

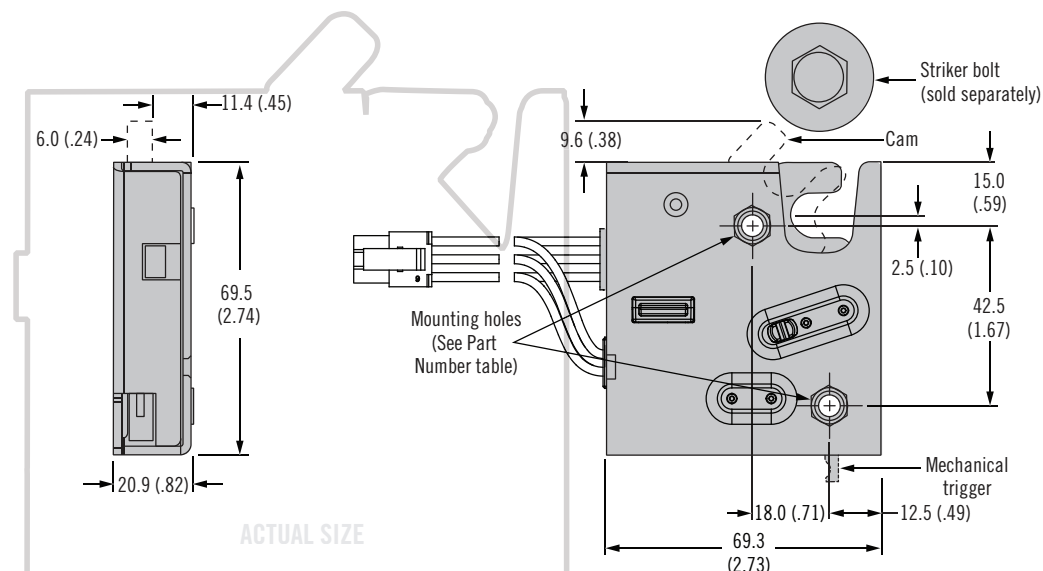
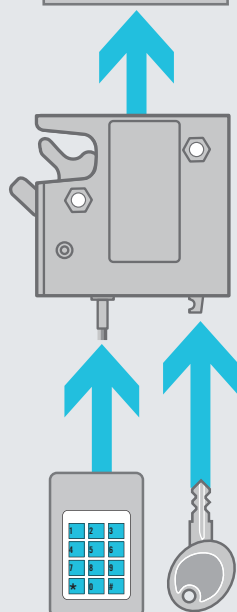


## R4-EM 5 & 7 Series Electronic Rotary Latch

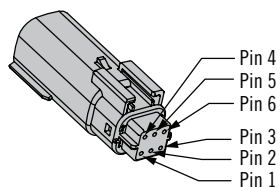
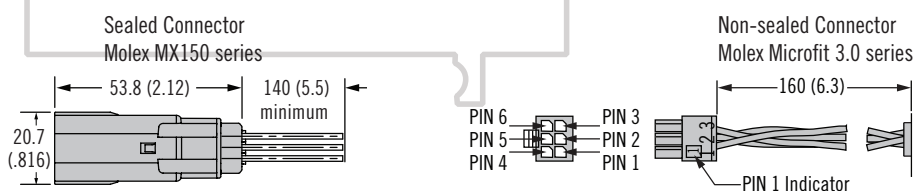
Sealed motor · Stainless steel housing option

Electronic access with internal motor control

- Motor actuator sealed against water and dust ingress to IP56
- Corrosion resistant plated-steel 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 micro-switch for latch status
- Simple mechanical over-ride



### Latch Wiring Connections



### Material Options

- M** None Steel plated
- B** Stainless steel (Alt Config none or 2 only)
- C** Steel plated, UL, class 1 Div 2
- D** Stainless steel, UL class 1 Div 2 (Alt Config none or 2 only)

### Part Number Selection

**R4 - EM - T B A - 1 S C - P M**

#### T Trigger Style

- 5** Auto re-lock, side trigger, with kick-out spring
- 7** Delayed re-lock, side trigger, with light spring
- R5** Auto re-lock, rear trigger, with kick-out spring
- R7** Delayed re-lock, rear trigger, with light spring

#### B Base Mounting Style

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

#### A Alternate Configurations

- None** Standard configuration
- 2** Strong (kick out) cam spring (delayed relock)
- 3** High strength cam (steel cam only) **M** = none only
- 4** High strength cam with strong (kick out) cam spring (delayed relock, steel cam only) **M** = none only

#### P Packaging Options

- None** Individually packaged
- 1** Bulk packaged

#### C Connector Options

- 1** Non-sealed connector
- 2** No connector (stripped and tinned)
- 3** Sealed connector

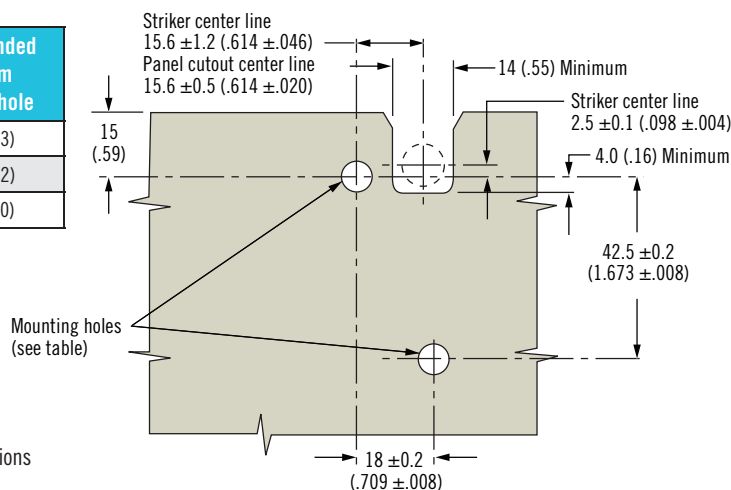
#### S Switch Options

- 3** No switch
- 6** Internal latch status switch

## 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)                      |



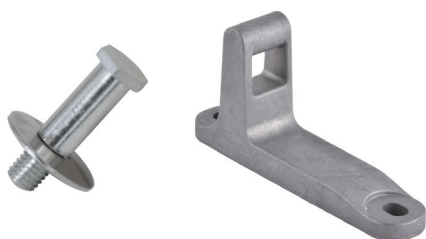
## Operation

See page 21 for operating instructions

## Accessories

### Striker Bolt or Cast Striker

See page 36



### Cable Mounting Kit

See page 37



## Material & Finish

### 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 than 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

### Electronic Actuators

See page 48



### Mechanical Actuators

See page 34



### Cables

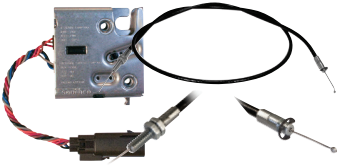
See page 322



### Wiring/Junctions

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





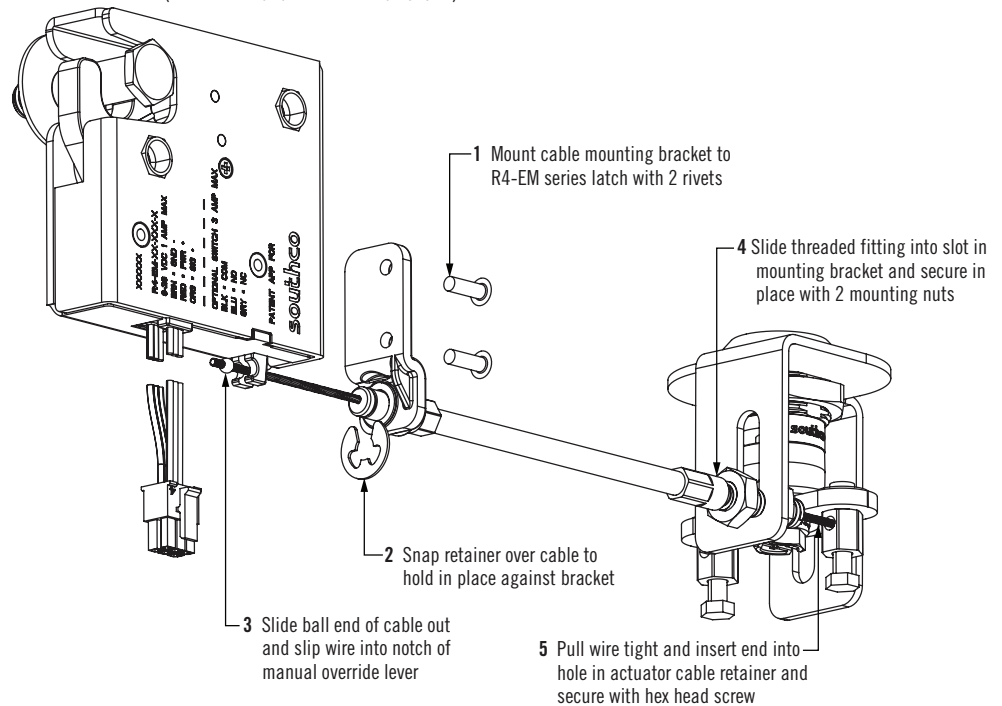
## R4-EM Mechanical Override System

- 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

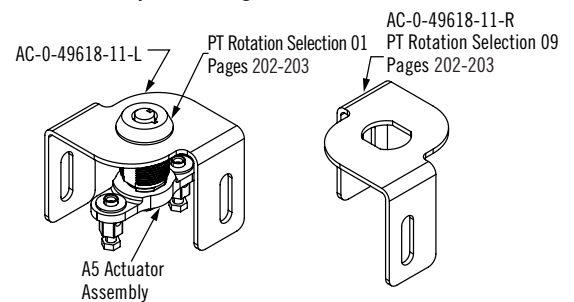
Southco now offers a standard solution for remote mechanical actuation of the R4-EM Electronic Rotary Latch. The cable based solution provides a simple means of mechanically releasing the electronic lock in the event of electrical power loss providing fully redundant access.

### Installation

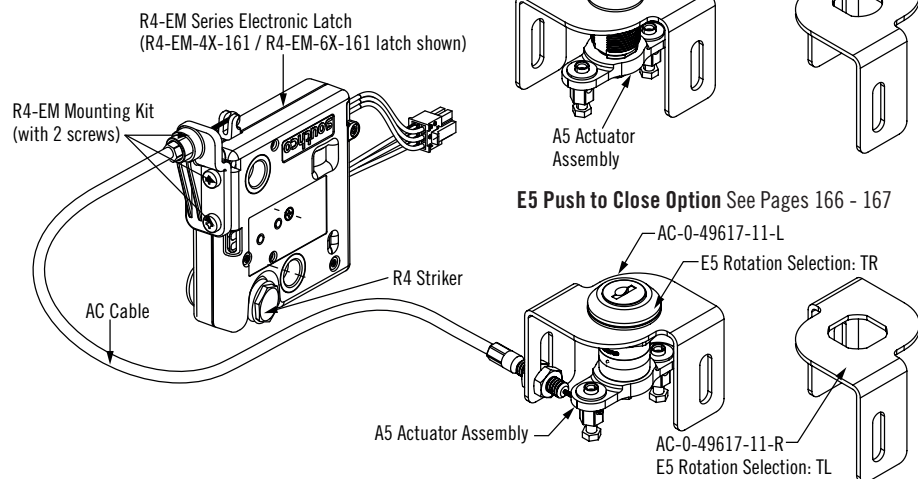
R4-EM Series Electronic Latch  
(R4-EM-1X-161 / R4-EM-2X-161 shown)



### PT Latch Option See Pages 202 - 203

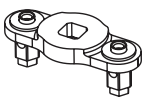
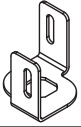


### E5 Push to Close Option See Pages 166 - 167

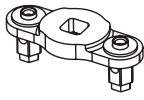
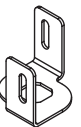


## How to Order

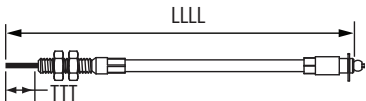
**Step 1** Select mechanical override lock and corresponding AC actuator assembly and AC cable bracket

|  <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 |

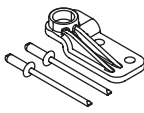
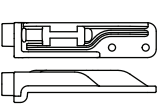
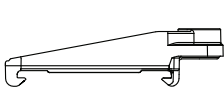
  

|  <p><b>PT Latch</b><br/>Tubular Key cam Lock<br/>See page 202<br/>See drawing J-PT-1</p> | Description      | Part Number     |                                                                                     | Latch Rotation Selection                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------------------------------------------------------------------------------|------------------------------------------|
|                                                                                                                                                                             | 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

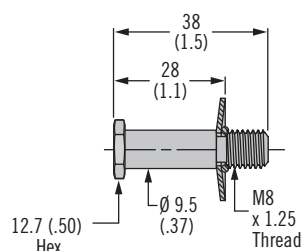
Striker bolts: Steel, zinc plated or stainless steel

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).

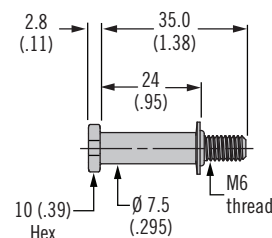
### Striker Bolt - Large

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



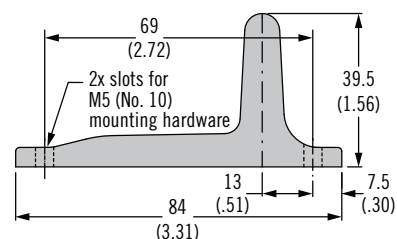
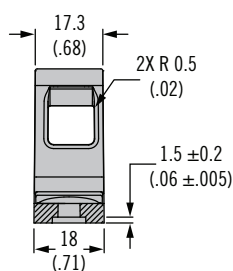
### Striker Bolt - Small

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 | ✓            |              | ✓            |              |

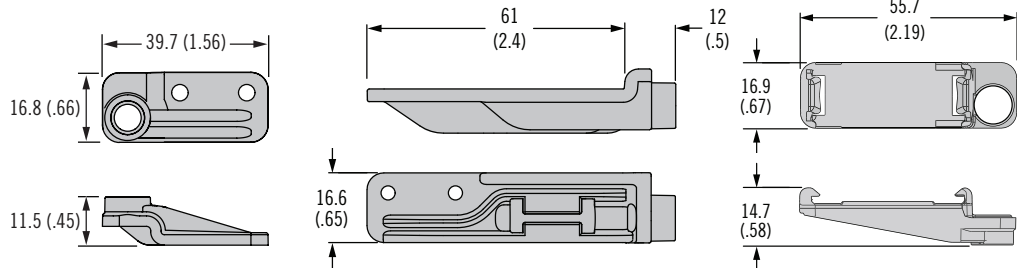
# R4-EM Electronic Rotary Latch

## 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 | ✓                  |          | ✓        |           |