

| REVISION HISTORY |           |         |                 |
|------------------|-----------|---------|-----------------|
| REV              | DATE      | BY      | DESCRIPTION     |
| H                | 10JUL2023 | CAD/HRS | PRN: P2023-1279 |

# LATCH ASSEMBLY PART NUMBER: R4-25-2 I 0-500 B - M M

## I MOUNTING STYLE

- 0 SIDE MOUNT  $\varnothing 6.7$  (.263) THRU HOLE
- 1 SIDE MOUNT 1/4-20 THREAD
- 2 SIDE MOUNT M6X1 THREAD
- 3 FRONT MOUNT (M6X1) WITH  $\varnothing 6.7$  (.263) SIDE MOUNT

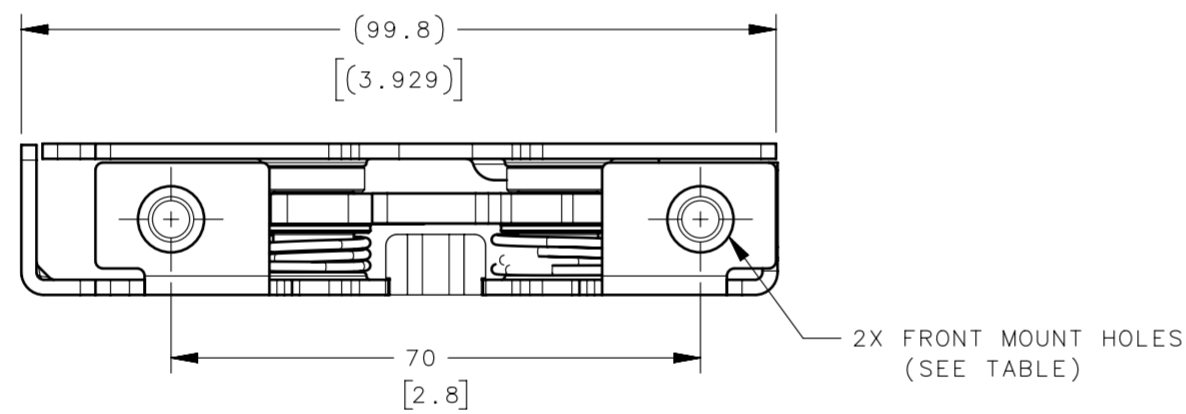
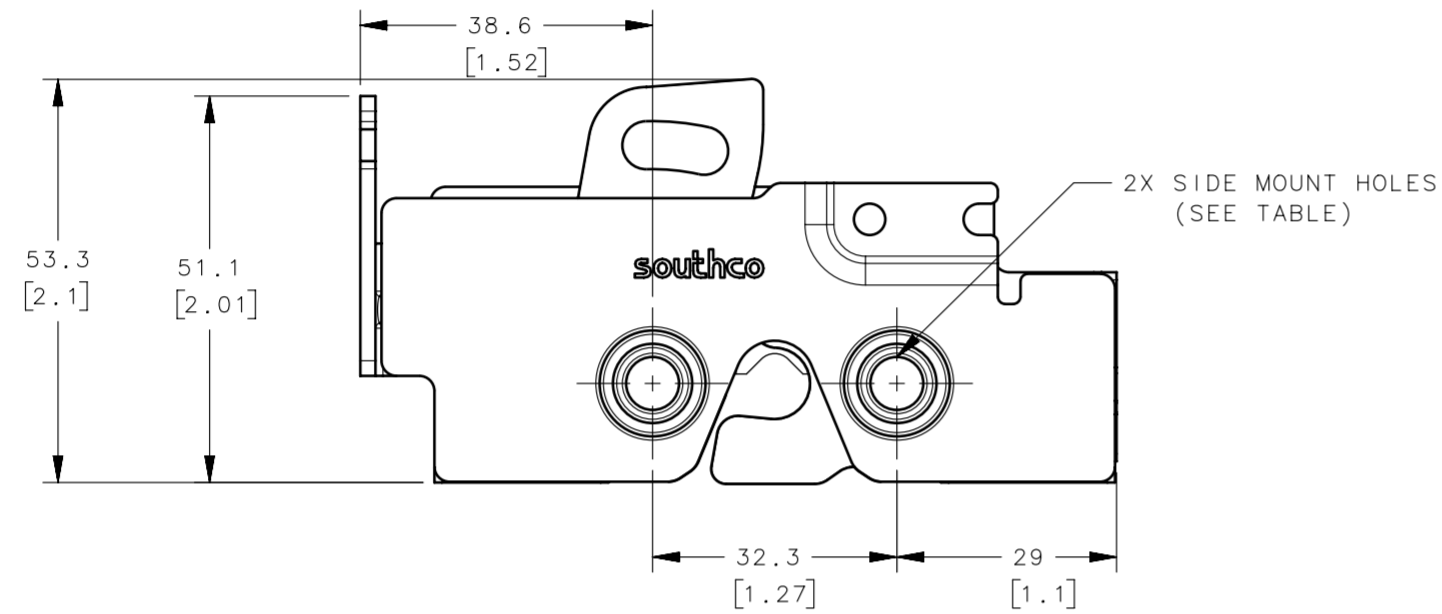
## B BASE STYLE

- 2 MOUNT FOR CABLE WITH RETURN SPRING ASSIST, NO BUMPER
- 3 MOUNT FOR CABLE WITHOUT RETURN SPRING ASSIST, NO BUMPER
- 6 MOUNT FOR CABLE WITH RETURN SPRING ASSIST, WITH BUMPER
- 7 MOUNT FOR CABLE WITHOUT RETURN SPRING ASSIST, WITH BUMPER

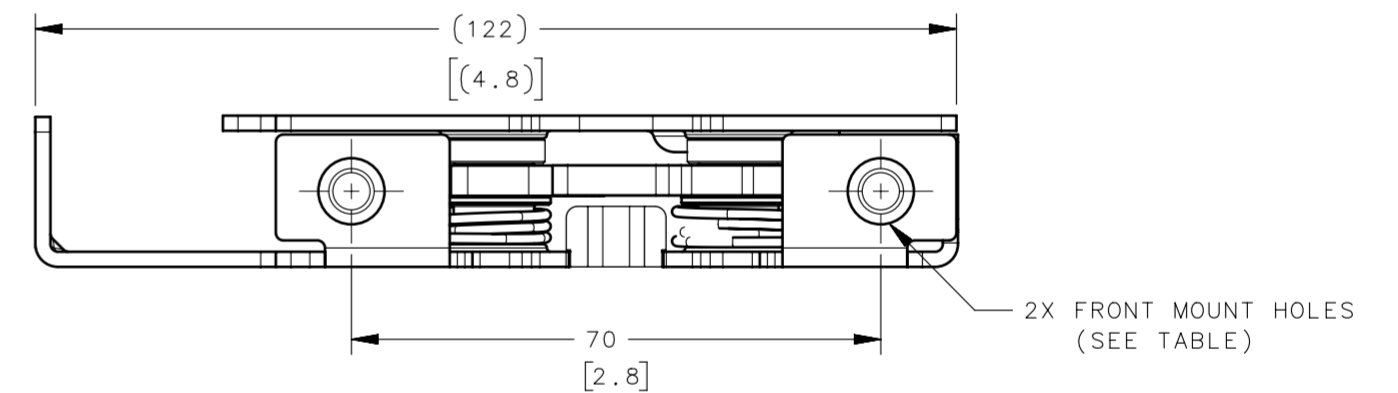
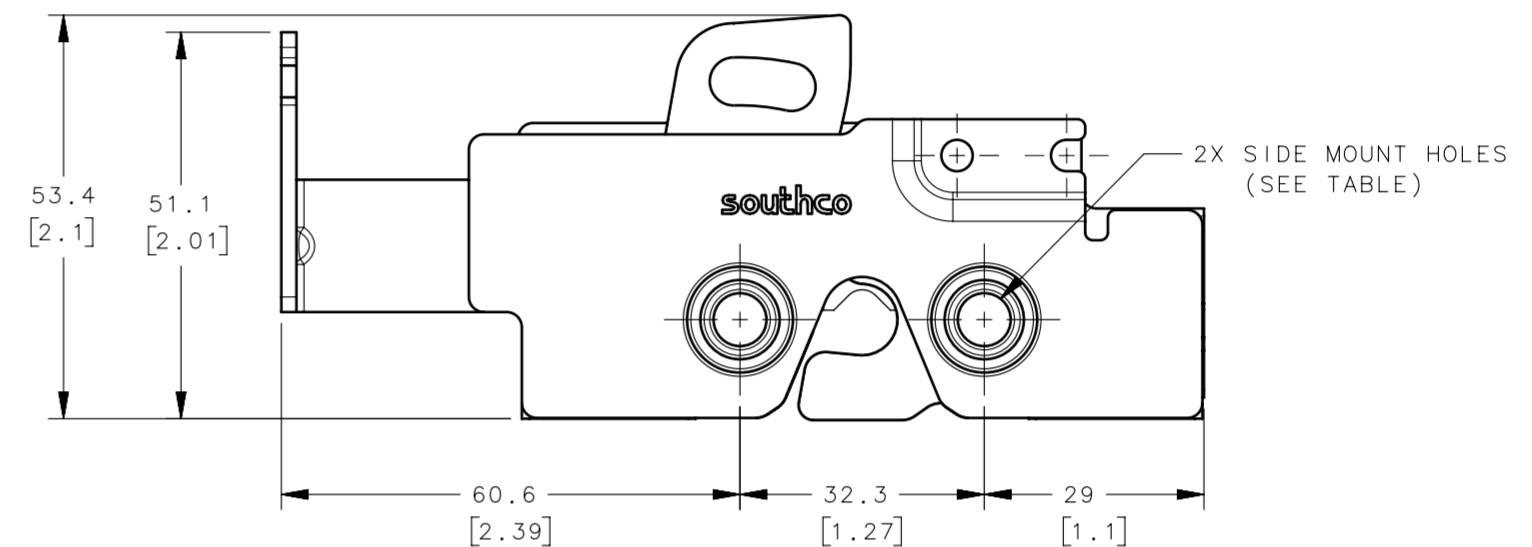
## MM MATERIAL

- 10 STEEL, ZINC PLATE
- 15 STEEL, BLACK ZINC NICKEL
- 77 STEEL, ZINC NICKEL

LATCH WITH MOUNT FOR CABLE WITHOUT RETURN SPRING ASSIST

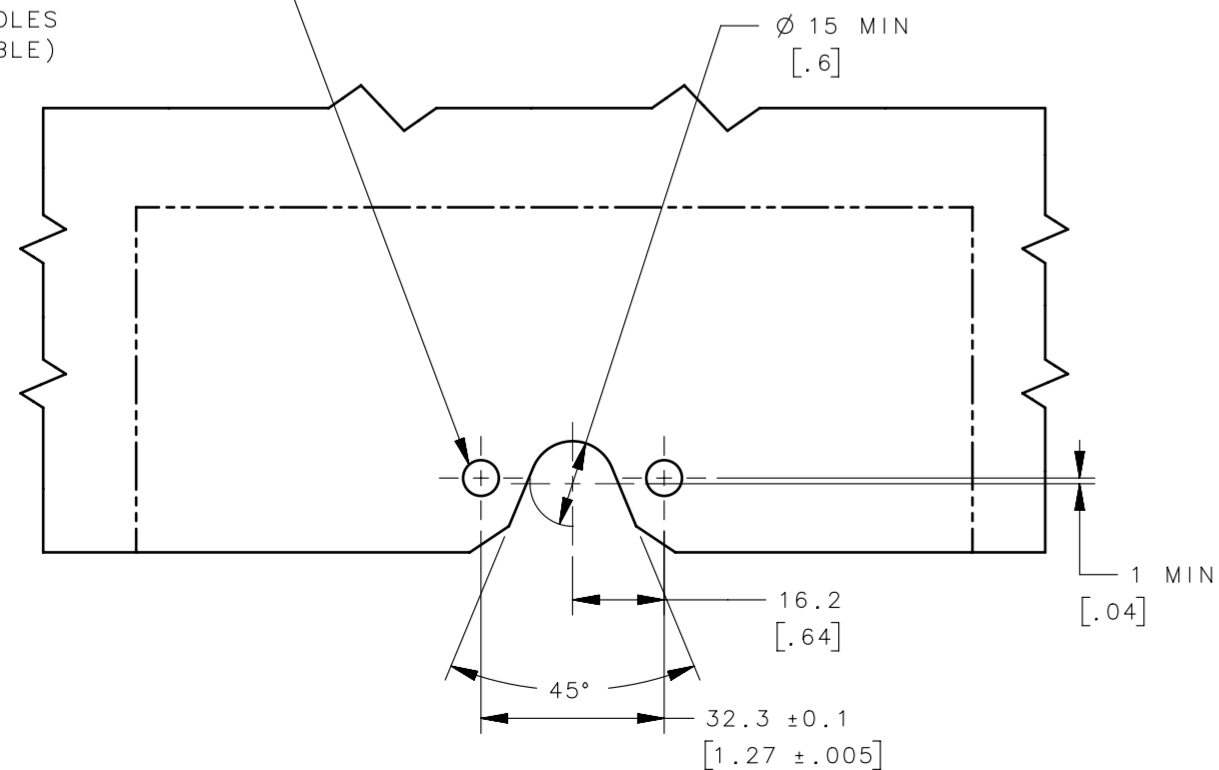


LATCH WITH MOUNT FOR CABLE WITH RETURN SPRING ASSIST



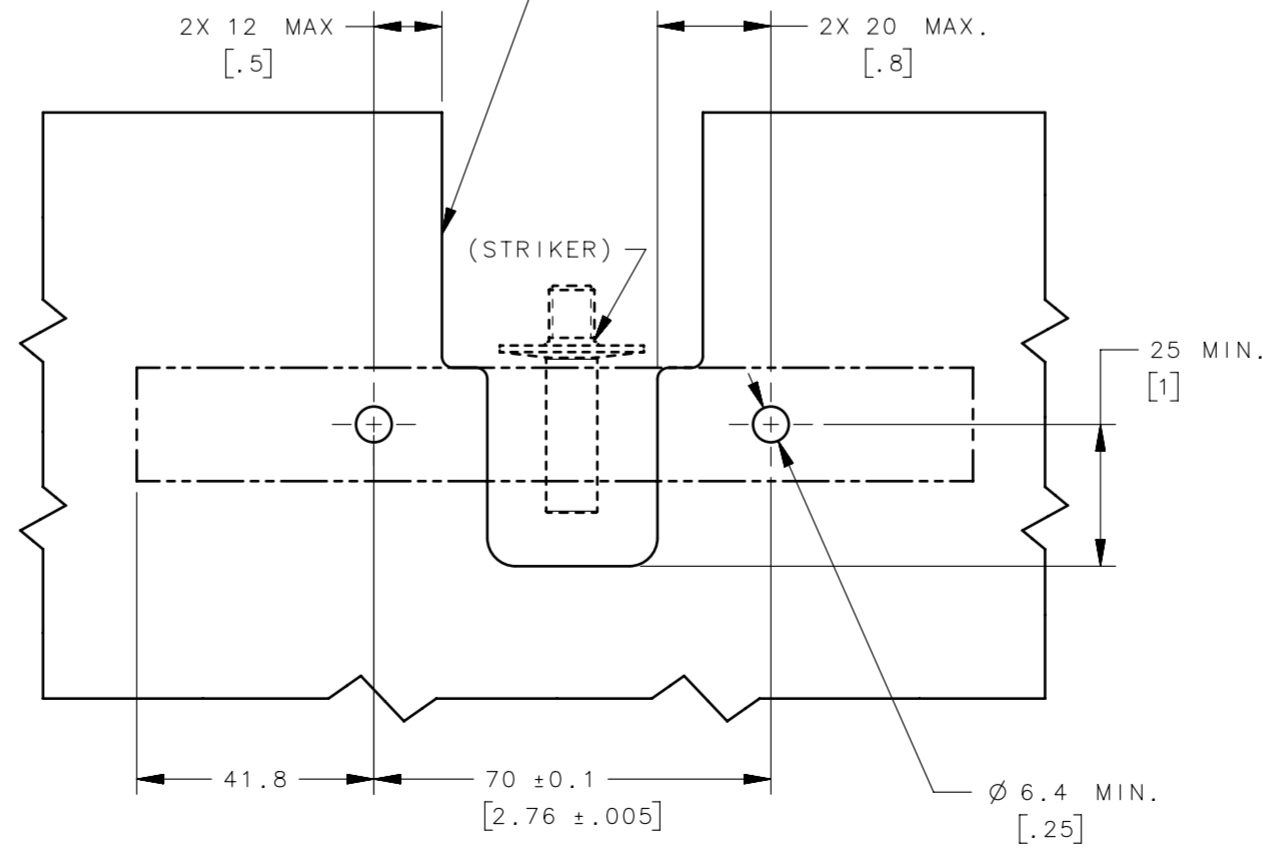
## PANEL PREPARATIONS

2X MINIMUM RECOMMENDED PANEL HOLES (SEE TABLE)



SIDE MOUNT

PANEL PREP WINDOW TO ALLOW THE ENTRANCE OF STRIKER WILL DEPEND UPON STRIKER ALIGNMENT, FOR REFERENCE STRIKER DIMENSIONS SEE SHEET 4



FRONT MOUNT

### NOTES:

SEE SHEET 4 FOR MATERIAL, STRIKER ALIGNMENT AND MOUNTING SPECIFICATIONS.

|                      |                           |                          |
|----------------------|---------------------------|--------------------------|
| R4-25-20S-SWEB-MM    | $\varnothing 6.7$ mm THRU | $\varnothing 7.0$ [.276] |
| R4-25-21S-SWEB-MM    | 1/4-20 THREAD             | $\varnothing 6.8$ [.266] |
| R4-25-22S-SWEB-MM    | M6x1 THREAD               | $\varnothing 6.4$ [.25]  |
| R4-25-23S-SWEB-MM    | M6x1 THREAD               | $\varnothing 6.4$ [.25]  |
| ASSEMBLY PART NUMBER | MOUNTING STYLE            | MINIMUM PANEL HOLE       |

|  |   |   |
|--|---|---|
| CPB NUMBER<br>2019-0330  | THIRD ANGLE PROJECTION                                    | <b>southco</b><br>CONNECT · CREATE · INNOVATE |
|  | MILLIMETERS [IN]  |   |
| SURFACE AREA   | TOLERANCES UNLESS OTHERWISE NOTED                         | DESCRIPTION<br>R4-25 ROTARY LATCH             |
| VOLUME   | ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY. | SIZE SYSTEM<br>A2 NX                          |
| PROPRIETARY ITEM<br>EXCEPT FOR USES EXPRESSLY GRANTED IN WRITING, INFORMATION DISCLOSED HEREON IS CONFIDENTIAL AND ALL RIGHTS, PATENT AND OTHERWISE, ARE RESERVED BY SOUTHCO, INC. | PER ASME Y14.5M-1994                                      | DWG NO.<br>J-R4-25-5                          |
|  |   | DRAWN BY<br>CAD                               |
|  |   | DATE<br>18MAY2021                             |
|  |   | SCALE<br>1:1                                  |
|  |   | SHEET<br>1 OF 4                               |

# LATCH ASSEMBLY WITH MICRO-SWITCH PART NUMBER: R4-25-2 **I**0-510 **B**-**MM**

| REVISION HISTORY |           |         |                 |
|------------------|-----------|---------|-----------------|
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### **I** MOUNTING STYLE

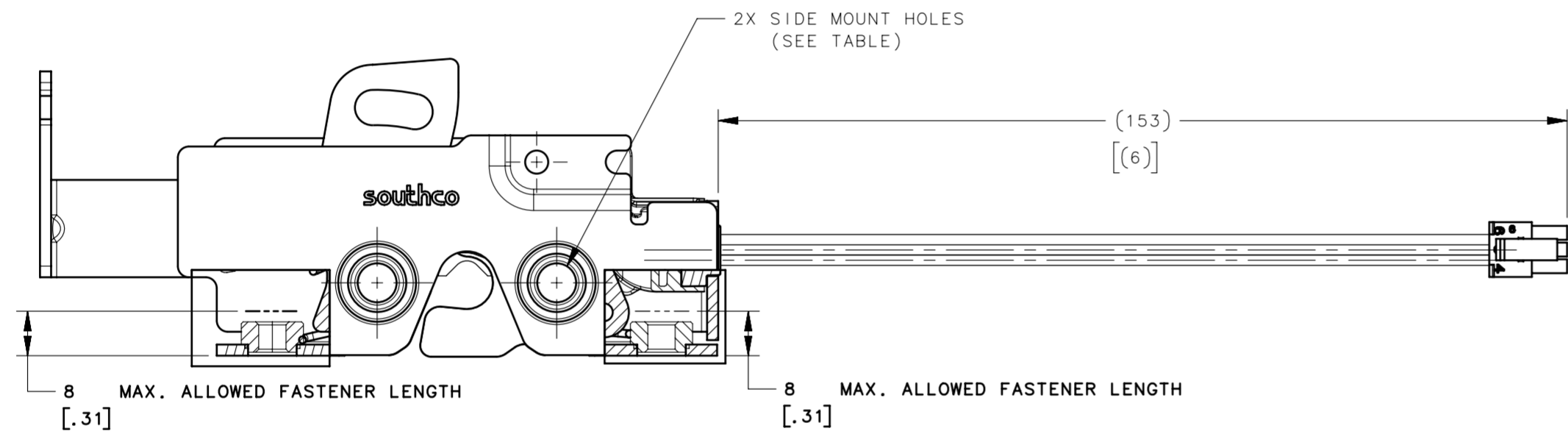
- 0 SIDE MOUNT  $\varnothing 6.7$  (.263) THRU HOLE
- 1 SIDE MOUNT 1/4-20 THREAD
- 2 SIDE MOUNT M6X1 THREAD
- 3 FRONT MOUNT (M6X1) WITH  $\varnothing 6.7$  (.263) SIDE MOUNT

### **B** BASE STYLE

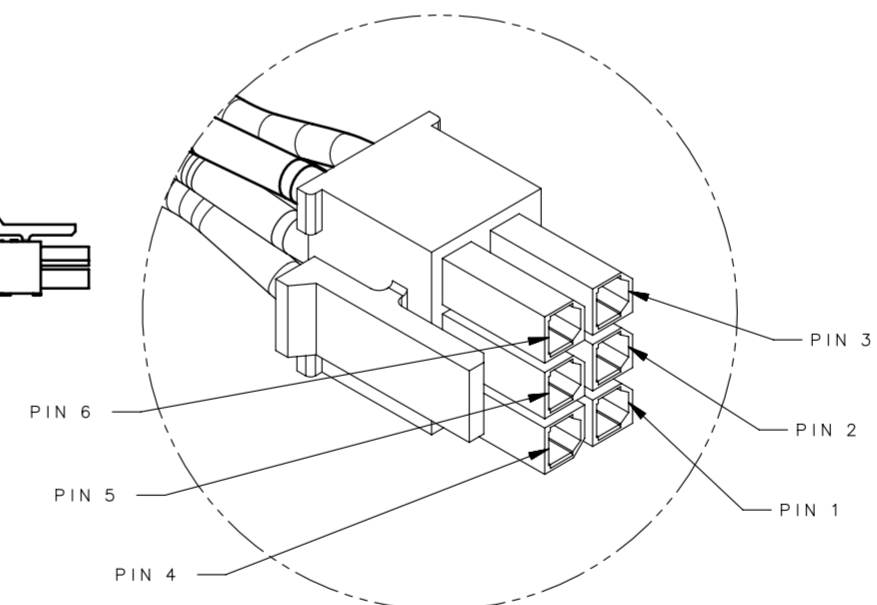
- 2 MOUNT FOR CABLE WITH RETURN SPRING ASSIST, NO BUMPER
- 3 MOUNT FOR CABLE WITHOUT RETURN SPRING ASSIST, NO BUMPER
- 6 MOUNT FOR CABLE WITH RETURN SPRING ASSIST, WITH BUMPER
- 7 MOUNT FOR CABLE WITHOUT RETURN SPRING ASSIST, WITH BUMPER

### **MM** MATERIAL

- 10 STEEL, ZINC PLATE
- 15 STEEL, BLACK ZINC NICKEL
- 77 STEEL, ZINC NICKEL

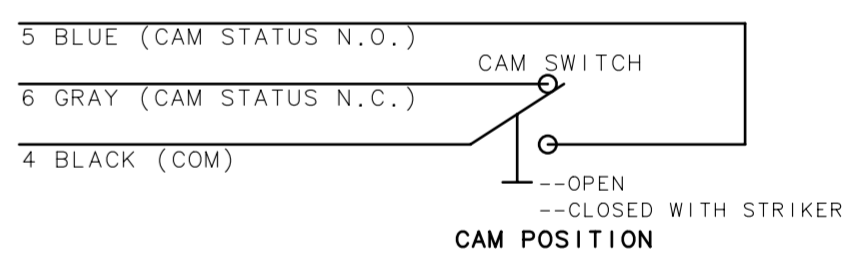


MOUNT FOR CABLE WITH RETURN ASSIST SPRING SHOWN



DETAIL B  
SCALE 3:1  
MOLEX MICRO-FIT 3.0  
CONNECTOR

|                  | CAM STATUS INDICATOR CIRCUIT |                         |
|------------------|------------------------------|-------------------------|
|                  | CAM OPEN                     | CAM CLOSED WITH STRIKER |
| BLACK/GREY WIRES | CLOSED CIRCUIT               | OPEN CIRCUIT            |
| BLACK/BLUE WIRES | OPEN CIRCUIT                 | CLOSED CIRCUIT          |



| CONNECTOR PINOUT |                       |
|------------------|-----------------------|
| PIN              | FUNCTION              |
| 1                | NOT CONNECTED         |
| 2                | NOT CONNECTED         |
| 3                | NOT CONNECTED         |
| 4                | SWITCH COMMON (BLACK) |
| 5                | DOOR SECURE (BLUE)    |
| 6                | DOOR OPEN (GRAY)      |

NOTES:  
SEE SHEET 4 FOR MATERIAL, STRIKER ALIGNMENT, MOUNTING AND SWITCH SPECIFICATIONS.

|  |   |                                   |
|--|---|-----------------------------------|
| CPB NUMBER<br>2019-0330  | THIRD ANGLE PROJECTION                                    |                                   |
|  | MILLIMETERS [IN]  |                                   |
| SURFACE AREA   | TOLERANCES UNLESS OTHERWISE NOTED                         | DESCRIPTION<br>R4-25 ROTARY LATCH |
| VOLUME   | ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY. | SIZE SYSTEM<br>A2 NX              |
| PROPRIETARY ITEM<br>EXCEPT FOR USES EXPRESSLY GRANTED IN WRITING, INFORMATION DISCLOSED HEREON IS CONFIDENTIAL AND ALL RIGHTS, PATENT AND OTHERWISE, ARE RESERVED BY SOUTHCO, INC. | PER ASME Y14.5M-1994                                      | DWG NO.<br>J-R4-25-5              |
|  |   | DRAWN BY<br>CAD                   |
|  |   | DATE<br>18MAY2021                 |
|  |   | SCALE<br>1:1                      |
|  |   | SHEET<br>2 OF 4                   |

| REVISION HISTORY |           |         |                 |
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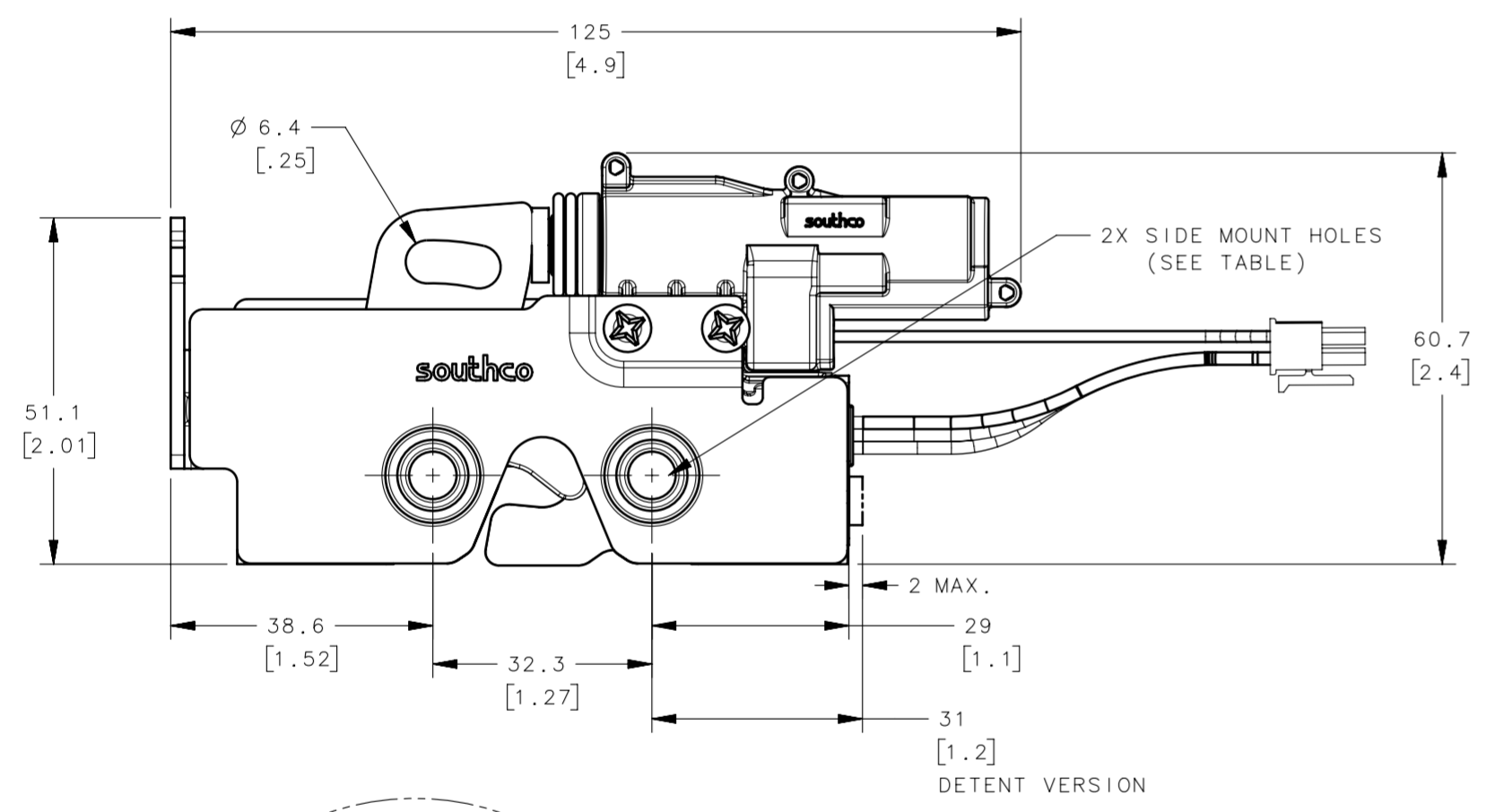
# LATCH ASSEMBLY WITH MICRO-SWITCH AND ELECTRONIC ACTUATOR

PART NUMBER:

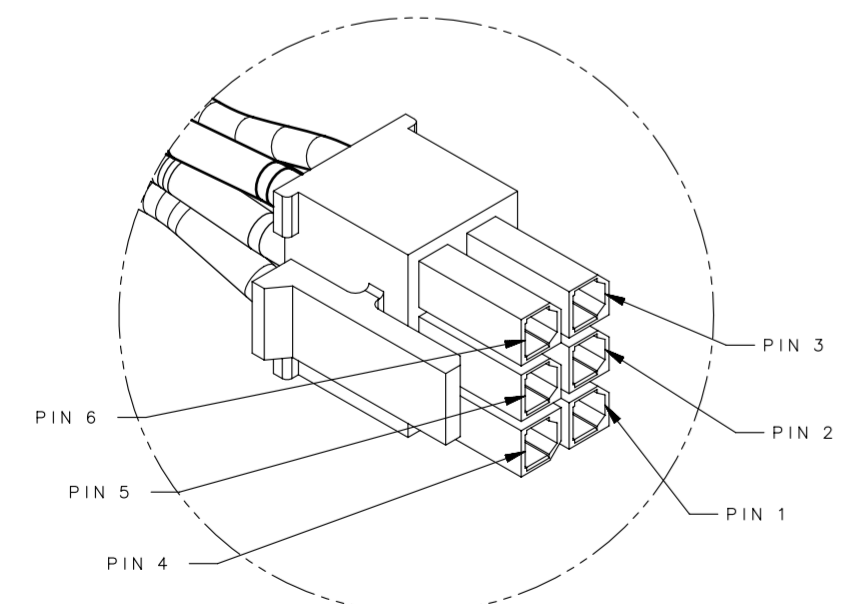
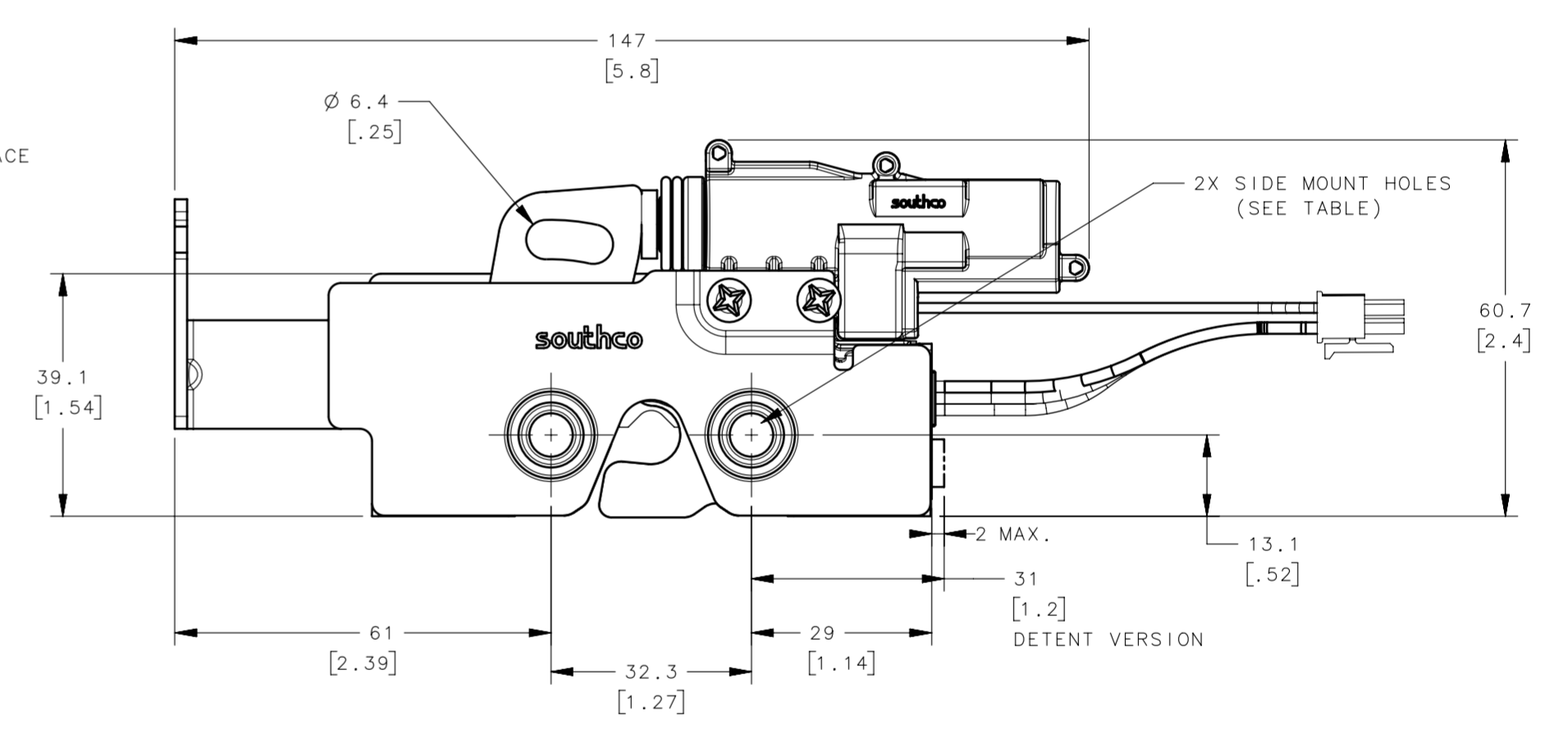
R4-25-2 **I** **S** -51 **E** **B** - **M** **M**

- |  |  |  |
|--|--|--|
| <p><b>I</b> MOUNTING STYLE</p> <ul style="list-style-type: none"> <li>0 SIDE MOUNT Ø6.7 (.263) THRU HOLE</li> <li>1 SIDE MOUNT 1/4-20 THREAD</li> <li>2 SIDE MOUNT M6X1 THREAD</li> <li>3 FRONT MOUNT (M6X1) WITH Ø6.7 (.263) SIDE MOUNT</li> </ul> <p><b>S</b> SPRING OPTIONS</p> <ul style="list-style-type: none"> <li>0 KICK-OUT SPRING</li> <li>1 PULL TO OPEN</li> </ul> | <p><b>E</b> ELECTRIC ACTUATION OPTIONS</p> <ul style="list-style-type: none"> <li>B SEALED (IP67) 12VDC EXTEND &amp; HOLD MOLEX 2X3 CONNECTOR</li> </ul> <p><b>B</b> BASE STYLE</p> <ul style="list-style-type: none"> <li>2 MOUNT FOR CABLE WITH RETURN SPRING ASSIST, NO BUMPER</li> <li>3 MOUNT FOR CABLE WITHOUT RETURN SPRING ASSIST, NO BUMPER</li> <li>6 MOUNT FOR CABLE WITH RETURN SPRING ASSIST, WITH BUMPER</li> <li>7 MOUNT FOR CABLE WITHOUT RETURN SPRING ASSIST, WITH BUMPER</li> </ul> | <p><b>MM</b> MATERIAL</p> <ul style="list-style-type: none"> <li>10 STEEL, ZINC PLATE</li> <li>15 STEEL, BLACK ZINC NICKEL</li> <li>77 STEEL, ZINC NICKEL</li> </ul> |
|--|--|--|

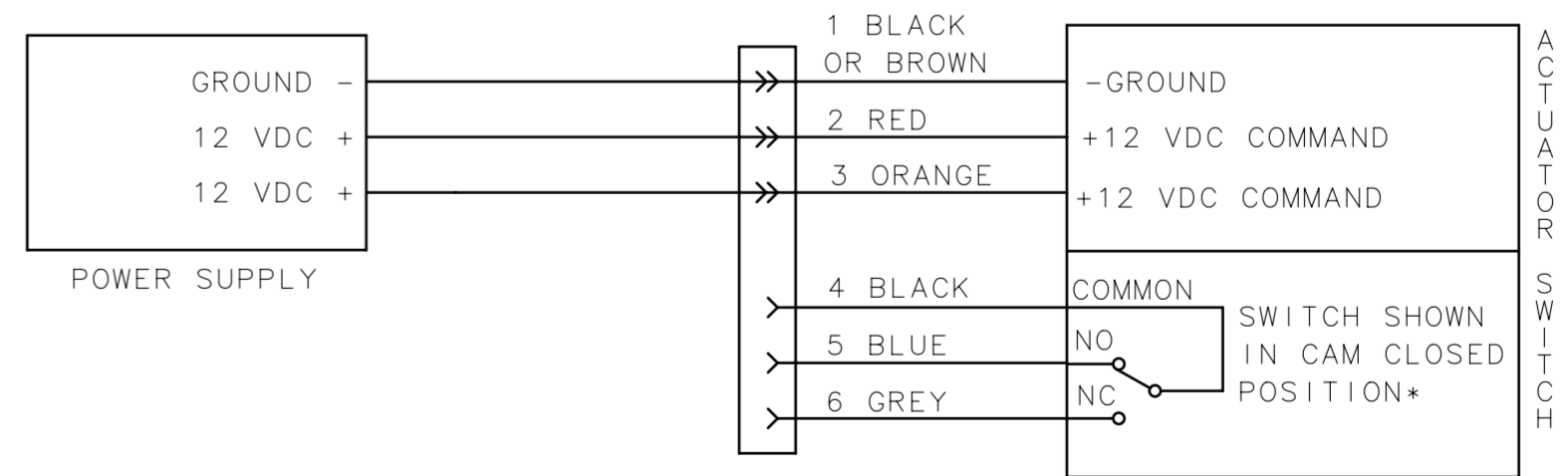
LATCH WITH MOUNT FOR CABLE WITHOUT RETURN ASSIST SPRING



LATCH WITH MOUNT FOR CABLE WITH RETURN ASSIST SPRING



| CONNECTOR PINOUT |                         |
|------------------|-------------------------|
| PIN              | FUNCTION                |
| 1                | GROUND (BLACK OR BROWN) |
| 2                | POWER RELEASE (RED)     |
| 3                | POWER RELOCK (ORANGE)   |
| 4                | SWITCH COMMON (BLACK)   |
| 5                | DOOR SECURE (BLUE)      |
| 6                | DOOR OPEN (GRAY)        |



ELECTRICAL HOOKUP (EXTEND AND HOLD)

DETAIL C  
SCALE 3:1

MOLEX MICRO-FIT 3.0  
CONNECTOR

NOTES:

SEE SHEET 4 FOR MATERIAL, STRIKER ALIGNMENT, MOUNTING, SWITCH AND ELECTRONIC ACTUATOR SPECIFICATIONS.

|  |   |   |
|--|---|---|
| CPB NUMBER<br>2019-0330  | THIRD ANGLE<br>PROJECTION                                 | <b>southco</b><br>CONNECT · CREATE · INNOVATE |
|  | MILLIMETERS [IN]  |   |
| SURFACE AREA   | TOLERANCES UNLESS OTHERWISE NOTED                         | DESCRIPTION<br>R4-25 ROTARY LATCH             |
| VOLUME   | ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY. | SIZE SYSTEM<br>A2 NX                          |
| PROPRIETARY ITEM<br>EXCEPT FOR USES EXPRESSLY GRANTED IN WRITING, INFORMATION DISCLOSED HEREON IS CONFIDENTIAL AND ALL RIGHTS, PATENT AND OTHERWISE, ARE RESERVED BY SOUTHCO, INC. | PER ASME Y14.5M-1994                                      | DWG NO.<br>J-R4-25-5                          |
|  |   | DRAWN BY<br>CAD                               |
|  |   | DATE<br>18MAY2021                             |
|  |   | SCALE<br>3:4                                  |
|  |   | SHEET<br>3 OF 4                               |

NOTES:

A. MATERIAL AND FINISH:

- HOUSINGS, RIVETS AND INTERNAL COMPONENTS:  
MATERIAL - STEEL
- 10 ZINC PLATED, BRIGHT CHROMATE
- 15 ZINC NICKEL, BLACK
- 77 ZINC NICKEL, BRIGHT CHROMATE

- PAWL AND TRIGGER:

- MATERIAL - HARDENED STEEL
- 10 ZINC PLATED, BRIGHT CHROMATE
- 15 ZINC NICKEL, BLACK
- 77 ZINC NICKEL, BRIGHT CHROMATE

- SPRINGS: 304 STAINLESS STEEL, PASSIVATED

B. CONNECTOR: MANUFACTURER MOLEX, SERIES MICROFIT 3.0

C. SWITCH SEALED TO IP67; RATING 3A AT 125 VAC

D. SEE J-AC-EM-10-2 DRAWING FOR ELECTRIC ACTUATOR SPECIFICATIONS.

E. MOUNTING

- MOUNT THE LATCH SECURELY USING TWO (2) SCREWS IN MOUNTING HOLES PROVIDED (SCREWS NOT PROVIDED)
- MOUNTING HOLES ARE AVAILABLE WITH 1/4 - 20 UNC THREAD, M6 X 1 THREAD (SIDE AND FRONT MOUNT) OR THRU HOLE
- MAXIMUM ALLOWABLE TORQUE ON THREADED MOUNTING SCREWS IS 650 N.cm (57.5 in.lb)

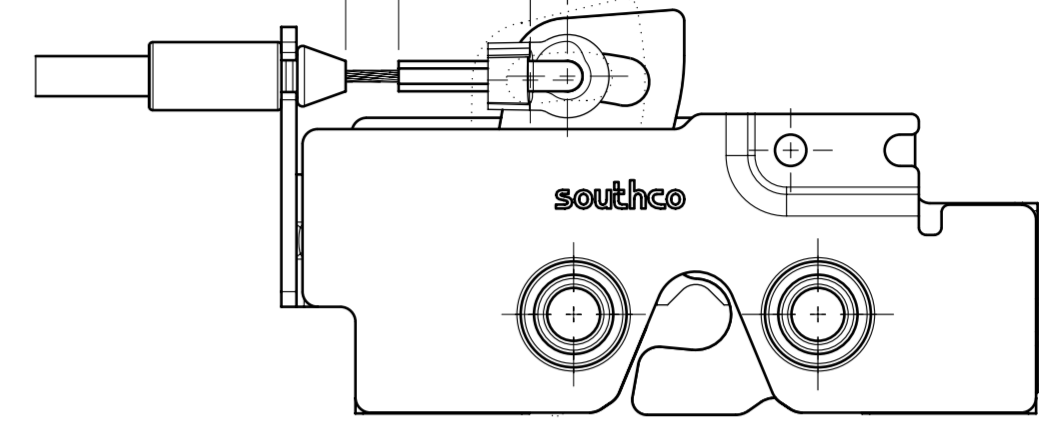
F. THIS VIEW SHOWS THE MAXIMUM STRIKER MISALIGNMENT ACCEPTED BY THE LATCH FROM NOMINAL STRIKER POSITION. IT ASSUMES THE STRIKER CENTERLINE IS PERFECTLY PERPENDICULAR TO THE LATCH MOUNTING SURFACE. STRIKER MISALIGNMENT COULD BE FROM MANUFACTURING TOLERANCES OR FROM NON RIGID DOOR SYSTEMS AND THIS REPRESENTS THE MAXIMUM OF BOTH COMBINED.

G. FOR CABLE OR ROD MOUNTING USE ROTARY CLIP R4-0-72894-4.

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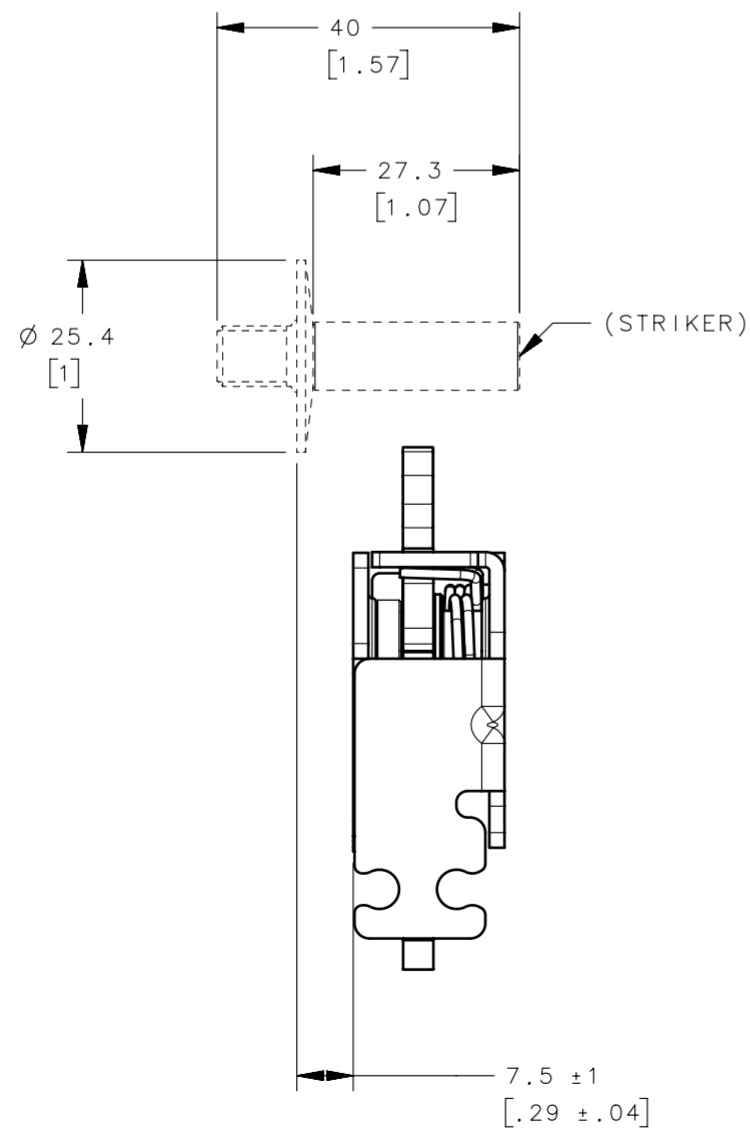
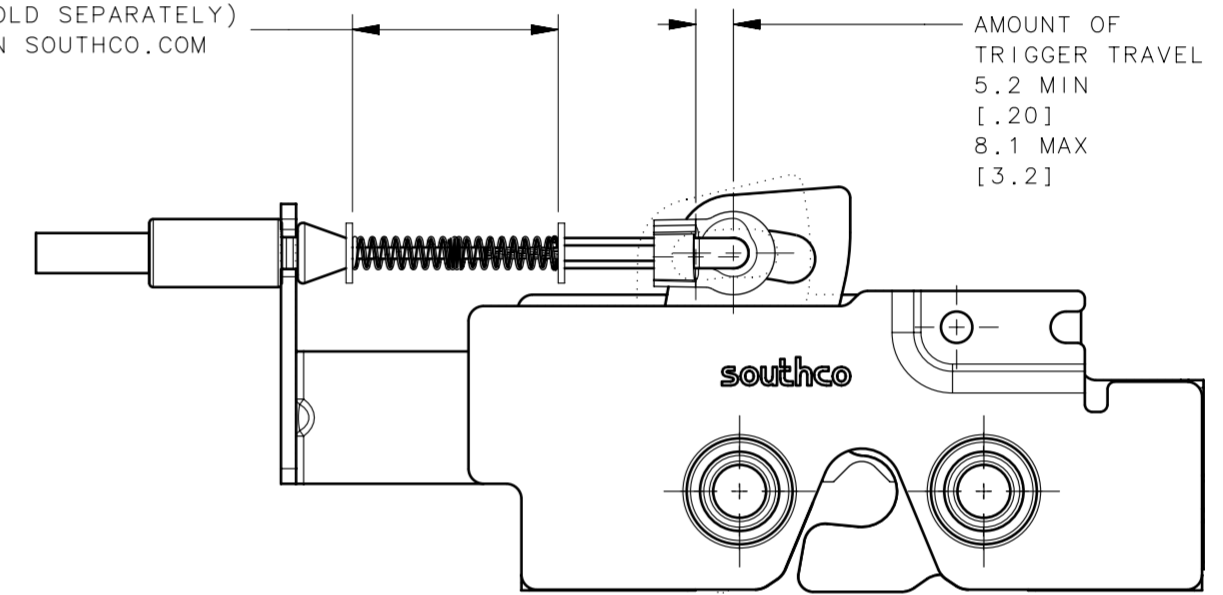
TLC = 7 FOR CABLE TYPE 7 (SOLD SEPARATELY)  
SEE CABLE SELECTION TOOL ON SOUTHCO.COM

AMOUNT OF TRIGGER TRAVEL  
5.2 MIN  
[.20]  
8.1 MAX  
[3.2]

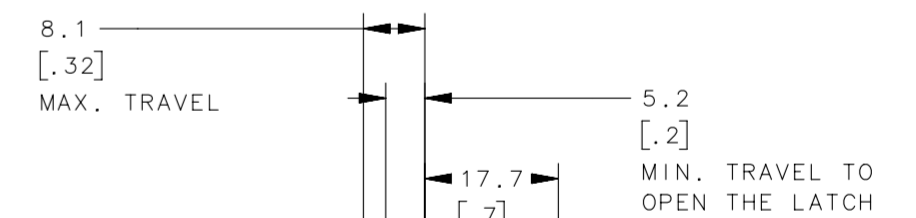
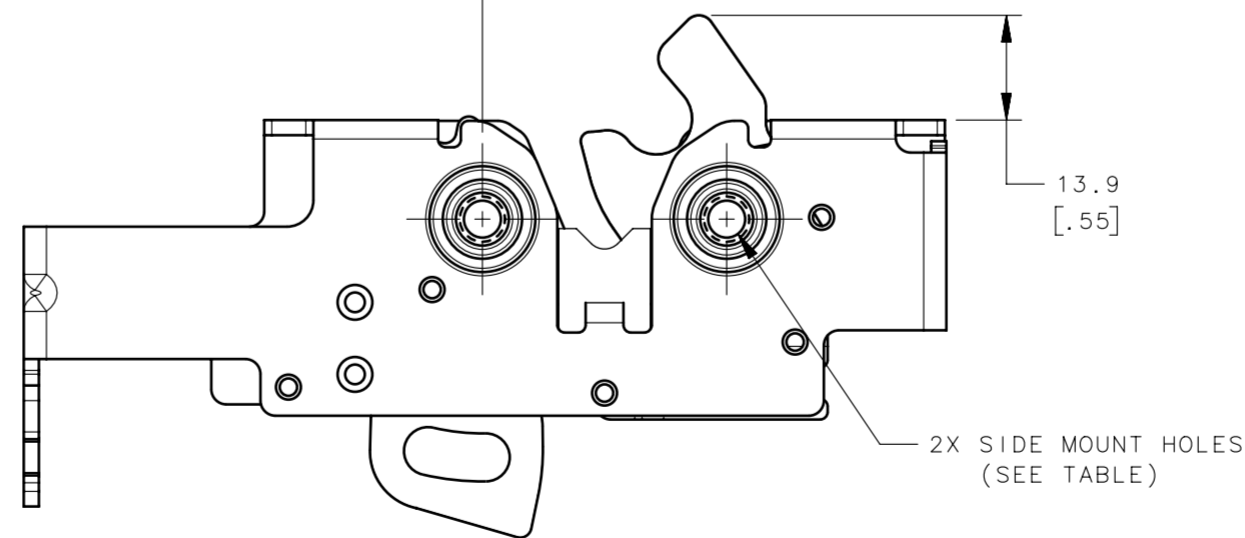
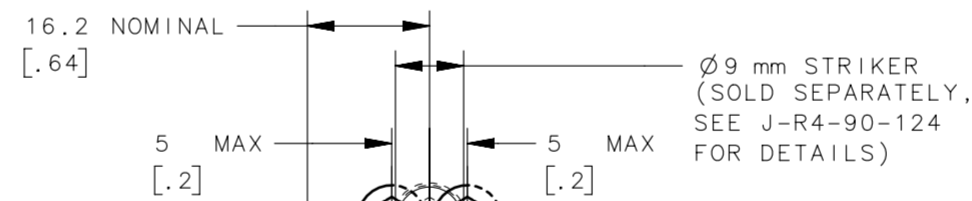


TLC = 29 FOR CABLE TYPE 7 (SOLD SEPARATELY)  
SEE CABLE SELECTION TOOL ON SOUTHCO.COM

AMOUNT OF TRIGGER TRAVEL  
5.2 MIN  
[.20]  
8.1 MAX  
[3.2]



STRIKER POSITION TOLERANCE VIEW (SEE NOTE F)



|  |   |   |
|--|---|---|
| CPB NUMBER<br>2019-0330  | THIRD ANGLE PROJECTION                                    | <b>southco</b><br>CONNECT · CREATE · INNOVATE |
|  | MILLIMETERS [IN]  |   |
| SURFACE AREA   | TOLERANCES UNLESS OTHERWISE NOTED                         | DESCRIPTION<br>R4-25 ROTARY LATCH             |
| VOLUME   | ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY. | SIZE SYSTEM<br>A2 NX                          |
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|  |   | DRAWN BY<br>CAD                               |
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|  |   | SCALE<br>1:1                                  |
|  |   | SHEET<br>4 OF 4                               |