,5 $\mu$ m / pulse

### Output circuit (Open collector)



### Output signal

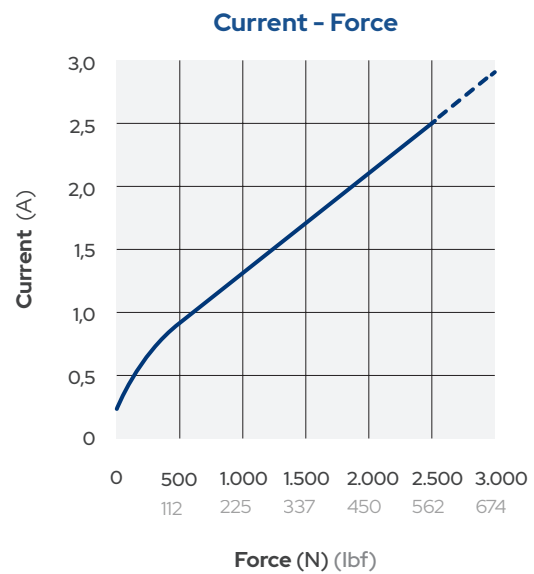
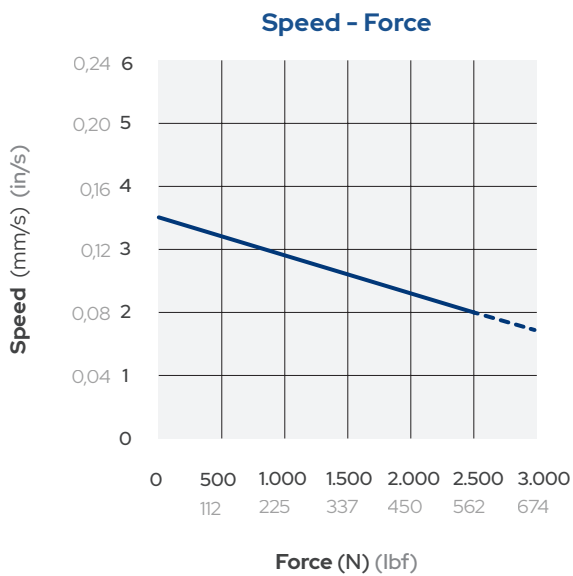




RA47	2500	100	288	100	D	10	P
Actuator type	Max. load (N)	Stroke length (mm)	Retracted length, center to center (mm)	Cable length (mm)	Rod end D= Standard H= Clevis	Mounting hole diameter (mm)	Position control P = Potentiometer E = Hall sensor L = Limit switches only

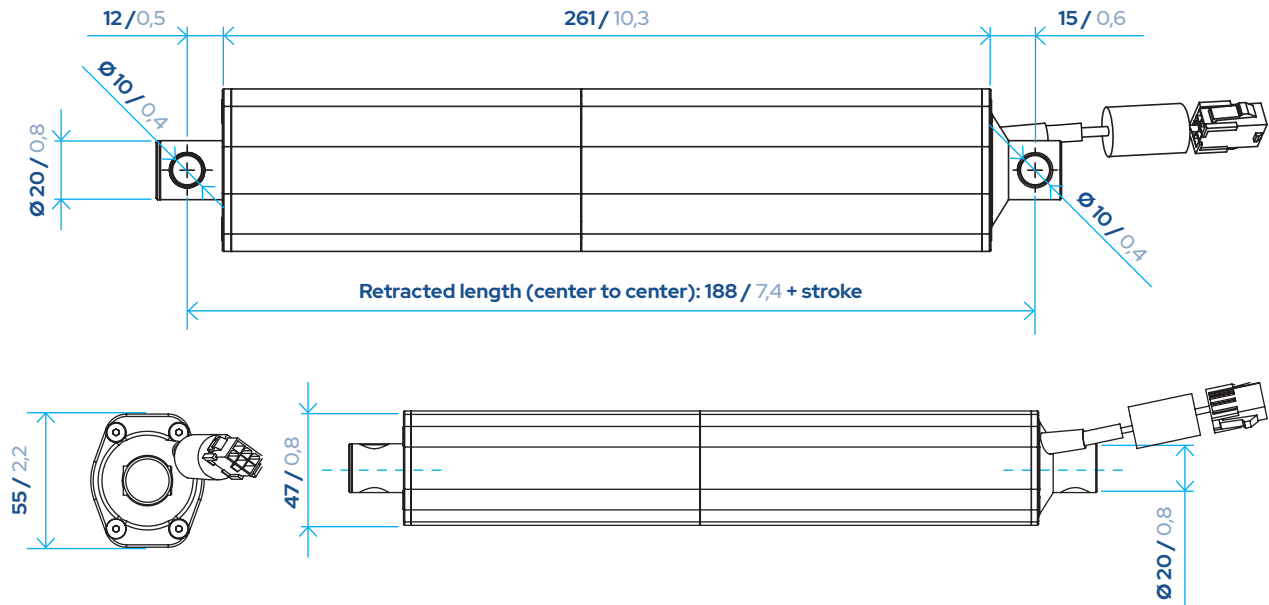
## Force, speed and current

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 (A)	0,2	0,9	1,3	1,7	2,1	2,5
Speed (mm/s) (in/s)	3,5 - 0,14	3,2 - 0,13	2,9 - 0,11	2,6 - 0,10	2,2 - 0,08	2,0 - 0,07



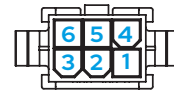
Use in the dashed area is not recommended.  
The above values are with a room temperature of 20 °C / 68°F.

## Dimensions (mm) (in)



Pin	Hall sensor	Potentiometer	Limit switches only
1	Motor -	Motor -	Motor -
2	Hall sensor Ch. A	-	-
3	Hall sensor -	Pot -	-
4	Hall sensor Ch. B	Signal	-
5	Motor +	Motor +	Motor +
6	Hall sensor +	Pot +	-

(Front view)



**Molex 39-01-2066**

Positive voltage **extends**,  
Negative voltage **retracts**



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

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