

RM

Locking Motor

SmartMotion DC chain actuators



Made in Germany

Functional Fenestration Inc (FFI) is an expert and leader in the American motorized actuator market, with a broad range of motors for windows, vents, and skylights. FFI has been providing motorized operators for natural ventilation since 1987, for institutional, commercial and residential applications.

Benefits of motorized actuators

- Automated operation of multiple awning windows, hopper windows, casement windows, curtain wall vents, and skylights.
- Ideal for smart buildings; integrate with building and home automation systems.
- Natural ventilation enables lower energy consumption, lets in fresh air and daylight, enables LEED credit.
- Low voltage DC motors are energy efficient.

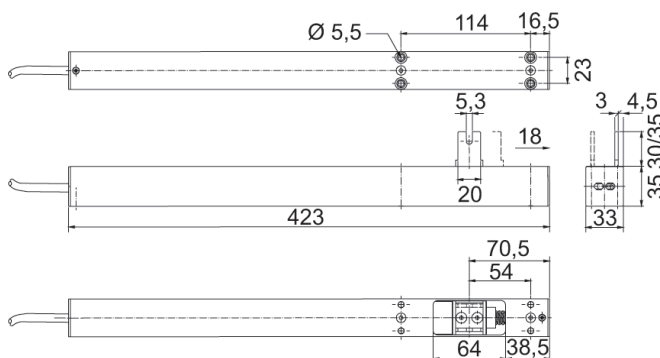
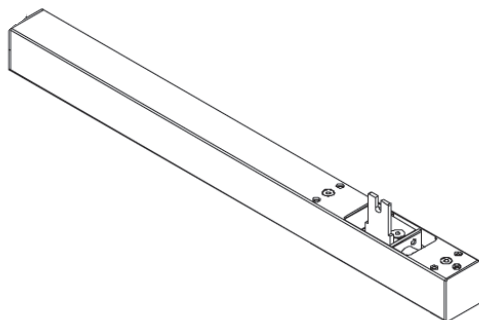
RM Features and Benefits

RM is a motorized locking device used on windows, which activates compatible window locking hardware already installed (not included). RM is used in combination with compatible chain actuators, wired together with them on the same window. RM moves the tongue or cam in sequence with the actuator opening or closing the window.

- Compatible with chain actuators of the series LM/2, EM and FM (with status signal).
- Compatible with multipoint cam locks for aluminum windows (not provided by FFI).
- Multiple RM units may be installed on the same window, depending on configuration.
- Force (max) 600 N (134 lb) or 1200 N (269 lb), depending on the version.
- Stroke length of tongue bracket 18 mm standard; optional up to 36 mm.
- Tongue or cam can be used on the right or left-hand side of the RM.
- Can be concealed in frame or curtain wall.
- Specification service: For concealed applications, submit detailed AutoCAD drawings of your profiles, and the manufacturer will create specific drawings to place RM inside your profile.
- This product is not UL Recognized or labeled.
- Power cable is not included.
- Tested to 10,000 cycles.
- 2-year manufacturer's warranty; requires use according to Installation Guide recommendations.



tongue bracket



RM Locking Motor

RM Locking Motor Specifications

Supply voltage:	24 V DC (-20 % / +50 %)
Normal current amp draw*:	approx. 1.2 amp at 600 N (cut-off value for 600 N version) , approx. 1.8 amp at 1200 N (cut-off value for 1200 N version)
Starting current:	4 amp
Current draw at cut-out torque:	1.4 A at 600 N / 2.2 A at 1200 N
Current draw after cut-off (standby):	60 mA at single operation (observe the current of the connected chain motors during system operation)
Cut-off:	integrated electronic power cut-off
Cut-off in each position:	yes
Force (max):	600 N (134 lbf +/- 3%) or 1200 N (269 lbf +/- 3%), depending on version
Nominal clamping force:	3000 N (675 lbf +/- 3%) force needed to rip chain out of actuator case
Stroke length of tongue bracket:	18 mm approx. standard (optional up to 36 mm)
Speed of operation:	6 sec. approx. for 18mm stroke
Locking direction:	locking direction can be changed
Break time:	min. 100 ms (when change of driving direction)
Dimensions (l x h x d):	423 x 33 x 35 mm (16-5/8 x 1-5/16 x 1-3/8 in)
Power cable:	Not included. Electrician to obtain code-appropriate cable for project.
Run/Rest cycle:	For every 3 minutes running (ON), must then rest (OFF) for 7 minutes.
Service life:	> 10,000 ventilation cycles at nominal load
Nominal temperature:	20 °C (68 °F)
Ambient operating temperature:	-10 °C to +60 °C (14 °F to 140 °F)
Suitable for SHE:	yes
Safety marks:	CE
Protection class:	IP 20
Case:	aluminium, powder-coated
Colors (standard):	powder-coated, white (RAL 9010) or silver grey (RAL 9006)
Special colors:	Other RAL colors on request
Weight:	approx 1 kg (without fittings)

* Calculate power supplies and control boxes needed based on peak draw of 2 times normal amp draw.

Note: The actuator required depends on the fittings and profile and must therefore be ordered separately.

Note: The fitting position is profile-dependent, so it is advised to agree on the position with the window manufacturer.

RM Locking Motor Part Numbers

Stroke (and push/pull Force)	Part Numbers	
	Silver Grey	White
18 mm (600 N) 11/16 in (134 lbf +/- 3%)	2150010	2150020
18 mm (1200 N) 11/16 in (269 lbf +/- 3%)	2150110	2150120

RM Tongue Bracket Part Numbers - order separately

	Part Numbers
30 mm length - Tongue bracket for RM Basic Lock	2502570
35 mm length - Tongue bracket for RM Basic Lock	2502571

Recommendations for FFI Actuators & Controls: FFI only recommends UL compliant systems. FFI is a UL registered firm. Read FFI data sheets & installation guides before specifying project details. Project-specific needs vary depending on the number of actuators, electrical layouts, building management systems, distance between power supplies & actuators, and other details. Project specifications to comply with electric & building codes—for wire gauge, wire connections and run distance, conduits, junction boxes—must be arranged by the project electrical contractors. Distribute this guide to all project parties, including electrical contractors, architects, and building management personnel.