

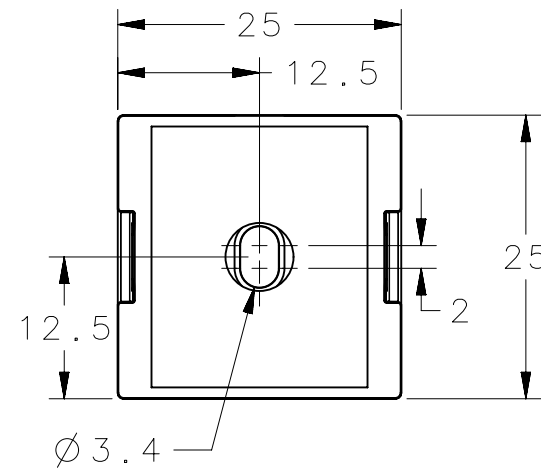
REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
C	16DEC2021	ZAM/MLL	PRN: P2021-1200

-
- A line drawing of a device with a large arrow on its top surface pointing to the right. A cable is plugged into a port on the front-left side of the device. The cable extends to the right and terminates in a multi-pin connector with four rows of pins.

Diagram illustrating the connector pinout for the 100BASE-TX module. The connector is shown with the following pin assignments:

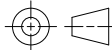
- PIN 1 (GND, BROWN)
- PIN 2 (POWER, RED)
- PIN 3 (DATA+, GREEN)
- PIN 4 (DATA-, BLUE)
- PIN 5 (BLUE, N.O.)
- PIN 6 (GRAY, N.C.)

SCALE 3:1



Technical drawing of a door handle assembly. The drawing shows a side view of the handle with a vertical dimension line on the left and a horizontal dimension line on the right. The horizontal dimension is labeled '15' and the vertical dimension is labeled '(1)'.

Technical drawing of a cable assembly. On the left is a square sign with a thick black border and a white background, featuring a large black arrow pointing to the left. A cable extends from the sign to the right. The cable has a wavy section in the middle, indicating a bend or a break in the drawing. To the right of the wavy section, the cable is shown as a bundle of four individual conductors, each with a black jacket and a white insulation layer. Above the cable, there is a dimension line with arrows at both ends, indicating a length of 150 units. To the right of the dimension line, there is a small vertical line segment with a plus sign (+) and a zero (0) above it, and a minus sign (-) and a zero (0) below it, indicating a tolerance of +10/-0.

AVAILABLE PART NUMBERS															
PART NUMBER					CONNECTOR TYPE										
ES-01-0100					STRIPPED AND TINNED										
ES-01-0121					MOLEX MICROFIT 3.0 SERIES 6 PIN										
CPB NUMBER		2019-1118			THIRD ANGLE PROJECTION					 CONNECT • CREATE • INNOVATE					
					MILLIMETERS [IN]										
					TOLERANCES UNLESS OTHERWISE NOTED			DESCRIPTION							
SURFACE AREA					ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.			ELECTRONIC ACCESS SOLUTION UNIVERSAL LATCH SENSOR SINGLE POLE DOUBLE THROW WITH ILLUMINATION							
VOLUME								SIZE A3			SYSTEM NX		DWG NO. J-ES-01-1		
PROPRIETARY ITEM					PER ASME Y14.5M-1994			DRAWN BY ZAM		DATE 20APR2021		SCALE 1.5:1		SHEET 1 OF 4	
EXCEPT FOR USES EXPRESSLY GRANTED IN WRITING, INFORMATION DISCLOSED HEREON IS CONFIDENTIAL AND ALL RIGHTS, PATENT AND OTHERWISE, ARE RESERVED BY SOUTHCO, INC.															

ELECTRICAL NOTES AND SPECIFICATIONS:

CAUTION: SWITCH HAS NO INHERENT PROTECTION. SUFFICIENT CIRCUIT PROTECTION MUST BE PROVIDED TO PREVENT DAMAGE TO PRODUCT.

CAUTION: LOAD OR CIRCUIT PROTECTION REQUIRED ON NORMALLY OPEN AND NORMALLY CLOSED LEGS OR UNIT WILL SHORT TO GROUND

CAUTION: UNIT HAS NO REVERSE POLARITY PROTECTION, ENSURE CORRECT POLARITY.

REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
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TABLE 1: ELECTRICAL AND PERFORMANCE CHARACTERISTICS (@ 25 °C)				
PARAMETER	UNITS	MIN	NOM	MAX
SWITCHED VOLTAGE	VDC	9.6	12	14.4
SWITCHED CURRENT	A	–	–	0.400
LED CURRENT DRAW @ 12VDC		0.010	0.015	0.020

TABLE 2: PINOUT		
PIN NUMBER	WIRE COLOR	FUNCTION
1	BROWN	GROUND (–)
2	RED	POWER (+)
3	–	–
4	–	–
5	BLUE	NORMALLY OPEN
6	GRAY	NORMALLY CLOSED

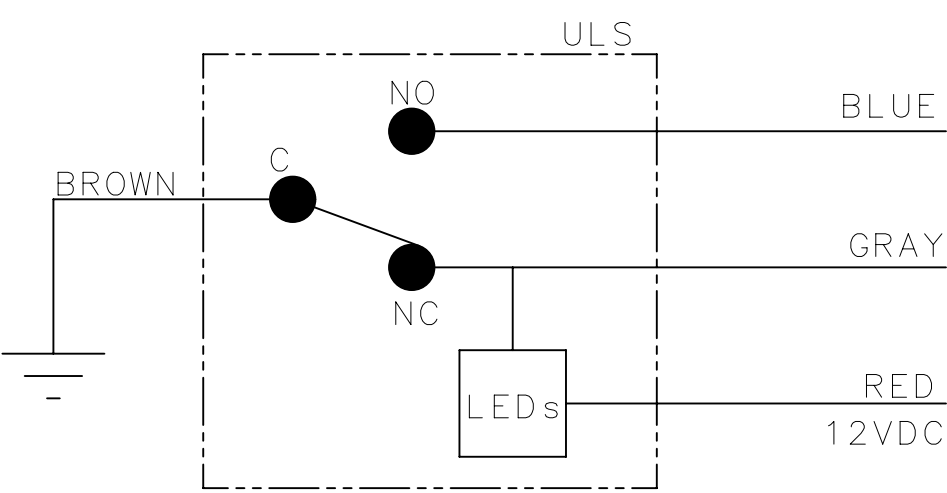
TABLE 3: UNIT STATUS WHEN OPERATED WITH MAGNET				
	GRAY (NC) TO GND	BLUE (NO) TO GND	LATCH POSITION	INTEGRATED LED STATUS
MAGNET IN RANGE*	OPEN CIRCUIT	CLOSED CIRCUIT	LATCHED	OFF
MAGNET OUT OF RANGE*	CLOSED CIRCUIT	OPEN CIRCUIT	UNLATCHED	ON

* – SEE NOTE BELOW

TABLE 4: OPERATING TEMPERATURE				
PARAMETER	UNITS	MIN	NOM	MAX
OPERATING TEMPERATURE	C	–40	–	80

NOTE:

- MAGNET IN RANGE REFERS TO THE MAGNET BEING WITHIN THE ACTIVATION RANGE OF THE SWITCH.
- MAGNET OUT OF RANGE REFERS TO THE MAGNET BEING OUTSIDE OF THE ACTIVATION RANGE OF THE SWITCH.
- ALL DATA COLLECTED AT AMBIENT TEMPERATURES UNLESS OTHERWISE NOTED.
- ACTIVATION RANGE SHOWN REPRESENTS INSTALLATION ON STEEL SURFACE.

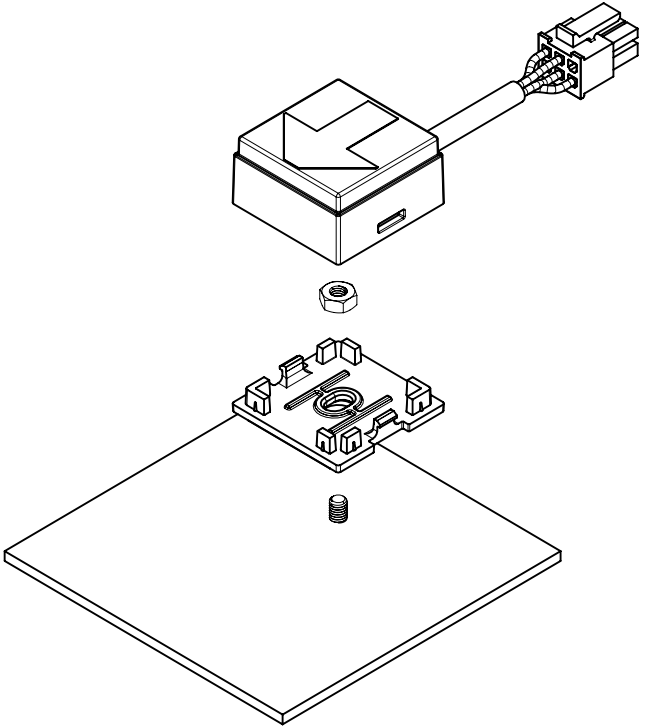


CPB NUMBER 2019-1118	THIRD ANGLE PROJECTION	 CONNECT • CREATE • INNOVATE	
	MILLIMETERS [IN]		
SURFACE AREA	TOLERANCES UNLESS OTHERWISE NOTED	ELECTRONIC ACCESS SOLUTION	
VOLUME	ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.	UNIVERSAL LATCH SENSOR SINGLE POLE DOUBLE THROW WITH ILLUMINATION	
PROPRIETARY ITEM 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	SIZE A3	SYSTEM NX
		DWG NO. J-ES-01-1	
		DRAWN BY ZAM	DATE 20APR2021
		SCALE 1:1	SHEET 2 OF 4

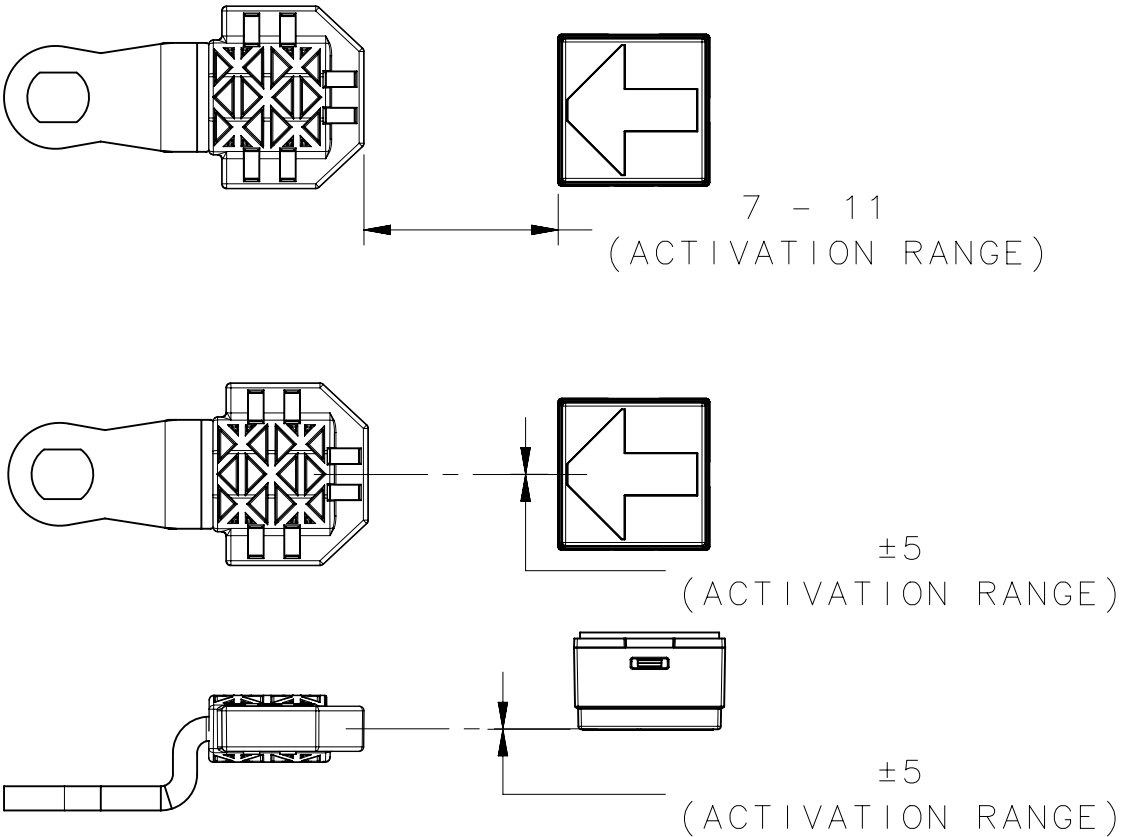
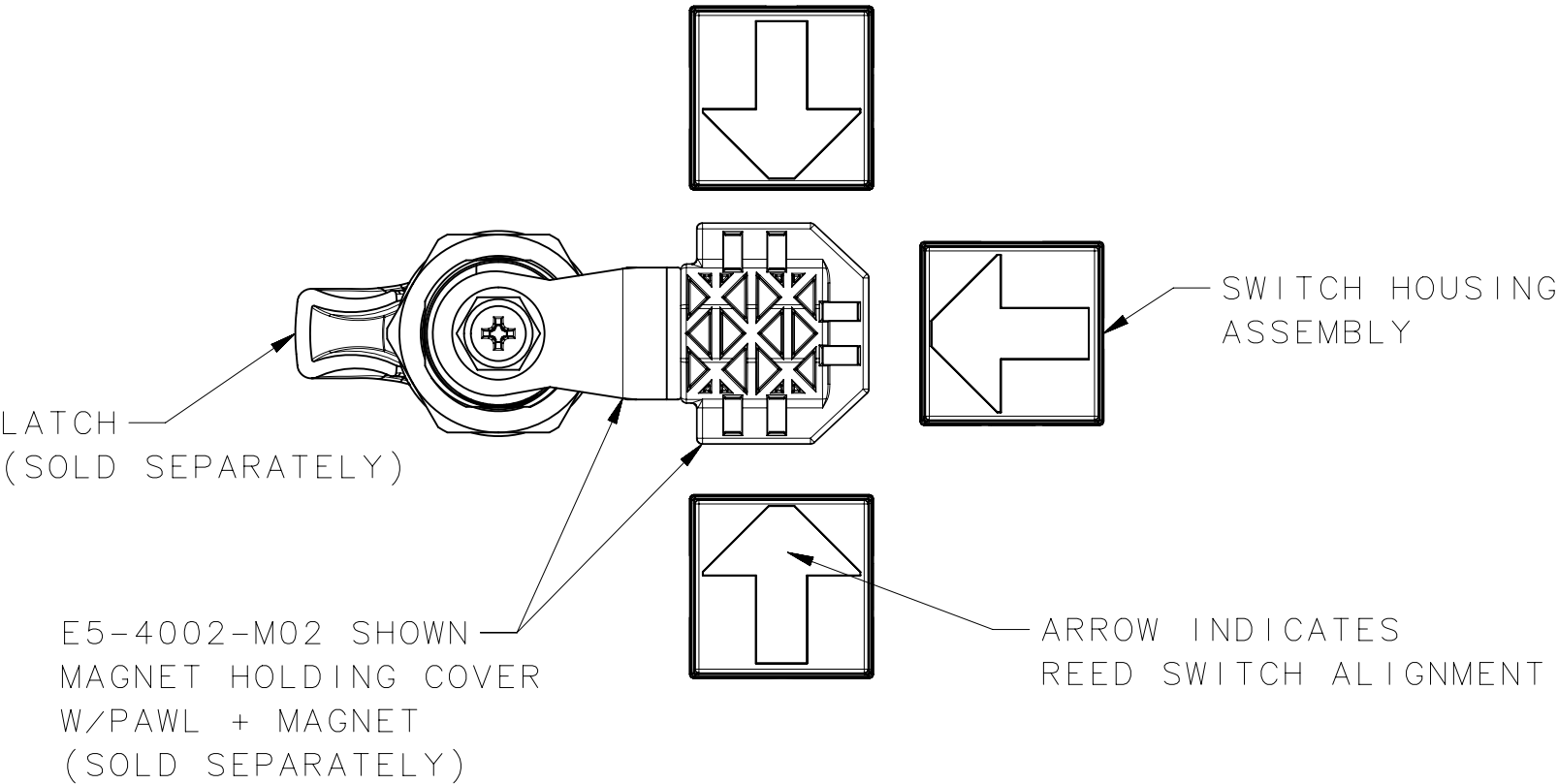
ASSEMBLY NOTES AND INSTRUCTIONS:

- E. PERFORMANCE MAY VARY WITH APPLICATION CONDITIONS.
- F. INSTALLATION IN PROXIMITY TO EXTERNAL MAGNETIC FIELDS OR MATERIALS WITH DIFFERING MAGNETIC PERMEABILITY WILL AFFECT PERFORMANCE AND ACTUATION RANGE.
- G. PRESSURE SENSITIVE ADHESIVE IS PRE-INSTALLED FOR MOUNTING.
- H. THE MOUNTING SLOT CAN BE USED WITH AN M3 OR #4-40 SCREW OR STUD.
A TRUSS, ROUND, OR PAN HEAD SCREW IS PREFERRED. AN M3 OR #4-40 THIN NUT CAN BE USED TO SECURE SCREW/STUD TO MOUNTING PLATE. MOUNTING SCREW, STUD, AND NUT ARE NOT INCLUDED. MAXIMUM ALLOWABLE INSTALL TORQUE, 22.5N-cm [2 in-lbs].
- I. ENSURE MOUNTING SURFACE IS CLEAN BEFORE SECURING TAPE.
- J. ENSURE SENSOR IS PROPERLY POSITIONED AND ALIGNED WITH MAGNET BEFORE SECURING TAPE.
ARROW ON UNIT HOUSING POINTS TO LOCATION OF INTERNAL REED SWITCH.
- K. REMOVE BACKING FROM TAPE TO EXPOSE ADHESIVE SURFACE.
LOCATE AND ATTACH BACK PLATE IN DESIRED LOCATION.
- L. PRESS BACK PLATE AND TAPE INTO POSITION TO ACTIVATE ADHESIVE.
- M. OPTIONALLY SECURE IN PLACE WITH SCREW OR NUT.
- N. ALIGN TOP HOUSING WITH BACK PLATE AND PUSH ON UNTIL FULLY SEATED.

REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
C	16DEC2021	ZAM/MLL	PRN: P2021-1200



POSSIBLE INSTALLATION ORIENTATIONS



NOTE: MAGNET SPECIFICATIONS

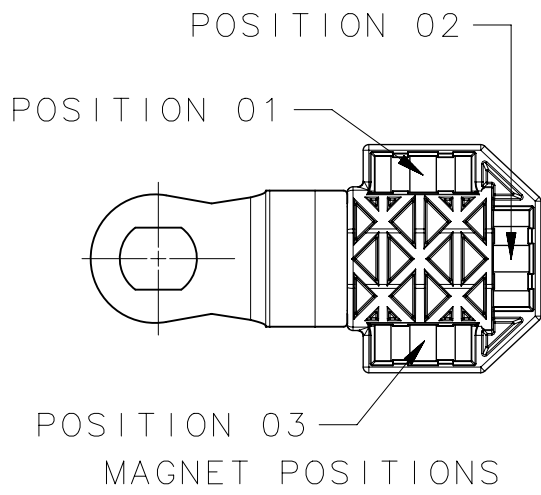
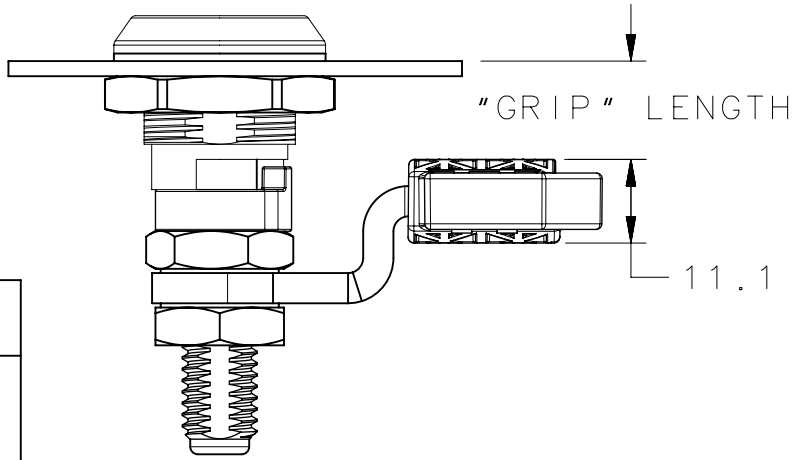
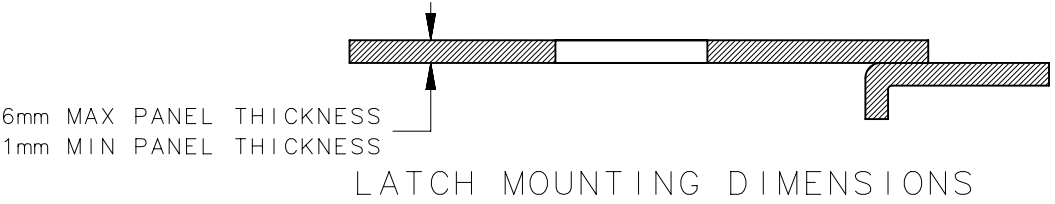
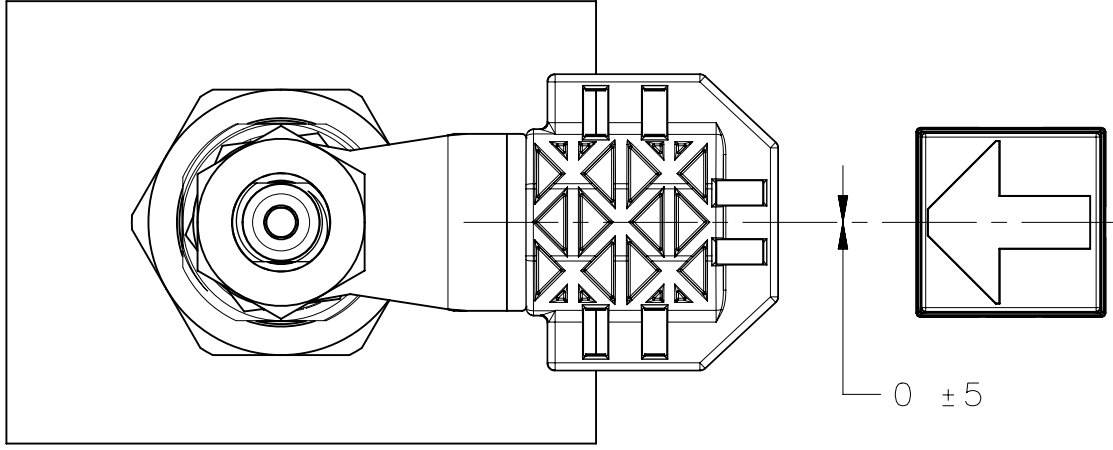
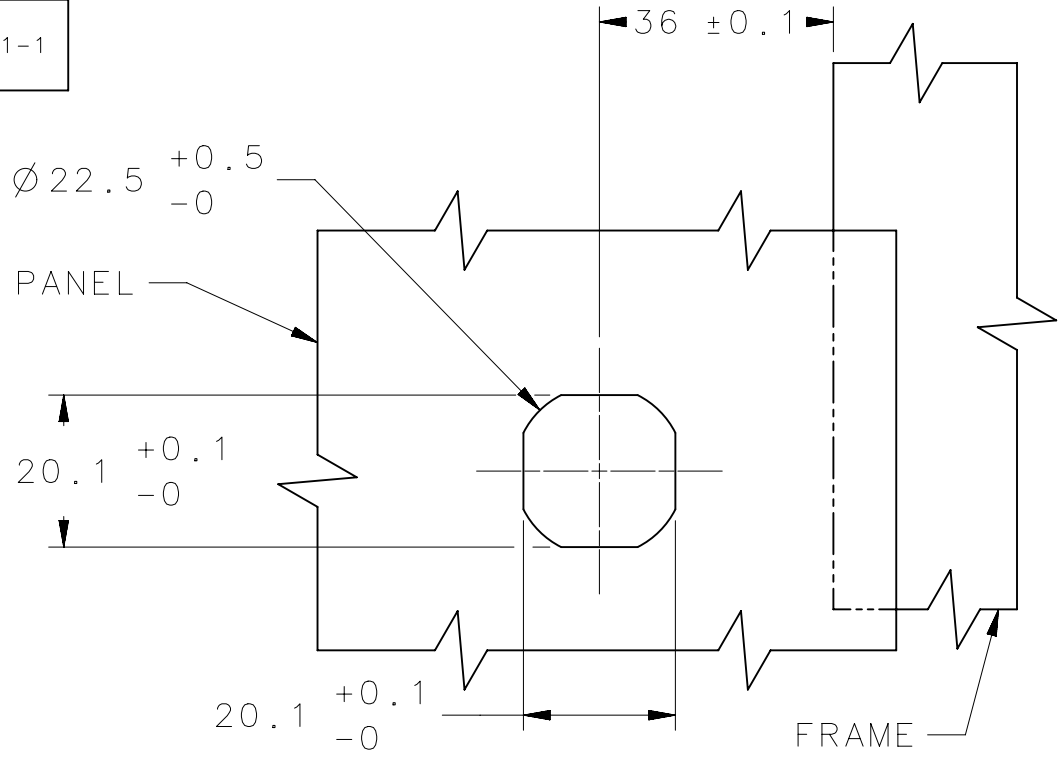
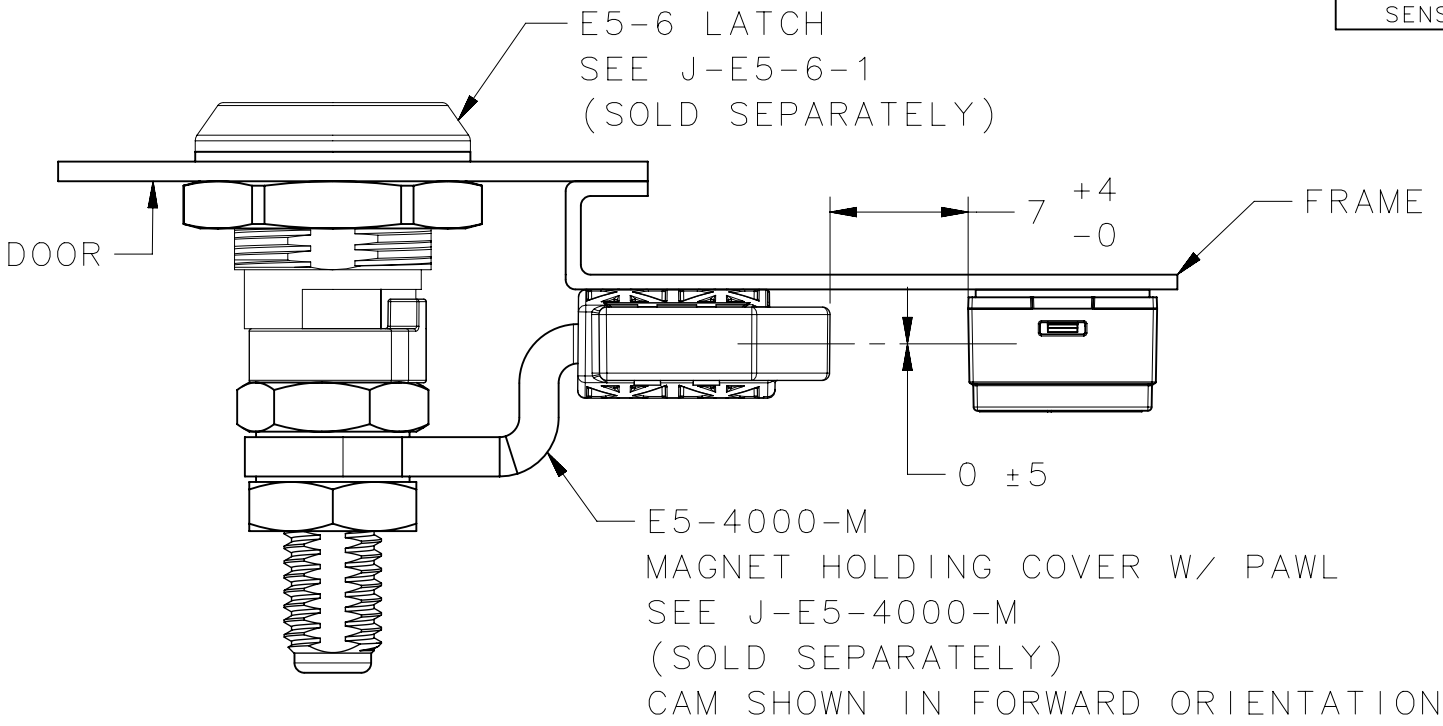
- GRADE: N42
- SIZE: 12.7 X 4.76 X 4.76mm

CPB NUMBER 2019-1118	THIRD ANGLE PROJECTION	southco® CONNECT • CREATE • INNOVATE	
	MILLIMETERS [IN]	ELECTRONIC ACCESS SOLUTION	
SURFACE AREA	TOLERANCES UNLESS OTHERWISE NOTED	UNIVERSAL LATCH SENSOR SINGLE POLE DOUBLE THROW WITH ILLUMINATION	
VOLUME	ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.	SIZE A3	SYSTEM NX
PROPRIETARY ITEM 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. J-ES-01-1	DATE 20APR2021
		SCALE NONE	SHEET 3 OF 4

NOTES:
O. SEE ADDITIONAL DRAWINGS FOR FURTHER INFORMATION.
- LATCH: J-E5-6-1
- MAGNET CAM: J-E5-4000-M

PARTS REQUIRED		
PART	PART NUMBER	REFERENCE DRAWING
LATCH	E5-6-HF-01	J-E5-6-1
CAM	E5-4000-M	J-E5-4000-M
UNIVERSAL LATCH SENSOR	ES-01-01XX	J-ES-01-1

REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
C	16DEC2021	ZAM/MLL	PRN: P2021-1200



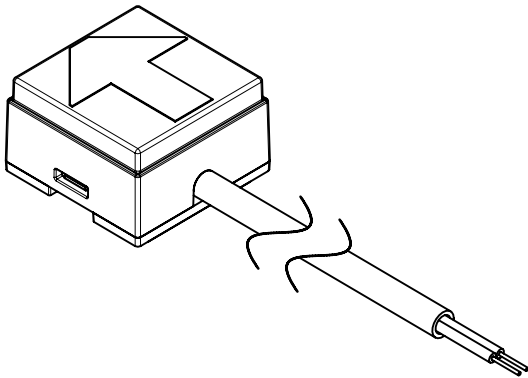
CAM FOR USE WITH ES UNIVERSAL LATCH SENSOR - PART NUMBER TABLE (ORDER SEPARATELY FROM LATCH)					
MINIMUM GRIP $+2(0.08)/-0$	MAXIMUM GRIP $+2(0.08)/-0$	CAM ORIENTATION	OFFSET	MAGNET POSITION	PART NUMBER
3.5 (0.14)	15 (0.59)	FORWARD	DEEP OFFSET CAM	POSITION 1	E5-4001-M01
49.5 (1.95)	61 (2.40)	REVERSED		POSITION 2	E5-4001-M02
				POSITION 3	E5-4001-M03
15 (0.59)	26.5 (1.04)	FORWARD	OFFSET CAM	POSITION 1	E5-4002-M01
38 (1.50)	49.5 (1.95)	REVERSED		POSITION 2	E5-4002-M02
				POSITION 3	E5-4002-M03
26.5 (1.04)	38 (1.50)	-	STRAIGHT CAM	POSITION 1	E5-4003-M01
				POSITION 2	E5-4003-M02
				POSITION 3	E5-4003-M03

CPB NUMBER 2019-1118	THIRD ANGLE PROJECTION	southco® CONNECT • CREATE • INNOVATE	
	MILLIMETERS [IN]		
SURFACE AREA	TOLERANCES UNLESS OTHERWISE NOTED	ELECTRONIC ACCESS SOLUTION	
VOLUME	ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.	UNIVERSAL LATCH SENSOR SINGLE POLE DOUBLE THROW WITH ILLUMINATION	
PROPRIETARY ITEM 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	SIZE A3	SYSTEM NX
		DWG NO. J-ES-01-1	
		DRAWN BY ZAM	DATE 06OCT2021
		SCALE NONE	SHEET 4 OF 4

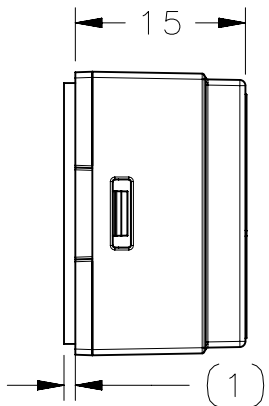
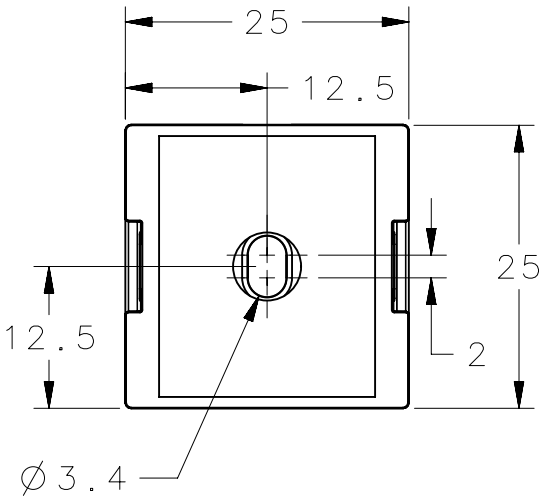
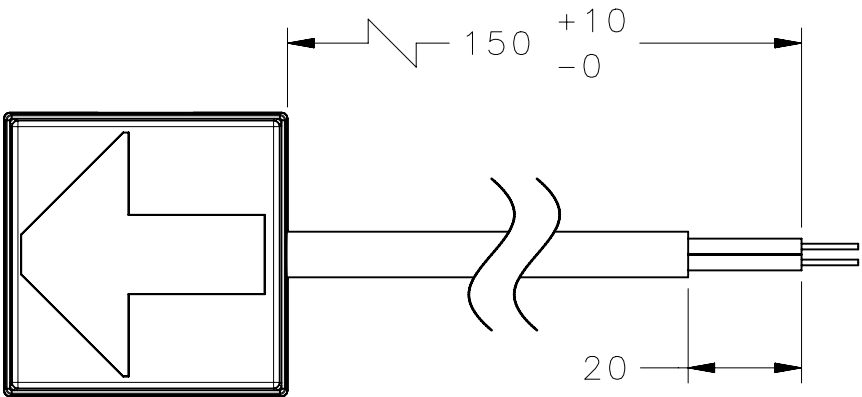
PHYSICAL AND MECHANICAL NOTES:

- A. PRODUCT DESCRIPTION: MAGNETICALLY OPERATED NORMALLY OPEN PROXIMITY SWITCH
- B. MATERIAL
- HOUSING: POLYCARBONATE, CLEAR, UL94 V-0 RATED
 - BASE PLATE: PC/ABS, BLACK, UL94 V-0 RATED
 - PRESSURE SENSITIVE ADHESIVE: ACRYLIC ADHESIVE WITH FOAM CORE
 - WIRE: UL 1007, 26AWG (7/32), PVC INSULATION
- C. CONNECTOR TYPE
- STRIPPED AND TINNED
- D. ENVIRONMENTAL
- ALL ITEMS COMPLY WITH RoHS DIRECTIVE AND REACH REGULATION
 - IP67 RATED

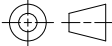
REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
C	16DEC2021	ZAM/MLL	PRN: P2021-1200



SCALE 1 : 1



PRESSURE SENSITIVE ADHESIVE

AVAILABLE PART NUMBERS										
PART NUMBER					CONNECTOR TYPE					
ES-01-0200					STRIPPED AND TINNED					
CPB NUMBER 2019-1118		THIRD ANGLE PROJECTION 			southco® CONNECT • CREATE • INNOVATE					
		MILLIMETERS [IN]								
SURFACE AREA		TOLERANCES UNLESS OTHERWISE NOTED			DESCRIPTION ELECTRONIC ACCESS SOLUTION UNIVERSAL LATCH SENSOR NORMALLY OPEN					
VOLUME		ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.								
PROPRIETARY ITEM		PER ASME Y14.5M-1994			SIZE A3		SYSTEM NX		DWG NO. J-ES-01-2	
EXCEPT FOR USES EXPRESSLY GRANTED IN WRITING, INFORMATION DISCLOSED HEREON IS CONFIDENTIAL AND ALL RIGHTS, PATENT AND OTHERWISE ARE RESERVED BY SOUTHCO, INC.					DRAWN BY ZAM		DATE 21APR2021		SCALE 1.5:1	

ELECTRICAL NOTES AND SPECIFICATIONS

REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
C	16DEC2021	ZAM/MLL	PRN: P2021-1200

CAUTION: SWITCH HAS NO INHERENT PROTECTION. SUFFICIENT CIRCUIT PROTECTION MUST BE PROVIDED TO PREVENT DAMAGE TO PRODUCT.

CAUTION: DO NOT CONNECT POWER ACROSS SWITCH. POWER TO GROUND SHORT WILL RESULT.

PARAMETER	UNITS	MIN	NOM	MAX
SWITCHED CURRENT*	A	–	–	0.500
SWITCHED POWER	W	–	–	10
SWITCHED VOLTAGE (DC)	VDC	–	–	200
SWITCHED VOLTAGE (AC)	VAC	–	–	140
BREAKDOWN VOLTAGE	V _{max}	200	–	–

TABLE 2: PINOUT

WIRE COLOR	FUNCTION
BLACK	COMMON
BLACK	NORMALLY OPEN

TABLE 3: ES-1-0200 UNIT STATUS WHEN OPERATED WITH MAGNET

	CIRCUIT STATUS	LATCH STATUS
MAGNET IN RANGE*	CLOSED CIRCUIT	LATCHED
MAGNET OUT OF RANGE*	OPEN CIRCUIT	UNLATCHED

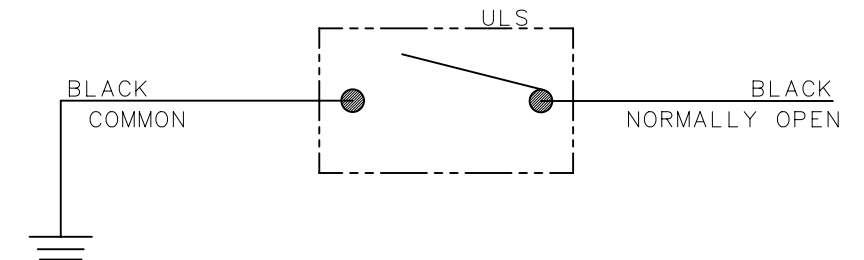
* - SEE NOTE BELOW

TABLE 4: OPERATING TEMPERATURE

PARAMETER	UNITS	MIN	NOM	MAX
OPERATING TEMPERATURE	C	-40	-	80

NOTE :

- SWITCHED CURRENT WAS OBTAINED WITH 1KOHM RESISTOR IN LINE WITH SWITCH
- MAGNET IN RANGE REFERS TO THE MAGNET BEING WITHIN THE ACTIVATION RANGE OF THE SWITCH.
- MAGNET OUT OF RANGE REFERS TO THE MAGNET BEING OUTSIDE OF THE ACTIVATION RANGE OF THE SWITCH.
- ACTIVATION RANGE SHOWN REPRESENTS INSTALLATION ON STEEL SURFACE.
- ALL DATA COLLECTED AT AMBIENT TEMPERATURES UNLESS OTHERWISE NOTED.

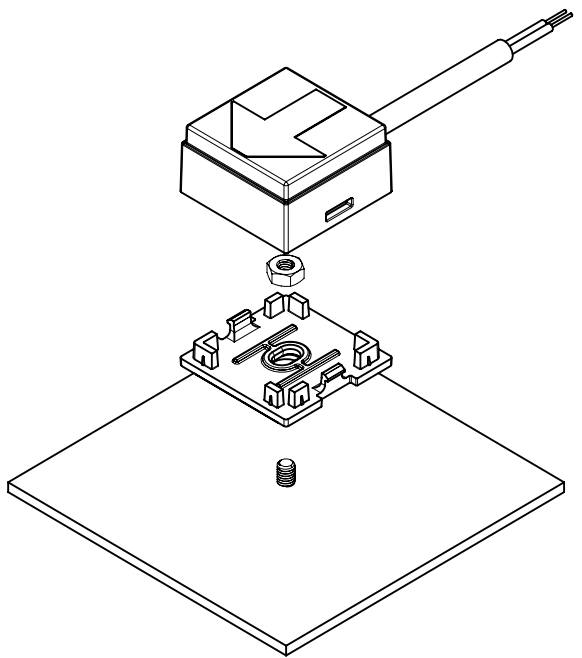


CPB NUMBER 2019-1118	THIRD ANGLE PROJECTION								
	MILLIMETERS [IN]								
SURFACE AREA	TOLERANCES UNLESS OTHERWISE NOTED	DESCRIPTION							
VOLUME	ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.	ELECTRONIC ACCESS SOLUTION UNIVERSAL LATCH SENSOR NORMALLY OPEN							
PROPRIETARY ITEM		SIZE A3	SYSTEM NX	DWG NO. J-ES-01-2					
EXCEPT FOR USES EXPRESSLY GRANTED IN WRITING, INFORMATION DISCLOSED HEREIN IS CONFIDENTIAL AND ALL RIGHTS, PATENT AND OTHERWISE, ARE RESERVED BY SOUTHCO, INC.	PER ASME Y14.5M-1994	DRAWN BY ZAM	DATE 21APR2021	SCALE 1:1	SHEET 2 OF 4				

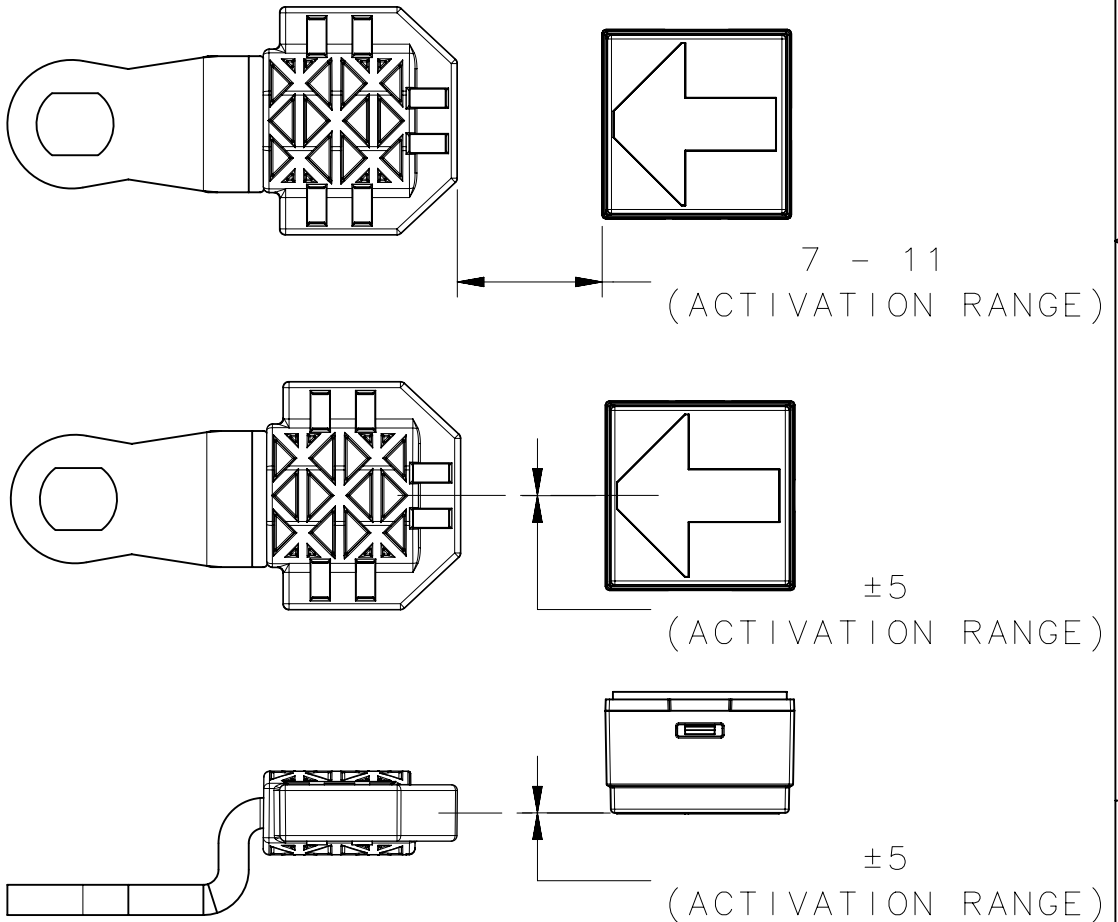
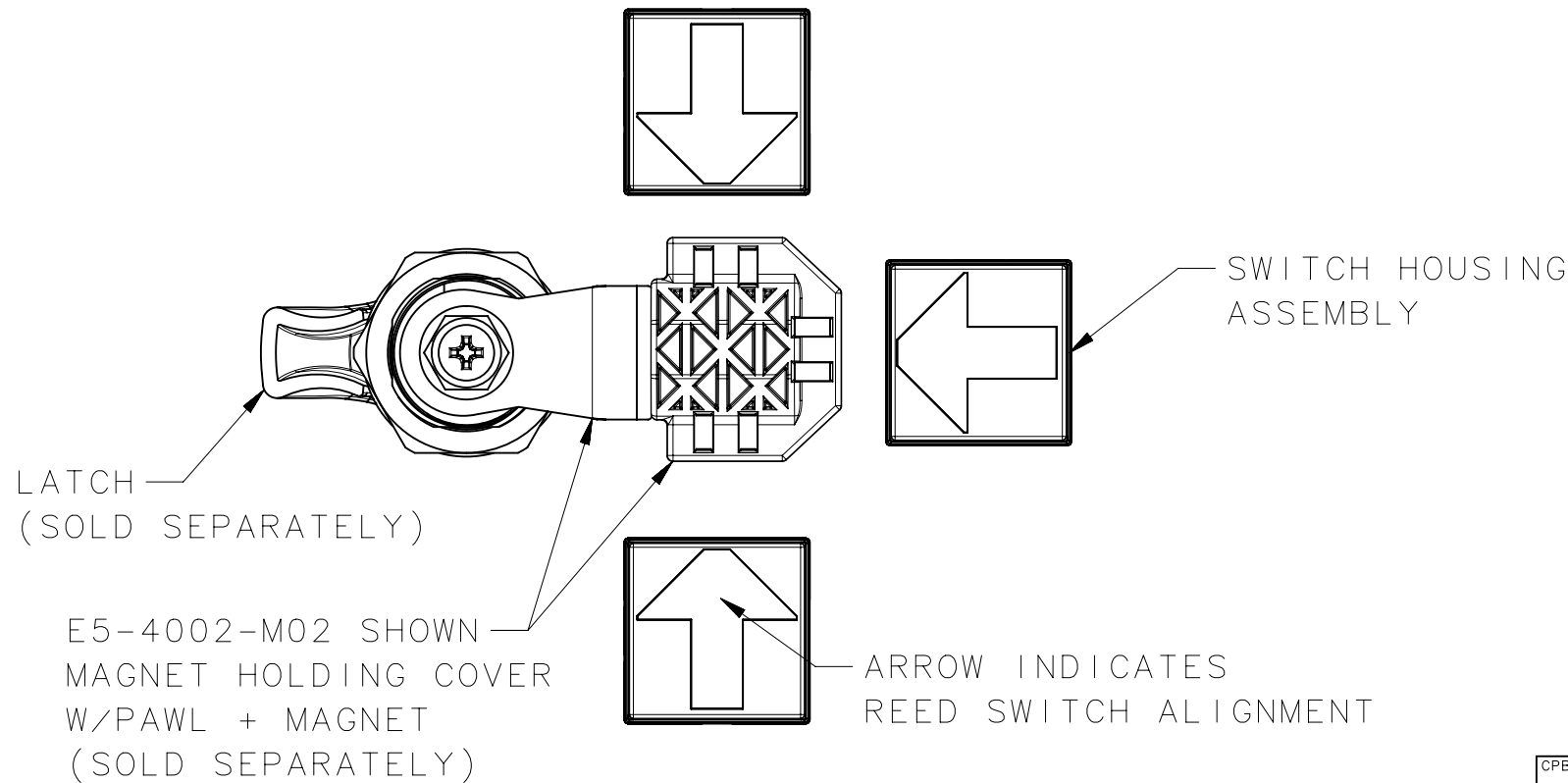
ASSEMBLY NOTES AND INSTRUCTIONS:

- E. PERFORMANCE MAY VARY WITH APPLICATION CONDITIONS.
- F. INSTALLATION IN PROXIMITY TO EXTERNAL MAGNETIC FIELDS OR MATERIALS WITH HIGH MAGNETIC PERMEABILITY WILL AFFECT PERFORMANCE AND ACTUATION RANGE.
- G. PRESSURE SENSITIVE ADHESIVE IS PRE-INSTALLED FOR MOUNTING.
- H. THE MOUNTING SLOT CAN BE USED WITH AN M3 OR #4-40 SCREW OR STUD.
A TRUSS, ROUND, OR PAN HEAD SCREW IS PREFERRED. AN M3 OR #4-40 THIN NUT CAN BE USED TO SECURE SCREW/STUD TO MOUNTING PLATE.
MOUNTING SCREW, STUD, AND NUT ARE NOT INCLUDED. MAXIMUM ALLOWABLE INSTALL TORQUE, 22.5N-cm [2 in-lbs].
- I. ENSURE MOUNTING SURFACE IS CLEAN BEFORE SECURING TAPE.
- J. ENSURE SENSOR IS PROPERLY POSITIONED AND ALIGNED WITH MAGNET BEFORE SECURING TAPE.
ARROW ON UNIT HOUSING POINTS TO LOCATION OF INTERNAL REED SWITCH.
- K. REMOVE BACKING FROM TAPE TO EXPOSE ADHESIVE SURFACE.
LOCATE AND ATTACH BACK PLATE IN DESIRED LOCATION.
- L. PRESS BACK PLATE AND TAPE INTO POSITION TO ACTIVATE ADHESIVE.
- M. OPTIONALLY SECURE IN PLACE WITH SCREW OR NUT.
- N. ALIGN TOP HOUSING WITH BACK PLATE AND PUSH ON UNTIL FULLY SEATED.

REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
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POSSIBLE MOUNTING ORIENTATIONS



NOTE: MAGNET SPECIFICATIONS

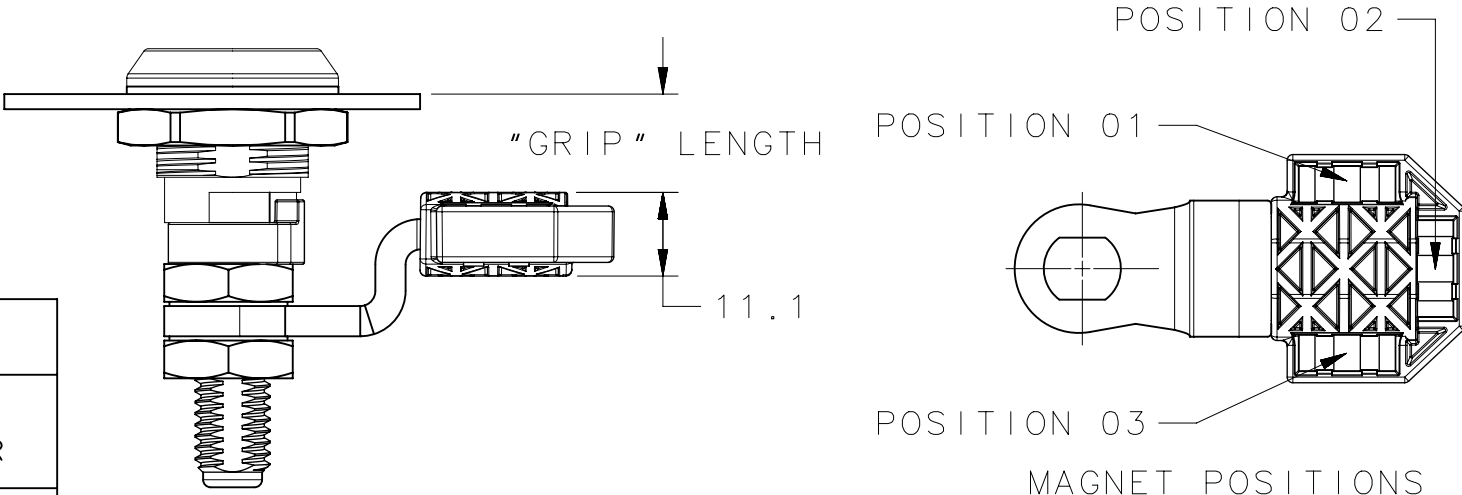
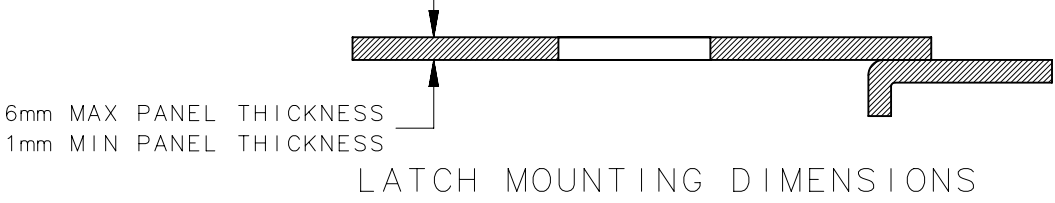
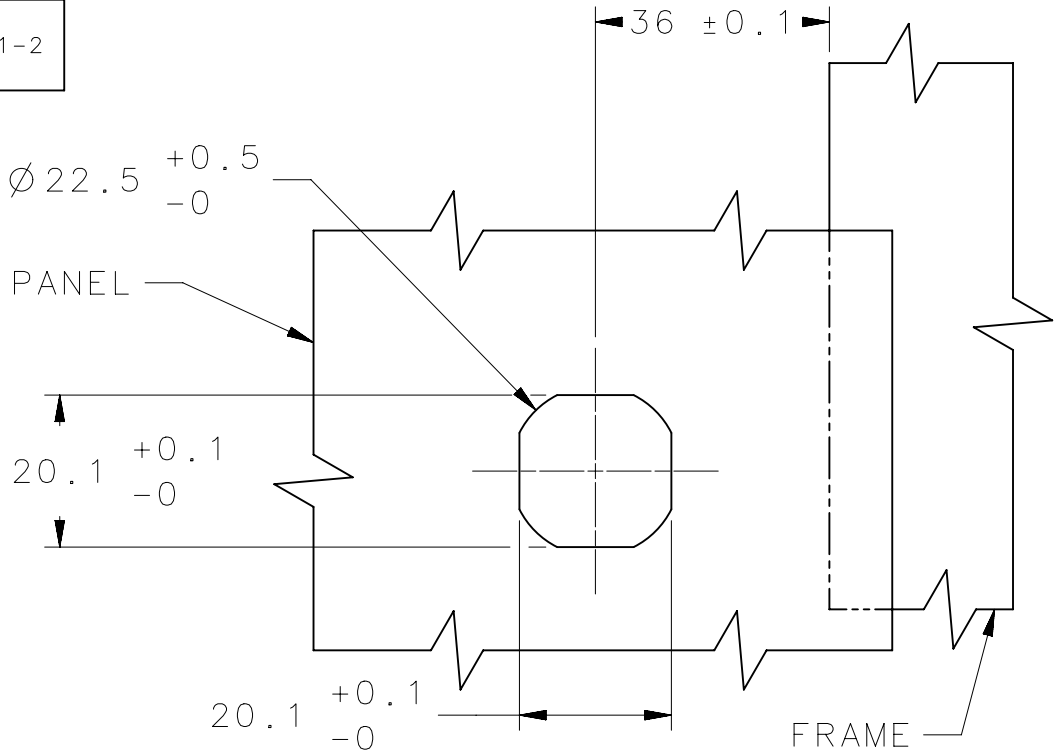
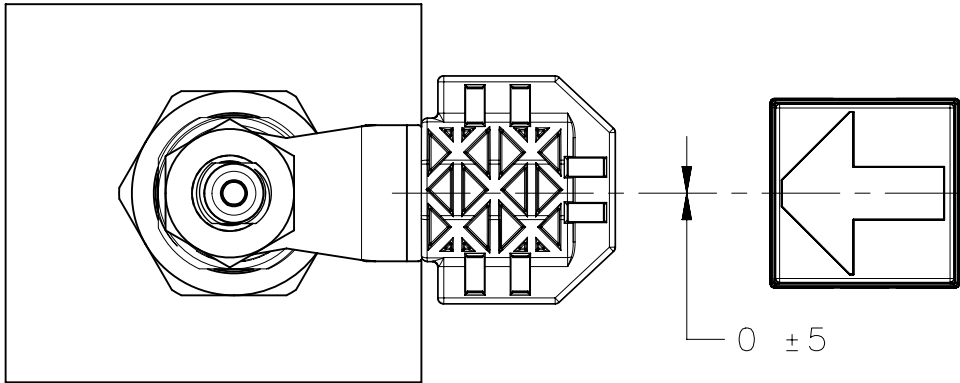
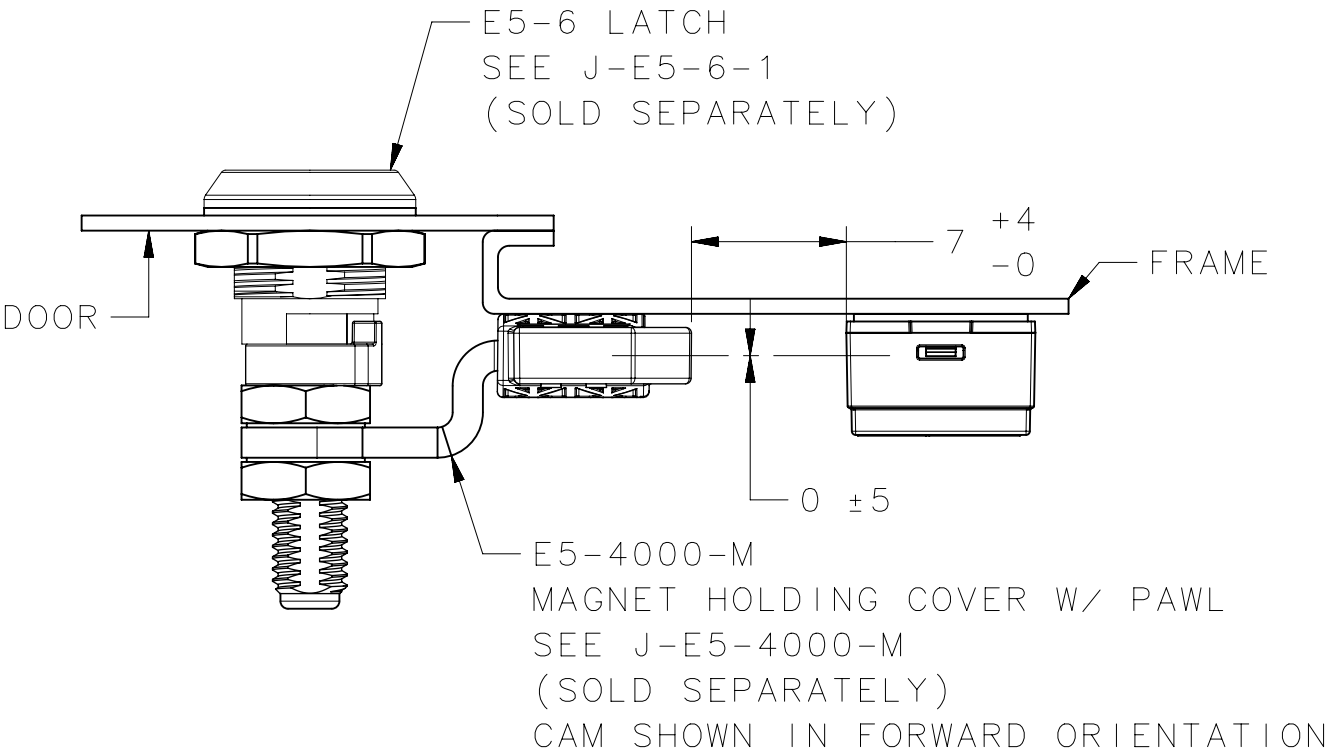
- GRADE: N42
- SIZE: 12.7 x 4.76 x 4.76mm

CPB NUMBER 2019-1118	THIRD ANGLE PROJECTION	southco® CONNECT • CREATE • INNOVATE	
	MILLIMETERS [IN]	ELECTRONIC ACCESS SOLUTION	
SURFACE AREA	TOLERANCES UNLESS OTHERWISE NOTED	UNIVERSAL LATCH SENSOR NORMALLY OPEN	
VOLUME	ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.	SIZE A3	SYSTEM NX
PROPRIETARY ITEM 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. J-ES-01-2	DATE 21APR2021
		SCALE NONE	SHEET 3 OF 4

NOTES:
O. SEE ADDITIONAL DRAWINGS FOR FURTHER INFORMATION.
- LATCH: J-E5-6-1
- MAGNET CAM: J-E5-4000-M

PARTS REQUIRED		
PART	PART NUMBER	REFERENCE DRAWING
LATCH	E5-6-HF-01	J-E5-6-1
CAM	E5-4000-M	J-E5-4000-M
UNIVERSAL LATCH SENSOR	ES-01-02XX	J-ES-01-2

REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
C	16DEC2021	ZAM/MLL	PRN: P2021-1200



CAM FOR USE WITH ES UNIVERSAL LATCH SENSOR - PART NUMBER TABLE (ORDER SEPARATELY FROM LATCH)					
MINIMUM GRIP ^{+2(0.08)} ₋₀	MAXIMUM GRIP ^{+2(0.08)} ₋₀	CAM ORIENTATION	OFFSET	MAGNET POSITION	PART NUMBER
3.5 (0.14)	15 (0.59)	FORWARD	DEEP OFFSET CAM	POSITION 1	E5-4001-M01
49.5 (1.95)	61 (2.40)	REVERSED		POSITION 2	E5-4001-M02
15 (0.59)	26.5 (1.04)	FORWARD		POSITION 3	E5-4001-M03
38 (1.50)	49.5 (1.95)	REVERSED	OFFSET CAM	POSITION 1	E5-4002-M01
26.5 (1.04)	38 (1.50)	-		POSITION 2	E5-4002-M02
				POSITION 3	E5-4002-M03
			STRAIGHT CAM	POSITION 1	E5-4003-M01
				POSITION 2	E5-4003-M02
				POSITION 3	E5-4003-M03

CPB NUMBER 2019-1118	THIRD ANGLE PROJECTION	southco® CONNECT • CREATE • INNOVATE	
	MILLIMETERS [IN]		
SURFACE AREA	TOLERANCES UNLESS OTHERWISE NOTED	ELECTRONIC ACCESS SOLUTION UNIVERSAL LATCH SENSOR NORMALLY OPEN	
VOLUME	ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.	SIZE A3	SYSTEM NX
PROPRIETARY ITEM 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	DRAWN BY ZAM	DATE 18NOV2021
		SCALE NONE	SHEET 4 OF 4