

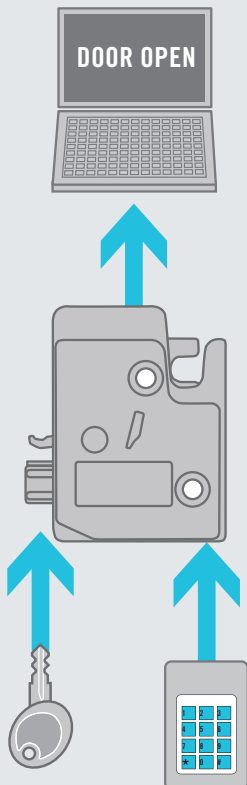


# R4-EM 8 Series Electromechanical Rotary Lock

Door sensor option · Extended housing option

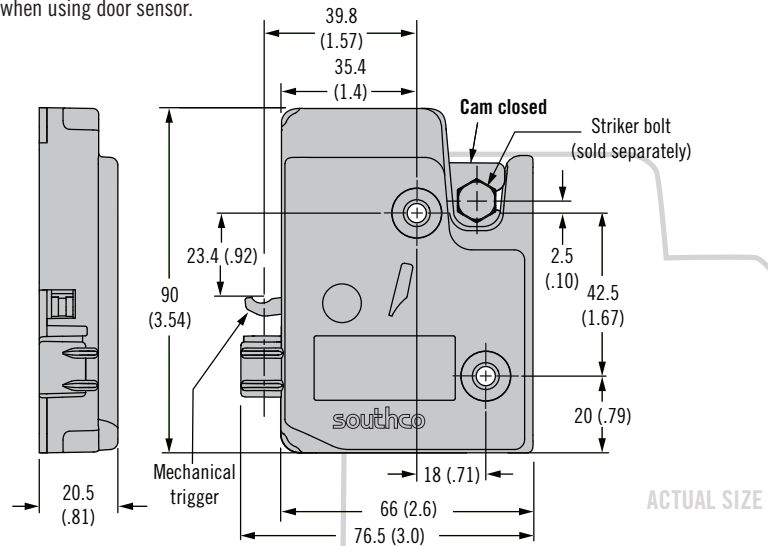
Electronic access without internal motor control

- 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



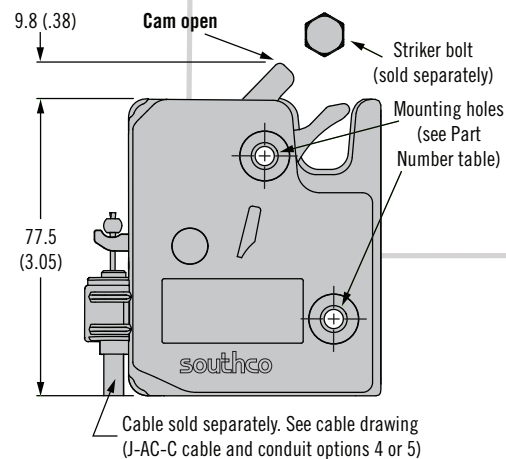
## Extended Housing

This version is required when using door sensor.



## Standard Housing

(Dimensions are the same as above, except as noted.)



## Part Number Selection

R4 - EM - 8 **B** **A** - **V** **S** **O** - **P**

### **B** Base Mounting Style

- 1 1/4-20 thread
- 2 M6 thread
- 3 Ø 7.0 (.27) thru hole

### **A** Housing Configurations

- None Standard housing
- 6 Extended housing

### **V** Voltage

- 2 24 volts
- 3 12 volts

### **P** Packaging Options

- None Individually packaged
- 1 Bulk packaged

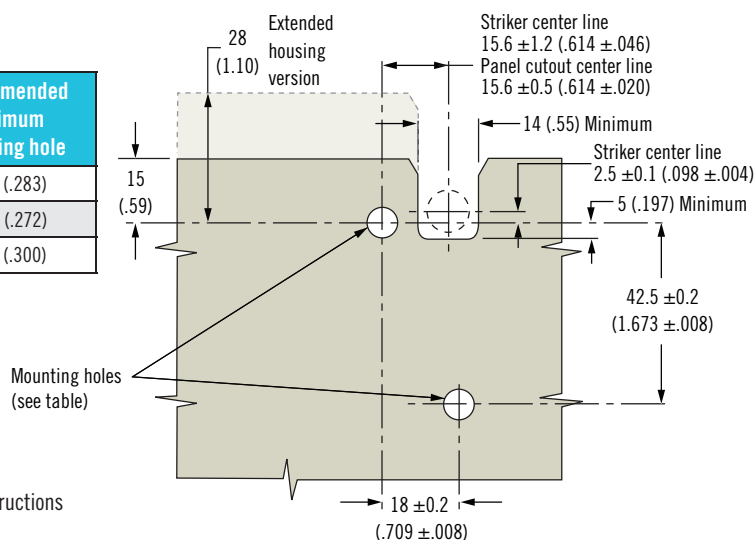
### **S** Integrated Door Sensor

- 3 No
- 4 Yes (Extended housing only)

## 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 21 for operating instructions

## Accessories

### Striker Bolt or Cast Striker

See page 36



### Electronic Actuators

See page 48



### Mechanical Actuators

See page 34



### Cables

See page 322



### Wiring/Junctions

See [www.southco.com](http://www.southco.com)



## Material & Finish

Top housing: Nylon

Gearbox cover: PC/ABS

Bottom housing, Pivot pins,

Screws: Steel, zinc plated

Cam, Trigger: Steel, sealed

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

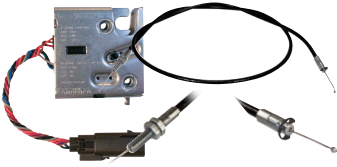
### Pin Assignment

PIN 1: Power

PIN 2: Ground (-)

PIN 3: None

PIN 4: Latch status signal



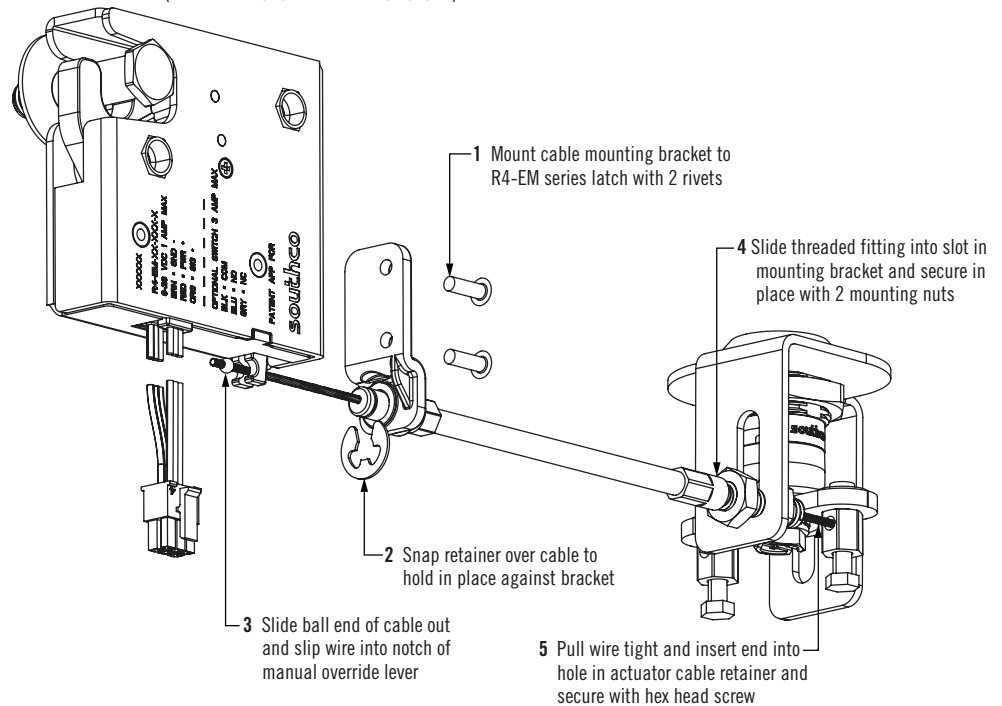
## R4-EM Mechanical Override System

- Adapts to any standard Southco R4-EM Electronic Rotary Latch
- Choose from flat key or tubular key cam latch for remote key lock
- Simple installation with multiple adjustments and customized cable lengths to suit any application.
- Accommodates clockwise or counter clockwise key rotation for latch release

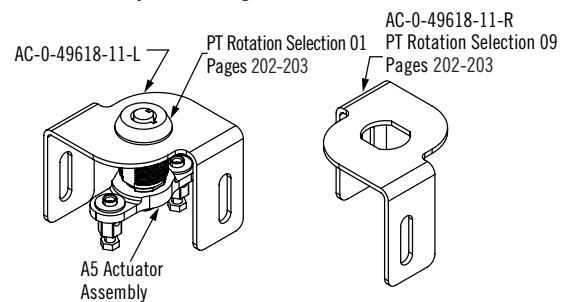
Southco now offers a standard solution for remote mechanical actuation of the R4-EM Electronic Rotary Latch. The cable based solution provides a simple means of mechanically releasing the electronic lock in the event of electrical power loss providing fully redundant access.

### Installation

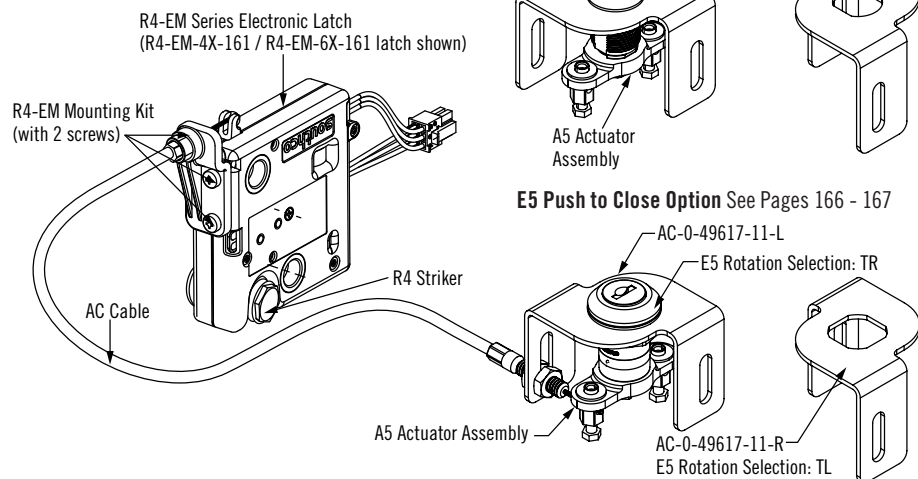
R4-EM Series Electronic Latch  
(R4-EM-1X-161 / R4-EM-2X-161 shown)



### PT Latch Option See Pages 202 - 203

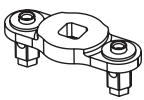
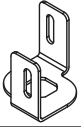


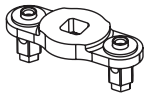
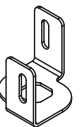
### E5 Push to Close Option See Pages 166 - 167



## How to Order

**Step 1** Select mechanical override lock and corresponding AC actuator assembly and AC cable bracket

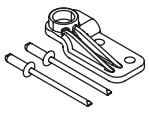
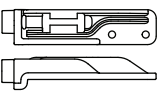
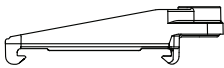
|  <p><b>E5 Latch</b><br/>Push-to-Close assembly<br/>See page 166<br/>See drawing J-E5-53-A</p> | Description      | Part Number     |                                                                                   | Latch Rotation Selection             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-----------------------------------------------------------------------------------|--------------------------------------|
|                                                                                                                                                                                | A5 Actuator      | A5-99-136       |  |                                      |
|                                                                                                                                                                                | AND              |                 |                                                                                   |                                      |
|                                                                                                                                                                                | AC Cable Bracket | AC-0-49617-11-R |  | E5-T-LF-TL-1K<br>See pages 166 - 167 |
|                                                                                                                                                                                | OR               |                 |                                                                                   |                                      |
|                                                                                                                                                                                | AC Cable Bracket | AC-0-49617-11-L |  | E5-T-LF-TR-1K<br>See pages 166 - 167 |

|  <p><b>PT Latch</b><br/>Tubular Key cam Lock<br/>See page 202<br/>See drawing J-PT-1</p> | Description      | Part Number     |                                                                                     | Latch Rotation Selection                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------------------------------------------------------------------------------|------------------------------------------|
|                                                                                                                                                                             | A5 Actuator      | A5-99-157       |  |                                          |
|                                                                                                                                                                             | AND              |                 |                                                                                     |                                          |
|                                                                                                                                                                             | AC Cable Bracket | AC-0-49618-11-R |  | PT-1-HC109-20K-KC<br>See pages 202 - 203 |
|                                                                                                                                                                             | OR               |                 |                                                                                     |                                          |
|                                                                                                                                                                             | AC Cable Bracket | AC-0-49618-11-L |  | PT-1-HC101-20K-KC<br>See pages 202 - 203 |

**Step 2** Determine mechanical cable length required

|                                               |                    |                                                                                                        |                                                                                      |
|-----------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>Mechanical Cable</b><br>See drawing J-AC-C | AC-C0H0-4-LLLL-TTT | LLLL - Length from behind ball end to end of cable<br>TTT - Raw cable extension portion of LLLL length |  |
|-----------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|

**Step 3** Order cable mounting kit (one per R4-EM latch). See page 36 to select the kit to match your application.

|                                                                                     |                                                                                     |                                                                                     |                                                                                      |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |  |
| R4-EM-52                                                                            | R4-EM-72                                                                            | R4-EM-87                                                                            | R4-EM-952                                                                            |



## R4-EM Electronic Rotary Latch Strikers

### Material and Finish

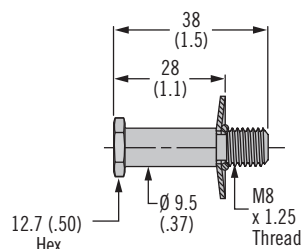
Striker bolts: Steel, zinc plated or stainless steel

Cast strikers: Zinc alloy

**\*Note:** Latch and striker installation details can be found on the latch trade drawing at [www.southco.com](http://www.southco.com).

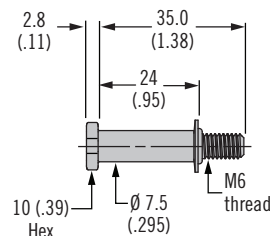
### Striker Bolt - Large

Part number R4-90-121-10  
R4-90-121-20



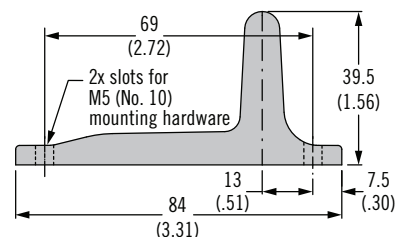
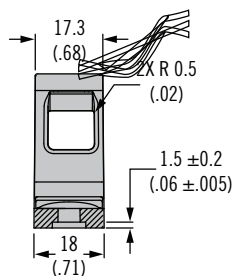
### Striker Bolt - Small

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\*



|                                                                                                    | Striker Bolt |              | Cast Striker |              |
|----------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|
|                                                                                                    | R4-90-121-XX | R4-90-511-20 | R4-90-800-10 | R4-90-804-10 |
| <br>R4-EM-9     | ✓            |              | ✓            | ✓            |
| <br>R4-EM-8     | ✓            |              | ✓            | ✓            |
| <br>R4-EM-5 & 7 | ✓            |              | ✓            |              |
| <br>R4-EM-4 & 6 |              | ✓            |              |              |
| <br>R4-EM-1 & 2 | ✓            |              | ✓            |              |

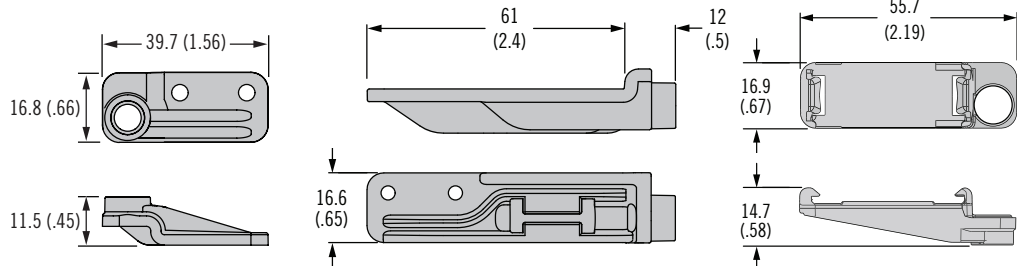
# R4-EM Electronic Rotary Latch

## Cable mounting kits



Cable Mounting Kit

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



Material and Finish

Cable mounting kits: Glass-filled nylon, black

**\*Note:** Latch and striker installation details can be found on the latch trade drawing at [www.southco.com](http://www.southco.com).

|                                                                                                    | Cable Mounting Kit |          |          |           |
|----------------------------------------------------------------------------------------------------|--------------------|----------|----------|-----------|
|                                                                                                    | R4-EM-52           | R4-EM-72 | R4-EM-87 | R4-EM-952 |
| <br>R4-EM-9       |                    |          |          | ✓         |
| <br>R4-EM-8     |                    |          |          |           |
| <br>R4-EM-5 & 7 | ✓                  |          | ✓        |           |
| <br>R4-EM-4 & 6 |                    | ✓        |          |           |
| <br>R4-EM-1 & 2 | ✓                  |          | ✓        |           |