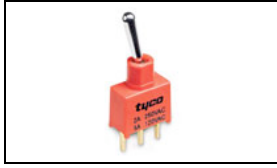


2-1825142-4 Product Details



2-1825142-4
(AE103MD1AB04)

TE Internal Number: 2-1825142-4

 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 = 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 = 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 = Horizontal
- 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 Off On

Industry Standards:

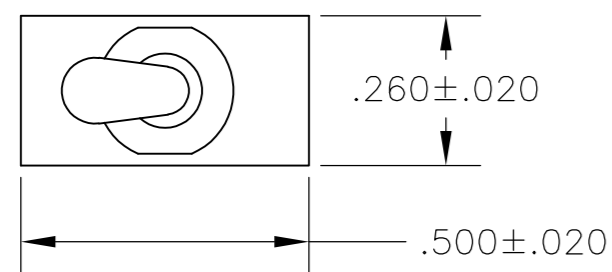
- [RoHS/ELV Compliance](#) = RoHS compliant, ELV compliant
- [Lead Free Solder Processes](#) = Wave solder capable to 260°C, Wave solder capable to 240°C, Wave solder capable to 265°C
- RoHS/ELV Compliance History = Always was RoHS compliant
- UL Rating = Contact Only

Other:

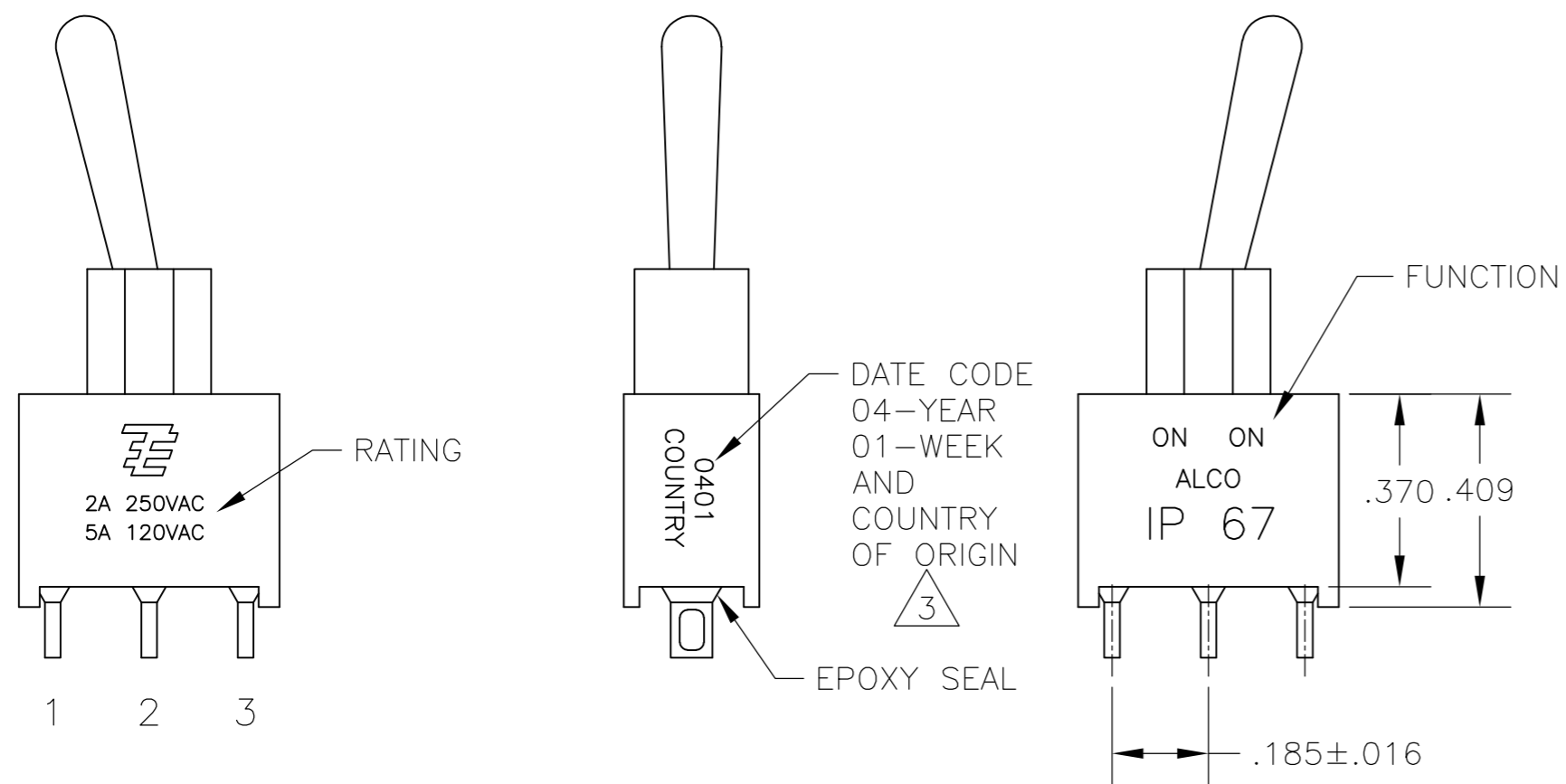
- Brand = Alcoswitch
- Comment = Process seal meets MIL-STD-202, Method 112 test cond. A & D at 85°C.

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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	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

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

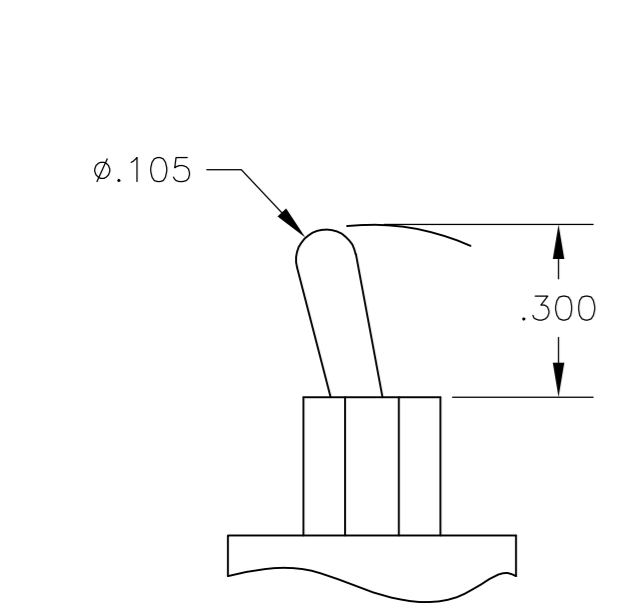
MODEL	FUNCTION	TOGGLE	BUSHING	TERMINAL	CONTACT	RoHS
AE1	01	M	D1	A	B	04
	03	S		AV2	G	
	05			C	Q	
	07			V30		
	08			V40		
				W		
				W4		
				Z		
		Z3				

EXAMPLE: AE101SD1CQ04

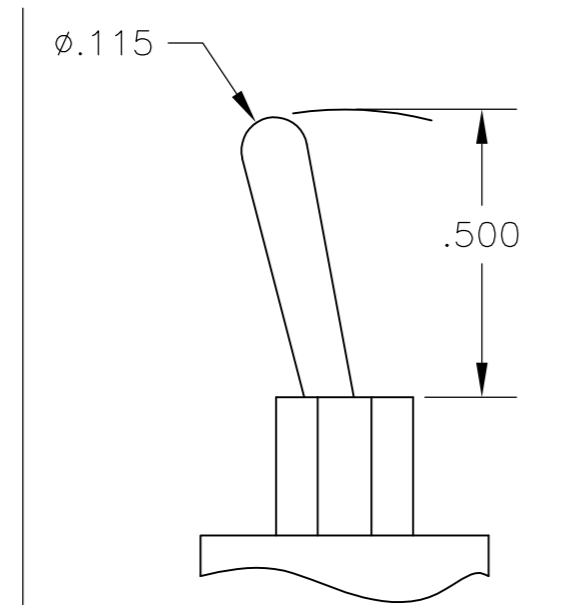
THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN M. ZITTO 18MAY05	Tyco Electronics Corporation Harrisburg, Pa 17105-3608	
DIMENSIONS: INCHES	TOLERANCES UNLESS OTHERWISE SPECIFIED:	CHK M. ZITTO	NAME	
	0 PLC ± -	APVD M. ZITTO	GEMINI AE SERIES TOGGLE SWITCH, SINGLE POLE	
	1 PLC ± -	PRODUCT SPEC	SIZE	CAGE CODE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

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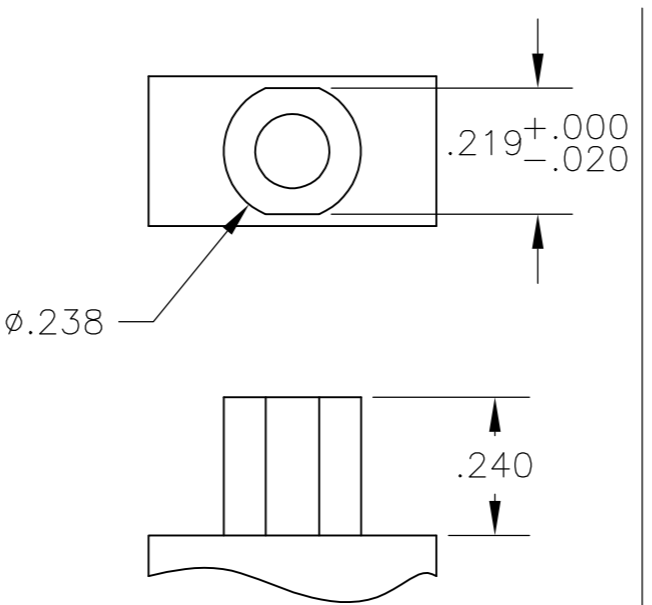
LOC		DIST		REVISIONS			
AD	00	P	LTR	DESCRIPTION	DATE	DWN	APVD
				SEE SHEET 1			



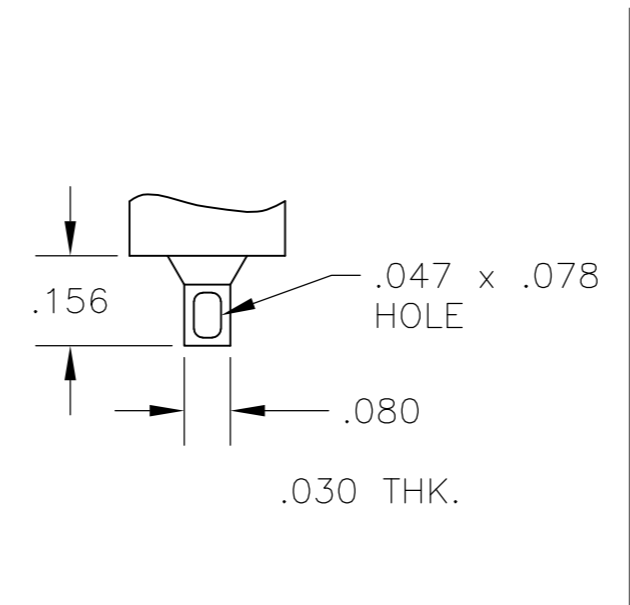
M SHORT



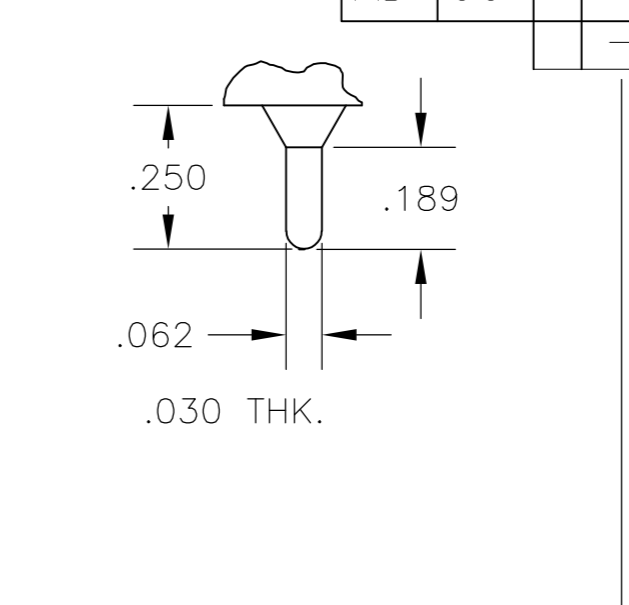
S STANDARD



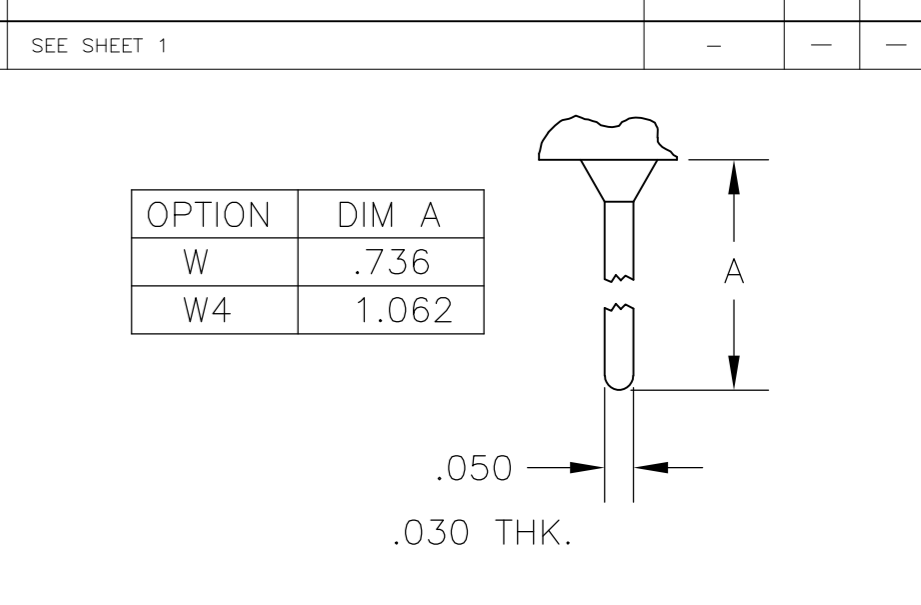
D1 BUSHING



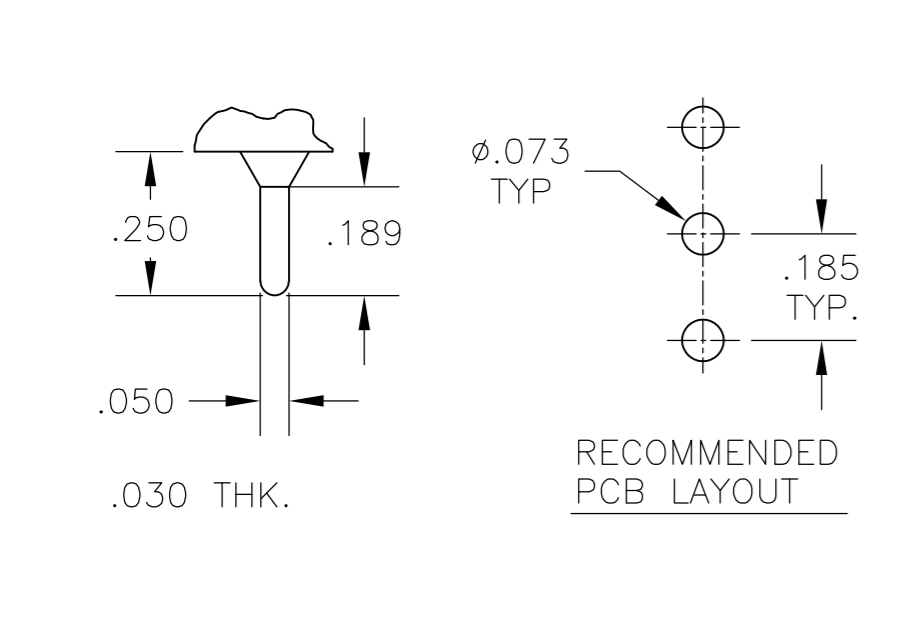
Z WIRE LUG



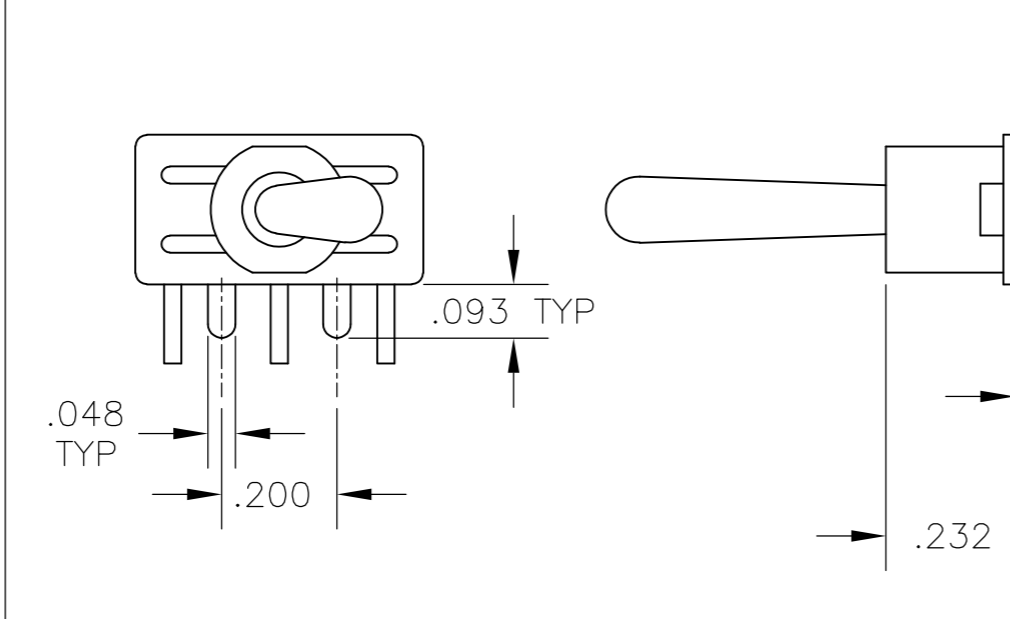
Z3 QUICK CONNECT



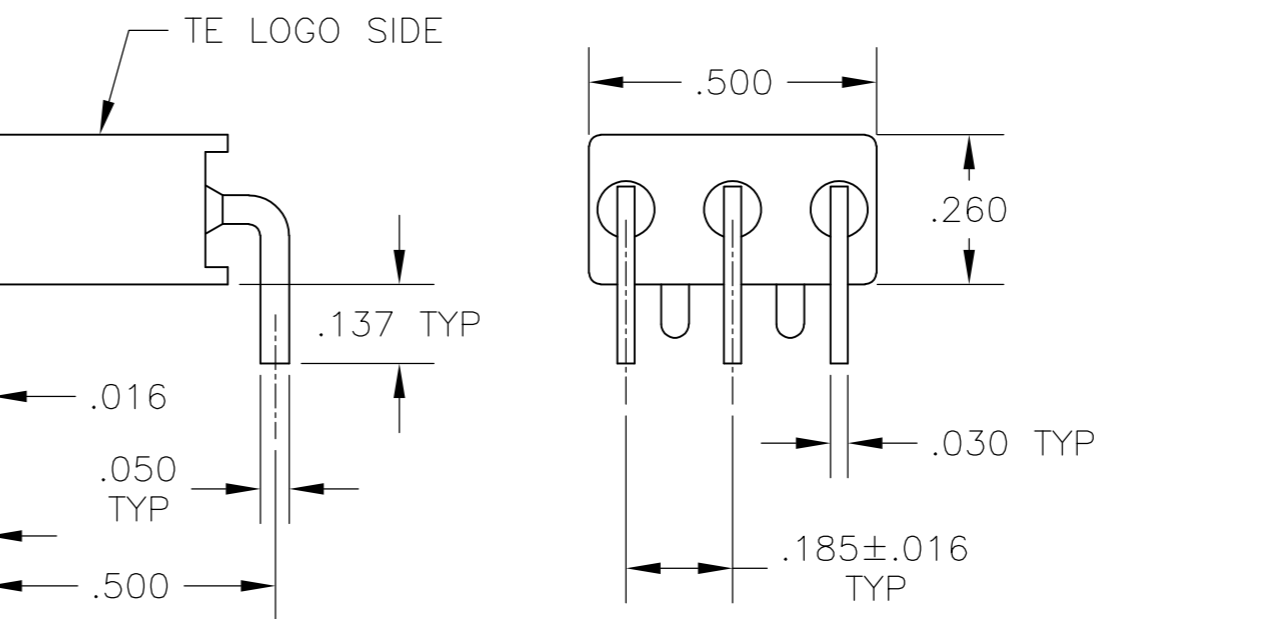
W W4 WIRE WRAP



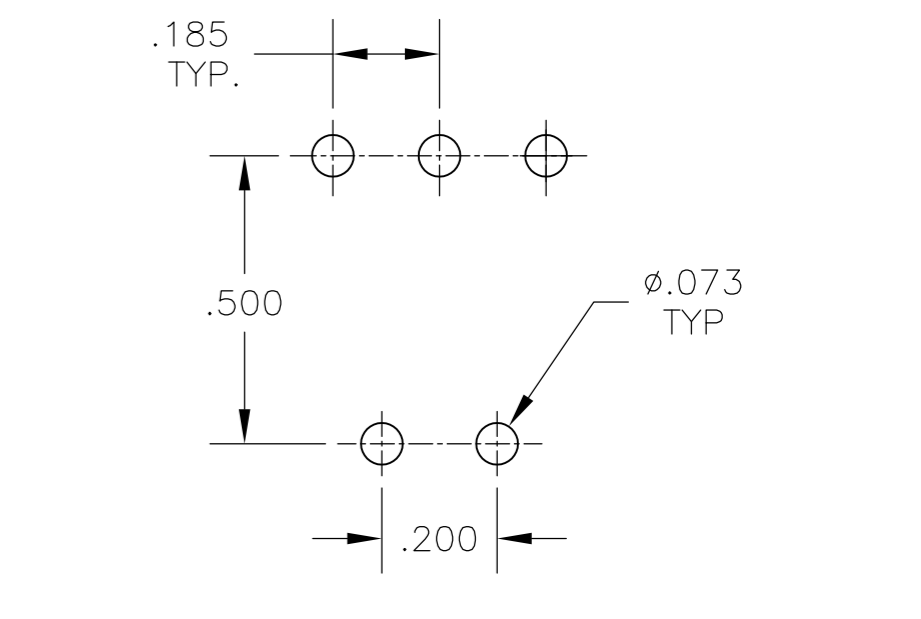
C PRINTED CIRCUIT



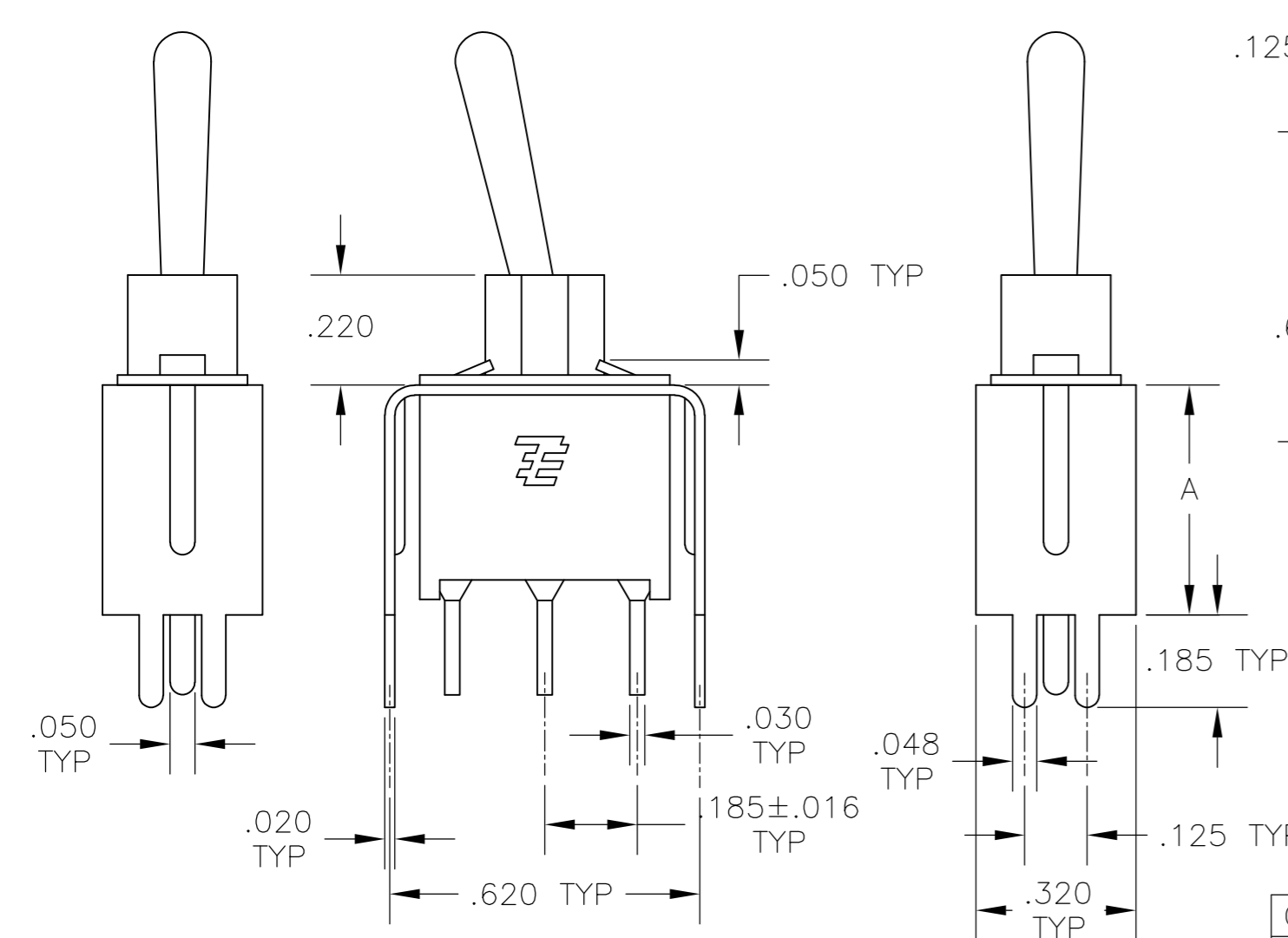
A RIGHT ANGLE



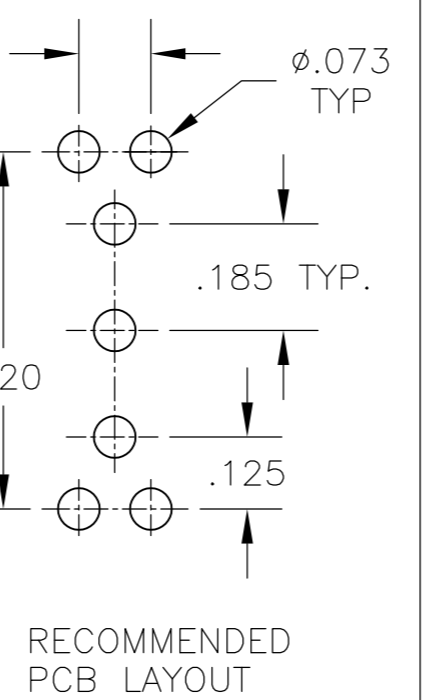
Z WIRE LUG



W W4 WIRE WRAP

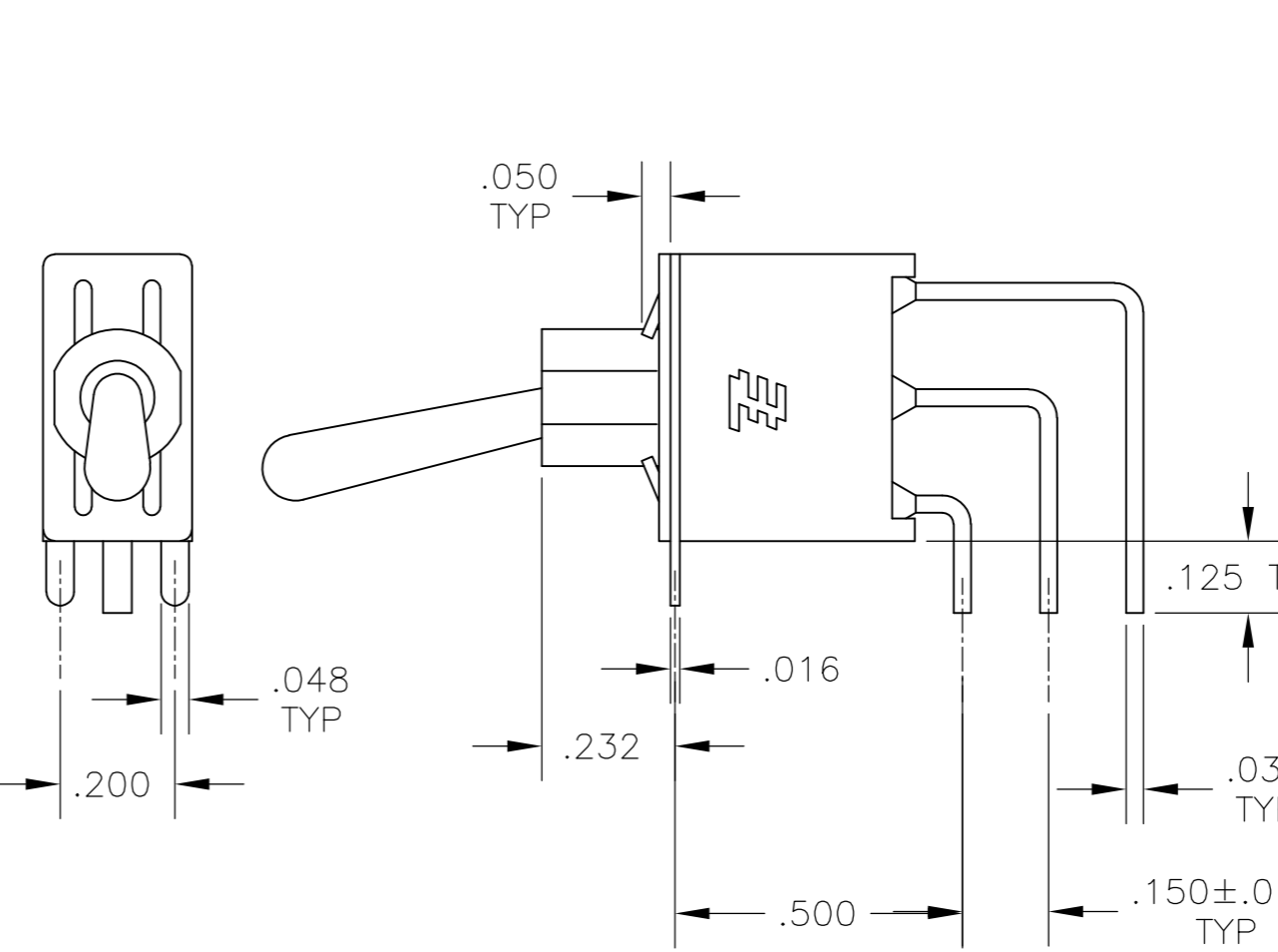


V30 V40 VERTICAL SUPPORT BRACKET

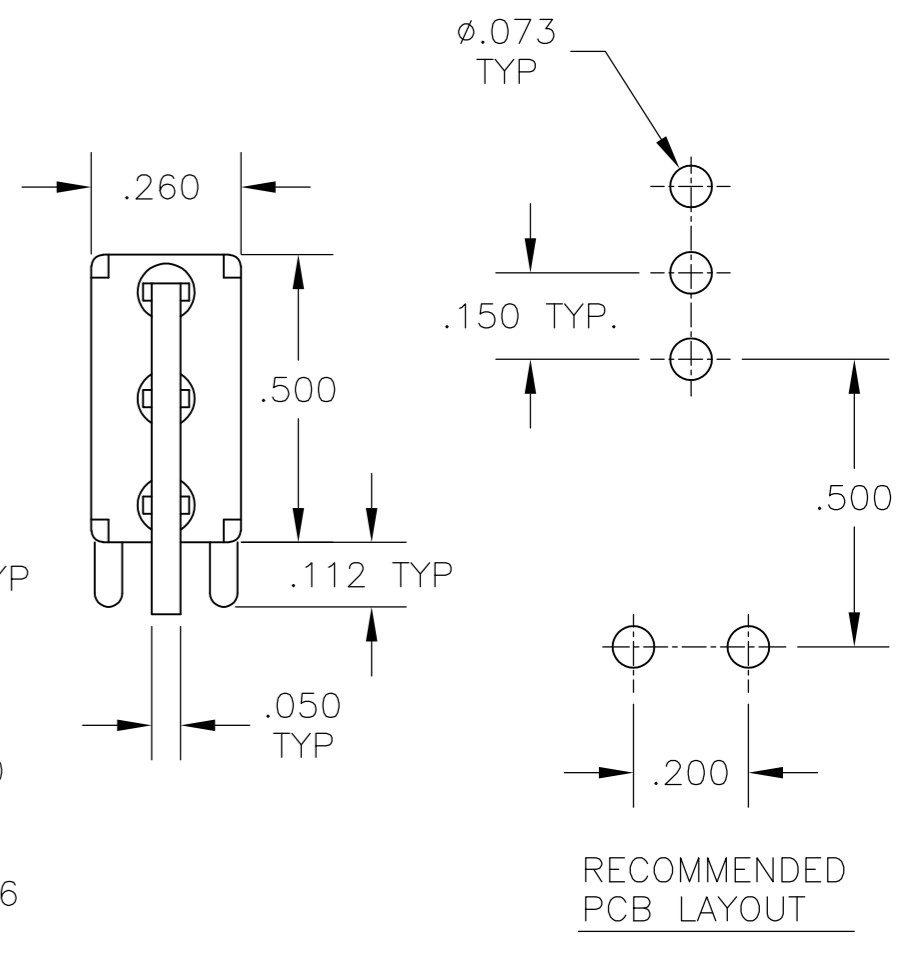


RECOMMENDED PCB LAYOUT

OPTION	DIM A
V30	.460
V40	.630



AV2 VERTICAL RIGHT ANGLE



W W4 WIRE WRAP

RECOMMENDED PCB LAYOUT

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	CAGE CODE	DRAWING NO	RESTRICTED TO
2 PLC ± -					A2	00779	C=1825142	
3 PLC ± .010					SCALE	3:1	SHEET	2 of 3
4 PLC ± -								REV
ANGLES ± 2°								A3
FINISH								
MATERIAL								

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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	

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

1825142

A