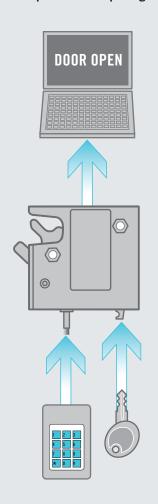


R4-EM 1 & 2 Series Electronic Rotary Latch

All-metal construction Electronic access with internal motor control

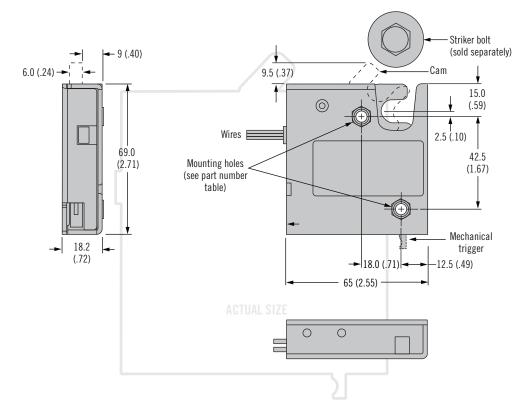
- High strength, steel construction
- Operates against high mechanical loads
- Push-to-close, electronic release
- Versatile rotary mechanism
- Concealed latching
- Microprocessor control
- Minimal power draw
- Simple mechanical override
- Optional internal microswitch for latch open/close output signal



Other options available. For complete details on variety, part numbers, installation and specification, go to

INFO CLIC

www.southco.com/R4-EM



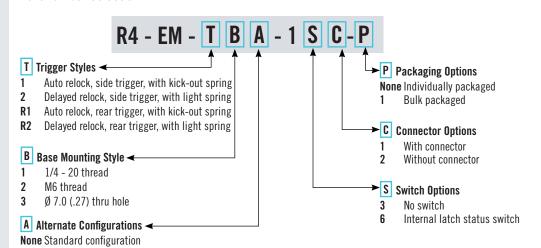
Without connector

Latch Wiring Connections

With connector Molex Microfit 3.0 series

150 (5.9) 425 (16.7) PIN 3 PIN 5 PIN 2 PIN 1 PIN 1 Indicator

Part Number Selection



Strong (kick out) cam spring (delayed relock) 2 High strength cam

High strength cam with strong (kick out) cam spring (delayed relock)

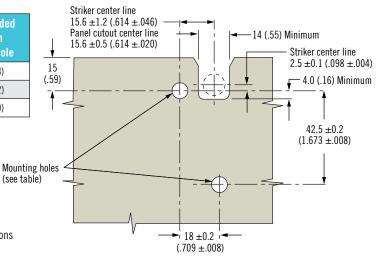
Dimensions in millimeters (inch) unless otherwise stated



Installation

Panel Preparation

Base Mounting Style	Recommended minimum mounting hole
1/4-20 thread	Ø 7.2 (.283)
M6 thread	Ø 6.9 (.272)
Thru hole	Ø 7.6 (.300)



Accessories

Operation

Striker Bolt or Cast Striker

See page 34 for operating instructions

See page 35





Cables

See page 35



Electronic Actuators See page 42











Dimensions in millimeters (inch) unless otherwise stated

Material & Finish

Mechanism

Housing: Steel, zinc plated Cam, trigger: Steel, zinc plated Springs: 300 Series stainless steel

Pins: Steel, zinc plated Electronic Actuator:

Housing: PC/ABS Cam / follower: Acetal

Electrical Specifications

Recommended Operating Voltage:

12 to 24 Volt DC

Typical Operating Current: Less

than 500mA at 12 VDC

Peak/Stall Operating Current: 1 A

Standby Current: 185uA

Input Signal Current Draw: 25mA

**Optional microswitch closes

upon latch closure

Microswitch Rating: 3A at

12VDC Maximum

Wire Color Code / Connector **Pin Assignment:**

PIN 1: Brown: Ground (-)

PIN 2: Red: Power 8 to 26 Volts DC

PIN 3: Orange: Control Signal

8 to 26 Volts DC

PIN 4: Black: Microswitch Common

PIN 5: Blue: Microswitch N.O.

Contact

PIN 6: Grey: Microswitch N.C.

Contact

Other options available. For complete details on variety, part numbers, installation and specification, go to



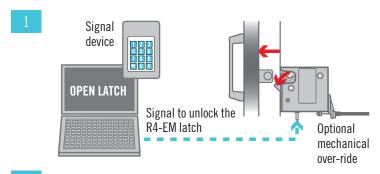
12V 24V



Operating instructions

Operation - Auto relock

- The signal unlocks the R4-EM latch and releases the spring loaded cam which rotates out to push a lightweight door open. The mechanism will cycle through unlatched then relatched state automatically, regardless of input signal on time.
- Push door closed to engage striker after unlock time has expired. Striker will rotate cam to closed position.



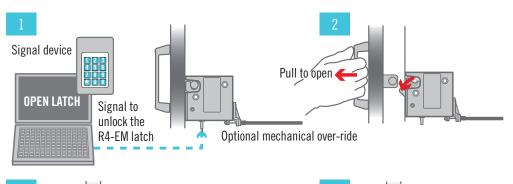
Signal device

Push to lock

Remove signal to lock R4-EM Latch

Operation - Delayed relock

- The signal unlocks the R4-EM latch leaving a biased closed door in the closed position.
 The unlock time is controlled by the access control device.
- 2. Manually pull door/striker free from R4-EM latch.
- 3. Manually push door closed.
 Striker will rotate cam to closed position, however latch will remain unlocked and can be re-opened as long as signal is present.
- 4. After accessing the door, the signal can be removed to re-lock the R4-EM. This can be done with the door in the open or closed position.









Strikers - Cable mounting kits



Material and Finish

Cast strikers: Zinc alloy

*Note: Latch and striker

the latch trade drawing at

www.southco.com.

nylon, black

Striker bolts: Steel, zinc plated

Cable mounting kits: Glass-filled

installation details can be found on

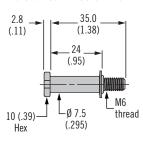
Striker Bolt - Large

12.7 (.50)

Part number R4-90-121-10 R4-90-121-20 38 (1.5)

Striker Bolt - Small

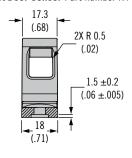
Part number R4-90-511-20

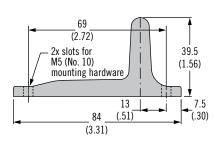


Cast Striker with Door Sensor Part number R4-90-804-10*
Cast Striker without Door Sensor Part number R4-90-800-10*

Ø 9.5

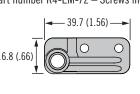
(.37)

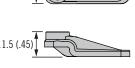


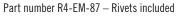


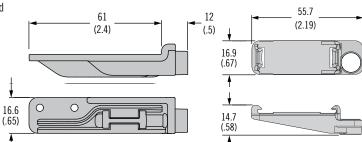
Cable Mounting Kit

Part number R4-EM-52 — Rivets included Part number R4-EM-72 — Screws included









	Striker Bolt		Cast Striker		Cable Mounting Kit				
	R4-90-121-XX	R4-90-511-20	R4-90-800-10	R4-90-804-10	R4-EM-52	R4-EM-72	R4-EM-87	R4-EM-952	
R4-EM-9	~		~	~				~	
R4-EM-8	~		V	~					
R4-EM-5 & 7	~		~		~		~		
R4-EM-4 & 6		/				~			
R4-EM-1 & 2	/		/		~		~		

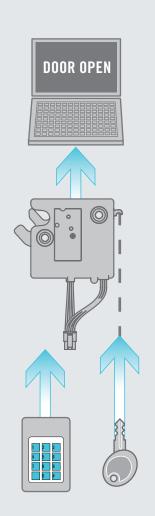




R4-EM 4 & 6 Series Electronic Rotary Latch

Compact size · Lightweight Electronic access with internal motor control

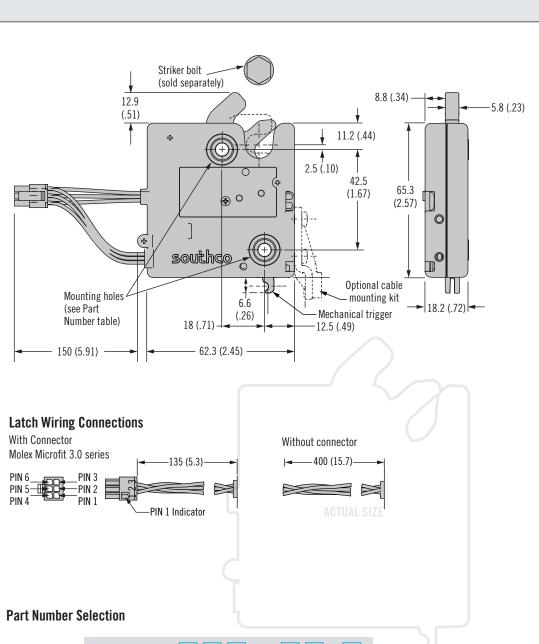
- Light weight construction
- Auto re-lock and delayed re-lock version
- Push-to-close. electronic release
- Versatile rotary mechanism
- Concealed latching
- Microprocessor control
- Minimal power draw
- Simple mechanical over-ride
- Optional internal microswitch for latch open/close output signal

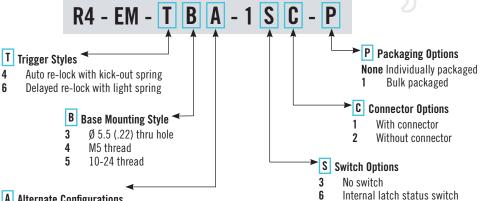


Other options available. For complete details on variety, part numbers, installation and specification, go to

INFO CLIC

www.southco.com/R4-EM





A Alternate Configurations **None** Standard configuration

Strong (kick out) cam spring (delayed relock)



12V

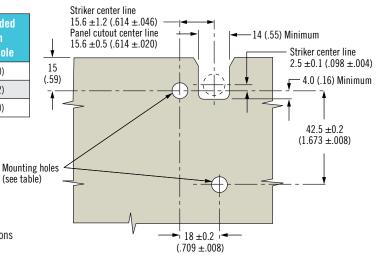
24V

Installation

Panel Preparation

Base Mounting Style	Recommended minimum mounting hole
10-24 thread	Ø 5.6 (.220)
M5 thread	Ø 5.9 (.232)
Thru hole	Ø 6.1 (.240)

See page 34 for operating instructions



Accessories

Operation

Striker Bolt

See page 35



Cable Mounting Kit See page 35





southco®

Material & Finish

Housings: PC/ABS Cam: Glass-filled nylon

Trigger: PBT

Springs: Stainless Steel Pins: Steel, zinc plated

Electrical Specifications

Recommended Operating Voltage: 12 to 24 VDC

Typical Operating Current (average at no load): Less than 600mA at 12VDC

Input Signal Current Draw: 25mA Maximum

**Optional microswitch closes upon latch closure Microswitch Rating: 3A Max at 12 VDC

Wire Color Code / Connector Pin Assignment:

PIN 1: Brown: Ground (-)

PIN 2: Red: Power 8 to 26 Volts DC

PIN 3: Orange: Control Signal

8 to 26 Volts DC

PIN 4: Black: Microswitch Common

PIN 5: Blue: Microswitch N.O.

Contact

PIN 6: Grey: Microswitch N.C.

Contact

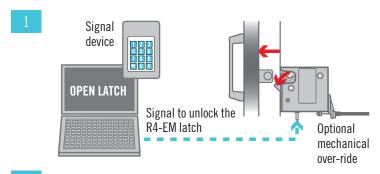




Operating instructions

Operation - Auto relock

- The signal unlocks the R4-EM latch and releases the spring loaded cam which rotates out to push a lightweight door open. The mechanism will cycle through unlatched then relatched state automatically, regardless of input signal on time.
- Push door closed to engage striker after unlock time has expired. Striker will rotate cam to closed position.



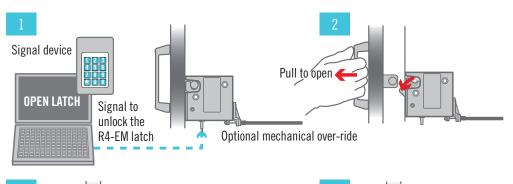
Signal device

Push to lock

Remove signal to lock R4-EM Latch

Operation - Delayed relock

- The signal unlocks the R4-EM latch leaving a biased closed door in the closed position.
 The unlock time is controlled by the access control device.
- 2. Manually pull door/striker free from R4-EM latch.
- 3. Manually push door closed.
 Striker will rotate cam to closed position, however latch will remain unlocked and can be re-opened as long as signal is present.
- 4. After accessing the door, the signal can be removed to re-lock the R4-EM. This can be done with the door in the open or closed position.









Strikers - Cable mounting kits



Material and Finish

Cast strikers: Zinc alloy

*Note: Latch and striker

the latch trade drawing at

www.southco.com.

nylon, black

Striker bolts: Steel, zinc plated

Cable mounting kits: Glass-filled

installation details can be found on

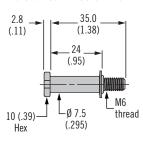
Striker Bolt - Large

12.7 (.50)

Part number R4-90-121-10 R4-90-121-20 (1.5)28 (1.1)

Striker Bolt - Small

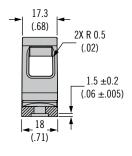
Part number R4-90-511-20

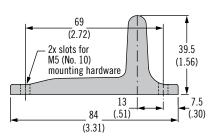


Cast Striker with Door Sensor Part number R4-90-804-10* Cast Striker without Door Sensor Part number R4-90-800-10*

Ø 9.5

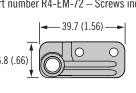
(.37)

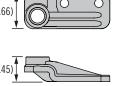


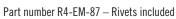


Cable Mounting Kit

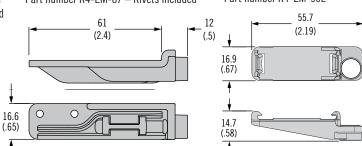
Part number R4-EM-52 - Rivets included Part number R4-EM-72 - Screws included







Part number R4-EM-952



	Striker Bolt		Cast Striker		Cable Mounting Kit			
	R4-90-121-XX	R4-90-511-20	R4-90-800-10	R4-90-804-10	R4-EM-52	R4-EM-72	R4-EM-87	R4-EM-952
R4-EM-9	~		~	/				~
R4-EM-8	~		V	~				
R4-EM-5 & 7	/		~		~		~	
R4-EM-4 & 6		/				>		
R4-EM-1 & 2	✓		/		~		~	





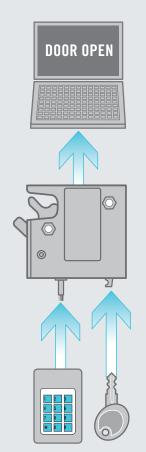
R4-EM 5 & 7 Series Electronic Rotary Latch

Sealed motor · Stainless steel housing option Electronic access with internal motor control

12V

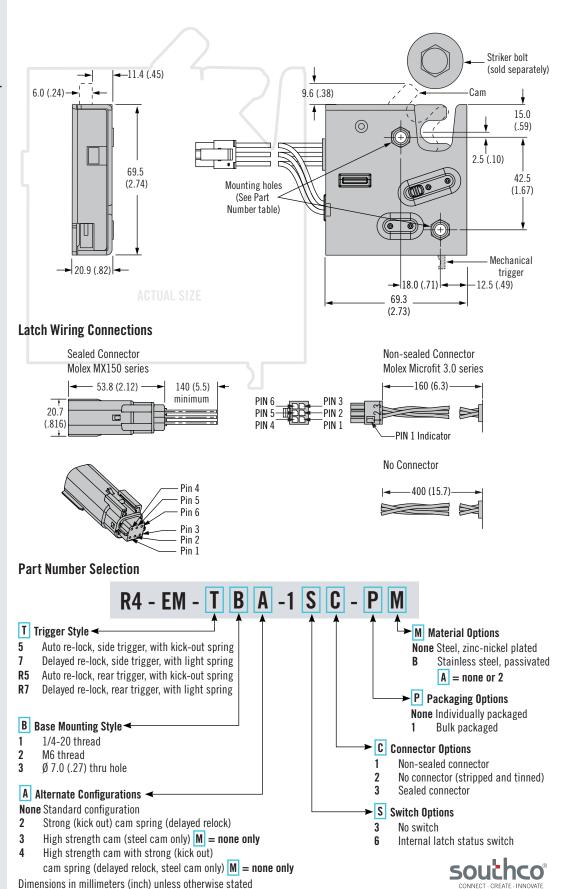
• 411

- Motor actuator sealed against water and dust ingress to IP56
- Corrosion resistant platedsteel and stainless steel options
- Push-to-close, electronic release
- Versatile rotary mechanism
- Concealed latching
- Microprocessor control
- Auto or delayed relock functionality
- · Minimal power draw
- Optional internal microswitch for latch status
- Simple mechanical over-ride



Other options available. For complete details on variety, part numbers, installation and specification, go to

www.southco.com/R4-EM



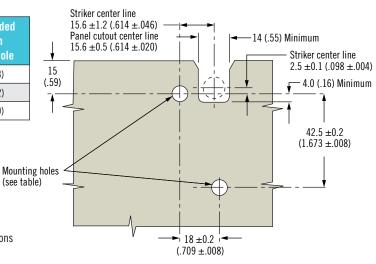
12V

24V

Installation

Panel Preparation

Base Mounting Style	Recommended minimum mounting hole
1/4-20 thread	Ø 7.2 (.283)
M6 thread	Ø 6.9 (.272)
Thru hole	Ø 7.6 (.300)



Accessories

Operation

Striker Bolt or Cast Striker

See page 34 for operating instructions

See page 35





See page 35



Electronic Actuators See page 42 Mechanical Actuators See page 36 Cables See page 272 Wiring/Junctions See www.southco.com



Mechanism

Housing, Cam, Trigger, Pins: Zinc nickel plated steel or stainless steel Springs: 300 Series stainless steel

Electronic Actuator Housing: PC/ABS

Bellows, Wire seal: Silicone Perimeter Seal: Buna

Cams: Acetal Grommet: TPE

Electrical Specifications

Recommended Operating Voltage:

12 to 24 Volt DC

Typical Operating Current (average at no load): Less then 600mA at 12 VDC

Input Signal Current Draw: 25mA

Maximum at 24 VDC

Micro-switch Rating: 3A Maximum

at 12VDC

Wire Color Code / Connector Pin Assignment:

PIN 1: Brown: Ground (-)

PIN 2: Red: Power 12 to 24 Volts DC

PIN 3: Orange: Control Signal

12 to 24 Volts DC

PIN 4: Black: Microswitch Common

PIN 5: Blue: Microswitch N.O.

Contact

PIN 6: Grey: Microswitch N.C.

Contact

Other options available. For complete details on variety, part numbers, installation and specification, go to



www.southco.com/R4-EM

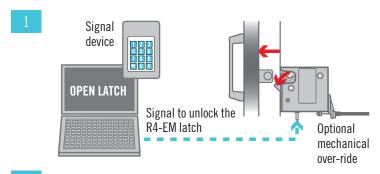




Operating instructions

Operation - Auto relock

- The signal unlocks the R4-EM latch and releases the spring loaded cam which rotates out to push a lightweight door open. The mechanism will cycle through unlatched then relatched state automatically, regardless of input signal on time.
- Push door closed to engage striker after unlock time has expired. Striker will rotate cam to closed position.



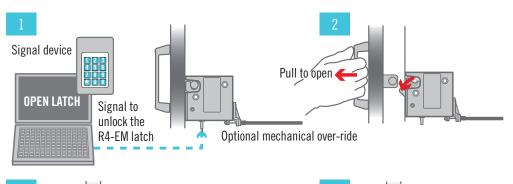
Signal device

Push to lock

Remove signal to lock R4-EM Latch

Operation - Delayed relock

- The signal unlocks the R4-EM latch leaving a biased closed door in the closed position.
 The unlock time is controlled by the access control device.
- 2. Manually pull door/striker free from R4-EM latch.
- 3. Manually push door closed.
 Striker will rotate cam to closed position, however latch will remain unlocked and can be re-opened as long as signal is present.
- 4. After accessing the door, the signal can be removed to re-lock the R4-EM. This can be done with the door in the open or closed position.









Strikers - Cable mounting kits



Material and Finish

Cast strikers: Zinc alloy

*Note: Latch and striker

the latch trade drawing at

www.southco.com.

nylon, black

Striker bolts: Steel, zinc plated

Cable mounting kits: Glass-filled

installation details can be found on

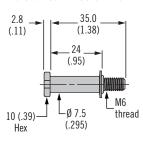
Striker Bolt - Large

12.7 (.50)

Part number R4-90-121-10 R4-90-121-20 38 (1.5)

Striker Bolt - Small

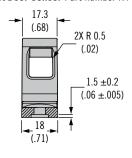
Part number R4-90-511-20

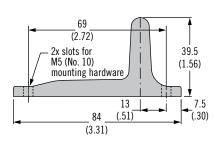


Cast Striker with Door Sensor Part number R4-90-804-10*
Cast Striker without Door Sensor Part number R4-90-800-10*

Ø 9.5

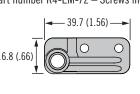
(.37)

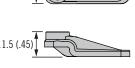


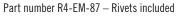


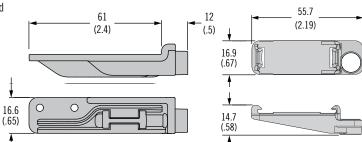
Cable Mounting Kit

Part number R4-EM-52 — Rivets included Part number R4-EM-72 — Screws included









	Striker Bolt		Cast Striker		Cable Mounting Kit				
	R4-90-121-XX	R4-90-511-20	R4-90-800-10	R4-90-804-10	R4-EM-52	R4-EM-72	R4-EM-87	R4-EM-952	
R4-EM-9	~		~	~				~	
R4-EM-8	~		V	~					
R4-EM-5 & 7	~		~		~		~		
R4-EM-4 & 6		/				~			
R4-EM-1 & 2	/		/		~		~		

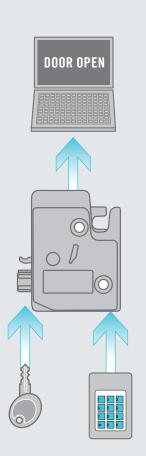




R4-EM 8 Series Electromechanical Rotary Lock

Door sensor option · Extended housing option Electronic access without internal motor control

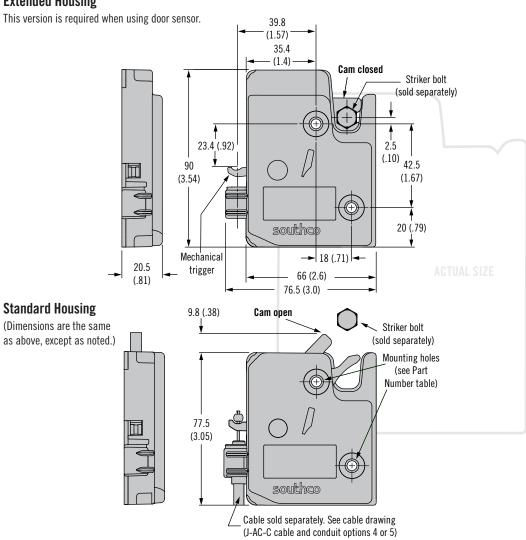
- Push-to-close, electronic release
- Auto relock functionality
- Minimal power draw
- Integrated connector
- Extended housing option for added security
- Optional door sensor
- Microswitch to detect latch status
- Mechanical over-ride with integrated cable bracket
- Efficient DC motor actuation
- Simple two-hole installation



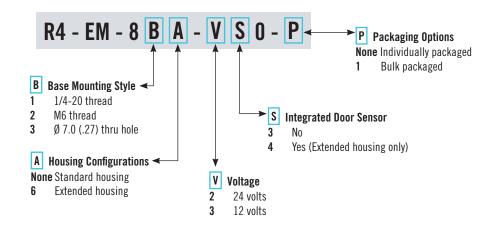
Other options available. For complete details on variety, part numbers, installation and specification, go to INFO CLIC

www.southco.com/R4-EM

Extended Housing



Part Number Selection





12V

24V

Top housing: Nylon Gearbox cover: PC/ABS

Bottom housing, Pivot pins, Screws: Steel, zinc plated Cam, Trigger: Steel, sealed

Material & Finish

Gears: Acetal

Pin, Springs: Stainless steel

Electrical Specifications

Recommended Operating Voltage:

12 V Models: 8 to 14 VDC

24 V Models: 21 to 26 VDC Typical Operating Current :

12 V Models: Less than 200mA

24 V Models: Less than 100mA Latch status switch: 1A Maximum

Latch Connector Pin Assignment

PIN 1: Power

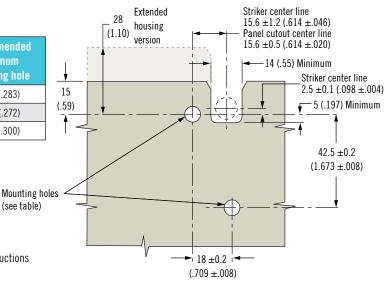
PIN 2: Ground (-)

PIN 3: None

PIN 4: Latch status signal

Installation Panel Preparation

Base Mounting Style	Recommended minimum mounting hole
1/4-20 thread	Ø 7.2 (.283)
M6 thread	Ø 6.9 (.272)
Thru hole	Ø 7.6 (.300)



Accessories

Operation

Striker Bolt or Cast Striker

See page 34 for operating instructions

See page 35



Electronic Actuators See page 42 Mechanical Actuators See page 36 Cables See page 272 Wiring/Junctions See www.southco.com











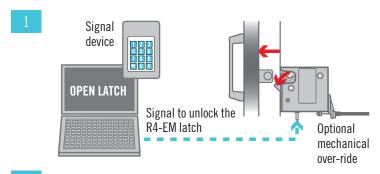




Operating instructions

Operation - Auto relock

- The signal unlocks the R4-EM latch and releases the spring loaded cam which rotates out to push a lightweight door open. The mechanism will cycle through unlatched then relatched state automatically, regardless of input signal on time.
- Push door closed to engage striker after unlock time has expired. Striker will rotate cam to closed position.



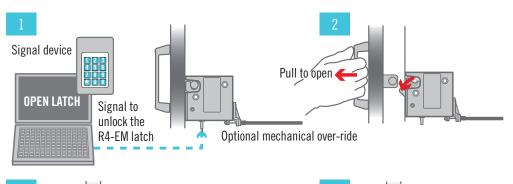
Signal device

Push to lock

Remove signal to lock R4-EM Latch

Operation - Delayed relock

- The signal unlocks the R4-EM latch leaving a biased closed door in the closed position.
 The unlock time is controlled by the access control device.
- 2. Manually pull door/striker free from R4-EM latch.
- 3. Manually push door closed.
 Striker will rotate cam to closed position, however latch will remain unlocked and can be re-opened as long as signal is present.
- 4. After accessing the door, the signal can be removed to re-lock the R4-EM. This can be done with the door in the open or closed position.









Strikers - Cable mounting kits



Material and Finish

Cast strikers: Zinc alloy

*Note: Latch and striker

the latch trade drawing at

www.southco.com.

nylon, black

Striker bolts: Steel, zinc plated

Cable mounting kits: Glass-filled

installation details can be found on

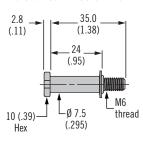
Striker Bolt - Large

12.7 (.50)

Part number R4-90-121-10 R4-90-121-20 38 (1.5)

Striker Bolt - Small

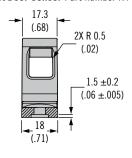
Part number R4-90-511-20

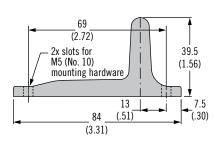


Cast Striker with Door Sensor Part number R4-90-804-10*
Cast Striker without Door Sensor Part number R4-90-800-10*

Ø 9.5

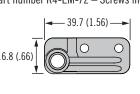
(.37)

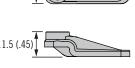


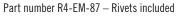


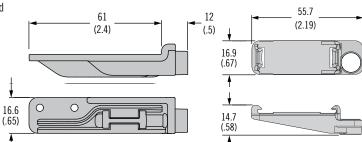
Cable Mounting Kit

Part number R4-EM-52 — Rivets included Part number R4-EM-72 — Screws included









	Striker Bolt		Cast Striker		Cable Mounting Kit				
	R4-90-121-XX	R4-90-511-20	R4-90-800-10	R4-90-804-10	R4-EM-52	R4-EM-72	R4-EM-87	R4-EM-952	
R4-EM-9	~		~	~				~	
R4-EM-8	~		V	~					
R4-EM-5 & 7	~		~		~		~		
R4-EM-4 & 6		/				~			
R4-EM-1 & 2	/		/		~		~		



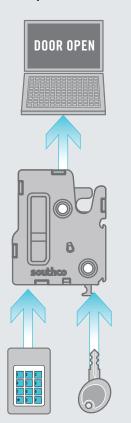
R4-EM 9 Series Electromechanical Rotary Lock

Concealed cam

Electronic access with internal motor control

Push-to-close, electronic release

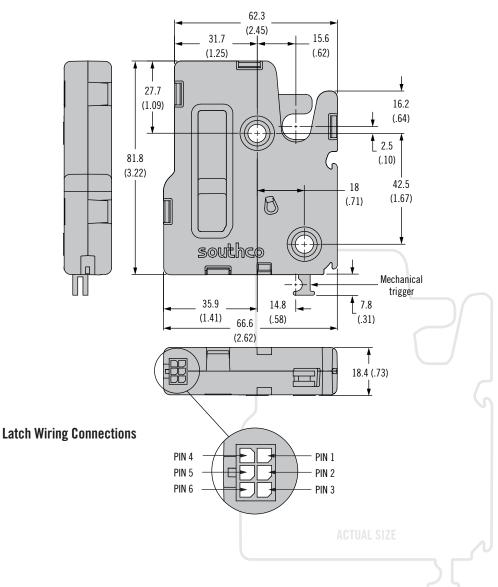
- High electromechanical release load
- Minimal power draw
- Integrated connector
- Extended housing for added security
- Door and Trigger Sensor
- Microswitch to detect latch status
- Mechanical over-ride with integrated cable bracket
- 12V to 24V operations
- Efficient DC gear motor actuation
- Detent mechanism for pull-open function
- Simple two-hole installation



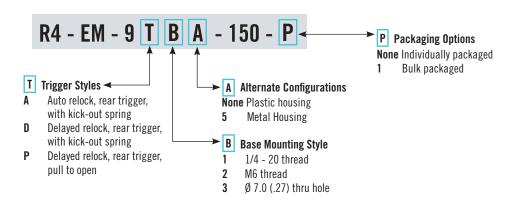
Other options available. For complete details on variety, part numbers, installation and specification, go to

INFO CLIC

www.southco.com/R4-EM



Part Number Selection

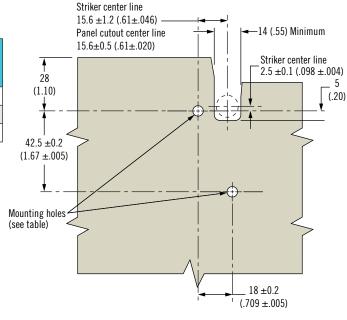




Installation

Panel Preparation

Base Mounting Style	Recommended minimum mounting hole
1/4-20 thread	Ø 7.2 (.283)
M6 thread	Ø 6.9 (.272)
Thru hole	Ø 7.6 (.300)



Operation

See page 34 for operating instructions

Accessories

Striker Bolt or Cast Striker

See page 35





See page 35



Electronic Actuators



Mechanical Actuators See page 36





Cables See page 272



Wiring/Junctions See www.southco.com





Material & Finish

Top Housing: PC/ABS or Aluminum Bottom Housing: PC/ABS or Zinc,

Die Cast

Pivot Pins: Steel, zinc plated Cam, Trigger: Steel, sealed Springs: Stainless steel passivated Trigger Interlock Lever: Glass-filled

nylon

Bistable Spring Retainer: Zinc Alloy Drive Cam: Acetal, black Output Cam: Acetal, white

Electrical Specifications

Recommended Operating Voltage:

12 to 24 VDC

Typical Operating Current:

12 V Models: Less than 500mA

Latch Connector Pin Assignment

PIN 1: Ground (-)

PIN 2: Power (+)

PIN 3: Control Signal

PIN 4: Latch Status

PIN 5: None

PIN 6: Door status

12V

24V

Other options available. For complete details on variety, part numbers, installation and specification, go to INFO CLIC

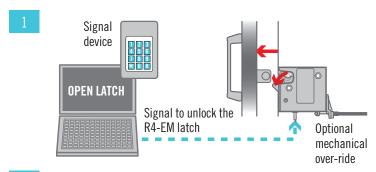
www.southco.com/R4-EM



Operating instructions

Operation - Auto relock

- The signal unlocks the R4-EM latch and releases the spring loaded cam which rotates out to push a lightweight door open. The mechanism will cycle through unlatched then relatched state automatically, regardless of input signal on time.
- Push door closed to engage striker after unlock time has expired. Striker will rotate cam to closed position.



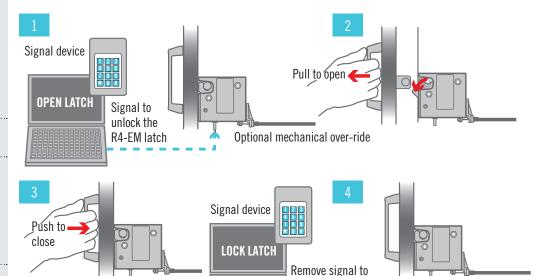
Signal device

Push to lock

Remove signal to lock R4-EM Latch

Operation - Delayed relock

- The signal unlocks the R4-EM latch leaving a biased closed door in the closed position.
 The unlock time is controlled by the access control device.
- 2. Manually pull door/striker free from R4-EM latch.
- 3. Manually push door closed.
 Striker will rotate cam to closed position, however latch will remain unlocked and can be re-opened as long as signal is present.
- 4. After accessing the door, the signal can be removed to re-lock the R4-EM. This can be done with the door in the open or closed position.



lock R4-EM Latch





Strikers - Cable mounting kits



Material and Finish

Cast strikers: Zinc alloy

*Note: Latch and striker

the latch trade drawing at

www.southco.com.

nylon, black

Striker bolts: Steel, zinc plated

Cable mounting kits: Glass-filled

installation details can be found on

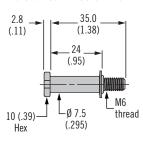
Striker Bolt - Large

12.7 (.50)

Part number R4-90-121-10 R4-90-121-20 38 (1.5) 28 (1.1)

Striker Bolt - Small

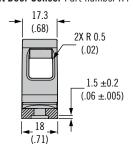
Part number R4-90-511-20

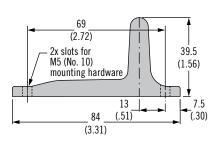


Cast Striker with Door Sensor Part number R4-90-804-10*
Cast Striker without Door Sensor Part number R4-90-800-10*

Ø 9.5

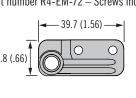
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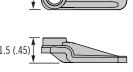


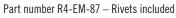


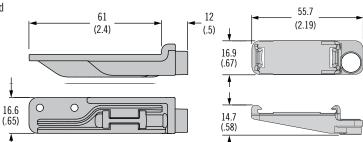
Cable Mounting Kit

Part number R4-EM-52 — Rivets included Part number R4-EM-72 — Screws included









	1	<u> </u>	1					
	Strike	Striker Bolt		Cast Striker		Cable Mounting Kit		
	R4-90-121-XX	R4-90-511-20	R4-90-800-10	R4-90-804-10	R4-EM-52	R4-EM-72	R4-EM-87	R4-EM-952
R4-EM-9	~		~	/				~
R4-EM-8	~		V	~				
R4-EM-5 & 7	✓		~		/		~	
R4-EM-4 & 6		/				/		
R4-EM-1 & 2	~		V		~		~	

