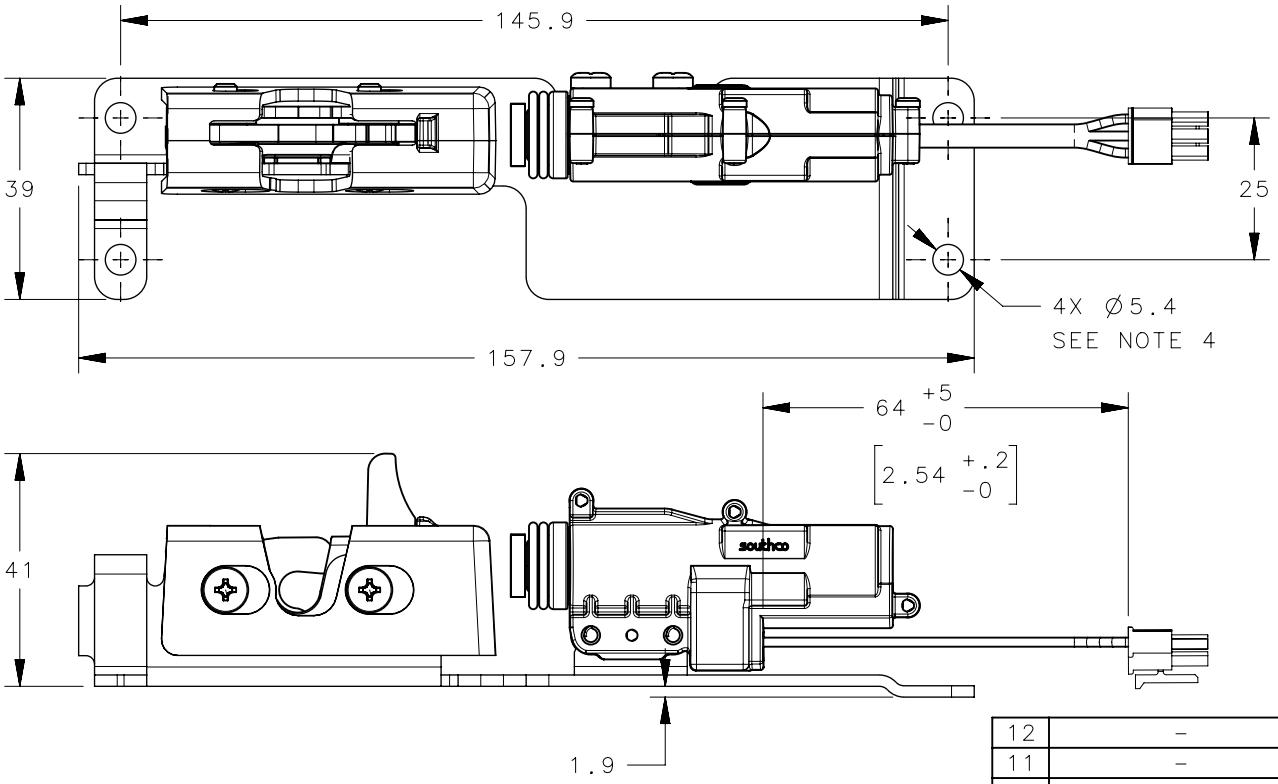
REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
G	26NOV2024	PBJ/VK	PRN: P2024-1915



ASSEMBLY PART NUMBERS

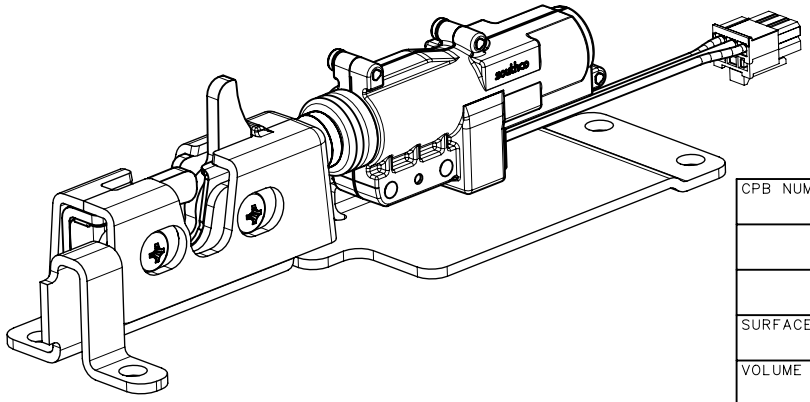
R4-05-2 B -4E C 1- MM (SINGLE STAGE, DIRECT ACTUATION, PULL TO OPEN)

B - BASE MOUNTING STYLE
- 0 - THRU HOLES
- 5 - ADHESIVE BACKING

C - CONNECTOR OPTIONS
- B - 12V WITH CONNECTOR
- F - 5V WITH CONNECTOR
- K - 12V W/O CONNECTOR
- P - 5V W/O CONNECTOR

MM - MATERIAL
- 20 - STAINLESS

R4-05-20-4EB1-20 SHOWN IN ALL VIEWS



NO.	PART NUMBER	QTY	TYPE OF COMPONENT	MATERIAL	FINISH
	R4-05-2B-4EC1-MM	-	LATCH ASSY	-	
1	-	1	YOKE	PC/ABS	BLACK
2	-	1	FRONT PLATE	STAINLESS	PASSIVATED
3	-	1	TRIGGER	STAINLESS	PASSIVATED
4	-	1	TRIGGER SPRING	STAINLESS	PASSIVATED
5	-	2	PIVOT PIN	STAINLESS	PASSIVATED
6	-	1	BACK PLATE	STAINLESS	PASSIVATED
7	-	2	M4x0.7X16 PAN HEAD SCREW	STEEL	ZINC PLATE
8	-	2	SCREW	STEEL	PASSIVATED
9	-	1	BRACKET	SEE NOTE 1	SEE NOTE 1
10	-	1	ACTUATOR	PA, POM	BLACK
11	-	1	PAWL SPRING	STAINLESS	PASSIVATED
12	-	1	PAWL	STAINLESS	PASSIVATED

CPB NUMBER 2020-0061

SURFACE AREA mm²

VOLUME mm³

PROPRIETARY ITEM

THIRD ANGLE PROJECTION

MILLIMETERS [IN]

TOLERANCES UNLESS OTHERWISE NOTED

ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.

PER ASME Y14.5M-2009

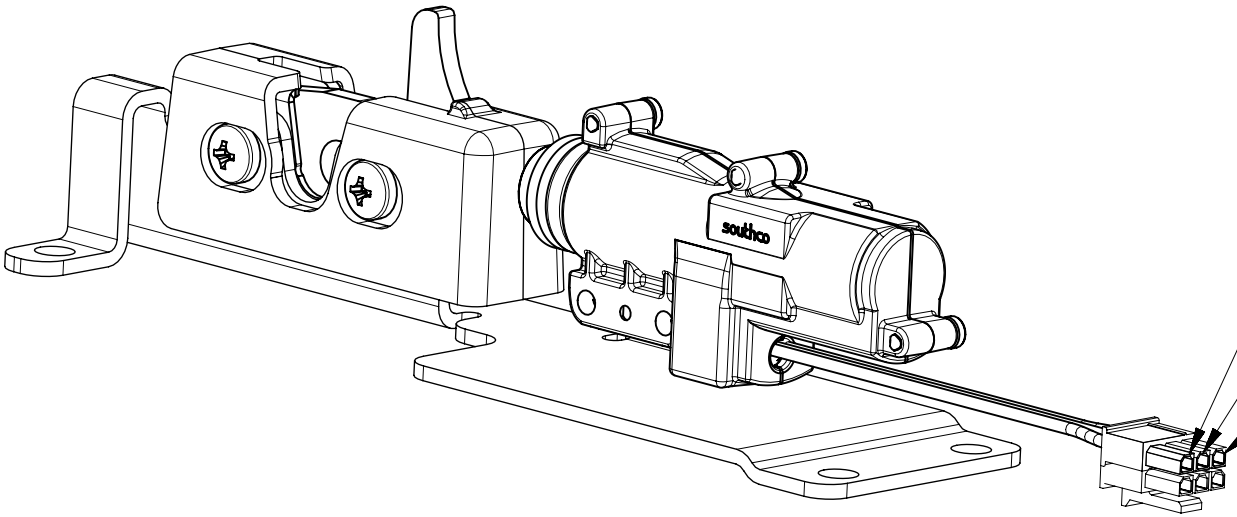
southco®
CONNECT·CREATE·INNOVATE

DESCRIPTION
R4-05 PUSH TO CLOSE LATCH, HEX ROD BLOCKER ELECTRONICALLY ACTUATED

SIZE	SYSTEM	DWG NO.
A4	NX	J-R4-05-2B-4EC1

DRAWN BY	DATE	SCALE	SHEET
RES/IR	28JUN2019	NONE	1 OF 6

REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
G	25NOV2024	PBJ/VK	PRN: P2024-1915



PIN 3: EXTEND (+)
ORANGE WIRE

PIN 2: RETRACT (+)
RED WIRE

PIN 1: GROUND (-)
BLACK OR BROWN WIRE

CPB NUMBER 2020-0061

SURFACE AREA mm²

VOLUME mm³

PROPRIETARY ITEM

THIRD ANGLE PROJECTION

MILLIMETERS [IN]

TOLERANCES UNLESS OTHERWISE NOTED

ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.

PER ASME Y14.5M-2009

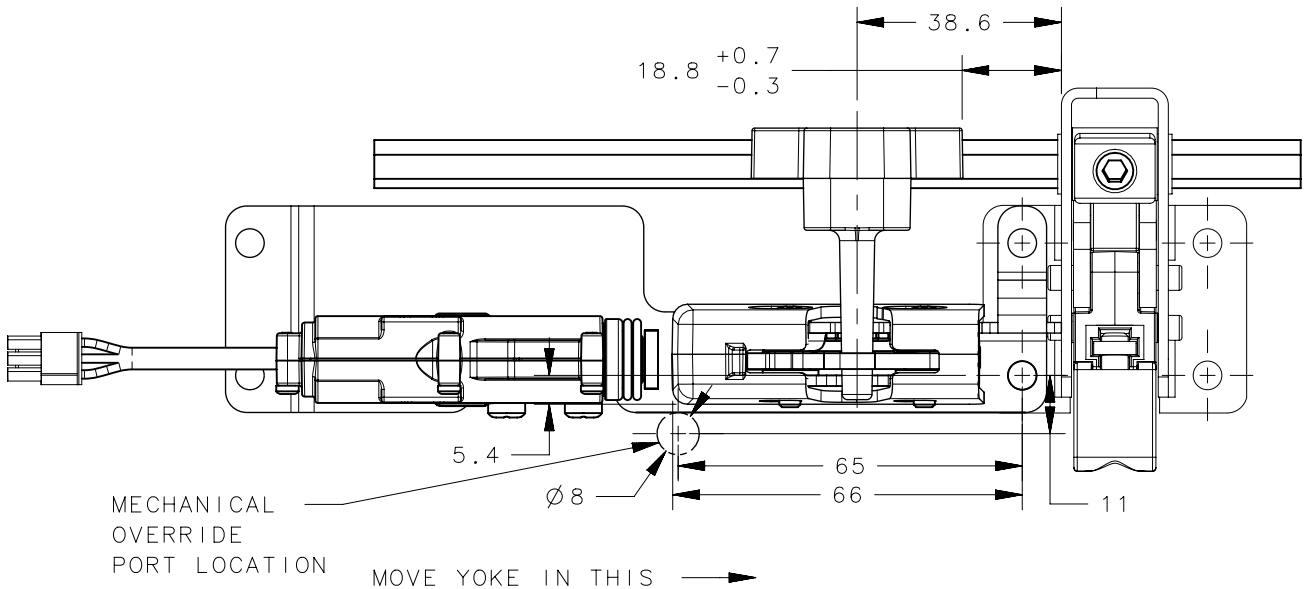
southco®
CONNECT·CREATE·INNOVATE

DESCRIPTION
R4-05 PUSH TO CLOSE LATCH, HEX ROD BLOCKER ELECTRONICALLY ACTUATED

SIZE	SYSTEM	DWG NO.
A4	NX	J-R4-05-2B-4EC1

DRAWN BY	DATE	SCALE	SHEET
IR/	28JUN2019	NONE	2 OF 6

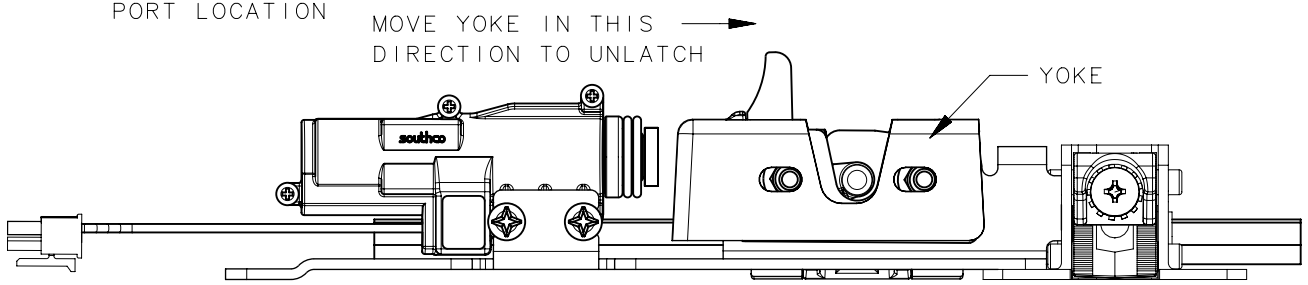
REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
G	26NOV2024	PBJ/VK	PRN: P2024-1915

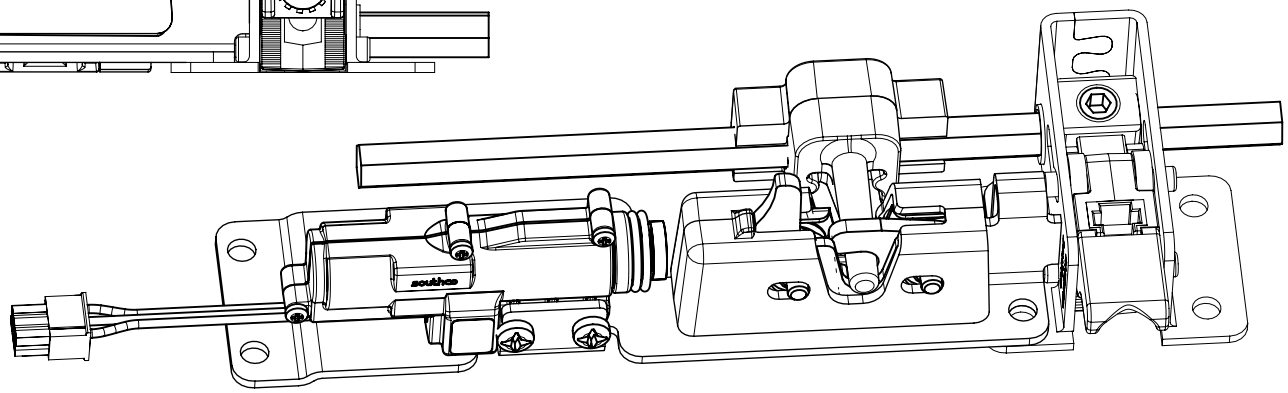


MECHANICAL OVERRIDE PROCEDURE

IN THE EVENT WHERE MECHANICALLY OVERRIDING THE LATCH OPEN IS NEEDED, A PORT MUST BE CREATED IN THE DOOR PANEL. THE PORT WILL ENABLE ACCESS TO YOKE WHICH CONTROLS THE LATCH TRIGGER. SEE DIMENSIONAL INFORMATION AS NOTED.

ONCE THE PORT IS CREATED, A SMALL SCREW DRIVER CAN BE USED TO MOVE THE YOKE TOWARDS THE RIGHT AS SHOWN AND HELD THERE WHILE THE DOOR LATCH IS PLACED IN ITS OPEN POSITION.





CPB NUMBER 2020-0061	THIRD ANGLE PROJECTION	southco® CONNECT·CREATE·INNOVATE
	MILLIMETERS [IN]	
SURFACE AREA mm²	TOLERANCES UNLESS OTHERWISE NOTED	DESCRIPTION: R4-05 PUSH TO CLOSE LATCH, HEX ROD BLOCKER ELECTRONICALLY ACTUATED
VOLUME mm³	ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.	SIZE A4 / SYSTEM NX / DWG NO. J-R4-05-2B-4EC1
PROPRIETARY ITEM	PER ASME Y14.5M-2009	DRAWN BY IR/ / DATE 28JUN2019 / SCALE NONE / SHEET 3 OF 6

NOTES:

1. ALL MATERIALS AND FINISHES ARE RoHS COMPLIANT.
   BRACKET: IF MM IS 20, STAINLESS STEEL, PASSIVATED.
2. SEE J-M3-58 FOR THE HEX ROD STRIKER ASSEMBLY.
3. COSMETIC SPECIFICATION:
   ALL SURFACES, UNLESS OTHERWISE NOTED, ARE TO CONFORM TO A CLASS "D"DESIGNATION AS DESCRIBED IN SOUTHCO COSMETIC SPECIFICATIONS: S-121-02 FOR ZINC PLATING, S-121-04 FOR PLASTIC PARTS, AND S-121-05 FOR STAINLESS STEEL PARTS
4. LATCH CAN BE INSTALLED USING THE FOUR ∅5.4 ID HOLES. IT CAN ALSO BE INSTALLED USING THE TWO ∅5.4 ID HOLES AT THE M3-50 LATCH LOCATION AND THE VHB TAPE STRIP AT THE OPPOSITE END OF MOUNTING BRACKET. IF USING THE ADHESIVE TAPE MOUNTING OPTION, PLEASE CLEAN AND DEGREASE THE MOUNTING SURFACE THOROUGHLY WITH A 50/50 MIX OF WATER AND ISOPROPYL ALCOHOL BEFORE INSTALLING BLOCKER ASSEMBLY. FULL ADHESION BOND STRENGTH IS ACHIEVED AFTER 72 HOURS. PLEASE SEE 3M DOCUMENT VHB-TAPE-SPECIALTY-TAPES.PDF FOR ADDITIONAL INFORMATION.
5. ELECTRICAL SPECIFICATIONS: SEE TABLE 1 - ELECTRICAL SPECIFICATIONS
   - POWER MUST BE AVAILABLE TO OPERATE THE ACTUATOR AND MUST REMAIN AVAILABLE DURING THE FULL TRANSIT TIME OF THE ACTUATOR DURING EXTENDING OR RETRACTING.
   - TRIGGER COMMAND: ACTUATOR WILL FULLY EXTEND WHEN POWER IS HELD ON THE ORANGE WIRE. IT WILL HOLD IN THE EXTENDED POSITION UNTIL POWER IS MOVED TO THE RED WIRE. RETRACTION WILL START WHEN POWER IS HELD ON THE RED WIRE. RETRACTION WILL STOP WHEN THE INTERNAL SWITCH IS TRIPPED ONCE FULLY RETRACTED.
   - IF THE CONTROL SIGNAL PULSE IS LESS THAN THE MINIMUM PULSE TIME THE ACTUATOR WILL NOT START ITS CYCLE.
   - THE ACTUATOR WILL EXTEND AND PUSH A MECHANICAL LOAD (SEE THE TRIGGER COMMAND ABOVE). THE ACTUATOR WILL NOT PULL A LOAD.
   - SEE TD-AC-EM-10-1-J SHEET 2 FOR SUPPLEMENTAL AC-EM-10F-VOCM OPERATING RANGE DETAIL.

   CAUTION! TO PREVENT LONG TERM DAMAGE TO THE ELECTRICAL COMPONENTS IT IS IMPORTANT TO NOT BLOCK (STALL) THE ACTUATOR DURING ELECTRICAL OPERATION.
   - THE ACTUATOR CANNOT REVERSE A CYCLE.
   - THE ACTUATOR MUST BE ALLOWED TO REACH ITS FULL EXTENDED TRAVEL TO COMPLETE A CYCLE.

   CAUTION! NO STALL PROTECTION IS PROVIDED IN ACTUATOR. USE APPROPRIATE CIRCUIT PROTECTION.
6. ENVIRONMENTAL SPECIFICATIONS:
   OPERATING TEMPERATURE RANGE: -40° C TO 80° C NON-ICING, NON-CONDENSING ENVIRONMENT
   OPERATING HUMIDITY: 85% MAX.
   SEALED TO IP67 CLASS 1, DIV2.
7. ELECTRICAL CONNECTIONS AND HOOKUP:
   A BASIC SWITCH CONTROL ELECTRICAL HOOKUP DIAGRAM IS PROVIDED FOR REFERENCE.
   CONSULT WITH A SOUTHCO REPRESENTATIVE FOR ADDITIONAL ELECTRICAL HOOKUP INFORMATION.
   - CONNECT POWER, GROUND AND CONTROL SIGNAL WIRES TO AN APPROPRIATE DC POWER SUPPLY
   - A DC POWER SUPPLY CAPABLE OF SUPPLYING 5 OR 12 VDC AT 1 AMP MINIMUM PER ACTUATOR IS RECOMMENDED

   CAUTION! ACTUATOR CAN BE DAMAGED IF WIRED INCORRECTLY, OR IF IMPROPER VOLTAGE IS APPLIED!

   WIRE COLOR CODE / CONNECTOR PIN ASSIGNMENT: SEE CONNECTOR PINOUT LOCATION DETAILS
   - PIN1: BLACK OR BROWN WIRE: GROUND(-)
   - PIN2: RED WIRE: RETRACT(+)
   - PIN3: ORANGE WIRE: EXTEND(+)

REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
G	26NOV2024	PBJ/VK	PRN: P2024-1915

CPB NUMBER 2020-0061	THIRD ANGLE PROJECTION	southco® CONNECT·CREATE·INNOVATE
	MILLIMETERS [IN]	DESCRIPTION: R4-05 PUSH TO CLOSE LATCH, HEX ROD BLOCKER ELECTRONICALLY ACTUATED
SURFACE AREA mm²	TOLERANCES UNLESS OTHERWISE NOTED	SIZE A4 / SYSTEM NX / DWG NO. J-R4-05-2B-4EC1
VOLUME mm³	ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.	
PROPRIETARY ITEM	PER ASME Y14.5M-2009	DRAWN BY IR/ / DATE 28JUN2019 / SCALE NONE / SHEET 4 OF 6

REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
G	26NOV2024	PBJ/VK	PRN: P2024-1915

NOTES:

8. OPTIONAL CONNECTOR:
   6 PIN CONNECTOR:
   - MANUFACTURER: MOLEX, SERIES: MICROFIT 3.0 OR SBU ENGINEERING APPROVED EQUIVALENT
   - CONNECTOR RECEPTICAL 6 POSITION 3mm VERTICAL DUAL, MOLEX P/N: 430250600 OR SBU ENGINEERING APPROVED EQUIVALENT
   - CONTACTS: FEMALE CRIMP TERMINAL (SOCKET) MOLEX P/N: 430300010 OR SBU ENGINEERING APPROVED EQUIVALENT
   - WIRE: 22 AWG STYLE AWM 1569

   MATE FOR CONNECTOR (NOT SUPPLIED)
   - MANUFACTURER: MOLEX, SERIES: MICROFIT 3.0
   - CONNECTOR PLUG 6 POSITION 3 mm VERTICAL DUAL, MOLEX P/N: 430200601 OR SBU ENGINEERING APPROVED EQUIVALENT
   - RECOMMENDED CONTACTS: MOLEX, MALE CRIMP TERMINAL (PIN), MOLEX P/N: 430310010 OR SBU ENGINEERING APPROVED EQUIVALENT
   - RECOMMENDED WIRE GAGE: 22 AWG
9. LATCH ASSEMBLY WILL BE SHIPPED WITH ACTUATOR IN THE EXTENDED POSITION.
10. ACTUATOR APPROVED UNDER UL-508.

CPB NUMBER 2020-0061

SURFACE AREA mm²

VOLUME mm³

PROPRIETARY ITEM

THIRD ANGLE PROJECTION

MILLIMETERS [IN]

TOLERANCES UNLESS OTHERWISE NOTED

ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.

PER ASME Y14.5M-2009

southco®
CONNECT·CREATE·INNOVATE

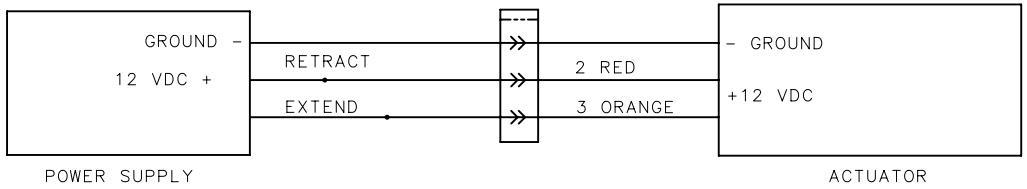
DESCRIPTION
R4-05 PUSH TO CLOSE LATCH, HEX ROD BLOCKER ELECTRONICALLY ACTUATED

SIZE	SYSTEM	DWG NO.
A4	NX	J-R4-05-2B-4EC1

DRAWN BY	DATE	SCALE	SHEET
IR/	28JUN2020	NONE	5 OF 6

REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
G	26NOV2024	PBJ/VK	PRN: P2024-1915

PARAMETER	UNITS	12V	5V
OPERATING VOLTAGE	VDC	12±10%	5±10%
PEAK STALL CURRENT	A	0.6 AT 12VDC	0.52 AT 5VDC
TOTAL STANDBY CURRENT - RETRACTED	A	-	-
TOTAL STANDBY CURRENT - EXTENDED	A	-	-
CONTROL SIGNAL PULSE VOLTAGE REQUIRED FOR TRIGGER COMMAND	V	12±10%	5±10%
CONTROL SIGNAL PULSE CURRENT REQUIRED FOR TRIGGER COMMAND	A	0.6 AT 12VDC	0.52 AT 5VDC
CONTROL PULSE OR COMMAND DURATION	ms	1000	1600
TYPICAL ACTUATOR TRANSIT TIME	ms	700-1000	1350-1600



ELECTRICAL HOOKUP (TWO POSITION)

CPB NUMBER 2020-0061

SURFACE AREA mm²

VOLUME mm³

PROPRIETARY ITEM

THIRD ANGLE PROJECTION

MILLIMETERS [IN]

TOLERANCES UNLESS OTHERWISE NOTED

ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.

PER ASME Y14.5M-2009

southco®
CONNECT·CREATE·INNOVATE

DESCRIPTION
R4-05 PUSH TO CLOSE LATCH, HEX ROD BLOCKER
ELECTRONICALLY ACTUATED

SIZE	SYSTEM	DWG NO.
A4	NX	J-R4-05-2B-4EC1

DRAWN BY	DATE	SCALE	SHEET
IR/	28JUN2020	NONE	6 OF 6