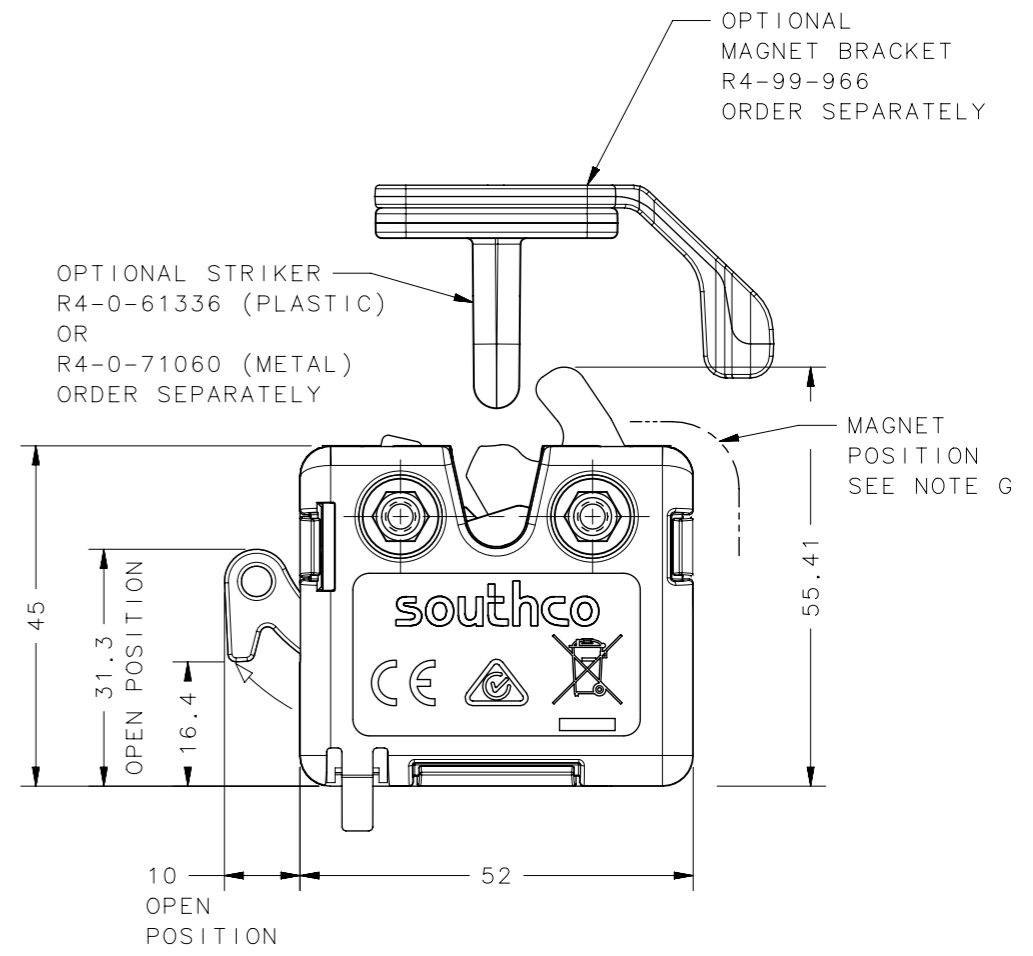
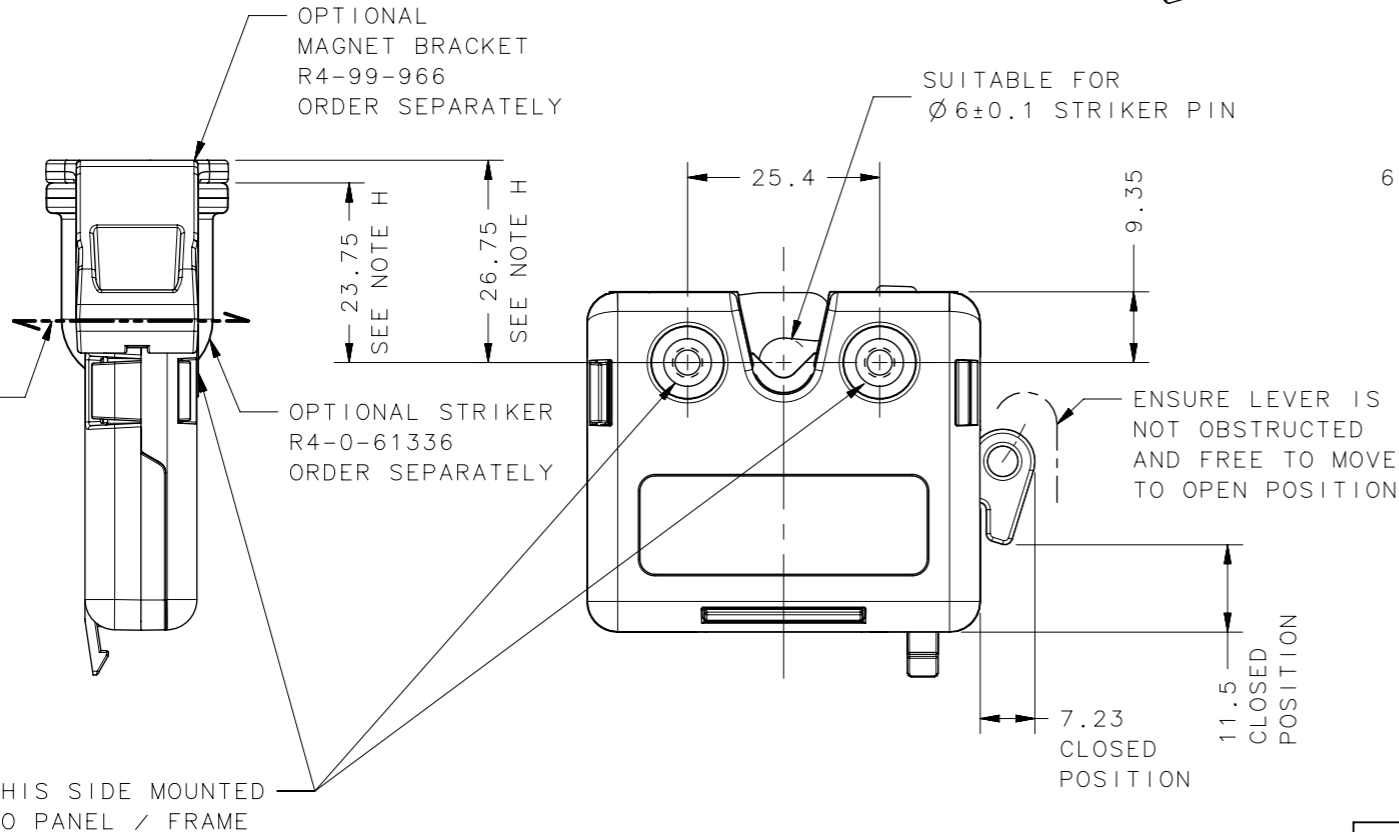
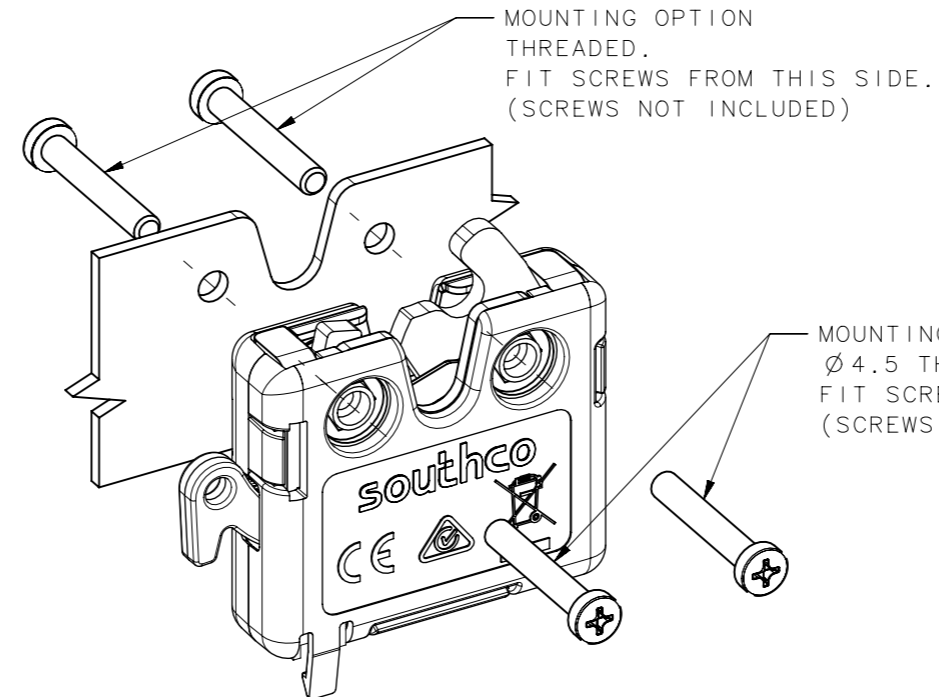
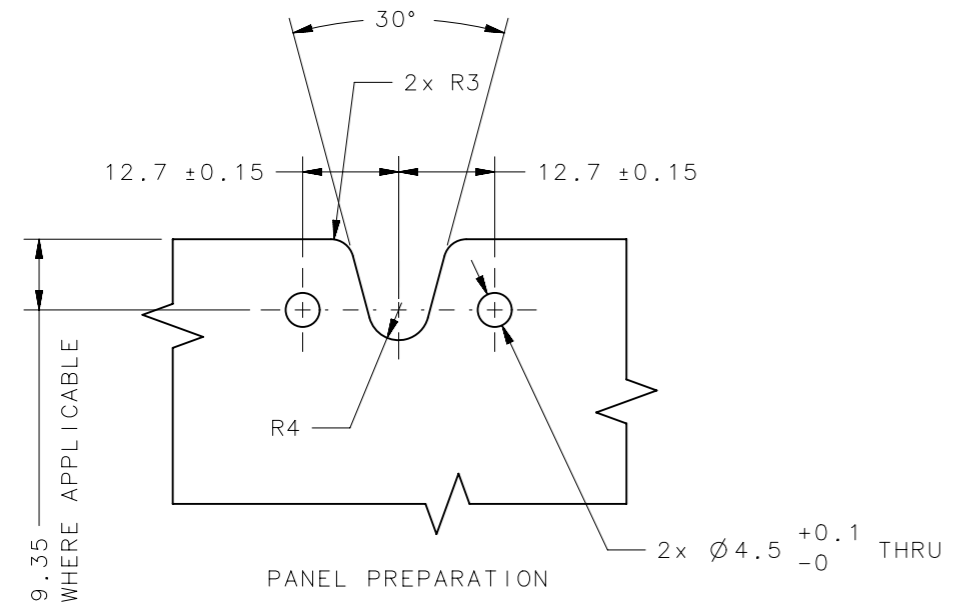
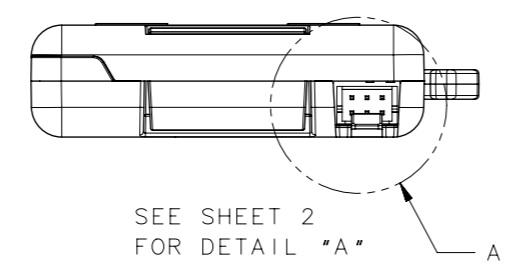


REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
C	25OCT2022	IGS/NPS	PRN: P2022-1127



ORIENTATION OF MAGNETIC FIELD FOR DOOR SENSOR ACTUATION. SEE SHEET 2 NOTE G.

THIS SIDE MOUNTED TO PANEL / FRAME



PRINTED CIRCUIT BOARD	PCB	N/A	-
DRIVE CAM / OUTPUT CAM	POM	N/A	-
SPRINGS	STAINLESS STEEL	PASSIVATED	-
ROTARY PAWL / TRIGGER	STEEL	ZINC PLATED	-
LATCH FRAMES	STEEL	ZINC PLATED	-
HOUSINGS	PC/ABS	N/A	-
SEE SHEET 2 PART NUMBER	ELECTRONIC ACCESS SOLUTION TYPE OF COMPONENT	N/A	N/A
		MATERIAL	FINISH
			LATCH ASSEMBLY NOTES

THIRD ANGLE PROJECTION		 CONNECT • CREATE • INNOVATE	
MILLIMETERS [IN]			
SURFACE AREA N/A		TOLERANCES UNLESS OTHERWISE NOTED	
VOLUME N/A		ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.	
PROPRIETARY ITEM		SIZE A3	SYSTEM NX
EXCEPT FOR USES EXPRESSLY GRANTED IN WRITING, INFORMATION DISCLOSED HEREON IS CONFIDENTIAL AND ALL RIGHTS, PATENT AND OTHERWISE, ARE RESERVED BY SOUTHCO, INC.		DWG NO. J-R4-EM-05-1	DATE 03JUL2019
PER ASME Y14.5M-1994		DRAWN BY IGS/NPS	SCALE 1:1 SHEET 1 OF 2

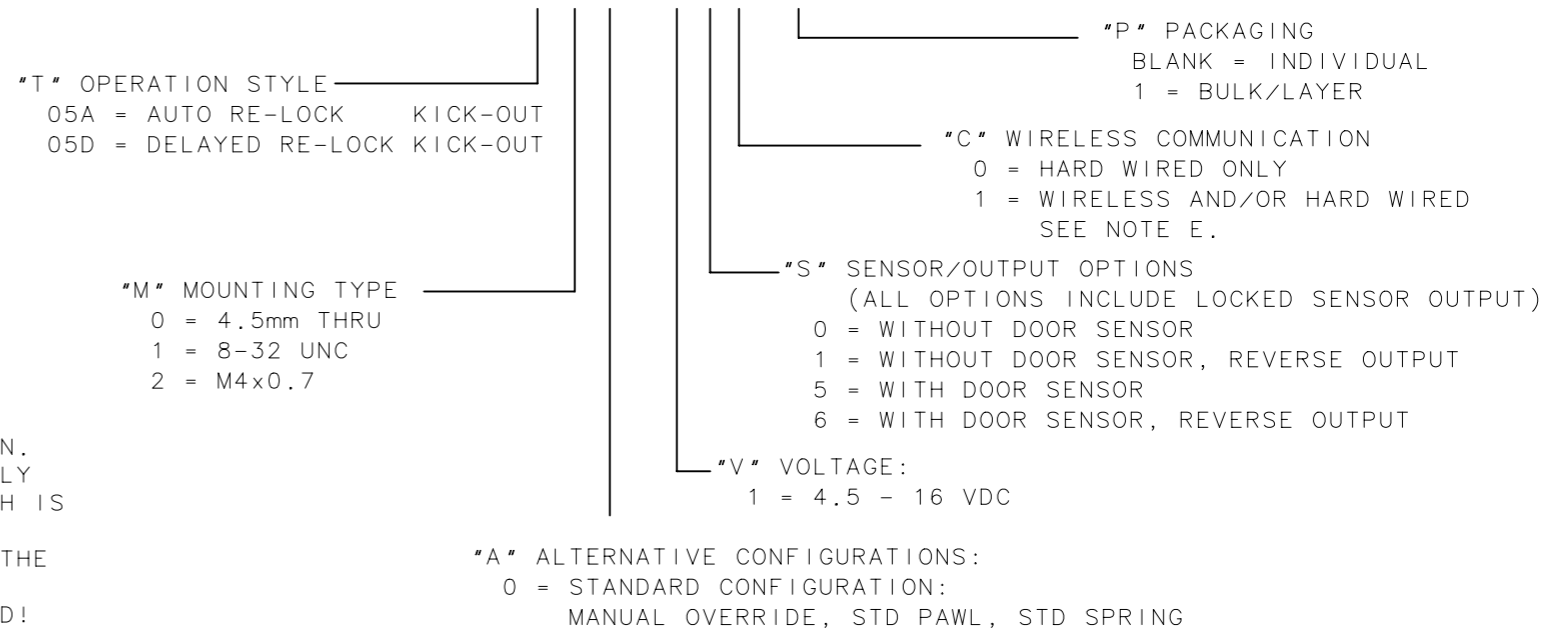
REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
C	25OCT2022	IGS/NPS	PRN: P2022-1127

NOTES:

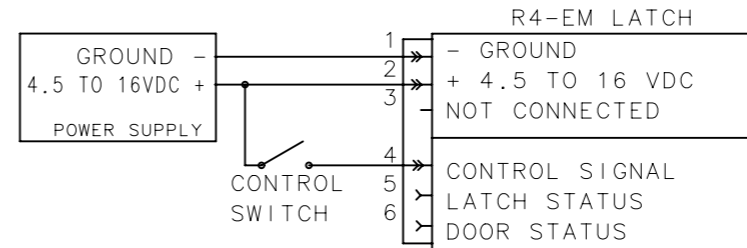
- A. MOUNTING**  
 -MOUNT THE LATCH WITH THE CORRECT SIDE AGAINST THE ENCLOSURE FRAME/PANEL AS SHOWN ON SHEET 1 USING TWO SCREWS IN THE MOUNTING HOLES PROVIDED (SCREWS NOT PROVIDED).  
 -MAXIMUM ALLOWABLE TORQUE ON MOUNTING SCREWS IS 4Nm.
- B. ELECTRICAL SPECIFICATIONS:**  
 OPERATING VOLTAGE: 4.5 TO 16 VDC  
 TYPICAL OPERATING CURRENT: LESS THAN 500 mA  
 PEAK / STALL OPERATING CURRENT: 0.5 A MAX AT 4.5 VDC, 1.0 A MAX AT 12.0 VDC, 1.5 A MAX AT 16.0 VDC (STALL LIMITED BY LATCH TO 1.4 SECONDS)  
 TOTAL STANDBY CURRENT: LOCKED/UNLOCKED: 20mA EXCLUDING STATUS OUTPUT CURRENTS.  
 CONTROL SIGNAL HIGH (UNLOCK COMMAND): 0.2mA STEADYSTATE TO 1.2mA INRUSH WITH  $V_{in} AT = VDC$ .  
 CONTROL SIGNAL LOW (LATCHED COMMAND): 0 TO 1 VDC.  
 LATCH TRANSIT TIME TO RELEASE: APPROXIMATELY 600 MILLISECONDS NO LOAD, AT ROOM TEMPERATURE. MOTOR ACTIVATION TIME LIMITED TO 1.4 SECONDS (STALL DETECTION).  
 OPERATING TEMPERATURE RANGE: 0°C TO +60°C
- C. 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 4.5 TO 16 VDC AT 1 AMP MINIMUM PER LATCH IS RECOMMENDED  
 - POWER MUST BE AVAILABLE TO OPERATE THE LATCH AND MUST REMAIN AVAILABLE DURING THE FULL TRANSIT TIME OF THE LATCH DURING LOCKING OR UNLOCKING
- CAUTION!** LATCH CAN BE DAMAGED IF WIRED INCORRECTLY, OR IF IMPROPER VOLTAGE IS APPLIED!  
 CONNECTOR PIN ASSIGNMENT: SEE CONNECTOR PINOUT TABLE AND PIN LOCATION DETAILS
- OUTPUT FEEDBACK (LATCH AND DOOR STATUS):  
 STATUS INDICATION: OPEN DRAIN OUTPUT. RATING 4.5 TO 16 VDC. 50 mA MAX LOAD
- CAUTION!** TO PREVENT DAMAGE TO THE PRODUCT DO NOT EXCEED MAXIMUM LOADS STATED AND FOLLOW WIRING DIRECTIVES.
- D. ELECTRICAL OPERATION:**  
 TO UNLOCK OR RELEASE THE LATCH:  
 PROVIDE THE FOLLOWING CONTROL SIGNAL TO CONNECTOR PIN 4  
 - PROVIDE 4.5 TO 16 VDC (CONTROL SIGNAL HIGH) FOR A MINIMUM OF 50 MILLISECONDS  
 - THE CONTROL SIGNAL CAN REMAIN HIGH INDEFINITELY  
 - DELAYED RE-LOCK LATCH: THE LATCH WILL STAY UNLOCKED FOR A MINIMUM OF 1 MILLISECOND OR AS LONG AS THE CONTROL SIGNAL REMAINS HIGH.  
 - AUTO RE-LOCK LATCH: THE LATCH WILL UNLOCK AND RE-LOCK IF THE SIGNAL REMAINS HIGH.  
 TO LOCK THE LATCH FOR A NEW OPENING CYCLE:  
 PROVIDE THE FOLLOWING CONTROL SIGNAL TO CONNECTOR PIN 4  
 - PROVIDE CONTROL SIGNAL LOW FOR 50 MILLISECONDS. POWER MUST BE AVAILABLE DURING TRANSIT TO THE LOCKED POSITION. TRANSITION TIME TO RE-LOCK APPROXIMATELY 200 MILLISECONDS
- E. WIRELESS OPERATION:**  
 CONTACT SOUTHCO FOR INFORMATION.
- F. LATCH CONNECTOR:**  
 MANUFACTURER: HIROSE ELECTRIC CO LTD, PART NUMBER: DF11-6DP-2DSA OR APPROVED EQUIVALENT.  
 MATING CONNECTOR: (NOT SUPPLIED)  
 -CONNECTOR: RECEPTACLE HOUSING, DUAL ROW, 6 POSITION: HIROSE: P/N DF11-6DS-2C OR APPROVED EQUIVALENT.  
 -CONTACTS: FEMALE CRIMP TERMINAL (SOCKET) HIROSE P/N DF11-2428SC OR DF11-2428SCF OR APPROVED EQUIVALENT.
- WIRE HARNESS IS AVAILABLE, SOUTHCO P/N: EA-W01-X00 WHERE X-LENGTH IN METRES.  
 X = 1 TO 5  
 OTHER HARNESSES AVAILABLE, CONTACT SOUTHCO.

## ASSEMBLY PART NUMBER

### R4-EM-TMA-VSC-P

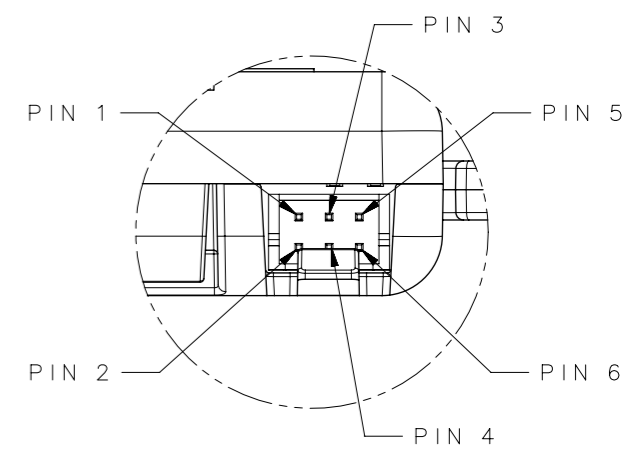


**"A" ALTERNATIVE CONFIGURATIONS:**  
 0 = STANDARD CONFIGURATION:  
 MANUAL OVERRIDE, STD PAWL, STD SPRING



ELECTRICAL HOOKUP (OUTPUT/FEEDBACK)

CONNECTOR PINOUT	
PIN	FUNCTION
1	GROUND (-)
2	POWER (+)
3	NOT CONNECTED
4	CONTROL SIGNAL
5	LATCH STATUS
6	DOOR STATUS



DETAIL A  
SCALE 2:1

CONNECTOR PINOUT	FUNCTION	STANDARD OUTPUT		REVERSE OUTPUT	
		INACTIVE	ACTIVE (GROUND)	INACTIVE	ACTIVE (GROUND)
5	LATCH STATUS	LOCKED	UNLOCKED	UNLOCKED	LOCKED
6	DOOR STATUS	DOOR CLOSED	DOOR OPEN	DOOR OPEN	DOOR CLOSED

- G. FOR USING DOOR SENSOR CAPABILITY WITHOUT SOUTHCO MAGNET BRACKET IT IS NECESSARY TO POSITION A SUITABLE MAGNET ON THE DOOR TO APPROACH THE LOCATION SHOWN ON SHEET 1 WHEN THEN DOOR IS CLOSED. THE SWITCH POINT NEEDS TO BE ESTABLISHED BY TESTS IN THE APPLICATION DUE TO THE INFLUENCE OF NEARBY FERROUS METAL OBJECTS ON THE MAGNETIC FIELD.**
- H. DIMENSIONS FOR GUIDANCE ONLY. SUBJECT TO DOOR-LATCH ANGULAR ALIGNMENT. RELEVANT WHERE SOUTHCO KEEPER OR SOUTHCO MAGNET BRACKET AND KEEPER IS USED.**

THIRD ANGLE PROJECTION			
MILLIMETERS [IN]			
TOLERANCES UNLESS OTHERWISE NOTED		DESCRIPTION	
SURFACE AREA N/A		ELECTRONIC ACCESS SOLUTION	
VOLUME N/A		MINIATURE ROTARY LATCH	
PROPRIETARY ITEM		SIZE A3	SYSTEM NX
EXCEPT FOR USES EXPRESSLY GRANTED IN WRITING, INFORMATION DISCLOSED HEREON IS CONFIDENTIAL AND ALL RIGHTS, PATENT AND OTHERWISE, ARE RESERVED BY SOUTHCO, INC.		DWG NO. J-R4-EM-05-1	
PER ASME Y14.5M-1994		DRAWN BY IGS/NPS	DATE 03JUL2019
		SCALE 1:1	SHEET 2 OF 2