

DATASHEET

RA-MINI ALU

IN-LINE ACTUATOR SERIES



HIGH LIFTING
FORCE



HIGH
SPEED



COMPACT SIZE



ELEGANT
DESIGN



EASY
INSTALLATION



MAINTENANCE
FREE



LIMIT
SWITCHES



OVERCURRENT
PROTECTION



QUIET
OPERATION



CUSTOMIZABLE

SMALL BUT POWERFUL

The RA-MINI ALU is a powerful yet small actuator specially designed to provide the perfect solution for applications with space limitations and a need for compactness. Its elegant lines and anodized black finish give it a modern and stylish feel that makes it easy to integrate into all kinds of applications. Additionally, the actuator offers multiple configuration and control options to suit different needs.

Main features

- **Powerful:** loads of up to 70 N
- **Fast:** up to 14.7 mm/s
- **Compact:** retracted length (center to center) of 57.5 mm + stroke
- **Resistant:** IP54 rating, aluminum housing, stainless steel rod
- **Safe:** overcurrent protection & integrated limit switches
- **Customizable:** stroke, dimensions, anodized colors, connectors, cable lengths, brackets

Main applications

- *Battery-operated medical equipment*
- *Robotics*
- *UAV & drones*
- *Industrial automation*
- *Consumer appliances*
- *Safety equipment*
- *RC & toys*
- *Household automation equipment*
- *Automotive industry*

Technical Specifications

General specifications

Stroke	30, 50 or 100 mm
Max. load	70 N at 3.5 mm/s
Max. speed (no load)	14.7 mm/s
Backlash	0.1 mm
Power supply	12 VDC
Max. current	114 mA
Starting current	200 mA
Overcurrent protection	116 mA
Integrated limit switch	At stroke end points
Connector	Molex 39-01-3029
IP rating	IP54
Retracted length (center to center)	57.5 mm + stroke
Weight (with a 30 mm stroke)	45 g
Housing material	Aluminum
Rod material	Polished stainless steel
Color	Anodized black (RAL 9005)
Mounting holes diameter	4.1 mm
Cable length	350 mm
Operating temperature	-10 °C to +40 °C
Storage temperature	-30 °C to +70 °C
Duty cycle	30 % (6 out of 20 minutes)
Noise (no load)	50 dB at 45 cm
Max. side load (with a 30 mm stroke, extended)	10 N
Lead	5 mm

⚡ Overcurrent protection

In the event of an obstruction or an excessive load, the overcurrent protection feature will cut off the current to protect the actuator.

🔗 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.

Position feedback potentiometer (opt.) specifications

Signal power supply	5 VDC
Max. stroke voltage	5 V
Min. stroke voltage	0 V

Customizable upon request

Stroke length (10 - 100 mm)

Dimensions

Anodized colors

Connectors

Cable length

Brackets

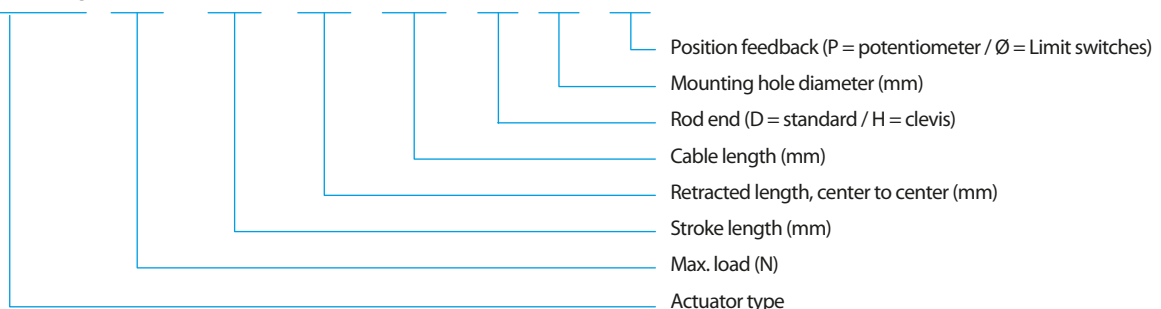
Please, contact info@regner.es for customized configurations.

Preset configurations

	High-speed reducer (100:1)	Standard reducer (210:1)	High-force reducer (298:1)
Max. peak load	20 N at 9.0 mm/s	45 N at 3.5 mm/s	70 N at 3.6 mm/s
Rated load	7.5 N at 12.5 mm/s	20 N at 5 mm/s	30 N at 4.4 mm/s
Max. speed (no load)	14.7 mm/s	5.9 mm/s	4.6 mm/s
Max. current	114 mA	76 mA	114 mA

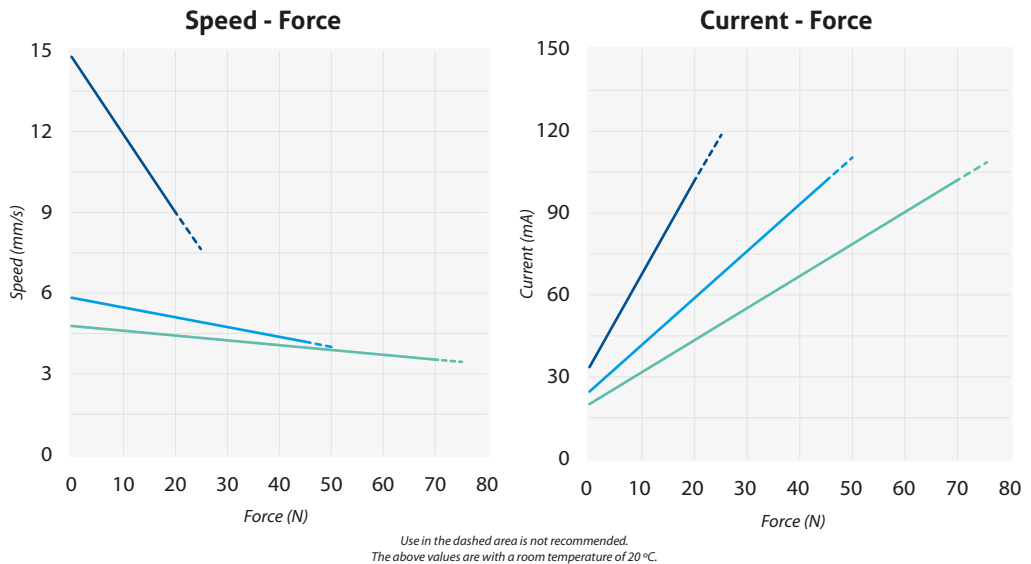
Ordering example

RA-MINI ALU 45 . 30 . 87 . 350 . D 4 . P

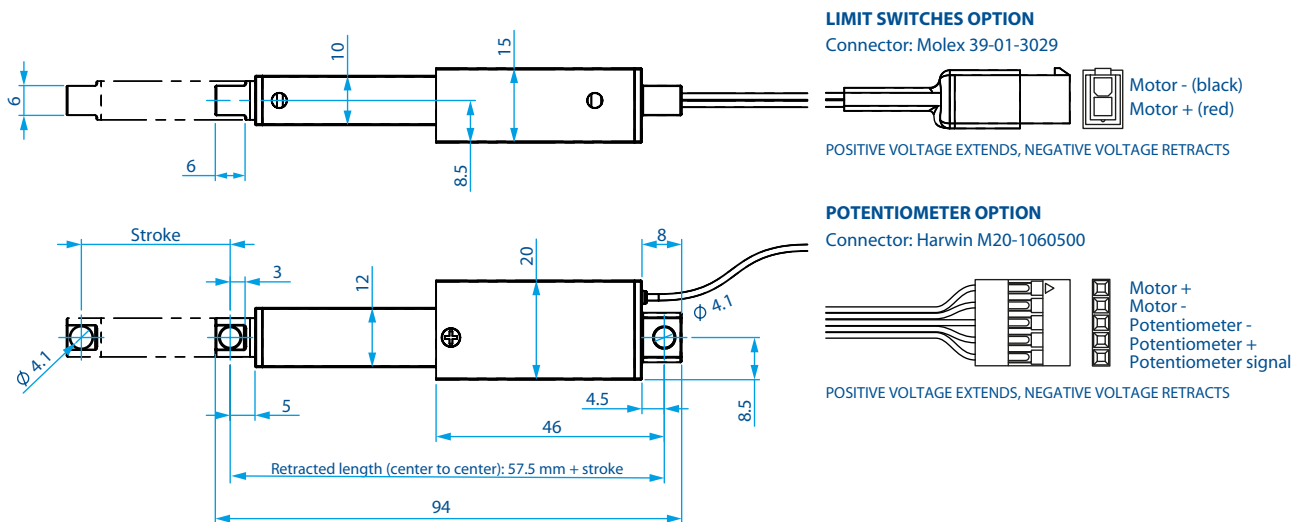


Force, speed, and current

	Force (N)	No load	5 N	10 N	15 N	20 N	25 N	
RA-MINI High-speed reducer	Average current (mA)	33	50	70	85	100	120	
	Speed (mm/s)	14.7	13.4	12.0	11.5	9.0	7.5	
	Force (N)	No load	10 N	20 N	30 N	40 N	45 N	50 N
RA-MINI Standard reducer	Average current (mA)	25	40	60	75	93	104	115
	Speed (mm/s)	5.9	5.5	5.0	4.8	4.5	4.1	3.9
	Force (N)	No load	20 N	40 N	60 N	70 N	75 N	
RA-MINI High-force reducer	Average current (mA)	20	45	69	90	114	124	
	Speed (mm/s)	4.6	4.5	4.2	4.0	3.6	3.4	



Dimensions (mm)



Quality

Forging ahead to achieve high quality

• 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.

RA-MINI ALU Quality Control

• Every single RA-MINI ALU undergoes strict QC assessments during production in order to guarantee optimal performance and durability.

Certifications

- ISO 9001:2008 *Quality management*
- ISO 14001:2004 *Environmental management system*
- ISO 13485:2012 *Medical devices*

Safe
Durable
Quiet
Easy
Efficient
Powerful
Elegant
Customizable

