

Toggle Switches, AE Series, Process Sealed, Part Number Matrix

"AE" SERIES DESIGN FEATURES

- MIL-STD-202 Method 112C Leak Test
- Toggle – Machined brass, heavy nickel plated.
- Bushing & Cover - Nylon, ultrasonically welded to case, with integral "O-ring", UL94VO.
- Fixed Contact – Welded construction.
- Terminal Seal – Epoxy sealing of terminals is standard.
- Termination – Precious metal (gold or silver)/brass or copper strip with welded contact area.

MATERIAL SPECIFICATIONS:

Process Sealing "O-ring" seals will withstand wave soldering and various subsequent cleaning operations. Meets MIL-STD-202, Method 112C, Test Condition A & D, 85°C.

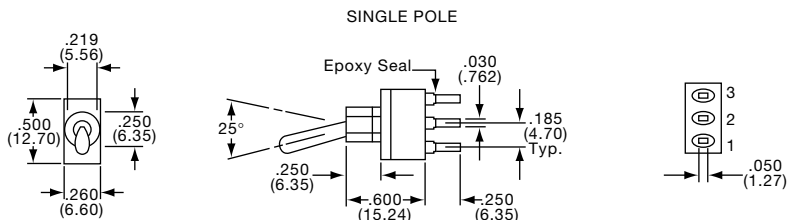
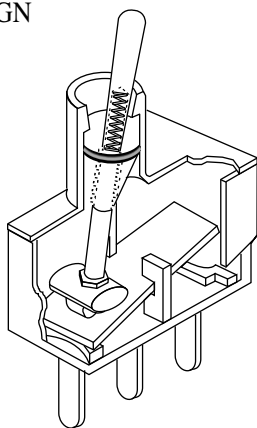
ENVIRONMENTAL SPECIFICATIONS

Operating Temperature.....-4°F to + 185°F (-20°C to + 85°C)
Storage Temperature.....-49°F to + 212°F (-45°C to + 100°C)
Solder Heat ResistanceSee page M3-4

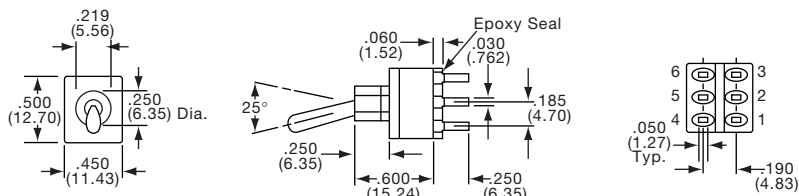
TYPICAL PERFORMANCE CHARACTERISTICS:

Contact RatingSilver: 2 A @ 250 VAC or 5 A @ 125 VAC
Silver: 2 A @ 30 VDC
Gold: 0.4 VA @ 20 VAC/DC
Contact Resistance30 Milliohms max. initial
Insulation Resistance1,000 Megohms min. @ 500 VDC.
Dielectric Strength1,000 Volts RMS @ sea level initial
Static Withstanding.....15 KV per IEC 801-2
Electrical LifeUp to 30,000 Cycles

"O-RING" DESIGN



(TYPICAL DIMENSIONS)



DOUBLE POLE

PART NUMBERING

Model	Function	Toggle	Bushing	Terminal	Contact	Option
			D1			
			Unthreaded			
AE1 Single Pole	S Bat. Long			A Right Angle	B Gold	U.L. (Q or G contact only)
AE2 Double Pole	L Lever			AV2 Vertical Right Angle	Q Silver	
	L1 Lever			C Printed Circuit	G Gold over Silver	
	L2 Lever			V30 Vertical Support Bracket		
01 On-On	M Bat. Short			W Wire Wrap		
03 On-Off-On				Z3 Quick Connect		
05 (On)-Off-(On)				Z Wire Lug		
07 On-Off-(On)						
08 On-(On)						
11 On-On-On						
13 On-On-(On)						
15 (On)-On-(On)						
	Double Pole case only					

Other Options

N Black finish toggle, add “N” to end of model number for U.L. contact only

Application Note: For surface mount termination, use the “TST” series, Page C5

Application Note: For surface mount termination, use the "TST" series, Page C5

Other Options

- N** Black finish toggle, add "N" to end of part number, but before U.L. option.

See page C36 for SP3T wiring diagram.

Toggle Switches, AE Series, Process Sealed, Options

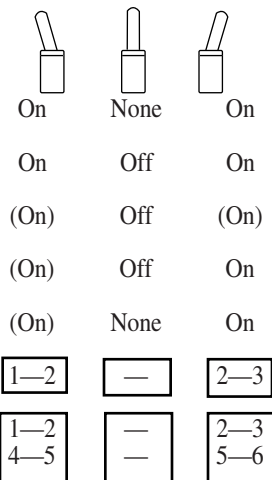
FUNCTIONS

The following functions available in SP or DP.

01	2 Positions	None indicates no mechanical position
03	3 Positions	Off indicates a mechanical position with no electrical connection.
05	3 Positions	(On) indicates momentary action.
07	3 Positions	
08	2 Positions	

SPDT, connected terminals:

DPDT, connected terminals:

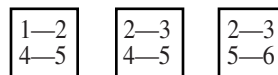


Functions available in DP case only:

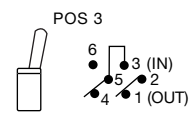
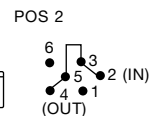
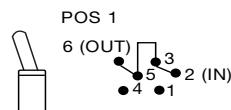
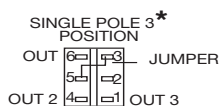
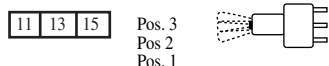
11	3 Positions	On	On	On
13	3 Positions	(On)	On	On
15	3 Positions	(On)	On	(On)

DP3T Connect terminals:

* SP3T Functions achieved with external jumper installed by customer

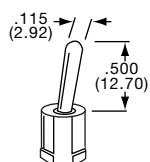


WIRING DIAGRAM FOR FUNCTIONS

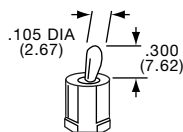


TOGGLES

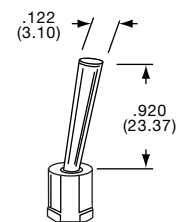
S
Standard



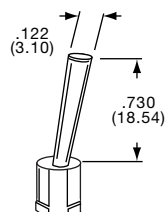
M
Short



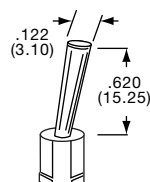
L
Lever



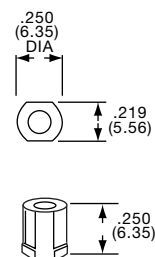
L1
Lever



L2
Lever



Bushing
D1

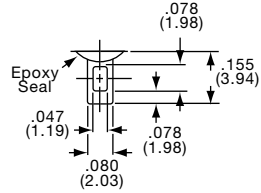


Toggle Switches, AE Series, Process Sealed, Options

TERMINALS

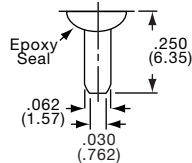
Z

Wire Lug



Z3

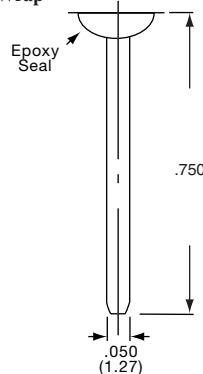
Quick Connect



Mates with Tyco
61434 or 60900.

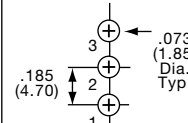
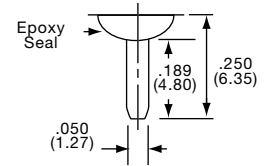
W

Wire Wrap

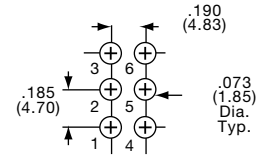


C

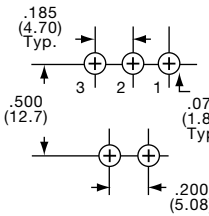
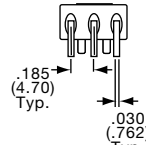
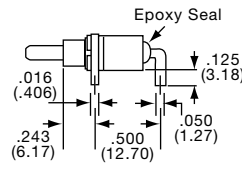
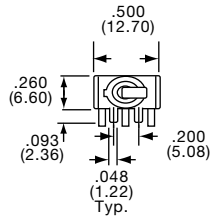
Printed Circuit
PC Hole Pattern



Single Pole



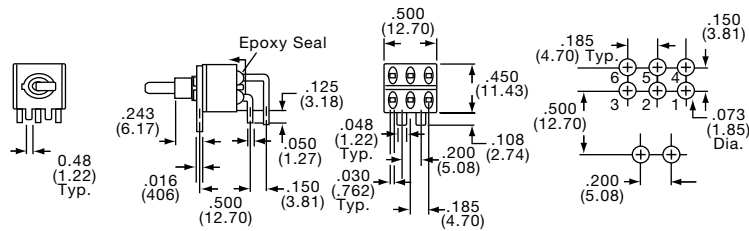
Double Pole



A

Right Angle
Single Pole

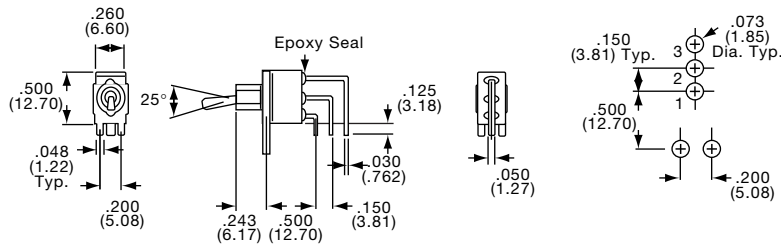
Note: Terminal numbers viewed from top of P.C. board



A

Right Angle
Double Pole

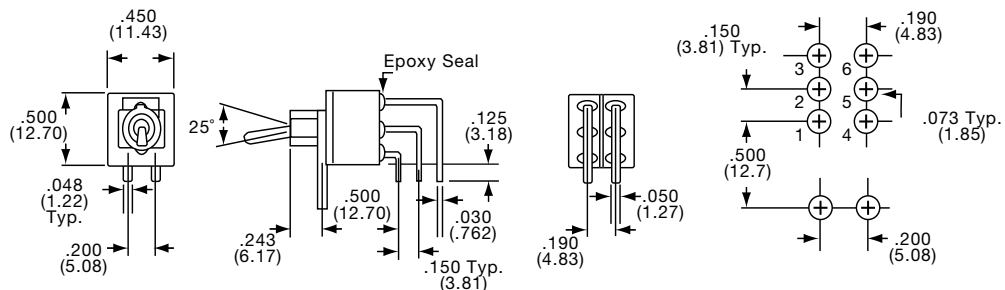
Note: Terminal numbers viewed from top of P.C. board



AV2

Vertical Right Angle
Single Pole

Note: Terminal numbers viewed from top of P.C. board



AV2

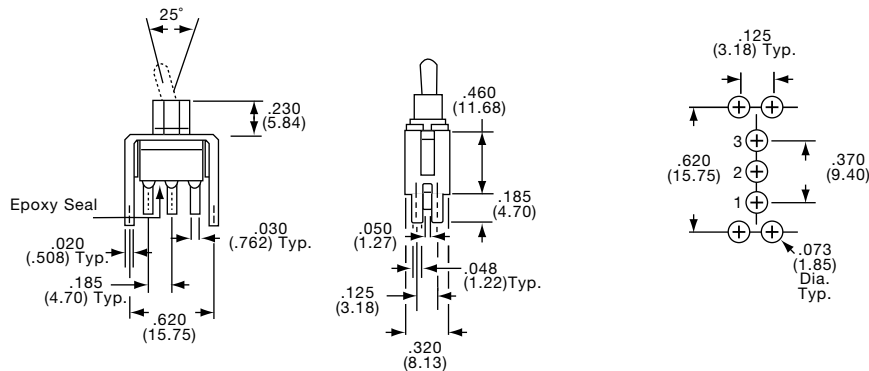
Vertical Right Angle
Double Pole

Note: Terminal numbers viewed from top of P.C. board

Toggle Switches, AE Series, Process Sealed, Options

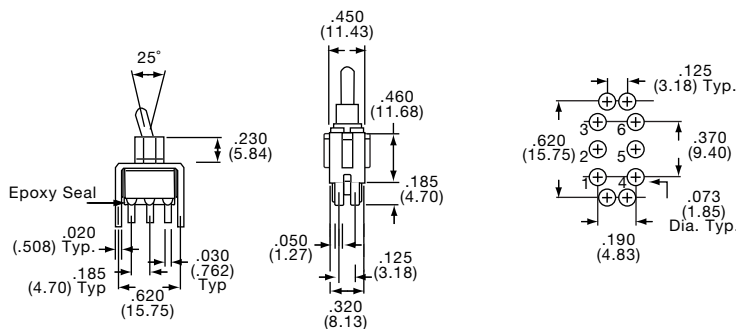
V30

Vertical Support Bracket
Single Pole



V30

Vertical Support Bracket
Double Pole



CONTACTS

B CONTACTS: Copper alloy with gold plate, welded button.

TERMINALS: Copper alloy with gold plate.

ELECTRICAL RATING: 0.4 VA @ 125 VAC, 2 amps @ 250 VAC, 2 A @ 30 VDC.

Q CONTACTS: Copper alloy with silver, welded button.

TERMINALS: Copper with silver/lead plate.

ELECTRICAL RATING: 5 A @ 125 VAC, 2 amps @ 250 VAC, 2 A @ 30 VDC.

UL/CSA RATING: 5A @ 125 VAC, 3 @ 250 VAC.
(Specify "UL" option code)

G CONTACTS: Copper alloy with gold plate over silver, welded button.

TERMINALS: Copper alloy, with gold plate.

ELECTRICAL RATING: 0.4 VA @ 20 VAC/DC or 5 A @ 125 VAC, 2 A @ 250 VAC, 2 A @ 30 VDC.

Note: This contact option can be used for low-level or power switching. If level is above 0.4 VA @ 20 VAC/DC, the switch is rendered usable only for power switching due to arc-removal of gold plate.

UL/CSA RATING: 5A @ 125 VAC, 3A @ 250 VAC
(Specify "UL" option code)

Toggle Switches, AE Series, Process Sealed, Vertical, Long Bat Actuator

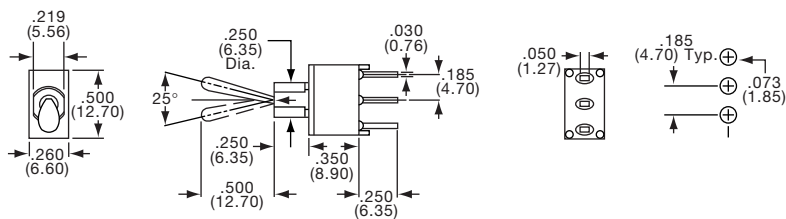
* Refer to Pages C35-C38 for
Additional Options *

SEE PAGE C35 FOR PRODUCT SPECIFICATIONS

SPDT



AE101SD1CQ

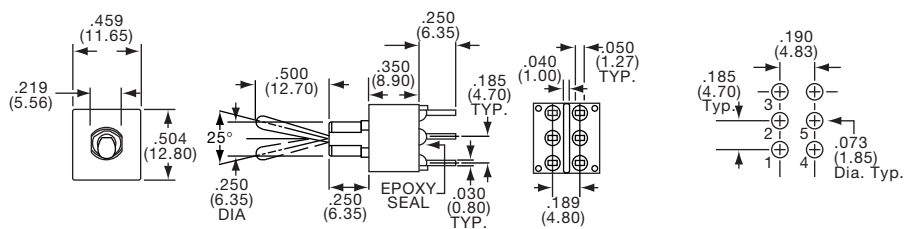


Tyco Electronics	Alcoswitch	Tyco Electronics	Alcoswitch	Type	Act. Code	P. M5	On	Off	On
Silver Contacts									
2-1437556-8	AE101SD1CQ	2-1437556-7	AE101SD1CB	SPDT	1		On	None	On
3-1437556-8	AE103SD1CQ	3-1437556-7	AE103SD1CB	SPDT	5		On	Off	On
	AE105SD1CQ	4-1437556-6	AE105SD1CB	SPDT	5		(On)	Off	(On)
	AE107SD1CQ	5-1437556-3	AE107SD1CB	SPDT	5		On	Off	(On)
6-1437556-1	AE108SD1CQ		AE108SD1CB	SPDT	1		On	None	(On)

DPDT



AE201SD1CQ



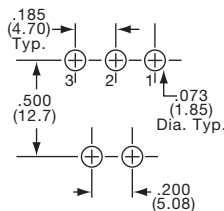
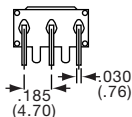
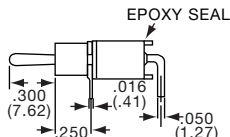
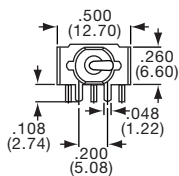
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Silver Contacts									
7-1437556-5	AE201SD1CQ	7-1437556-4	AE201SD1CB	DPDT	2		On	None	On
	AE203SD1CQ	8-1437556-2	AE203SD1CB	DPDT	6		On	Off	On
8-1437556-5	AE205SD1CQ		AE205SD1CB	DPDT	6		(On)	Off	(On)
	AE207SD1CQ		AE207SD1CB	DPDT	6		On	Off	(On)
	AE208SD1CQ		AE208SD1CB	DPDT	2		On	None	(On)
	AE211SD1CQ		AE211SD1CB	DPDT	11		On	On	On
	AE215SD1CQ		AE215SD1CB	DPDT	11		(On)	On	(On)

Toggle Switches, AE Series, Process Sealed, Right Angle, Short Bat Actuator

* Refer to Pages C35-C38 for Additional Options *

SEE PAGE C35 FOR PRODUCT SPECIFICATIONS

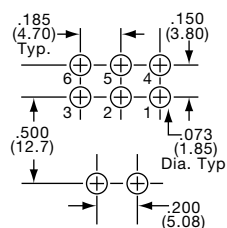
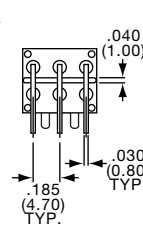
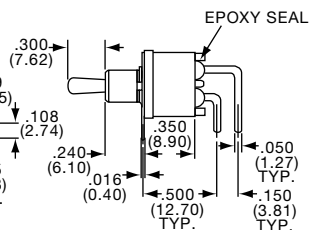
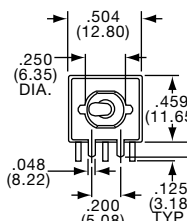
SPDT



AE101MD1AQ
Horizontal Actuation

Tyco Electronics	Alcoswitch	Tyco Electronics	Alcoswitch	Type	Act. Code	P. M5			
Silver Contacts		Gold Contacts							
1-1437556-1	AE101MD1AQ	1437556-8	AE101MD1AB	SPDT	1	On	None	On	
	AE103MD1AQ	3-1437556-1	AE103MD1AB	SPDT	5	On	Off	On	
5-1437556-7	AE108MD1AQ		AE108MD1AB	SPDT	1	On	None	(On)	

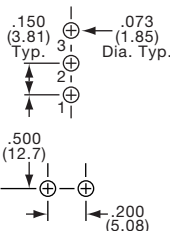
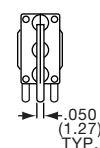
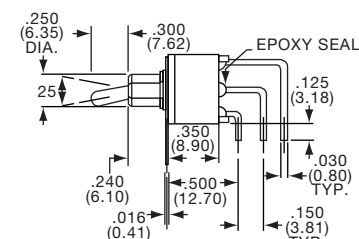
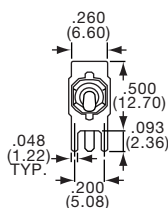
DPDT



AE201MD1AQ
Horizontal Actuation

Tyco Electronics	Alcoswitch	Tyco Electronics	Alcoswitch	Type	Act. Code	P. M5			
Silver Contacts		Gold Contacts							
6-1437556-6	AE201MD1AQ	6-1437556-5	AE201MD1AB	DPDT	2	On	None	On	
3-1437592-1	AE203MD1AQ	7-1437556-7	AE203MD1AB	DPDT	6	On	Off	On	
	AE208MD1AQ		AE208MD1AB	DPDT	2	On	None	(On)	

SPDT



AE101MD1AV2Q
Vertical Actuation

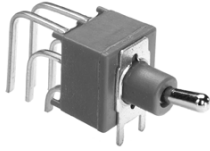
Tyco Electronics	Alcoswitch	Tyco Electronics	Alcoswitch	Type	Act. Code	P. M5			
Silver Contacts		Gold Contacts							
1-1437556-3	AE101MD1AV2Q	1-1437556-2	AE101MD1AV2B	SPDT	1	On	None	On	
	AE103MD1AV2Q	3-1437556-2	AE103MD1AV2B	SPDT	5	On	Off	On	
1447331-4	AE108MD1AV2Q	5-1437556-8	AE108MD1AV2B	SPDT	1	On	None	(On)	

Toggle Switches, AE Series, Process Sealed, Short Bat Actuator

* Refer to Pages C35-C38 for
Additional Options *

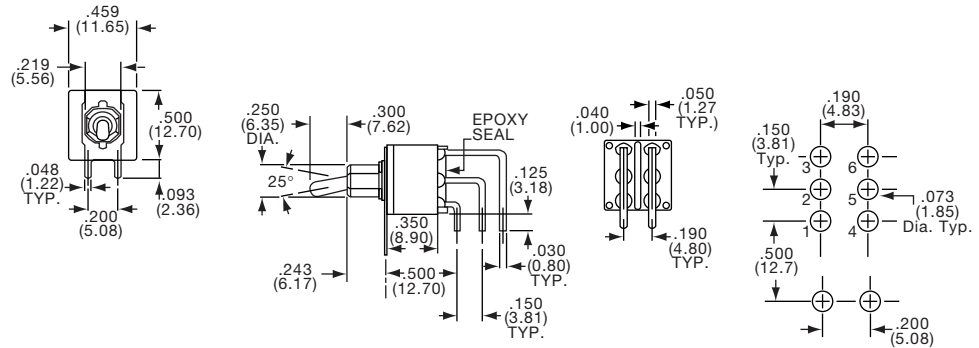
SEE PAGE C35 FOR PRODUCT SPECIFICATIONS

DPDT



AE201MD1AV2Q

Vertical
Actuation

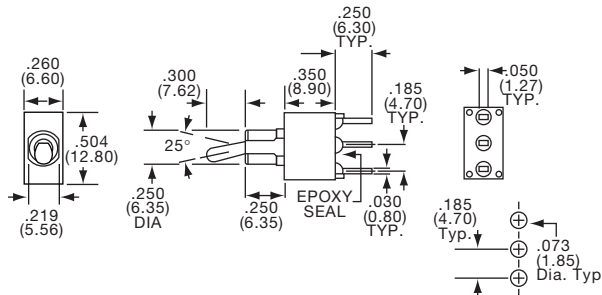


Tyco Electronics	Alcoswitch	Tyco Electronics	Alcoswitch	Type	Act. Code P. M5	On	None	On
Silver Contacts								
1571537-1	AE201MD1AV2Q	6-1437556-7	AE201MD1AV2B	DPDT	2	On	None	On
	AE203MD1AV2Q	7-1437556-8	AE203MD1AV2B	DPDT	6	On	Off	On
	AE208MD1AV2Q		AE208MD1AV2B	DPDT	2	On	None	(On)
Gold Contacts								

SPDT



AE101MD1CQ

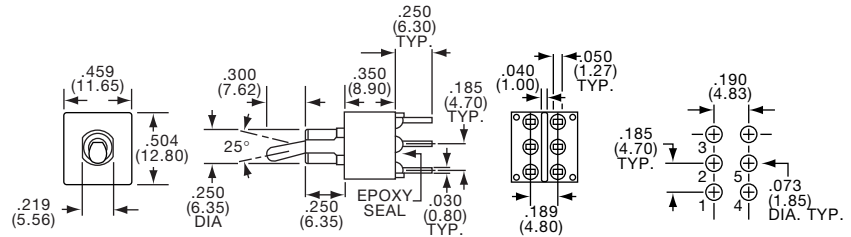


Tyco Electronics	Alcoswitch	Type	Act. Code P.M5	On	None	On
Silver Contacts						
1-1437556-7	AE101MD1CQ	SPDT	1	On	None	On
	AE103MD1CQ	SPDT	5	On	Off	On
	AE105MD1CQ	SPDT	5	(On)	Off	(On)
	AE107MD1CQ	SPDT	5	On	Off	(On)
	AE108MD1CQ	SPDT	1	On	None	(On)
Gold Contacts						
1-1437556-5	AE101MD1CB	SPDT	1	On	None	On
3-1437556-3	AE103MD1CB	SPDT	5	On	Off	On
	AE105MD1CB	SPDT	5	(On)	Off	(On)
	AE107MD1CB	SPDT	5	On	Off	(On)
	AE108MD1CB	SPDT	1	On	None	(On)

DPDT



AE201MD1CQ

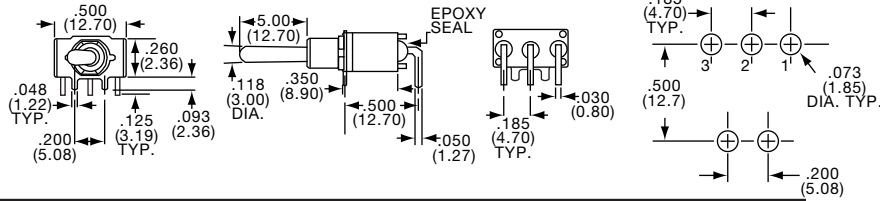


Tyco Electronics	Alcoswitch	Type	Act. Code P.M5	On	None	On
Silver Contacts						
6-1437556-9	AE201MD1CQ	DPDT	2	On	None	On
	AE203MD1CQ	DPDT	6	On	Off	On
	AE205MD1CQ	DPDT	6	(On)	Off	(On)
	AE207MD1CQ	DPDT	6	On	Off	(On)
	AE208MD1CQ	DPDT	2	On	None(On)	
	AE211MD1CQ	SP3T	11	On	On	On
	AE215MD1CQ	SP3T	11	(On)	On	(On)
Gold Contacts						
6-1437556-8	AE201MD1CB	DPDT	2	On	None	On
	AE203MD1CB	DPDT	6	On	Off	On
	AE205MD1CB	DPDT	6	(On)	Off	(On)
	AE207MD1CB	DPDT	6	On	Off	(On)
	AE208MD1CB	DPDT	2	On	None(On)	
8-1437556-9	AE211MD1CB	SP3T	11	On	On	On
	AE215MD1CB	SP3T	11	(On)	On	(On)

Toggle Switches, AE Series, Process Sealed, Right Angle, Long Bat Actuator

* Refer to Pages C35-C38 for Additional Options *

SEE PAGE C35 FOR PRODUCT SPECIFICATIONS

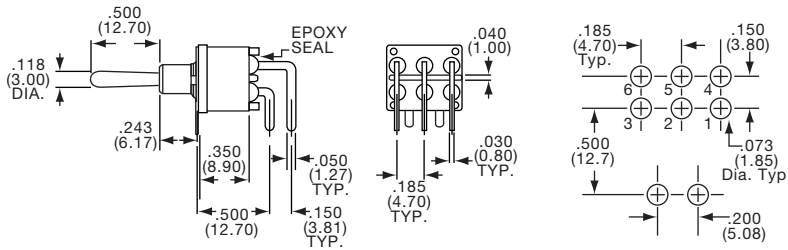


SPDT

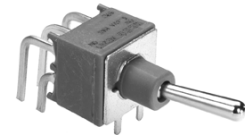


AE101SD1AQ
Horizontal Actuation

Tyco Electronics	Alcoswitch	Tyco Electronics	Alcoswitch	Type	Act. Code	P. M5			
Silver Contacts		Gold Contacts							
6-1437556-0	AE101SD1AQ	2-1437556-2	AE101SD1AB	SPDT	1	On None On			
	AE103SD1AQ		AE103SD1AB	SPDT	5	On Off On			
2-1437556-3	AE108SD1AQ	5-1437556-9	AE108SD1AB	SPDT	5	(On) Off (On)			

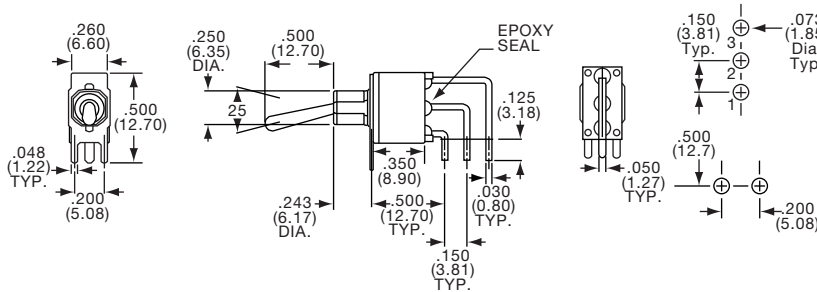


DPDT



AE201SD1AB
Horizontal Actuation

Tyco Electronics	Alcoswitch	Tyco Electronics	Alcoswitch	Type	Act. Code	P. M5			
Silver Contacts		Gold Contacts							
	AE201SD1AQ	7-1437556-1	AE201SD1AB	DPDT	2	On None On			
	AE203SD1AQ		AE203SD1AB	DPDT	6	On Off On			
	AE208SD1AQ	7-1437556-9	AE208SD1AB	DPDT	6	(On) Off (On)			

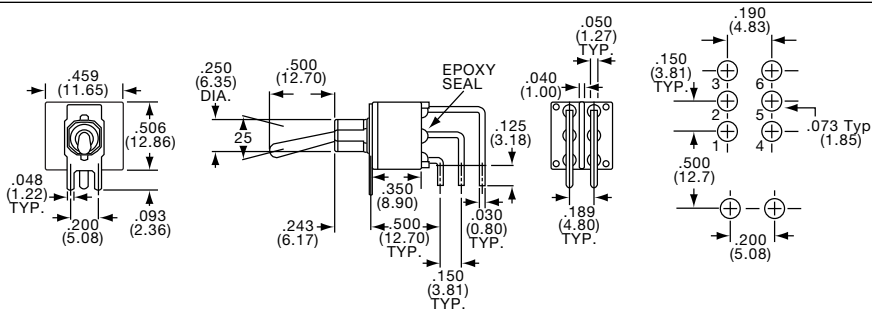


SPDT

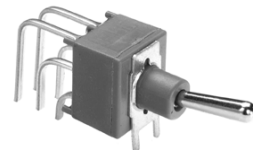


AE101SD1AV2B
Vertical Actuation

Tyco Electronics	Alcoswitch	Tyco Electronics	Alcoswitch	Type	Act. Code	P. M5			
Silver Contacts		Gold Contacts							
2-1437556-6	AE101SD1AV2Q	2-1437556-5	AE101SD1AV2B	SPDT	1	On None On			
	AE103SD1AV2Q		AE103SD1AV2B	SPDT	5	On Off On			
	AE108SD1AV2Q	3-1437556-6	AE108SD1AV2B	SPDT	5	(On) Off (On)			



DPDT



AE201SD1AV2Q
Vertical Actuation

Tyco Electronics	Alcoswitch	Tyco Electronics	Alcoswitch	Type	Act. Code	P. M5			
Silver Contacts		Gold Contacts							
8-1437556-1	AE201SD1AV2Q	7-1437556-3	AE201SD1AV2B	DPDT	2	On None On			
	AE203SD1AV2Q		AE203SD1AV2B	DPDT	6	On Off On			
	AE208SD1AV2Q	8-1437556-0	AE208SD1AV2B	DPDT	6	(On) Off (On)			