

Component name	Base material	Finish
Case	LCP, black, UL94 V-0	
Terminal, wire lug (gold)	Brass	Gold over nickel
Terminal, PC, RA & VRA (gold)	Brass	Gold over nickel in contact area, Tin over nickel in solder area
Terminal, PC & wire lug (silver)	Silver clad copper	Silver over nickel
Contact (gold)	Copper alloy or brass	Gold over nickel
Contact (silver)	Silver clad copper or copper	Silver over nickel
Frame	Steel	Tin over copper
Spring	Music wire	
Plunger Button	Nylon 6/6, black, red or blue. UL94 HB (extended) or UL94V-2 (flush)	
Support bracket (RA*ES versions only)	Brass	Tin over copper
Support bracket, VRA	Steel	Tin over copper
Bushing	Brass	Nickel over copper
ES Housing (ES versions)	Nylon 6/6, natural, UL94 V-2	
ES boot (ES versions)	Vinyl plastisol, black	

Specifications	
Rating	Gold: .4VA max. @ 20VDC or peak AC resistive Silver: 1 A @ 125VAC or 28 VDC resistive
Initial termination resistance	20 milliohms max.
Insulation resistance	1,000 Megohms min @ 500 VDC
Dielectric strength	1,000 volts RMS at sea level
Timing	Break before make
Plunger travel	.030
Actuation force	50 to 400 grams
Life expectancy	.4 VA, 1 pole: 100,000 .4 VA, 2 poles: 80,000 1 A, 1 pole: 60,000 1 A, 2 poles: 50,000
Operating temperature	-30° C to +65° C
Storage temperature	-30° C to +65° C
Terminal seal	Single pole: epoxy Double pole: epoxy optional

NOTES:

- TERMINAL NUMBERS ARE FOR REFERENCE ONLY AND DO NOT APPEAR ON SWITCHES.
- ALL MATERIALS AND FINISHES COMPLY WITH EU DIRECTIVE 2002/95/EC OF 27JAN2003 (ROHS).
- DISPOSABLE BOOT SUPPLIED WITH ES VERSIONS. BOOT TO BE PLACED OVER BUSHING BEFORE SOLDER WASHING.
- CENTER TERMINAL PRESENT ON DOUBLE THROW SWITCHES ONLY.
- CENTER HOLE REQUIRED ON DOUBLE THROW SWITCHES ONLY.
- OBSOLETE.

Model	Actuator	Poles	Rating	Function	Plating	Terminations	Process Seal	Button color	04
TPB	Blank = extended	1	1 = Gold .4VA	C = SPST momentary	G = Gold	Blank = Wire lug	ES = process sealed 2	0 = Black	
	F = flush	2 (1+1)	3 = Silver 1 Amp 1	F = SPDT momentary	Blank = Silver 1	PC = printed circuit		2 = Red	
		2		M = DPST momentary		RA = right angle 2		6 = Blue	
				R = DPDT momentary		VRA = vertical right angle 3			

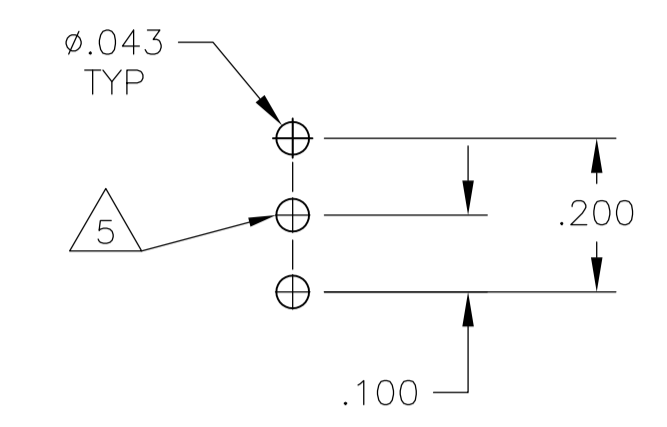
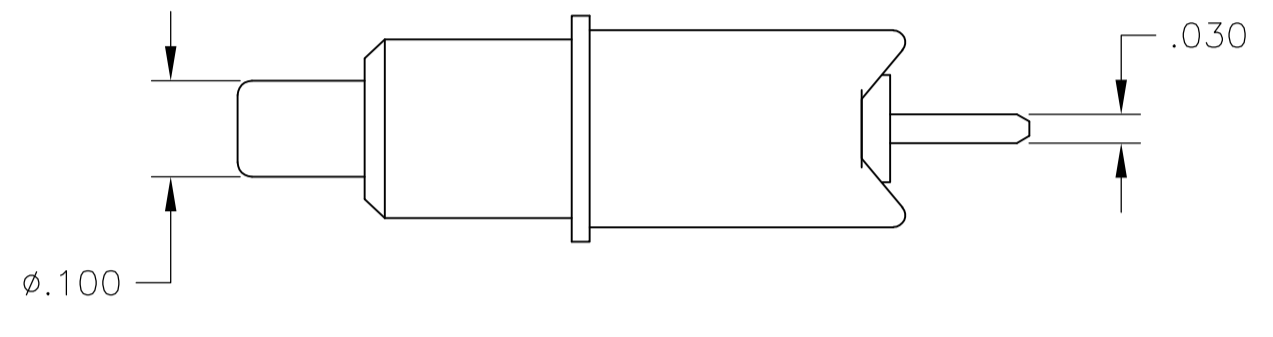
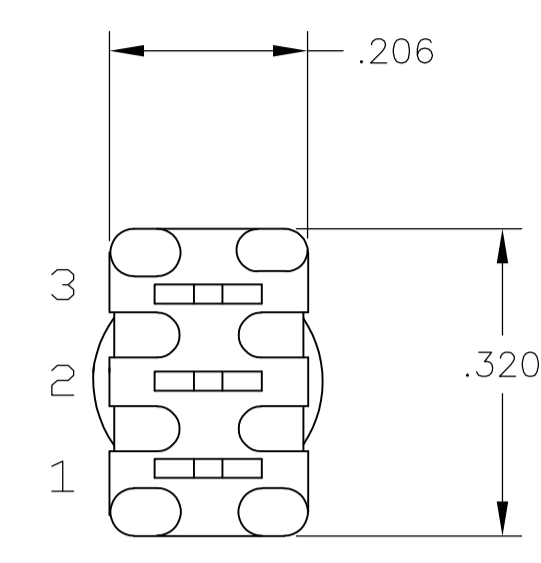
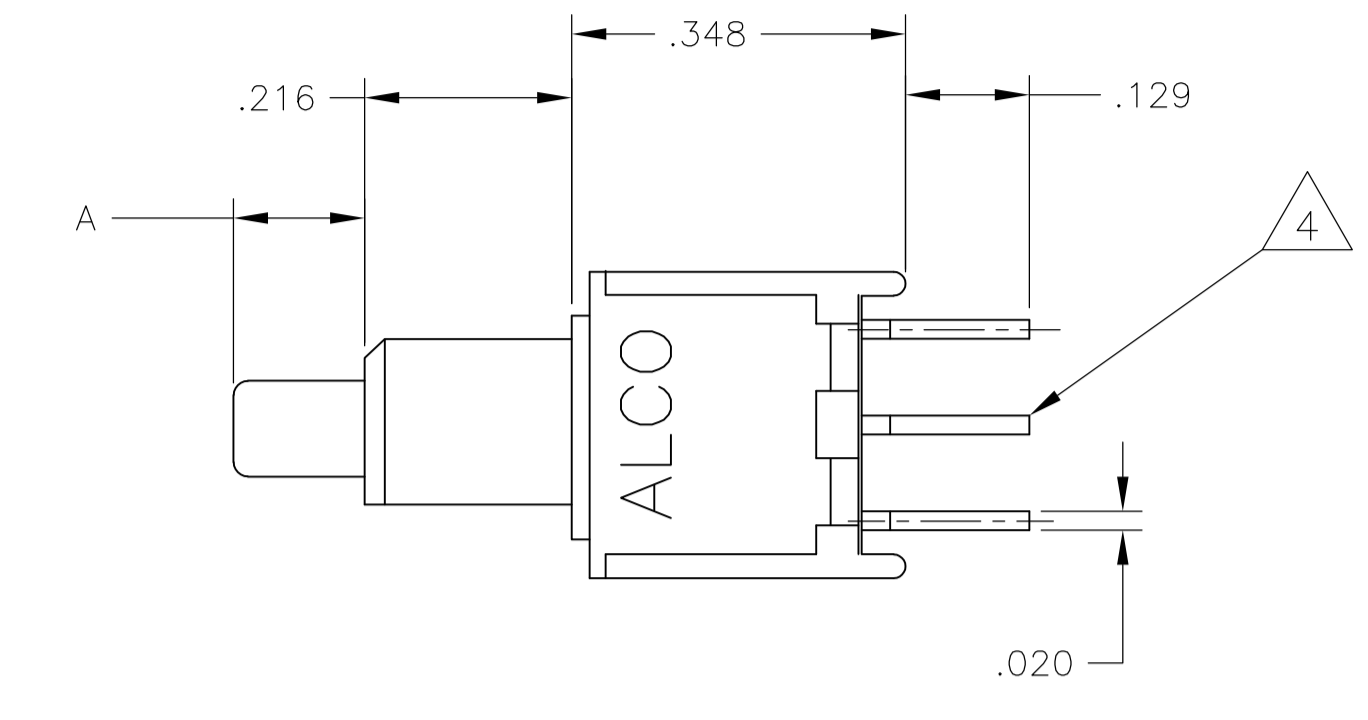
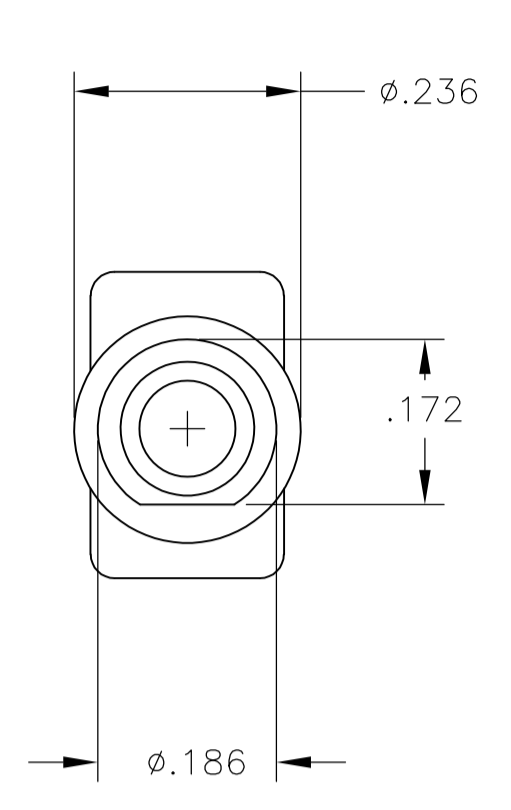
- NOTES:  
 1. Silver only available in wire lug and pc terminations  
 2. RAES available with B and C bushing only  
 3. VRA only available in single pole

P/N	Alco P/N	Flush Actuator?	Poles	Throws	Plating	Terminals	Process sealed?	Button Color	Function				Dim A
									ALCO	ALCO	ALCO	ALCO	
1825097-1	TPB11CGPC004	no	1	1	Gold	PC	No	Black	Off	Mom	Off	1-3	.133
1825097-2	TPB11CGPC204	no	1	1	Gold	PC	No	Red	Off	Mom	Off	1-3	.133
1825097-3	TPB11CGPCES004	no	1	1	Gold	PC	yes	Black	Off	Mom	Off	1-3	.133
1825097-6	TPB11CGRA004	no	1	1	Gold	Right Angle	No	Black	Off	Mom	Off	1-3	.133
1825097-4	TPB11CGRA204	no	1	1	Gold	Right Angle	No	Red	Off	Mom	Off	1-3	.133
1825097-5	TPB11CGRAES004	no	1	1	Gold	Right Angle	yes	Black	Off	Mom	Off	1-3	.133
1825097-7	TPB11CGRAES204	no	1	1	Gold	Right Angle	yes	Red	Off	Mom	Off	1-3	.133
1825097-8	TPB11CGVRA004	no	1	1	Gold	VRA	No	Black	Off	Mom	Off	1-3	.117
1825097-9	TPB11FGPC004	no	1	2	Gold	PC	No	Black	On	Mom	1-2	2-3	.133
1-1825097-0	TPB11FGPCES204	no	1	2	Gold	PC	yes	Red	On	Mom	1-2	2-3	.133
1-1825097-1	TPB11FGRA004	no	1	2	Gold	Right Angle	No	Black	On	Mom	1-2	2-3	.133
1-1825097-2	TPB11FGRA204	no	1	2	Gold	Right Angle	No	Red	On	Mom	1-2	2-3	.133
1-1825097-3	TPB11FGRA604	no	1	2	Gold	Right Angle	No	Blue	On	Mom	1-2	2-3	.133
1-1825097-4	TPB11FGRAES004	no	1	2	Gold	Right Angle	yes	Black	On	Mom	1-2	2-3	.133
1-1825097-5	TPB11FGRAES604	no	1	2	Gold	Right Angle	yes	Blue	On	Mom	1-2	2-3	.133
1-1825097-6	TPB11FGVRA004	no	1	2	Gold	VRA	No	Black	On	Mom	1-2	2-3	.117
1-1825097-7	TPB21MGPC004	no	2	1	Gold	PC	No	Black	Off	Mom	Off	1-3, 4-6	.133
1-1825097-8	TPB21MGPC204	no	2	1	Gold	PC	No	Red	Off	Mom	Off	1-3, 4-6	.133
2-1825097-8	TPB21MGRA004	no	2	1	Gold	Right Angle	No	Black	Off	Mom	Off	1-3, 4-6	.133
1-1825097-9	TPB21RGRA004	no	2	2	Gold	Right Angle	No	Black	On	Mom	1-2, 4-5	2-3, 5-6	.133
2-1825097-0	TPBF11CGPCES004	yes	1	1	Gold	PC	yes	Black	Off	Mom	Off	1-3	.000
2-1825097-1	TPBF11CGRA004	yes	1	1	Gold	Right Angle	No	Black	Off	Mom	Off	1-3	.000
2-1825097-2	TPBF11CGRAES004	yes	1	1	Gold	Right Angle	yes	Black	Off	Mom	Off	1-3	.000
2-1825097-3	TPBF11FGPCES004	yes	1	2	Gold	PC	yes	Black	On	Mom	1-2	2-3	.000
2-1825097-4	TPBF11FGRA004	yes	1	2	Gold	Right Angle	No	Black	On	Mom	1-2	2-3	.000
2-1825097-5	TPBF11FGRA204	yes	1	2	Gold	Right Angle	No	Red	On	Mom	1-2	2-3	.000
2-1825097-6	TPBF11FGRAES004	yes	1	2	Gold	Right Angle	yes	Black	On	Mom	1-2	2-3	.000

THIS DRAWING IS A CONTROLLED DOCUMENT. DIM: M. BINNER 20JUL05  
 DW: M. ZITTO 21JUL05  
 NAME: M. ZITTO 21JUL05  
 PRODUCT SPEC: M. ZITTO  
 APPLICATION SPEC: M. ZITTO  
 SIZE: A1 CASE CODE: 00779 DRAWING NO: 1825097  
 WEIGHT: CUSTOMER DRAWING SCALE: 4:1 SHEET 1 OF 6 REV: A2

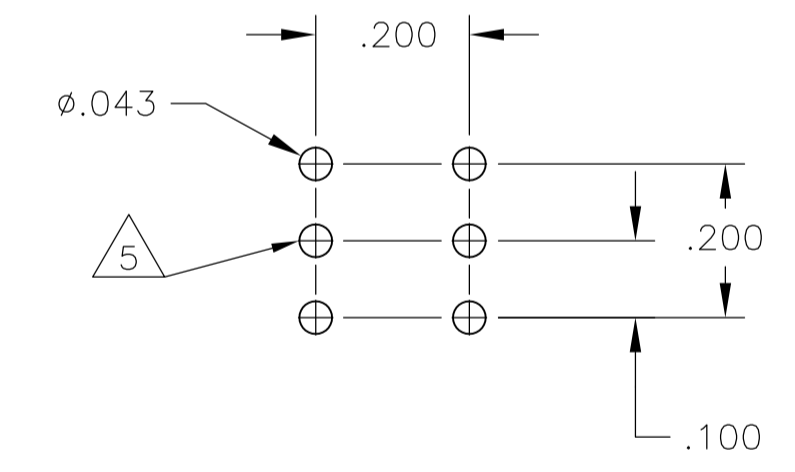
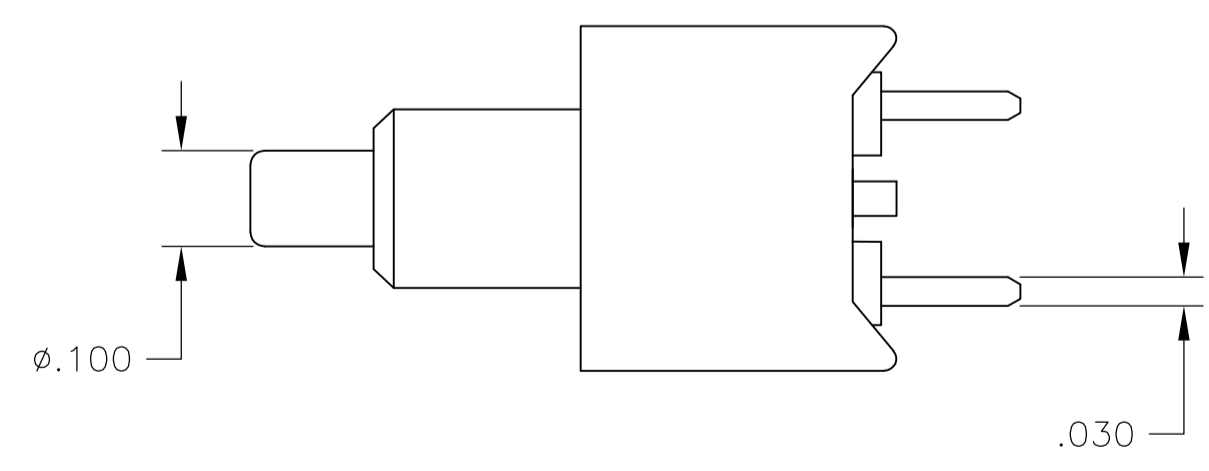
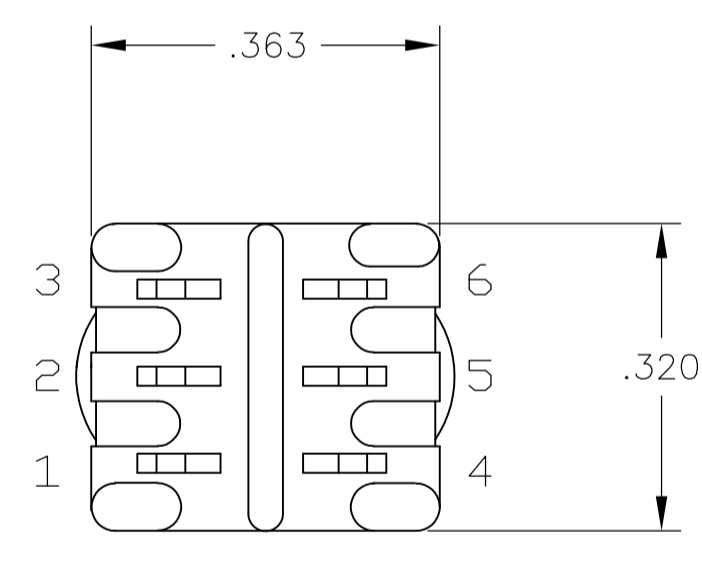
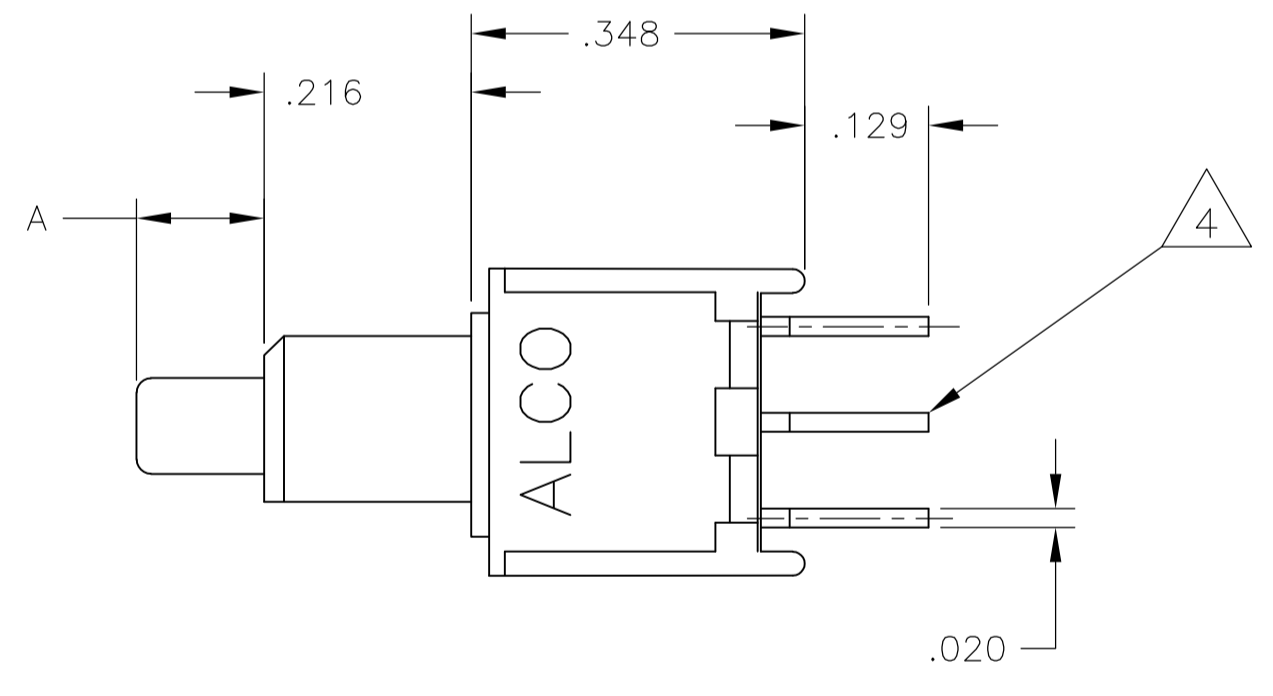
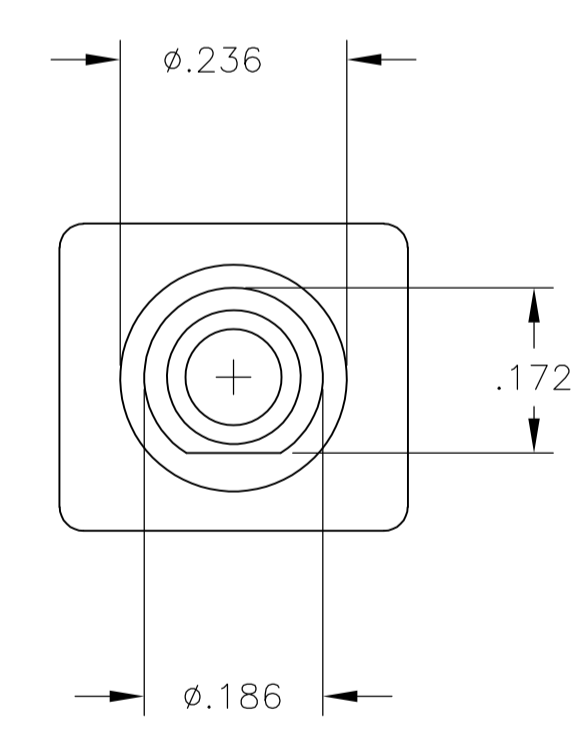
TE Connectivity  
 PUSHBUTTON SWITCH, TPB SERIES

LOC		DIST		REVISIONS			
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PCB HOLE LAYOUT

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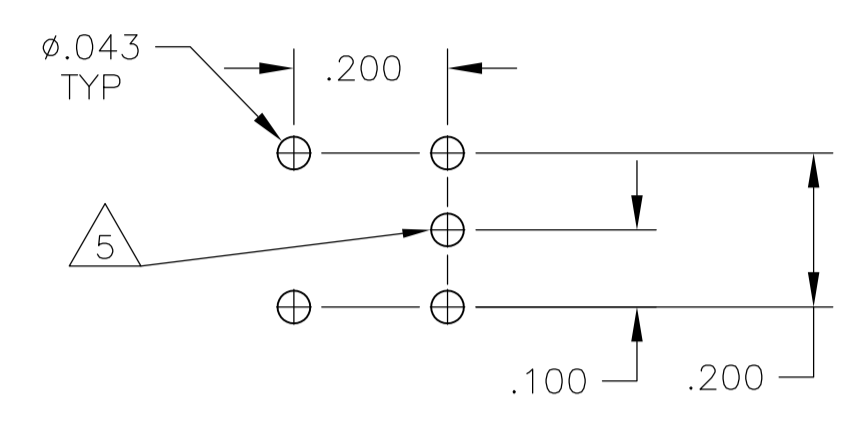
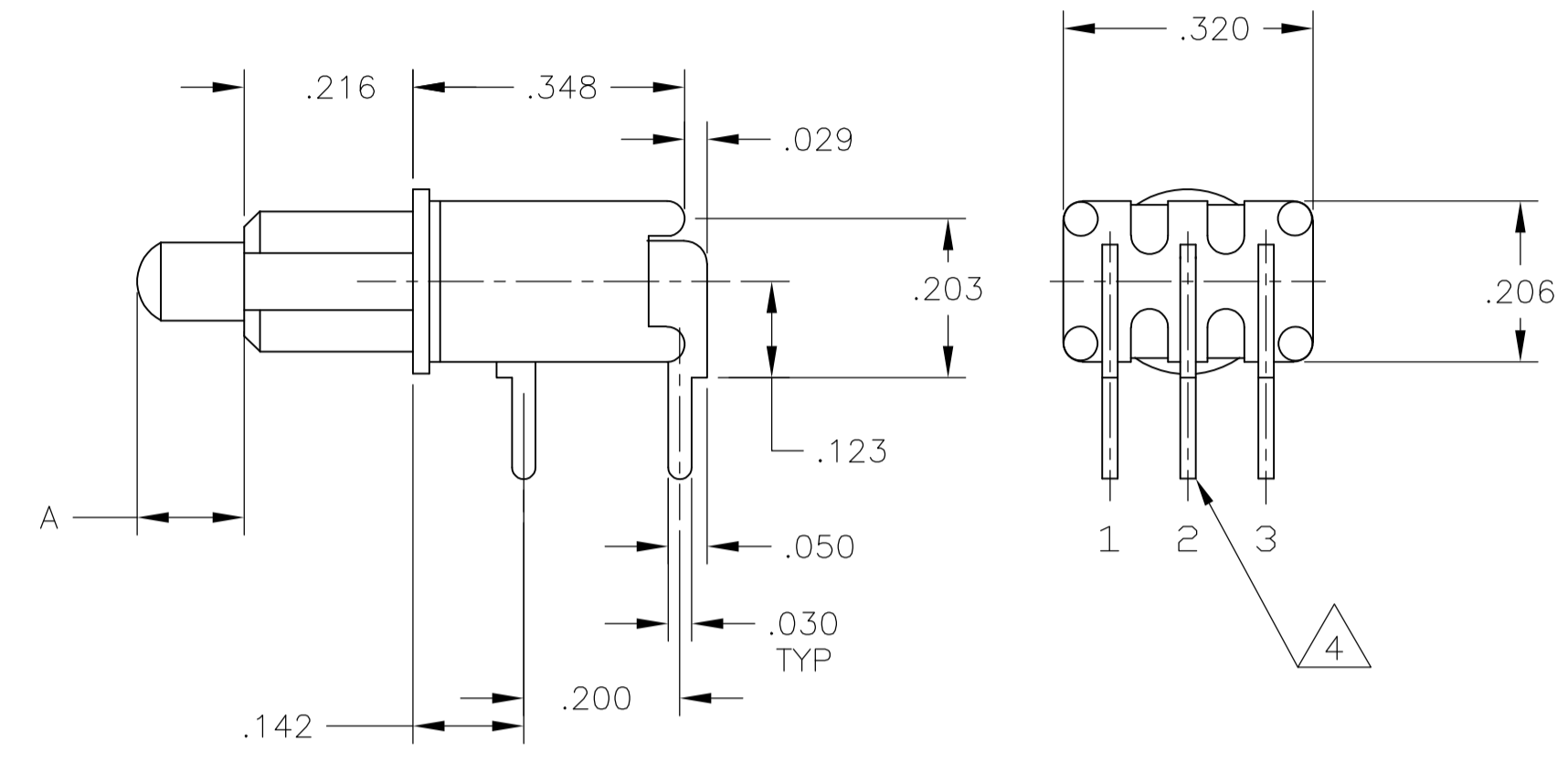
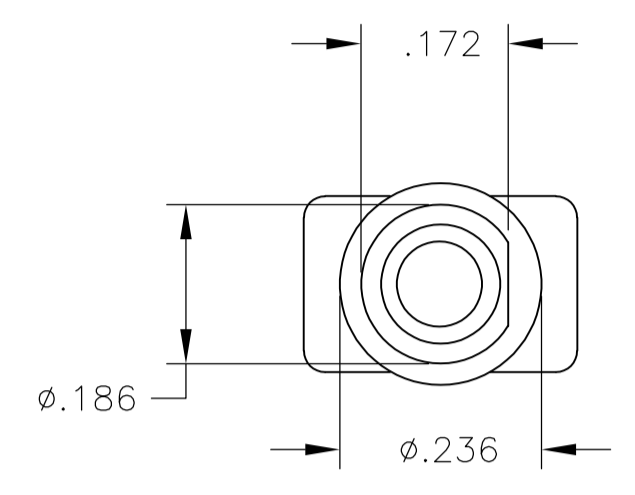
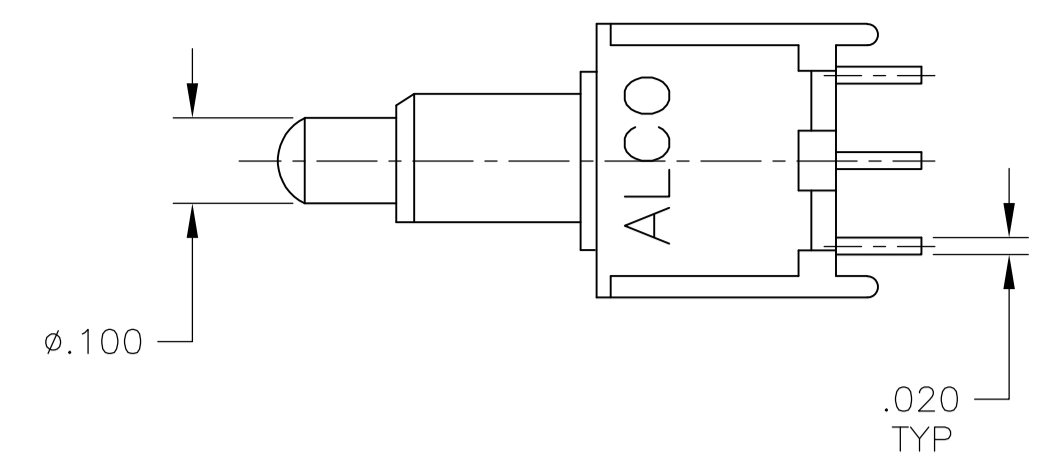


PCB HOLE LAYOUT

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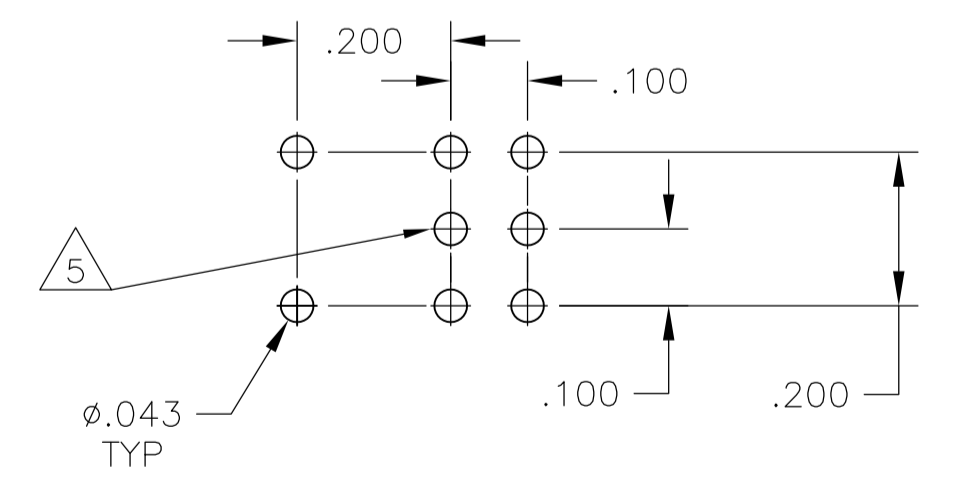
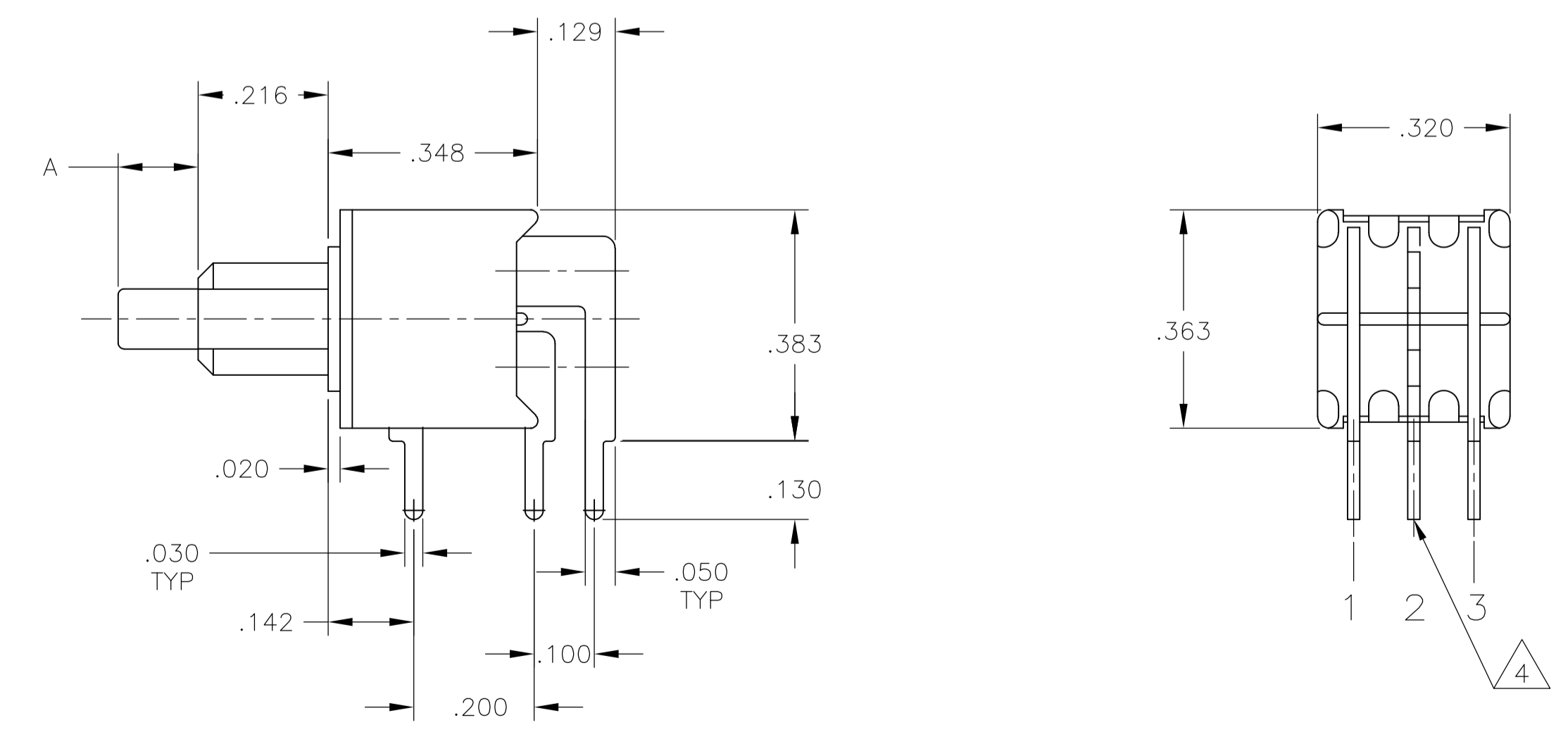
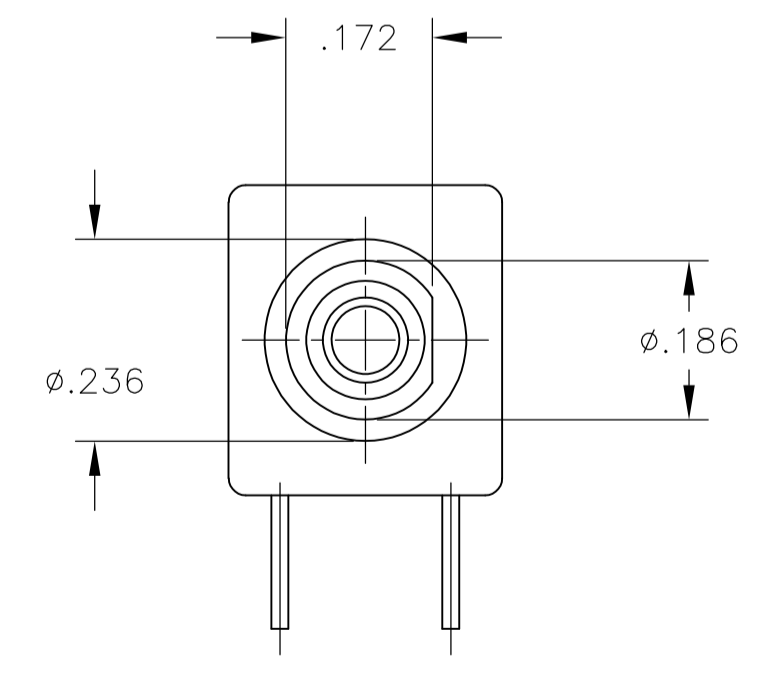
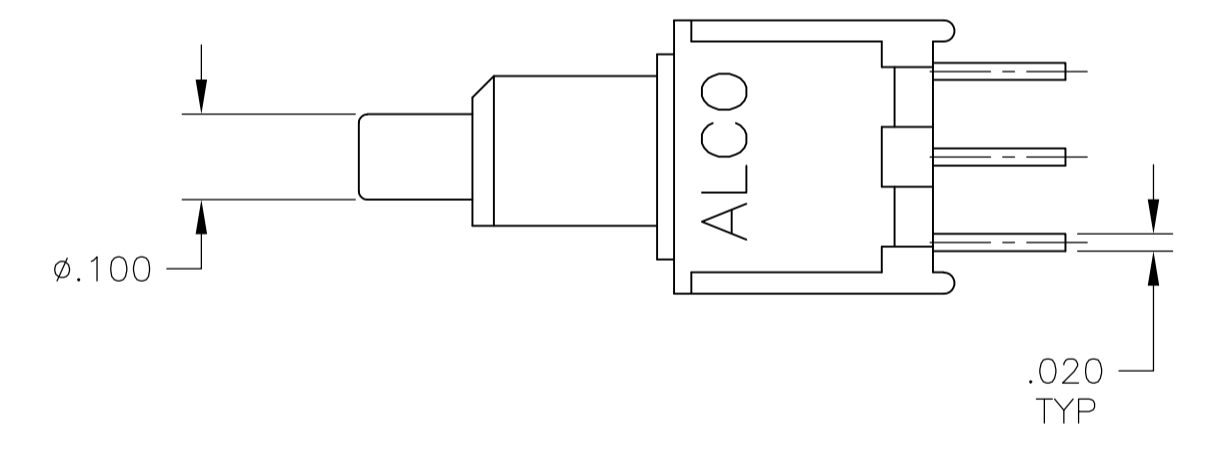
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ANGLES	± .010	SHEET		2	OF 6
FINISH	---	REV		A2	

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PCB HOLE LAYOUT

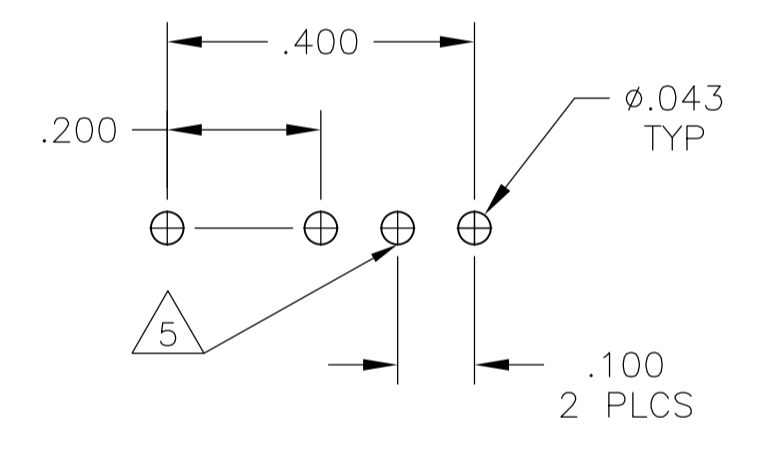
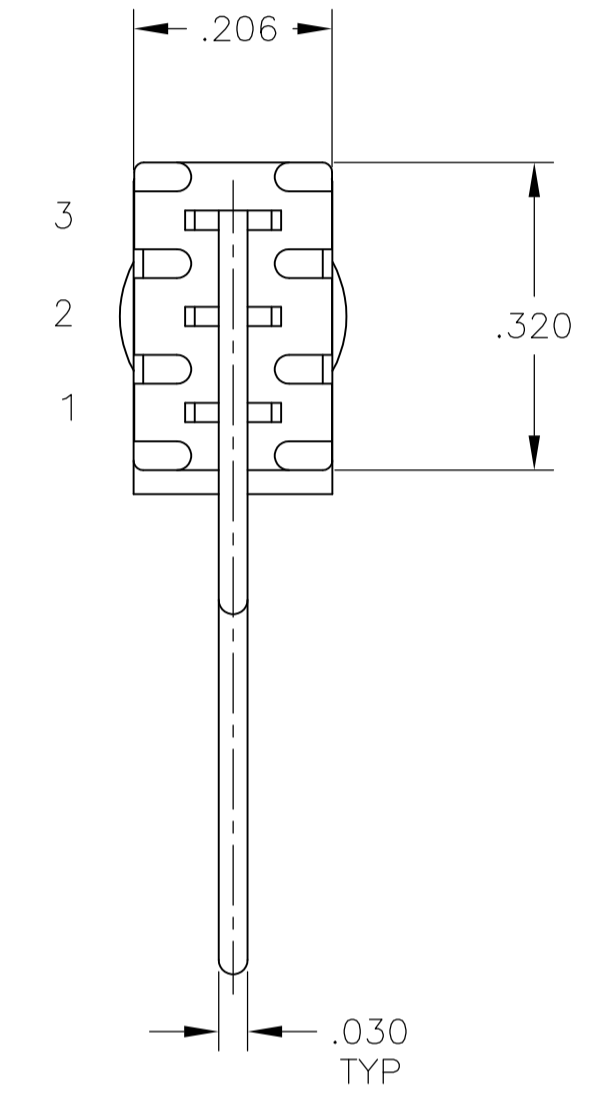
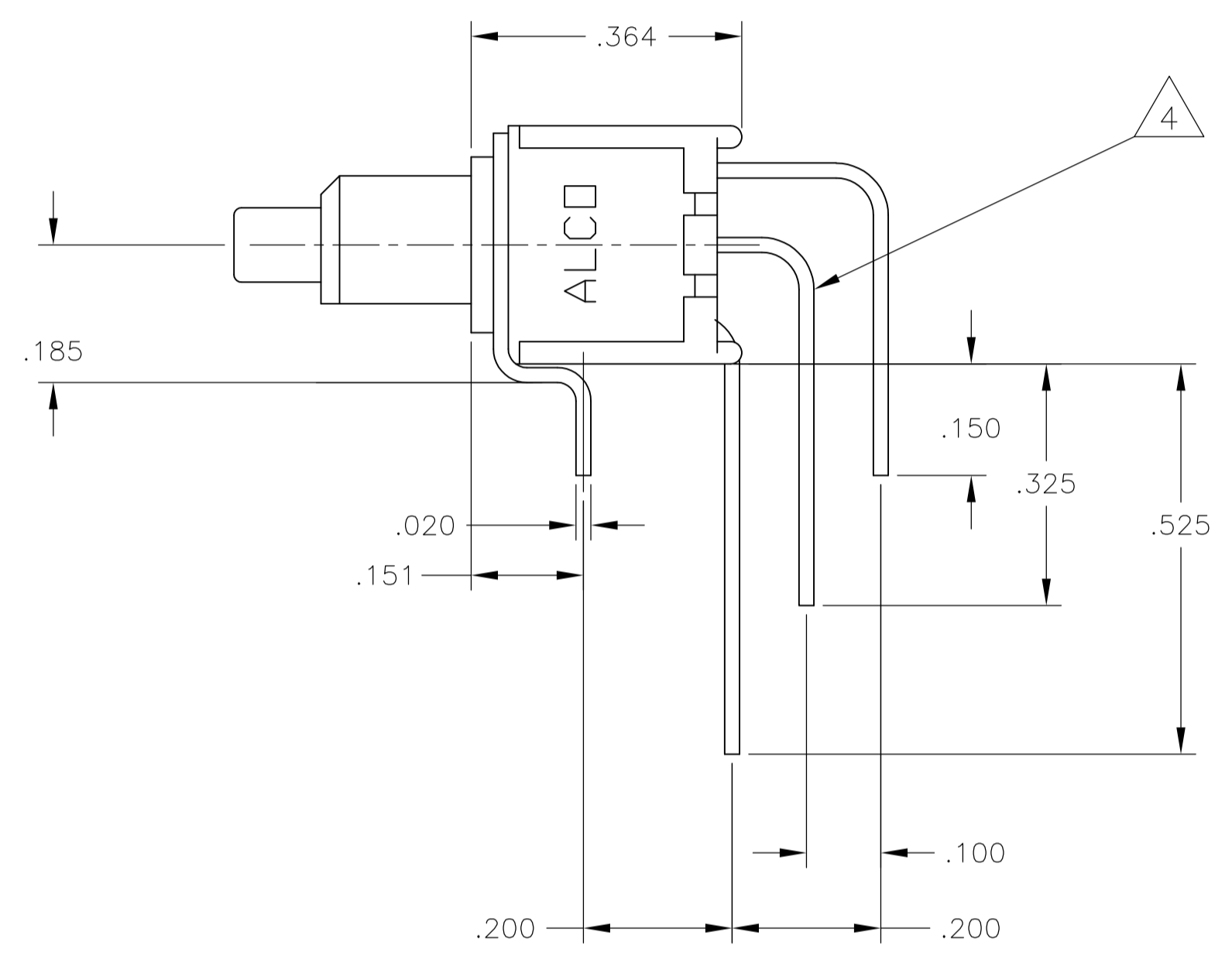
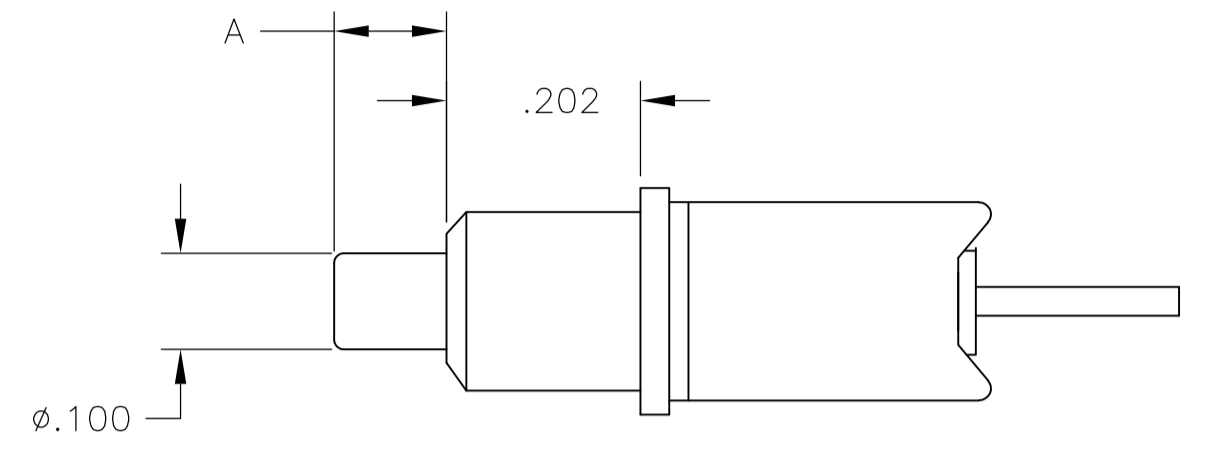
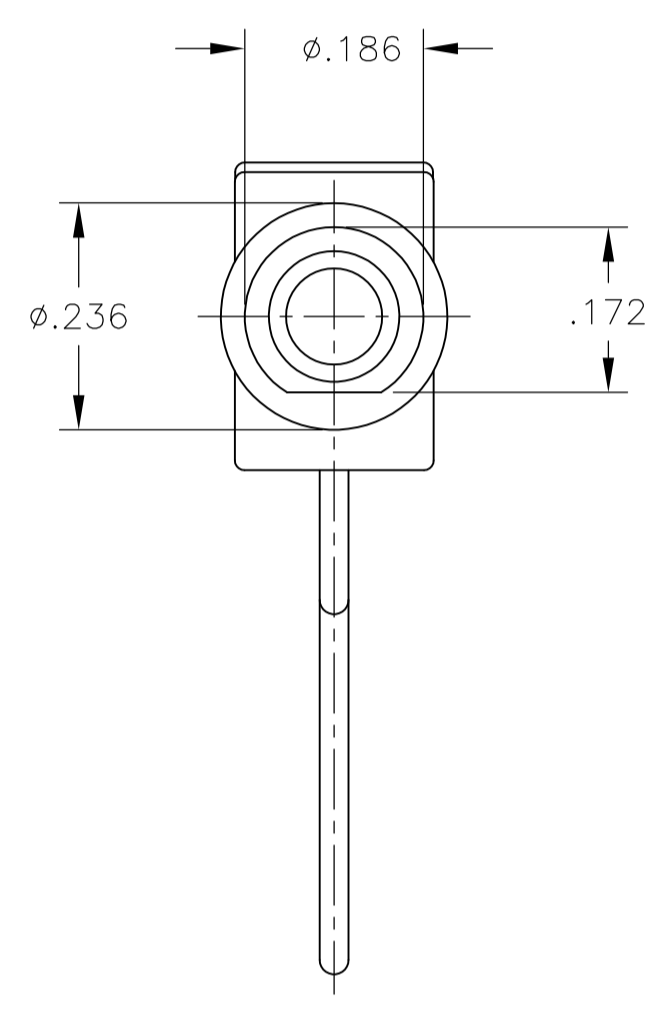
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TPBF11CGRA & TPBF11FGRA



PCB HOLE LAYOUT

TPB21MGRA & TPB21RGRA

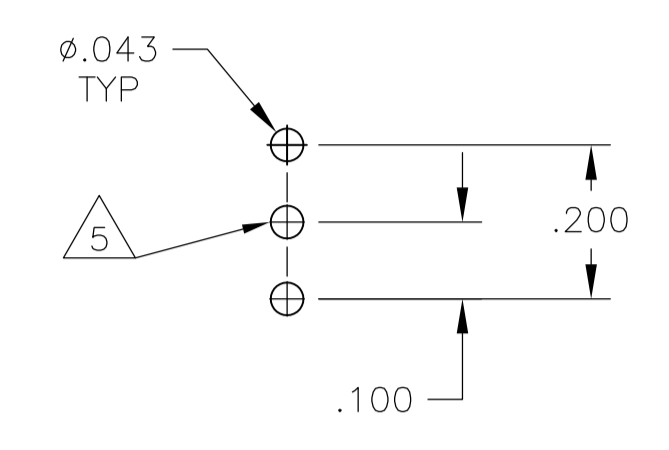
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				SHEET	3 OF 6
				REV	A2



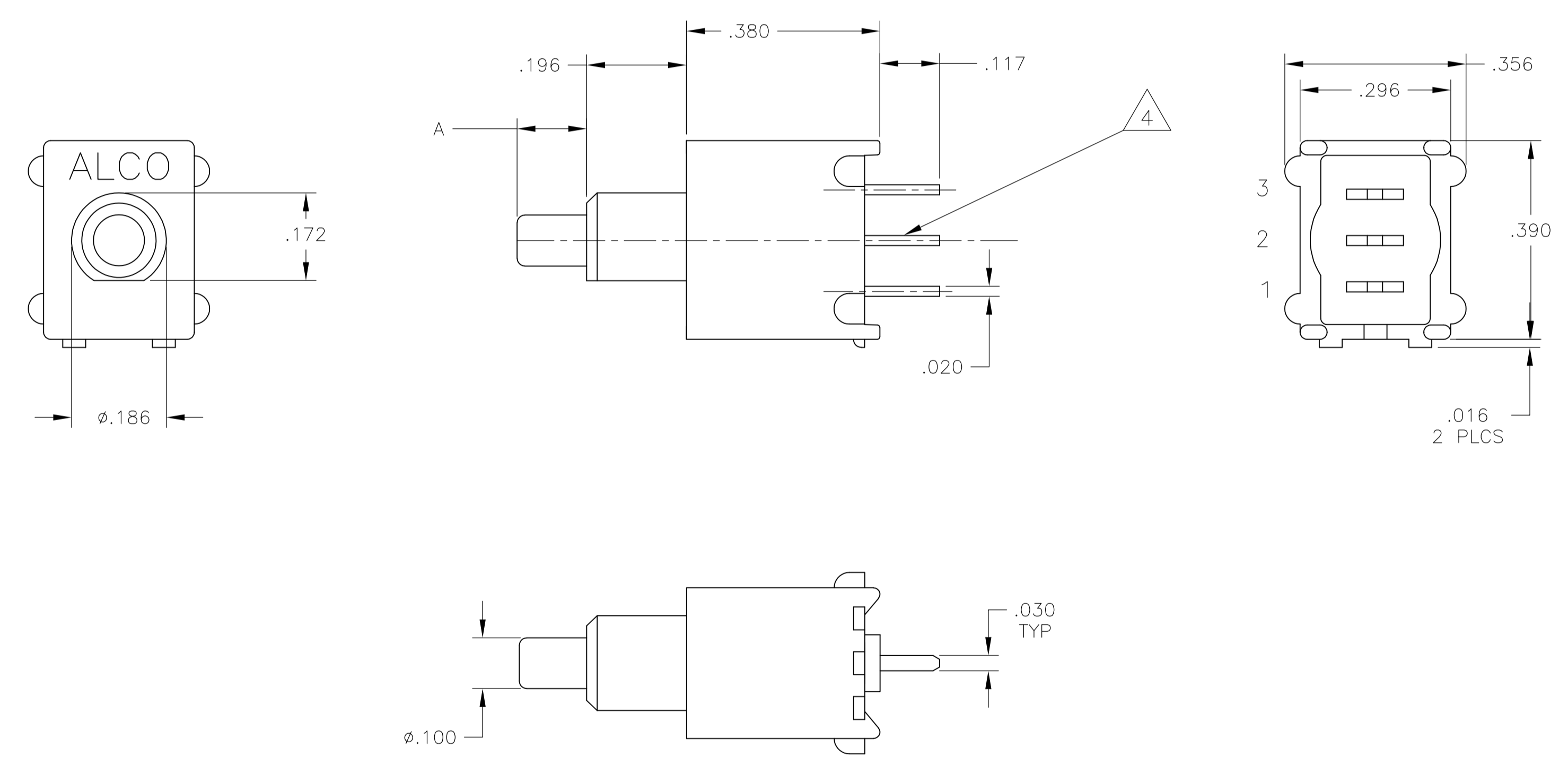
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TPB11CVRA & TPB11FGVRA

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		SHEET		4	OF 6
		REV		A2	



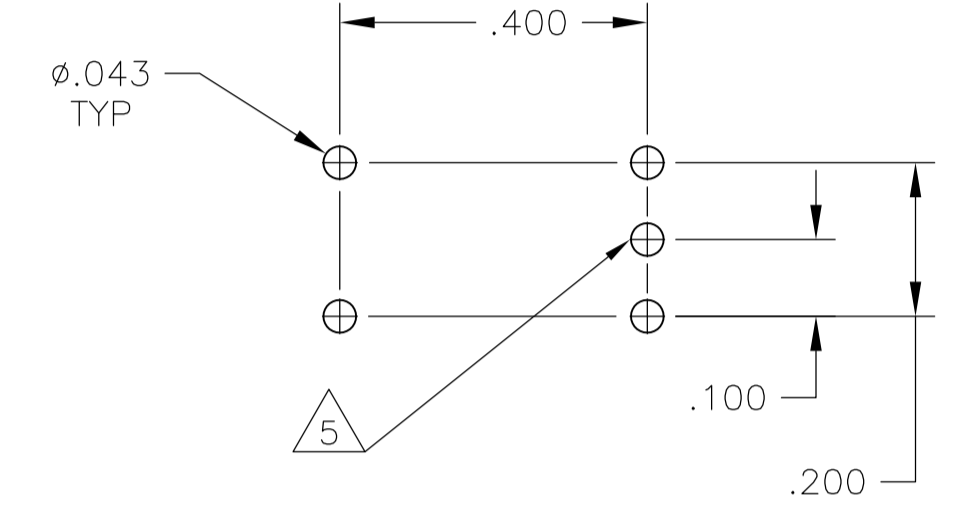
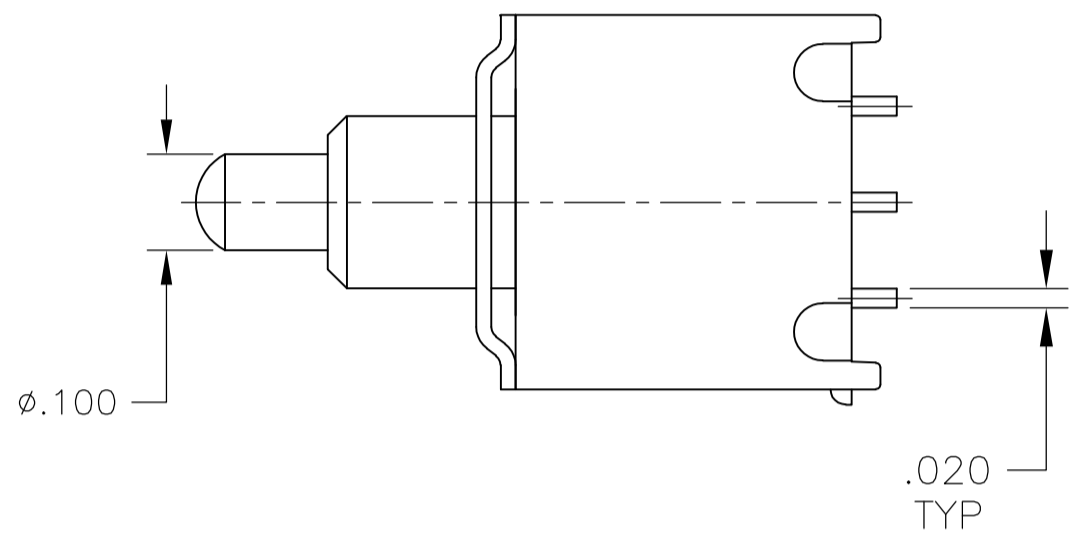
PCB HOLE LAYOUT



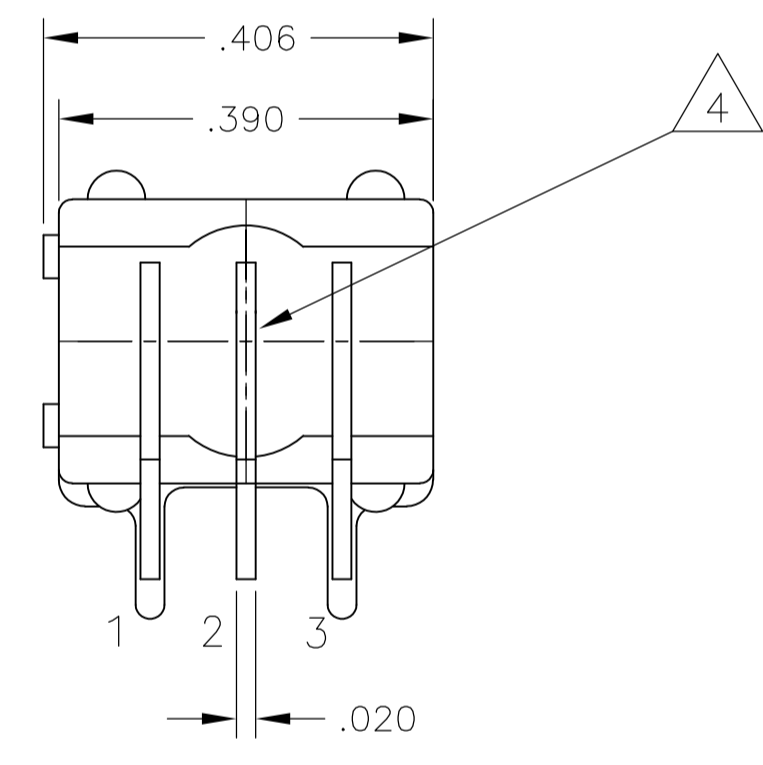
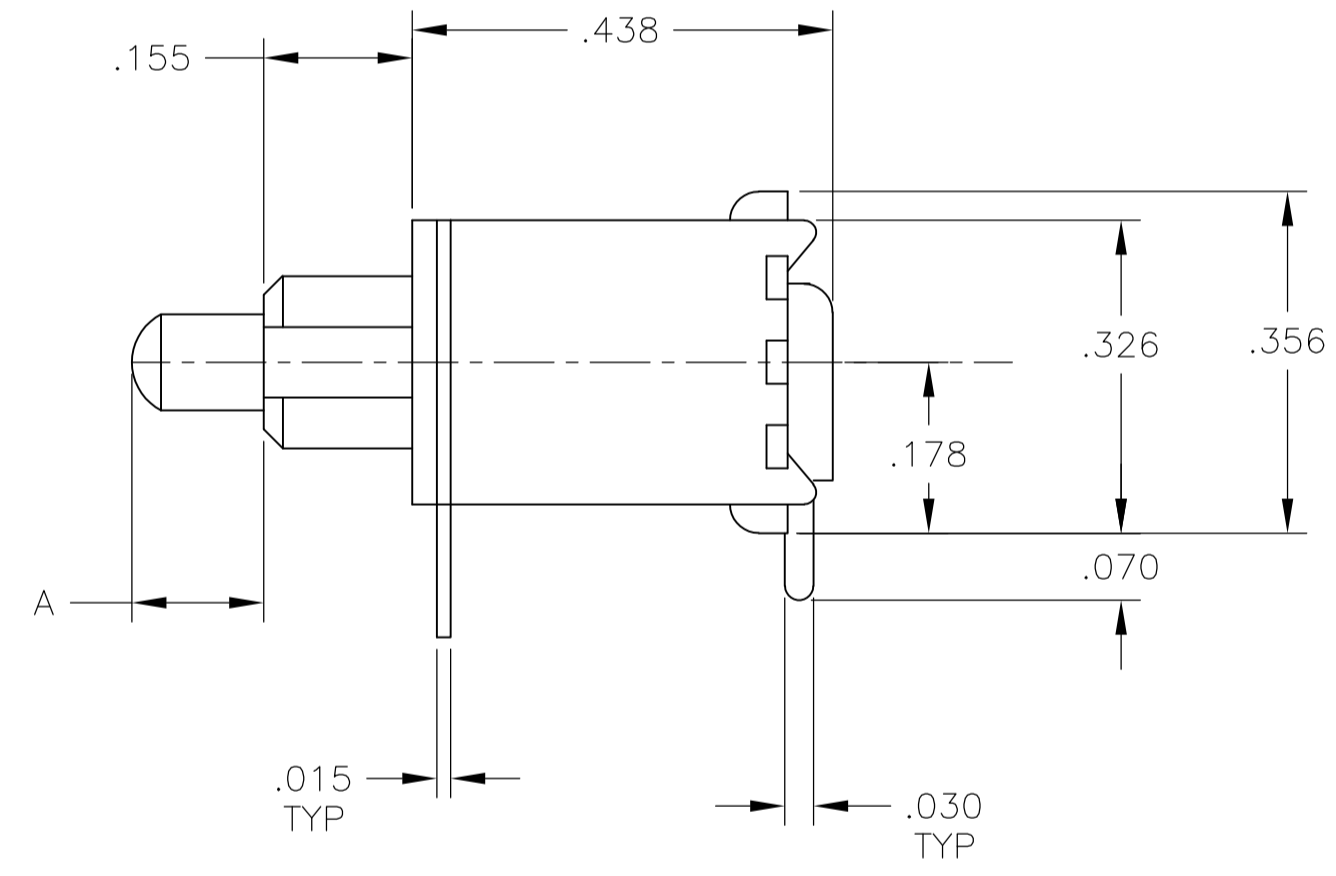
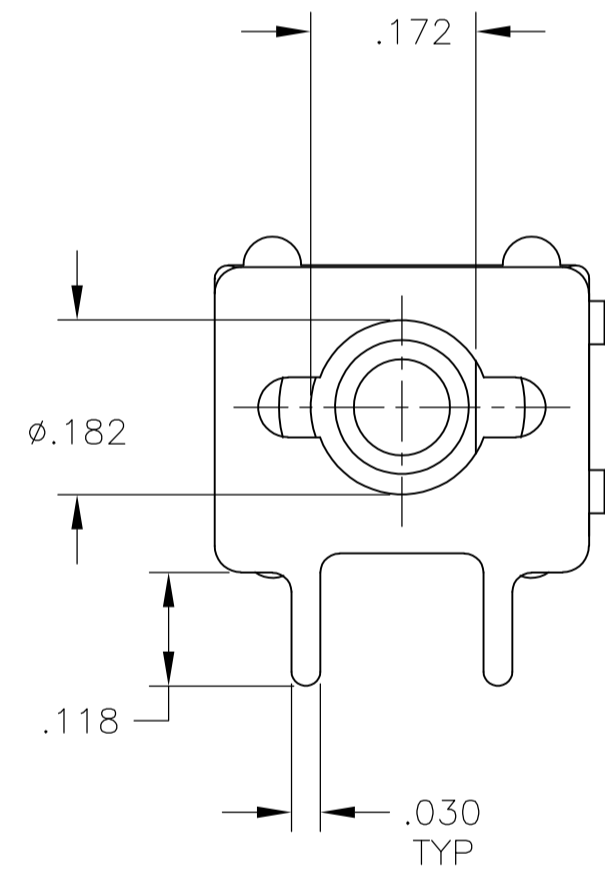
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1. PLC	± .010	APPLICATION SPEC		
2. PLC	± .010			
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4. PLC	± .010			
ANGLES	± .010			
MATERIAL		WEIGHT		RESTRICTED TO
			A1 00779 C=1825097	
CUSTOMER DRAWING		SCALE	4:1	SHEET 5 OF 6 REV A2

LOC		DIST		REVISIONS			
AD		P	LTR	DESCRIPTION	DATE	DN	APVD
				SEE SHEET 1			



PCB HOLE LAYOUT



TPB11CGRAES & TPB11FGRAES  
TPBF11CGRAES & TPBF11FGRAES

THIS DRAWING IS A CONTROLLED DOCUMENT.		DIN	M. BINNER	20JUL05	TE Connectivity																												
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MATERIAL		FINISH		WEIGHT	CUSTOMER DRAWING																												
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