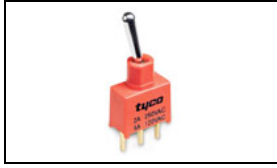


## 1825142-5 Product Details



**1825142-5**

(AE101MD1AV2B04)

TE Internal Number: 1825142-5

 Active

### Toggle Switches

 Always EU RoHS/ELV Compliant (Statement of Compliance)

#### Product Highlights:

- AE Series
- Single Pole - Double Throw Configuration (Pole-Throw)
- Current Rating = 0.4 VA A
- Mount Style = Through-Hole
- Termination Type = Vertical Right Angle

### Documentation & Additional Information

#### Product Drawings:

- [GEMINI AE SERIES TOGGLE SWITCH, SINGLE POLE](#) (PDF, English)

#### Catalog Pages/Data Sheets:

- [SWITCHES\\_CORE\\_PROGRAM\\_CATALOG](#) (PDF, English)
- [GEMINI\\_SERIES\\_SWITCHES\\_QUICK\\_REF\\_GUIDE\\_2-1773458-5](#) (PDF, English)

#### Product Specifications:

- None Available

#### Application Specifications:

- None Available

#### Instruction Sheets:

- None Available

#### CAD Files:

- None Available

#### Additional Information:

- [Product Line Information](#)

#### Additional Product Images:

- [Product Photo](#)
- [Dimensional Drawing](#)

#### Related Products:

- [Tooling](#)

### Product Features (Please use the Product Drawing for all design activity)

#### Product Type Features:

- Series = AE
- Termination Type = Vertical Right Angle

#### Electrical Characteristics:

- Current Rating (A) = 0.4 VA

#### Termination Features:

- Seal Type = Terminal Seal (epoxy)

#### Body Features:

- Mount Style = Through-Hole
- Bushing Style = Unthreaded
- Bushing Type = Plain

#### Contact Features:

- Contact Plating = Gold

#### Housing Features:

- Toggle Actuation = Vertical
- Toggle Style = Baton Short
- Toggle Length (mm [in]) = 7.62 [0.300]
- Process Sealed = Yes
- UL Flammability Rating = UL 94V-0

#### Configuration Features:

- Configuration (Pole-Throw) = Single Pole - Double Throw
- [Operating Function](#) = On On

#### Industry Standards:

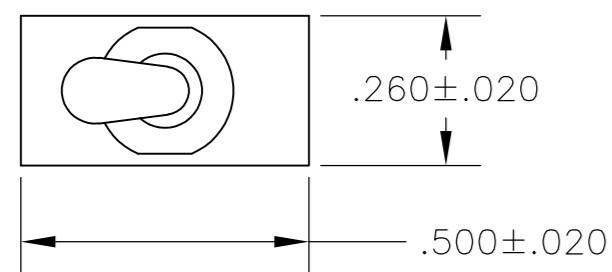
- [RoHS/ELV Compliance](#) = RoHS compliant, ELV compliant
- [Lead Free Solder Processes](#) = Wave solder capable to 240°C, Wave solder capable to 260°C, Wave solder capable to 265°C
- RoHS/ELV Compliance History = Always was RoHS compliant
- UL Rating = Contact Only

#### Other:

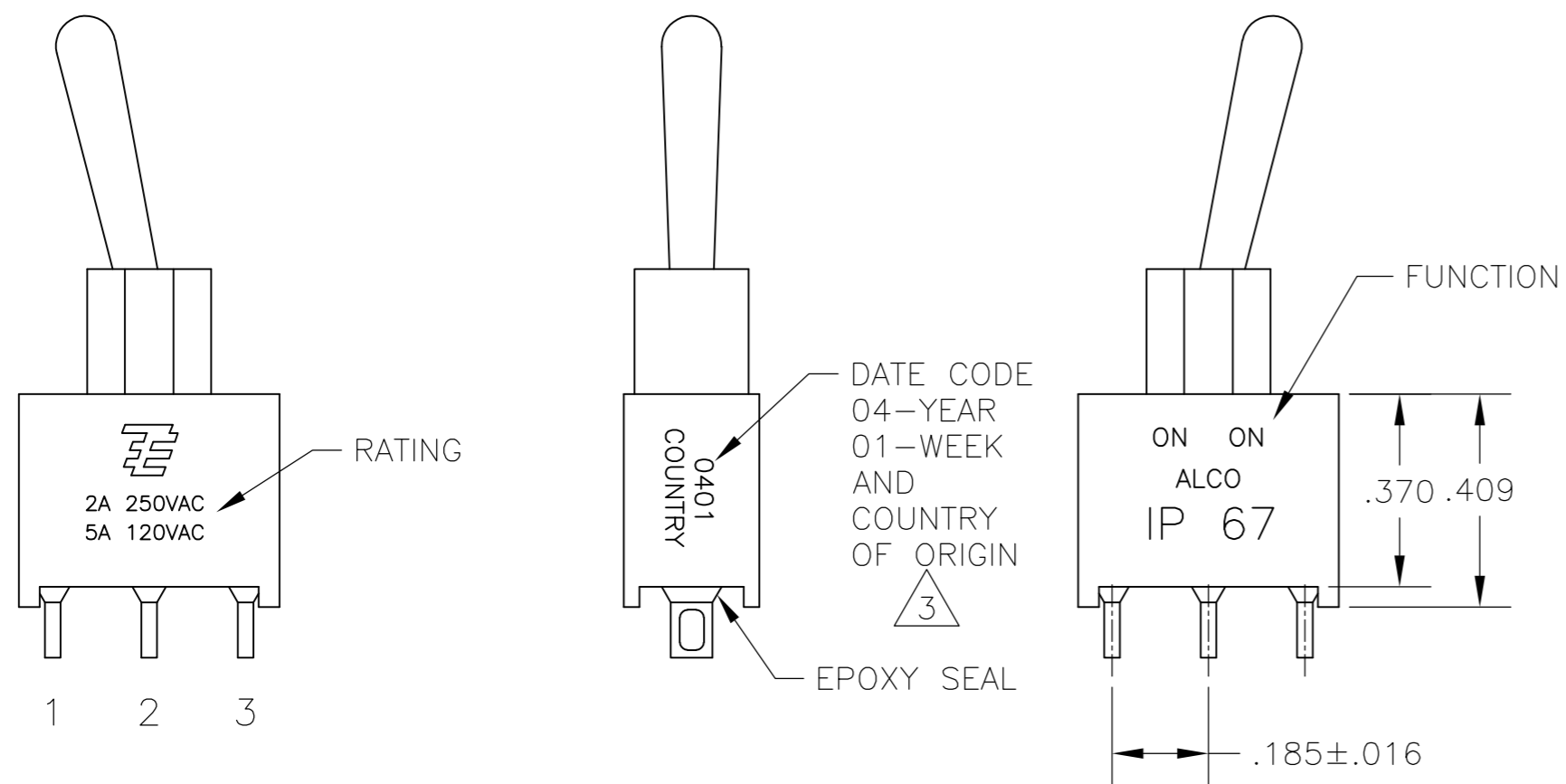
- Brand = Alcoswitch
- Comment = Process seal meets MIL-STD-202, Method 112 test cond. A & D at 85°C.

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LOC	DIST	REVISIONS					
AD	00	P	LTR	DESCRIPTION	DATE	DWN	APVD
		A3		REVISED PER ECO-10-009310	08MAY10	HMR	MW



- 1 ALL MATERIALS AND FINISHES SHALL COMPLY WITH EU DIRECTIVE 2002/95/EC OF 27JAN2003 (ROHS).
- 2 G CONTACT OPTION CAN BE USED FOR SIGNAL OR POWER LEVEL SWITCHING. IF SWITCH IS USED AT LEVELS EXCEEDING .4VA @ 20V AC/DC, SWITCH IS RENDERED FOR POWER SWITCHING ONLY DUE TO ARC REMOVAL OF GOLD PLATING. RATING STAMPED ON SWITCH IS 2A 250VAC, 5A 120VAC.
- 3 SWITCHES MEETS REQUIREMENTS OF IP67.
- 4 DATE CODE AND COUNTRY OF ORIGIN MAY APPEAR ON EITHER SIDE OF SWITCH.



### FUNCTION CHART

FUNCTION	1 2 3	1 2 3	1 2 3
01	ON	NONE	ON
03	ON	OFF	ON
05	(ON)	OFF	(ON)
07	ON	OFF	(ON)
08	ON	NONE	(ON)
TERMINALS CONNECTED	2-3	---	1-2

NONE: NO MECHANICAL POSITION  
 OFF: MECHANICAL POSITION WITH NO MECHANICAL CONNECTION  
 (ON): MOMENTARY ACTION

### SPECIFICATIONS CHART

RATING, B CONTACTS	.4VA MAX @20V MAX. AC OR DC
RATING, G CONTACTS—SEE NOTE 2	.4VA MAX @20V MAX. AC OR DC OR
	5A @120 VAC OR 28 VDC (RESISTIVE)
RATING, Q CONTACTS	2A @250 VAC (RESISTIVE)
	5A @120 VAC OR 28 VDC (RESISTIVE)
ELECTRICAL LIFE	6,000 CYCLES AT RATED LOAD
CONTACT RESISTANCE	10 MILLIOHMS MAX INITIAL @ 2-4VDC, 100ma
INSULATION RESISTANCE	1,000 MEGOHMS MIN
DIELECTRIC WITHSTANDING VOLTAGE	1,000 V RMS AT SEA LEVEL
OPERATING TEMPRATURE	-30C TO 85C

### PART NUMBER SEQUENCE CHART

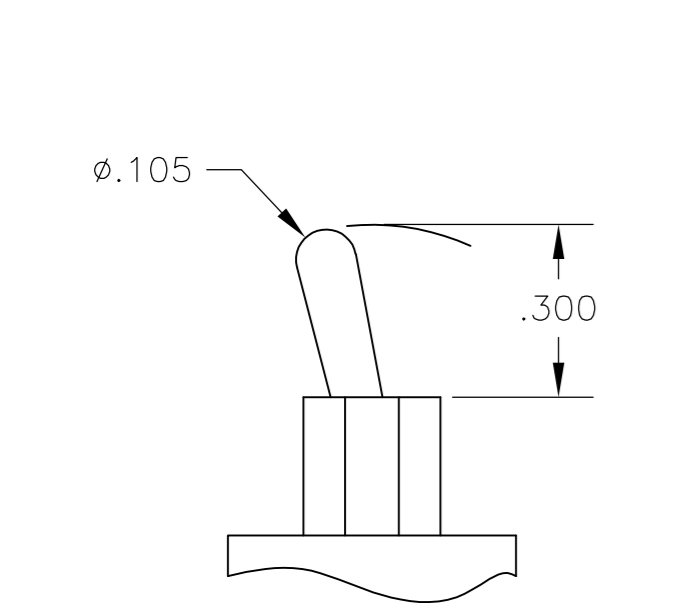
MODEL	FUNCTION	TOGGLE	BUSHING	TERMINAL	CONTACT	RoHS
AE1	01	M	D1	A	B	04
	03	S		AV2	G	
	05			C	Q	
	07			V30		
	08			V40		
				W		
				W4		
				Z		
		Z3				

EXAMPLE: AE101SD1CQ04

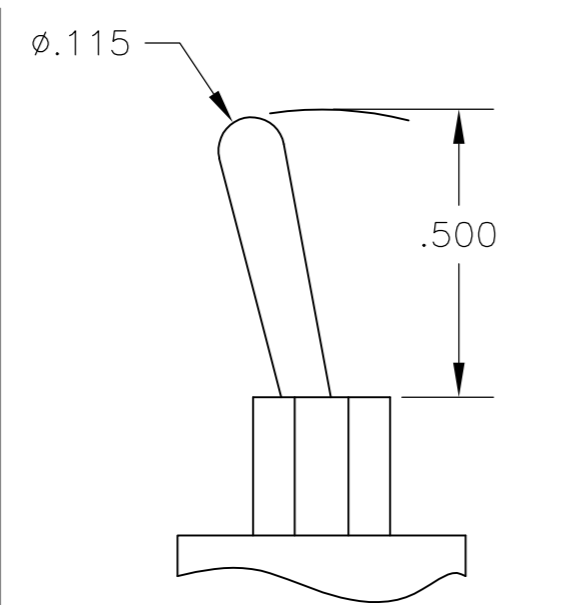
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN M. ZITTO 18MAY05	Tyco Electronics Corporation Harrisburg, Pa 17105-3608			
DIMENSIONS: INCHES		CHK M. ZITTO				
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD M. ZITTO	NAME GEMINI AE SERIES TOGGLE SWITCH, SINGLE POLE			
0 PLC ± -		PRODUCT SPEC				
1 PLC ± -		APPLICATION SPEC	SIZE A2	CAGE CODE 00779	DRAWING NO C=1825142	RESTRICTED TO -
2 PLC ± -		WEIGHT -	SCALE 3:1	SHEET 1 of 3	REV A3	
3 PLC ± .010		CUSTOMER DRAWING				
4 PLC ± -						
ANGLES ± 2°						
MATERIAL -						
FINISH -						

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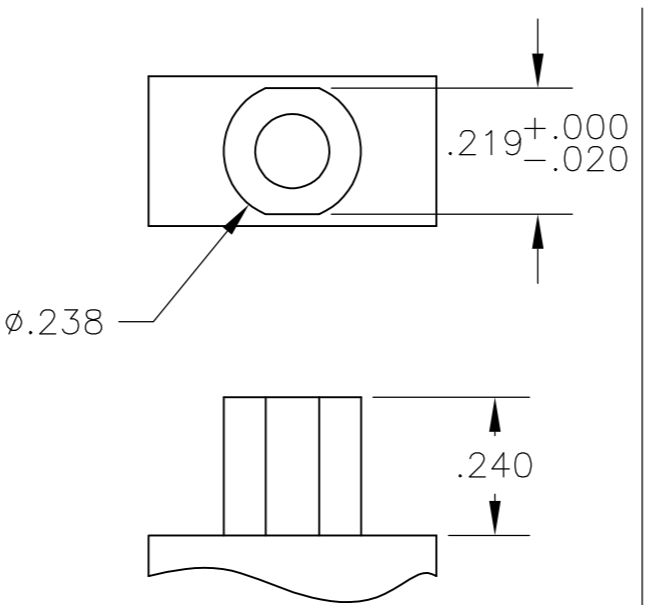
LOC		DIST		REVISIONS			
P	LTR	DATE	DWN	APVD	DESCRIPTION		
AD	00				SEE SHEET 1		



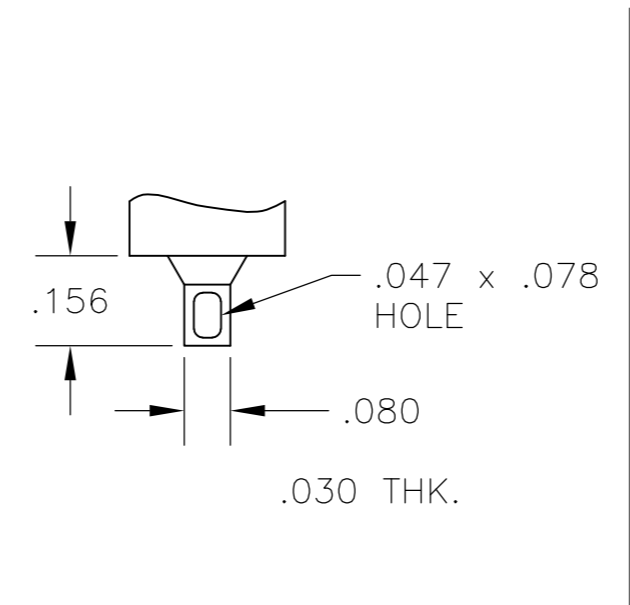
**M** SHORT



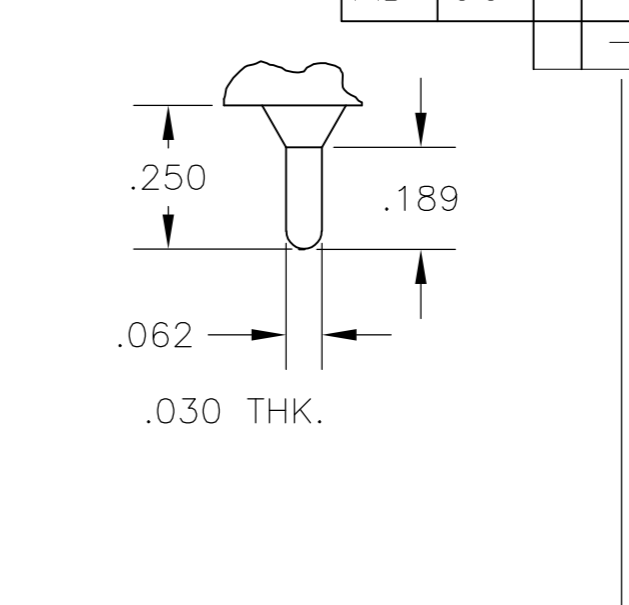
**S** STANDARD



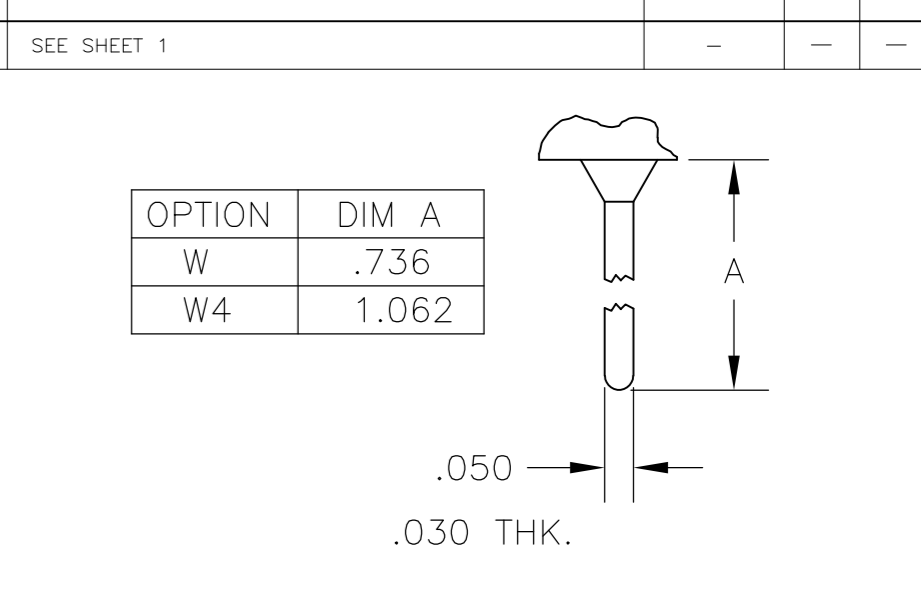
**D1** BUSHING



**Z** WIRE LUG

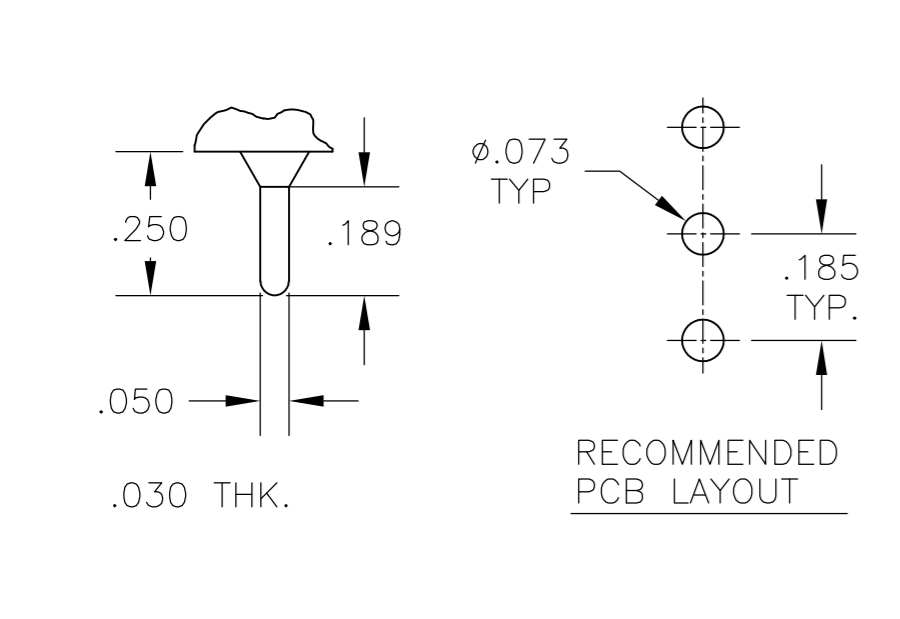


**Z3** QUICK CONNECT

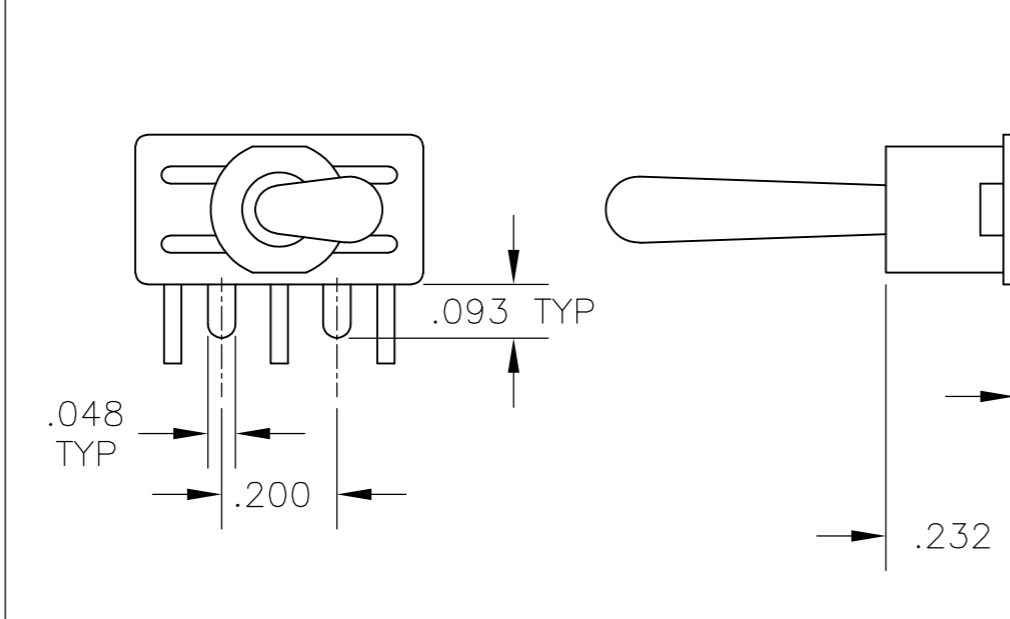


**W** **W4** WIRE WRAP

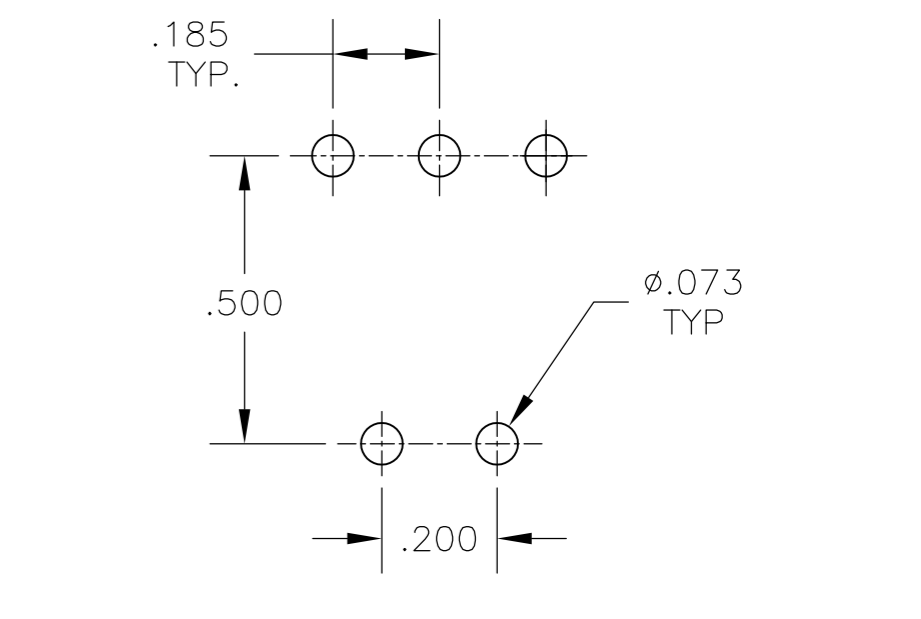
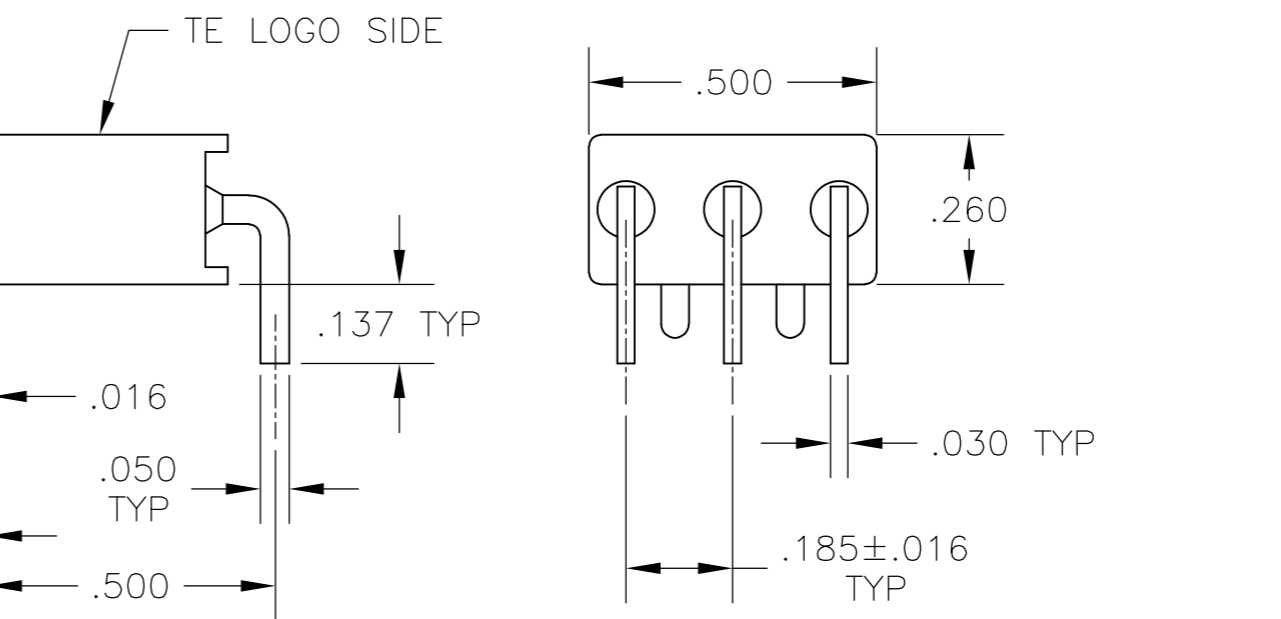
OPTION	DIM A
W	.736
W4	1.062



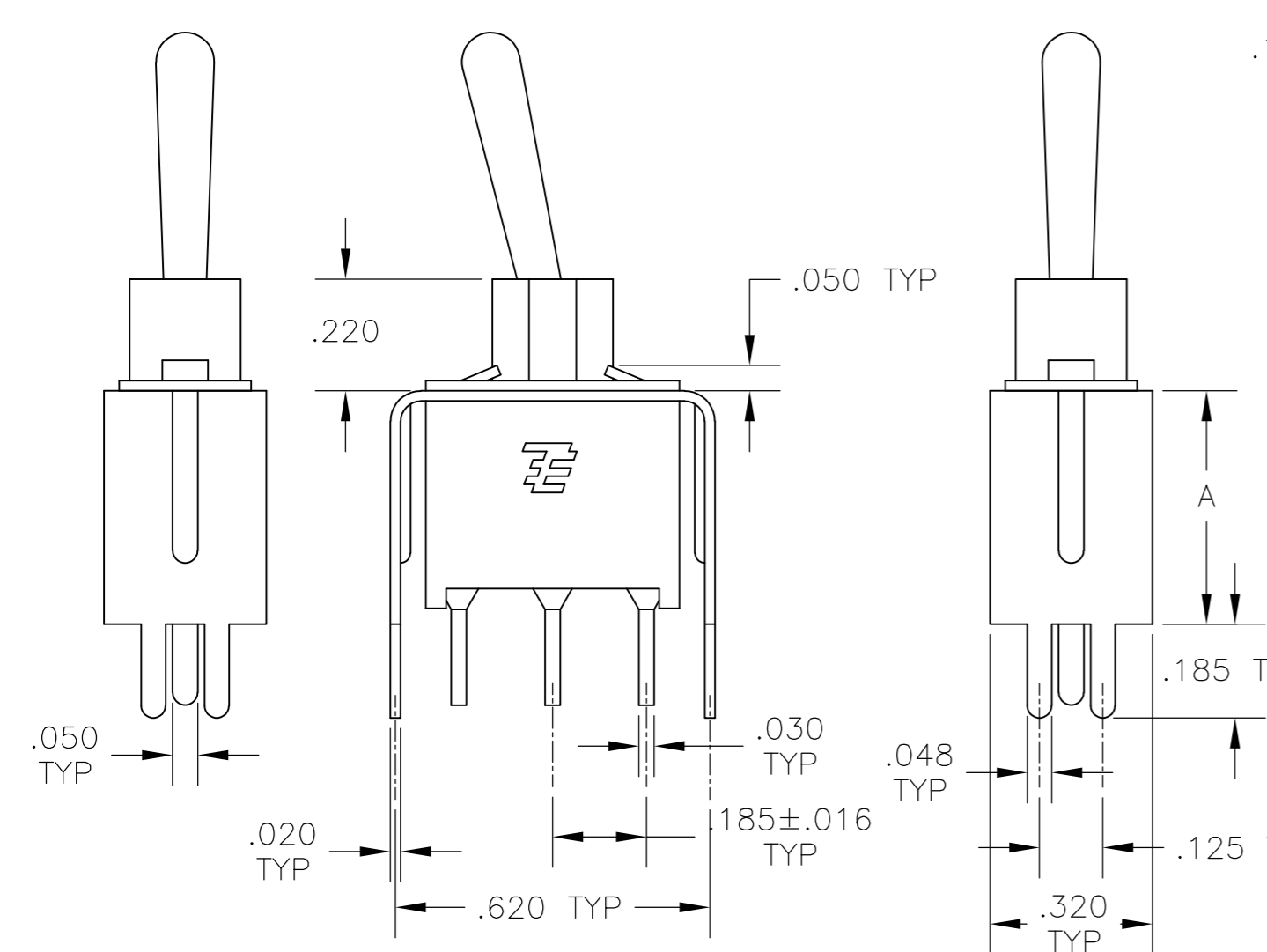
**C** PRINTED CIRCUIT



**A** RIGHT ANGLE

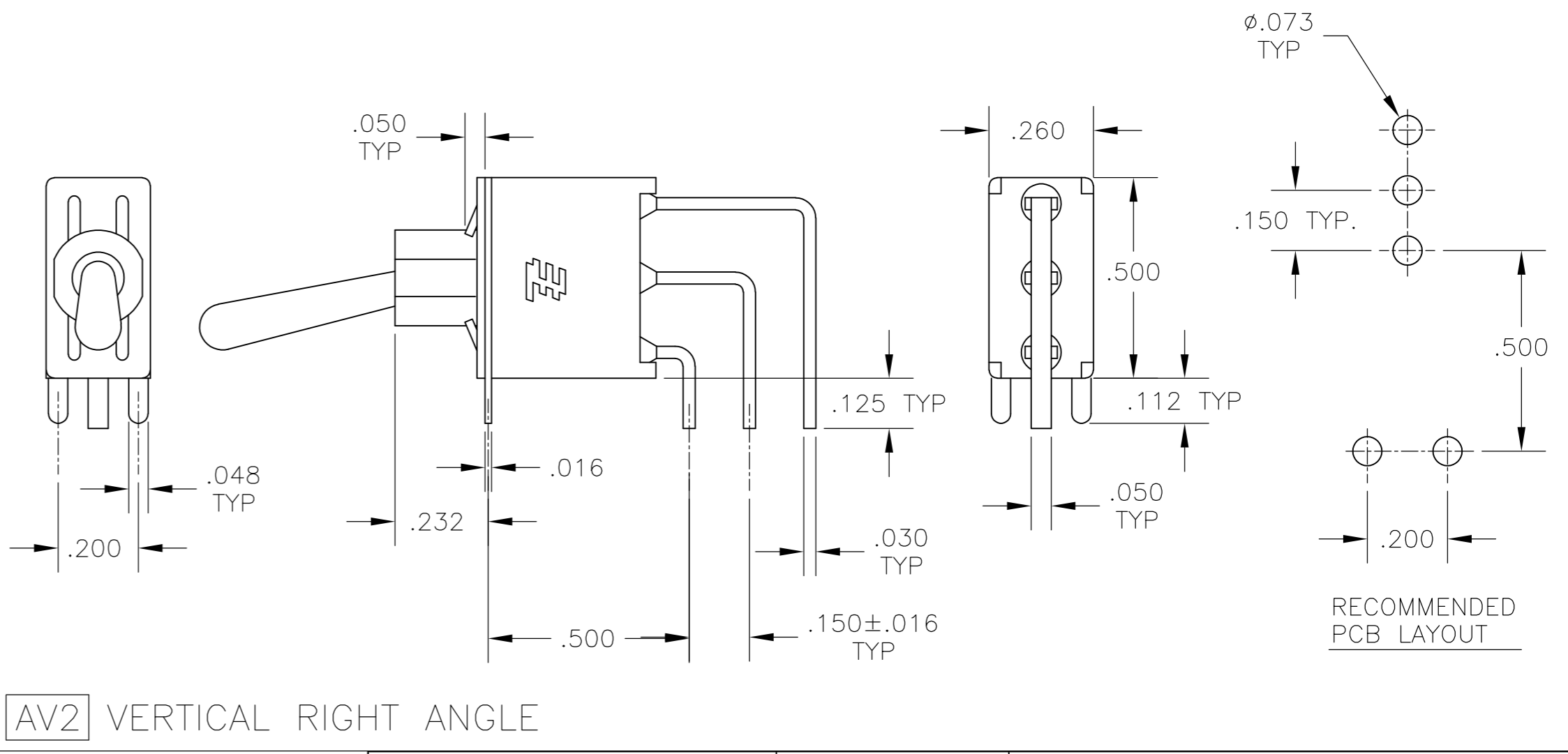


RECOMMENDED PCB LAYOUT



**V30** **V40** VERTICAL SUPPORT BRACKET

OPTION	DIM A
V30	.460
V40	.630



**AV2** VERTICAL RIGHT ANGLE

RECOMMENDED PCB LAYOUT

THIS DRAWING IS A CONTROLLED DOCUMENT.

DWN	M. ZITTO	18MAY05
CHK	M. ZITTO	-
APVD	M. ZITTO	-
PRODUCT SPEC	-	-
APPLICATION SPEC	-	-
WEIGHT	-	-
CUSTOMER DRAWING	-	-

SIZE	A2	CAGE CODE	00779	DRAWING NO	C=1825142	RESTRICTED TO	-
SCALE	3:1	SHEET	2 of 3	REV	A3		

**Tyco Electronics** Tyco Electronics Corporation  
Harrisburg, Pa 17105-3608

GEMINI AE SERIES TOGGLE SWITCH, SINGLE POLE

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LOC	DIST	REVISIONS			
P	LTR	DESCRIPTION	DATE	DWN	APVD
AD	00	SEE SHEET 1	-	-	-

Alco P/N	TE P/N
AE101MD1AB04	1825142-1
AE101MD1AG04	1825142-2
not assigned	1825142-3
AE101MD1AQ04	1825142-4
AE101MD1AV2B04	1825142-5
AE101MD1AV2Q04	1825142-6
not assigned	1825142-7
AE101MD1CB04	1825142-8
AE101MD1CG04	1825142-9
AE101MD1CQ04	1-1825142-0
AE101MD1V30B04	1-1825142-1
AE101MD1V30Q04	1-1825142-2
AE101MD1W4B04	1-1825142-3
AE101MD1W4Q04	1-1825142-4
AE101SD1AB04	1-1825142-5
AE101SD1AQ04	1-1825142-6
not assigned	1-1825142-7
AE101SD1AV2B04	1-1825142-8
AE101SD1AV2Q04	1-1825142-9
AE101SD1CB04	2-1825142-0
AE101SD1CQ04	2-1825142-1
AE101SD1V30B04	2-1825142-2
AE101SD1V30Q04	2-1825142-3
AE103MD1AB04	2-1825142-4
AE103MD1AV2B04	2-1825142-5
AE103MD1CB04	2-1825142-6
NOT ASSIGNED	2-1825142-7
AE103MD1W4B04	2-1825142-8
AE103SD1AV2B04	2-1825142-9
AE103SD1CB04	3-1825142-0
AE103SD1CQ04	3-1825142-1
not assigned	3-1825142-2
AE103SD1V30B04	3-1825142-3
AE103SD1W4B04	3-1825142-4
AE105MD1AB04	3-1825142-5
AE105MD1AG04	3-1825142-6
AE105MD1AV2B04	3-1825142-7
AE105MD1W4B04	3-1825142-8
AE105SD1CB04	3-1825142-9
AE105SD1V30B04	4-1825142-0

Alco P/N	TE P/N
AE105SD1W4B04	4-1825142-1
AE107MD1AV2B04	4-1825142-2
AE107SD1AB04	4-1825142-3
AE107SD1AG04	4-1825142-4
AE107SD1CB04	4-1825142-5
AE107SD1V30B04	4-1825142-6
AE108MD1AQ04	4-1825142-7
AE108MD1AV2B04	4-1825142-8
AE108MD1AV2Q04	4-1825142-9
AE108SD1AB04	5-1825142-0
AE108SD1AQ04	5-1825142-1
AE108SD1CQ04	5-1825142-2
not assigned	5-1825142-3
AE108SD1V30B04	5-1825142-4
AE108SD1W4B04	5-1825142-5

MATERIALS CHART		
COMPONENT NAME	BASE MATERIAL	FINISH
CASE & BUSHING	NYLON, RED, UL94 V-0	
O-RING	PVC, BLACK	
B TERMINALS & CONTACTS	COPPER	GOLD OVER NICKEL
G TERMINALS & CONTACTS	COPPER	GOLD OVER SILVER
Q TERMINALS & CONTACTS	COPPER	GOLD FLASH OVER SILVER
ACTUATOR	PHENOLIC, BLACK, UL94 V-1	
LEVER	BRASS	CHROME
SPRING	MUSIC WIRE	
PIVOT PIN	STEEL	NICKEL
LOCK WASHER	STAINLESS STEEL	
LOCKING RING	STAINLESS STEEL	
NUTS	BRASS	NICKEL
TERMINAL SEAL	EPOXY, UL94V-0	
MARKING	INK, BLACK	
SUPPORT BRACKET	BRASS OR STEEL	TIN
SUPPORT BRACKET RETAINER	STAINLESS STEEL	

AE105MD1W4B04	3-1825142-8
AE105SD1CB04	3-1825142-9
AE105SD1V30B04	4-1825142-0

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DIMENSIONS: INCHES		CHK M. ZITTO	-	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD M. ZITTO	-	
		PRODUCT SPEC	-	
0 PLC ± - 1 PLC ± - 2 PLC ± - 3 PLC ± .010 4 PLC ± - ANGLES ± 2°		APPLICATION SPEC	-	NAME GEMINI AE SERIES TOGGLE SWITCH, SINGLE POLE
MATERIAL	FINISH	WEIGHT	-	SIZE A2
-	-	CUSTOMER DRAWING	-	CAGE CODE 00779
			SCALE 3:1	DRAWING NO 1825142
			SHEET 3 of 3	RESTRICTED TO -
			REV A3	

1825142

A