

Gemini A Series

Features

- Gold, gold over silver or silver contacts
- Epoxy sealed terminals
- Stainless steel frame with brass tin plated solder support
- Hardware included
- Boot seals available



Typical performance characteristics

Contact configuration 1, 2, 3, and 4 pole
 Contact timing Break before Make
 Contact rating max. gold: 0.4VA @20V AC or DC
 gold over silver : 5 A @ 125VAC or 28VDC resistive
 or 0.4VA @ 20VAC or DC or 2A @250VAC resistive
 silver: 5 A @ 125VAC or 28VDC resistive
 and 2A @ 250VAC resistive
 Electrical life 6000 cycles
 Contact resistance, initial max.10 mOhms
 Insulation resistance 1,000 MOhms
 Dielectric strength 1,000 Vrms @ sea level
 Actuator travel 22° for D and E function
 18° for F and G function

Environmental specification

Operating temperature -30°C to +85°C
 Storage temperature -30°C to +85°C
 Solder heat resistance wave solder capable to 265° C
 Terminal Seal single pole: epoxy

Material specifications

Contacts contacts B: copper alloy finish gold over nickel
 contacts G: copper alloy finish gold over silver
 contacts Q: copper alloy finish silver
 Actuator brass alloy chrome
 Terminals contacts B: copper alloy finish gold over nickel
 contacts G: copper alloy finish gold over silver
 contacts Q: copper alloy finish silver
 Case thermoplastic
 Bushing brass alloy finish nickel
 Internal actuator phenolic
 Spring music wire
 Support Bracket brass tin plated
 Seal epoxy
 RoHS Directive 2002/95/EC compliant

Toggle Switches

Product key		Typical product key		A	1	01	P3		Z	Q	04
Type		Gemini A Series Toggles									
Number of Poles		1 single pole		2 double pole							
Function		single and double pole		double pole only							
01		On-On		11 On-On-On							
03		On-Off-On		13 On-On-(On)							
05		(On)-Off-(On)		15 (On)-On-(On)							
07		On-Off-(On)									
08		On-(On)									
Toggles		S bat long		T large toggle & bushing (15/32)							
		K locking		T1 large toggle & bushing (15/32)							
		K1 locking		L lever							
		M bat short		L1 lever							
		P3 flattened (with bushing code Y only)		L2 lever							
Bushing											
blank		toggles K1 &/ P3: 1/4-40 threaded .35 (8.9) long									
		toggles K, T, T1: unthreaded .28 (7.1) long									
CW		1/4-40 threaded .37 (9.4) long, environmental seals (toggles codes S & M only)									
D		1/4-40 threaded .28 (7.1) long									
D9		unthreaded .28 (7.1) long		Y 1/4-40 threaded .35 (8.9) long							
H		1/4-40 threaded .3 (7.6) long		Y9 unthreaded .35 (8.9) long							
Terminations											
A		right angle		V30 vertical support		W wire wrap					
AV2		vertical right angle		V40 vertical support		W4 wire wrap					
C		printed circuit				Z wire lug					
Contacts											
B		gold		G gold over silver		Q silver					
Material											
04		RoHS compliant									

Gemini A Series (Continued)

Function

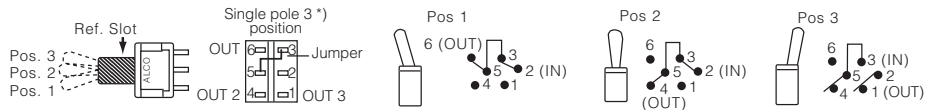


Code	Positions	↘	↓	↙
01	2 positions	On	None	On
03	3 positions	On	Off	On
05	3 positions	(On)	Off	(On)
07	3 positions	(On)	Off	On
08	2 positions	(On)	None	On
SPDT	Term. conn.	1 - 2	---	2 - 3
DPDT	Terminals connected	1 - 2 4 - 5	---	2 - 3 5 - 6
11*)	3 positions	On	On	On
13*)		(On)	On	On
15*)		(On)	On	(On)
DP3T (**)	Terminals connected	1 - 2 4 - 5	2 - 3 4 - 5	2 - 3 5 - 6

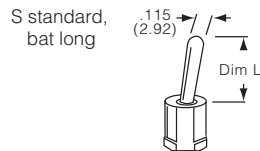
Off mechanical position, no electrical connection
 (On) momentary mechanical position and electrical connection
 None no mechanical position

*) functions available in dual pole case only.
 **) SP3T functions achieved with external jumper installed by customer

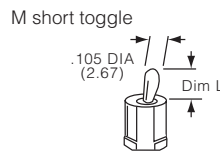
Wiring diagram for functions 11, 13, 15



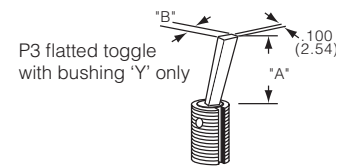
Toggles



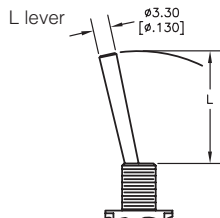
Toggle	Bushing	Dim L
S	CW, H, Y D, D9	10.41 (.410) 12.19 (.480)



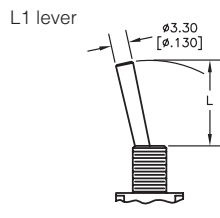
Toggle	Bushing	Dim L
M	CW, H, Y D, D9	5.08 (.200) 6.86 (.270)



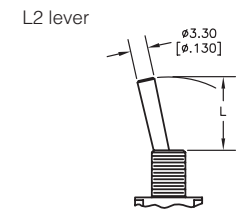
Toggle	Dim
P3	Dim A 11.43 (.450) Dim B 5.08 (.200)



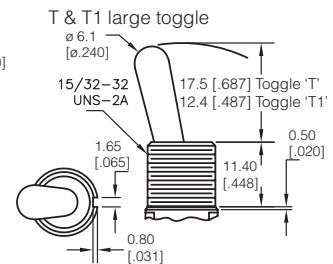
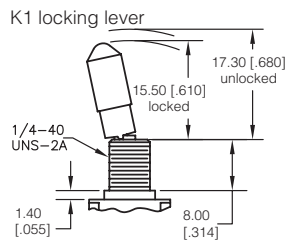
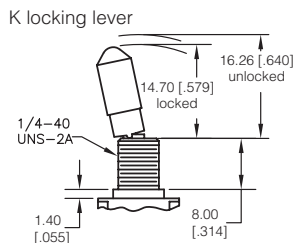
Toggle	Bushing	Dim L
L	H, Y D, D9	21.34 (.840) 23.11 (.910)



Toggle	Bushing	Dim L
L1	H, Y D, D9	16.26 (.640) 18.03 (.710)



Toggle	Bushing	Dim L
L2	H, Y D, D9	13.97 (.550) 15.75 (.620)

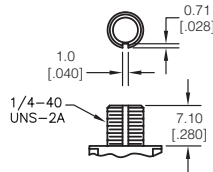


Gemini A Series (Continued)

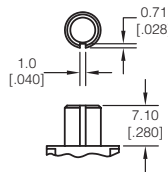
Bushings



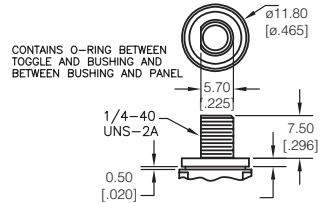
D 1/4-40 threaded



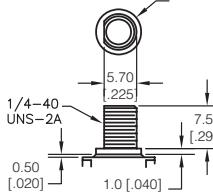
D9 unthreaded



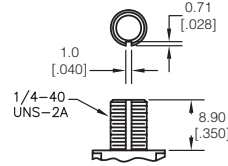
CW 1/4-40 threaded
environmental seals
(toggle codes S & M only)



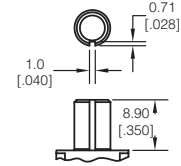
H 1/4-40 threaded



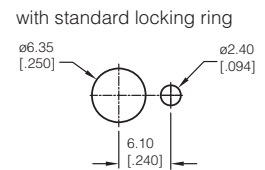
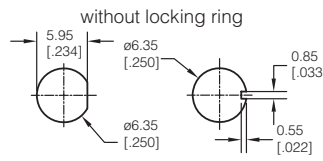
Y 1/4-40 threaded



Y9 unthreaded



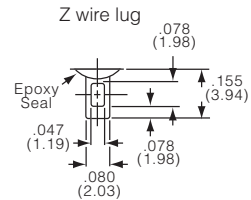
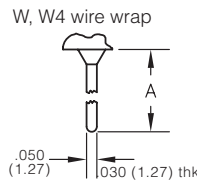
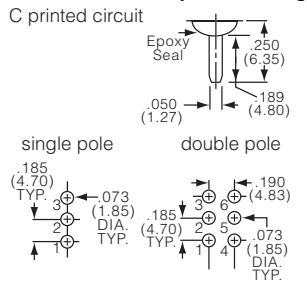
Recommended panel cut-outs
Bushing 1/4



Terminals

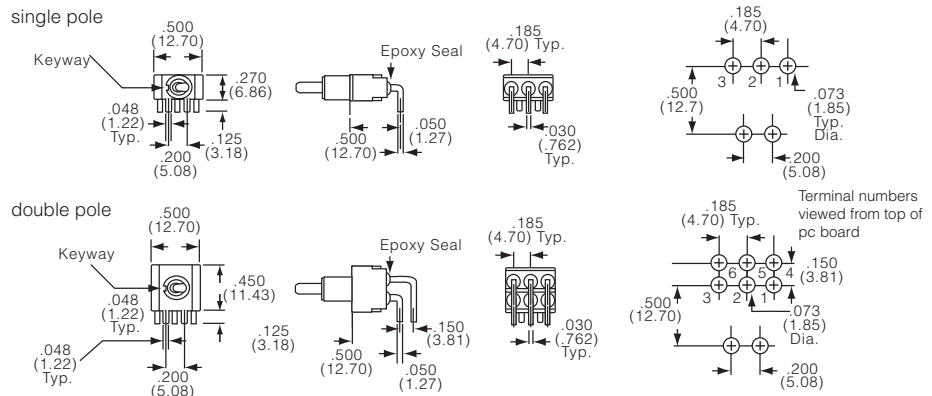


Codes C, W, W4, Z printed circuit, wire wrap and wire lug



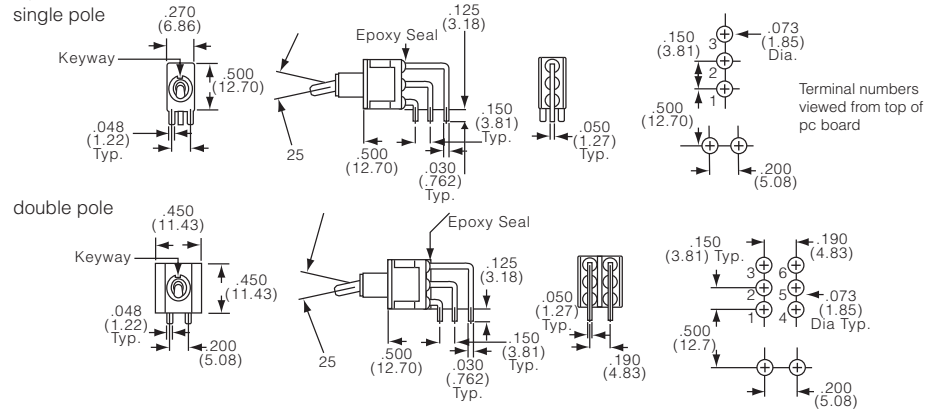
Terminal	Dim A
W	18.69 (.736)
W4	26.98 (1.062)

Code A right angle

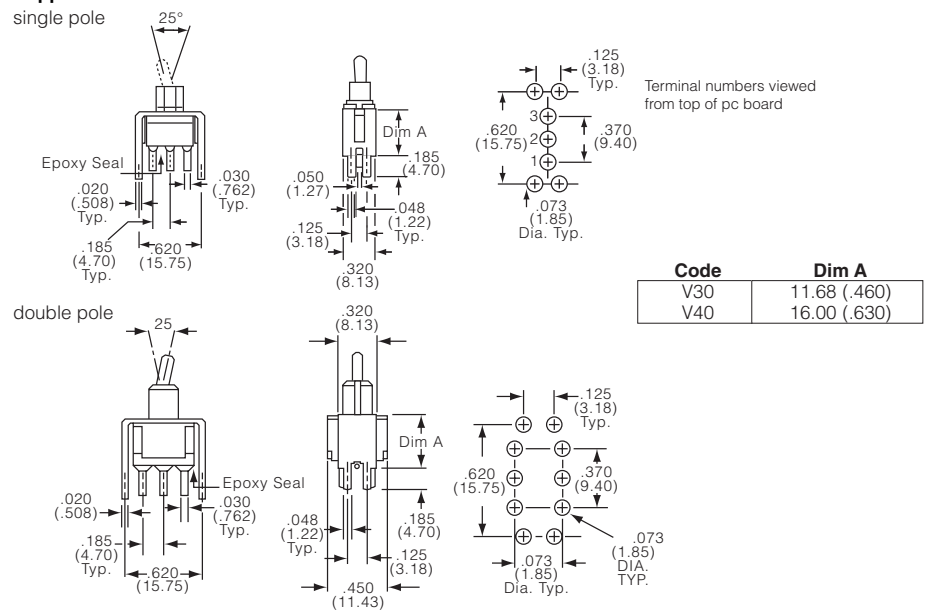


Gemini A Series (Continued)

Code AV2 vertical right angle



Codes V30, V40 vertical support

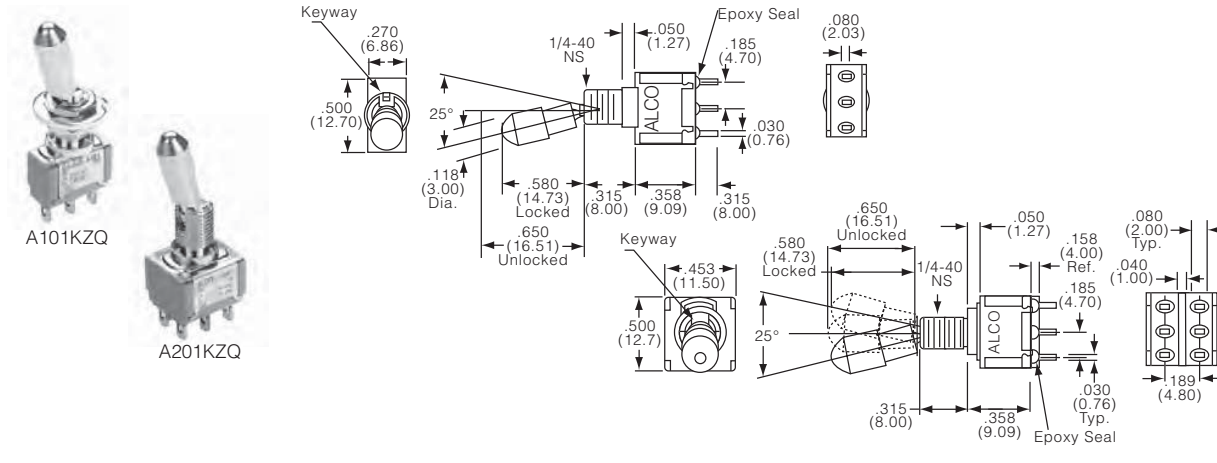


Toggle Switches

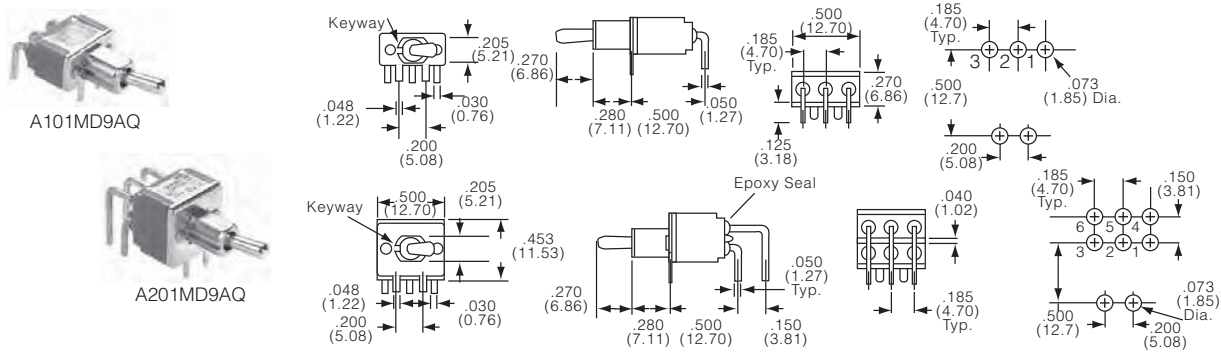
Gemini A Series (Continued)

Dimensions

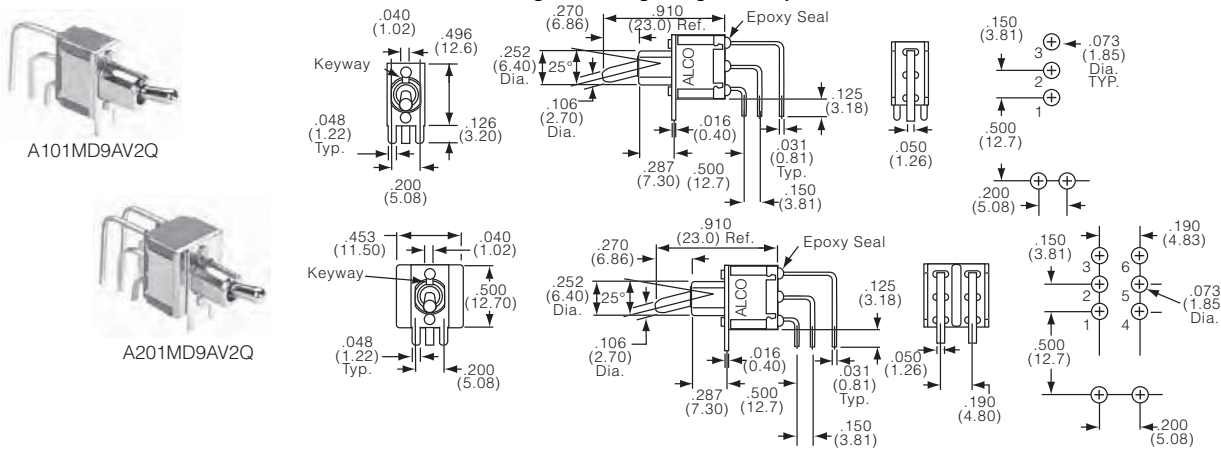
Series A...KZ locking, unthreaded, wire lug, 1 & 2 pole



Series A...MD9A short bat, unthreaded bushing, right angle, 1 & 2 pole



Series A...MD9AV2 short bat, unthreaded bushing, vertical right angle, 1 & 2 pole



Series A...P3YZ flatted toggle, 1/4-40 threaded, wire lug, 1 & 2 pole

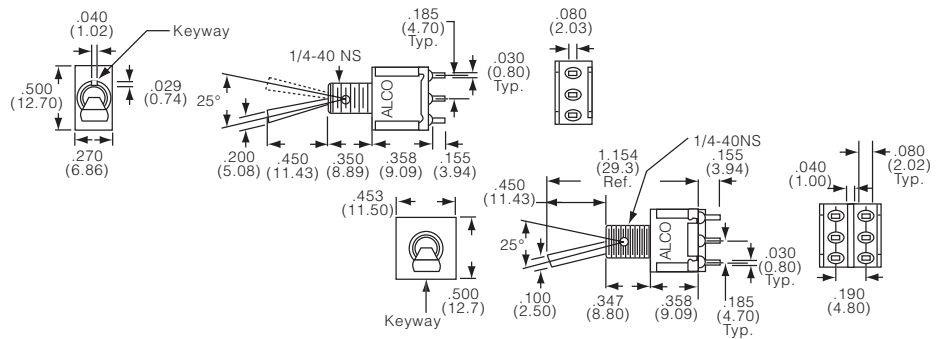
Gemini A Series (Continued)



A101P3YZQ



A201P3YZQ



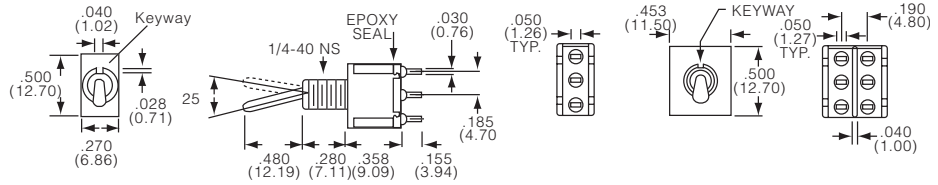
Series A...SDC long bat, 1/4-40 threaded, printed circuit, 1 & 2 pole



A101SDCQ



A201SDCQ



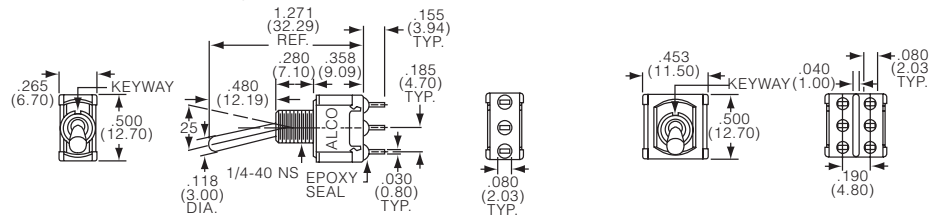
Series A...SDZ long bat, 1/40-40 threaded, wire lugs, 1 & 2 pole



A101SDZQ



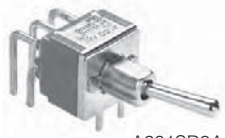
A201SDZQ



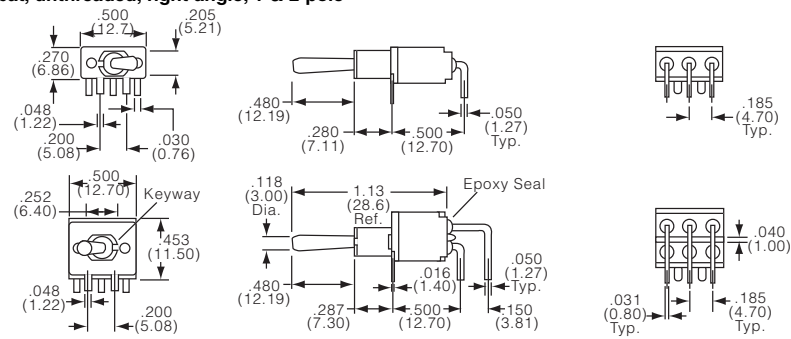
Series A...SD9A long bat, unthreaded, right angle, 1 & 2 pole



A101SD9AQ

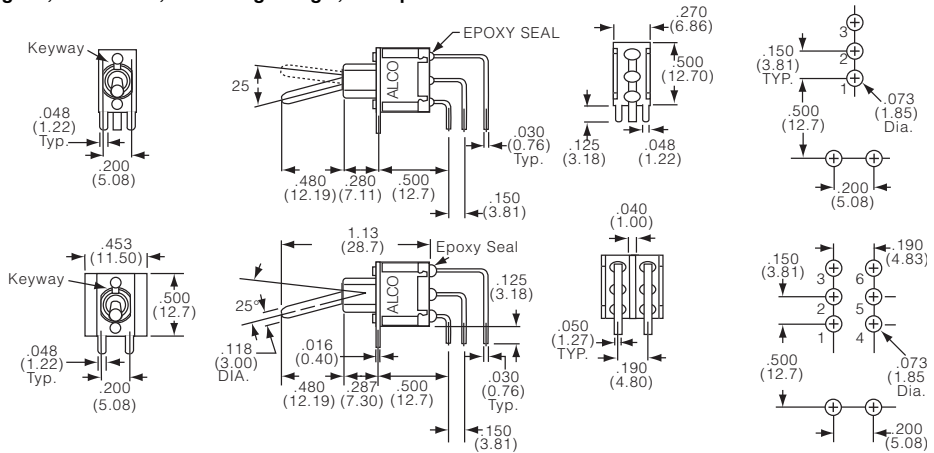


A201SD9AQ

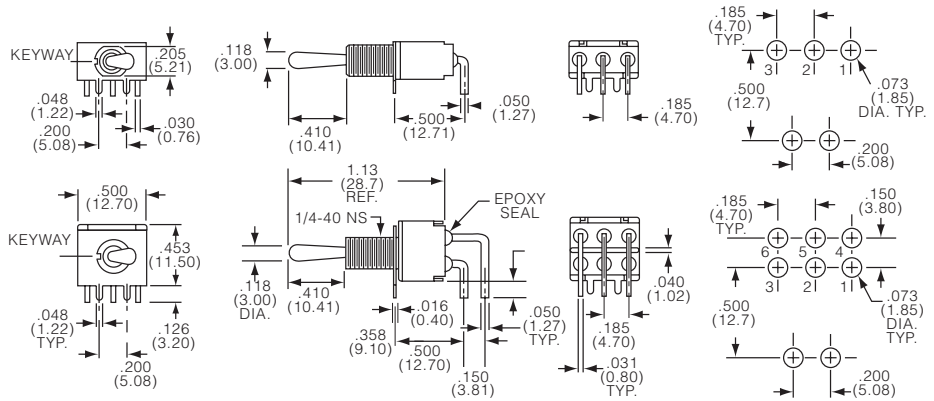


Gemini A Series (Continued)

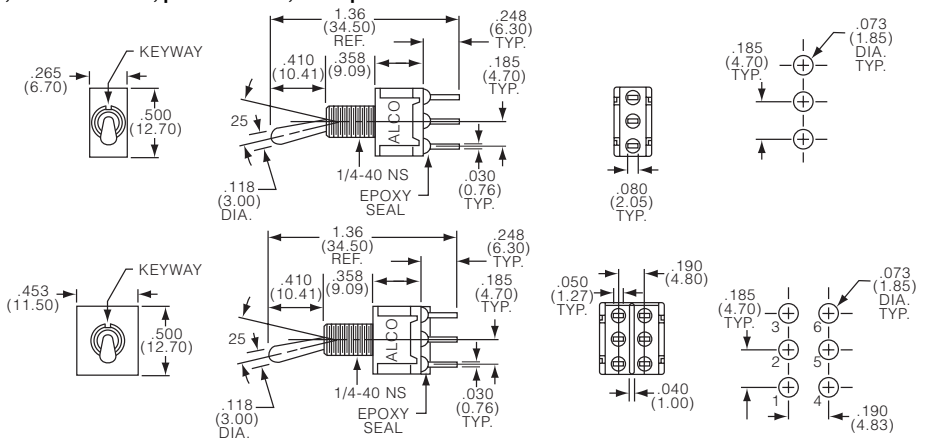
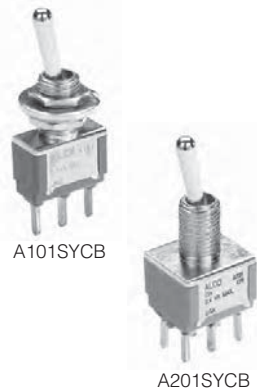
Series A...SD9AV2 long bat, unthreaded, vertical right angle, 1 & 2 pole



Series A...SYA long bat, 1/4-40 threaded, right angle, 1 & 2 pole



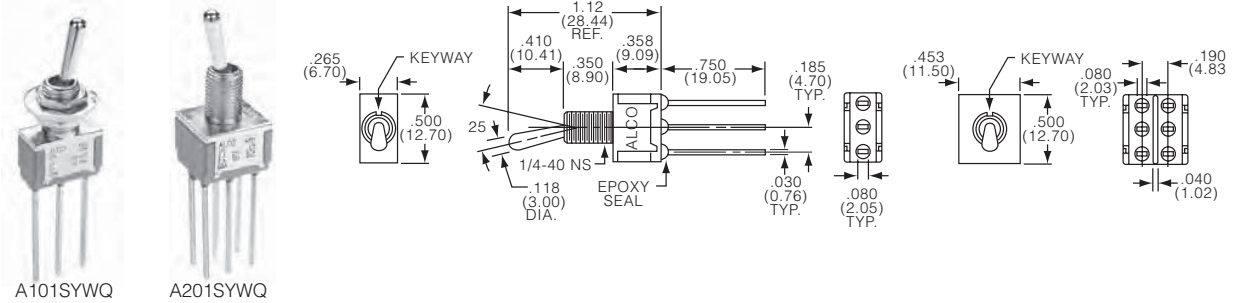
Series A...SYC long bat, 1/4-40 threaded, printed circuit, 1 & 2 pole



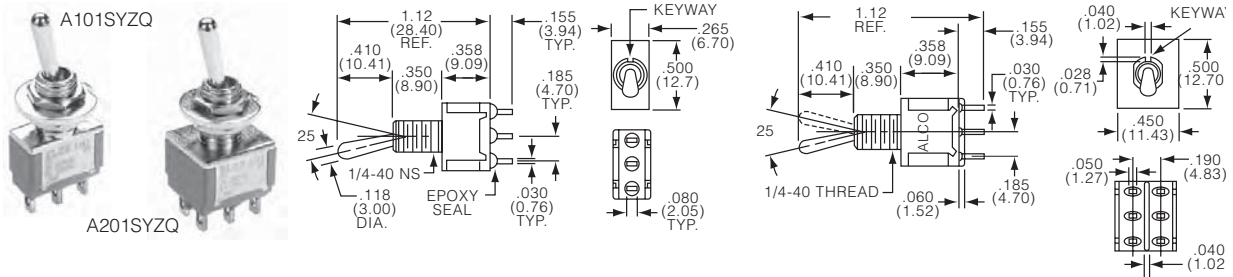
Toggle Switches

Gemini A Series (Continued)

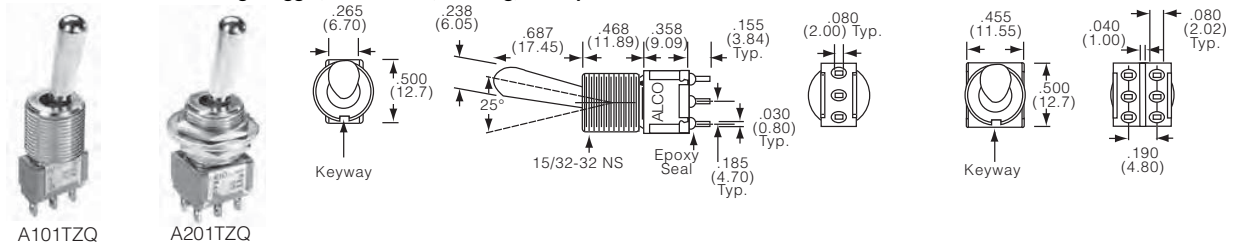
Series A...SYW long bat, 1/4-40 threaded, wire wrap, 1 & 2 pole



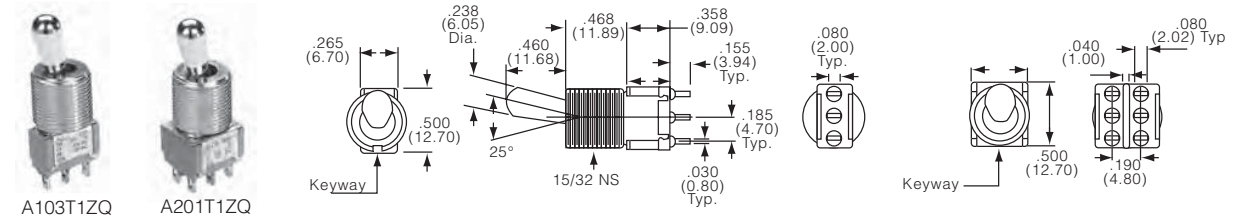
Series A...SYZ long bat, 1/4-40 threaded, wire lug, 1 & 2 pole



Series A...TZ large toggle, unthreaded, wire lug, 1 & 2 pole



Series A...T1Z large toggle, unthreaded, wire lug, 1 & 2 pole



Toggle Switches

Gemini A Series (Continued)

Product key	Poles	Function	Toggles	Bushing	Terminations	Contacts	Material	Part Number
A101K1V30B04	1	On-On	locking	1/4-40 threaded .35 (8.9)	vertical support	gold	RoHS compliant	1825136-1
A101KAB04				unthreaded .28 (7.1)	right angle			1825136-2
A101KAQ04						silver		1825136-3
A101KAV2Q04					vertical right angle			2-1825136-8
A101KCQ04					printed circuit			1825136-5
A101KD9AQ04					right angle			1825136-6
A101KZQ04					wire lug			1825136-7
A101L1D9V30Q04			lever		vertical support			1825136-9
A101L1YZB04				1/4-40 threaded .35 (8.9)	wire lug	gold		1-1825136-0
A101LDZQ04				1/4-40 threaded .28 (7.1)		silver		1-1825136-1
A101MD9AB04			bat short	unthreaded .28 (7.1)	right angle	gold		1-1825136-2
A101MD9AG04						Au over Ag		1-1825136-3
A101MD9AQ04						silver		1-1825136-4
A101MD9AV2B04					vertical right angle	gold		1-1825136-5
A101MD9AV2G04						Au over Ag		1-1825136-6
A101MD9AV2Q04						silver		1-1825136-7
A101MD9V30B04					vertical support	gold		1-1825136-8
A101MDAQ04				1/4-40 threaded .28 (7.1)	right angle	silver		1-1825136-9
A101MDAV2B04					vertical right angle	gold		2-1825136-0
A101MDCG04					printed circuit	Au over Ag		2-1825136-1
A101MDZQ04					wire lug	silver		2-1825136-2
A101MYCQ04				1/4-40 threaded .35 (8.9)	printed circuit			2-1825136-3
A101MYZQ04					wire lug			2-1825136-4
A101P3CB04			flatted		printed circuit	gold		2-1825136-6
A101P3YV30B04					vertical support			1825136-4
A101P3ZQ04					wire lug	silver		2-1825136-7
A101SCWCQ004			bat long	1/4-40 threaded .37 (9.4)	printed circuit			3-1825136-0
A101SCWZQ04					wire lug			3-1825136-1
A101SD9AB04				unthreaded .28 (7.1)	right angle	gold		3-1825136-2
A101SD9AQ04						silver		3-1825136-3
A101SD9AV2B04					vertical right angle	gold		3-1825136-4
A101SD9AV2Q04						silver		3-1825136-5
A101SD9V30B04					vertical support	gold		3-1825136-6
A101SD9V30Q04						silver		3-1825136-7
A101SDCQ04				1/4-40 threaded .28 (7.1)	printed circuit			3-1825136-8
A101SDZQ04					wire lug			3-1825136-9
A101SHZQ04				1/4-40 threaded .3 (7.6)				4-1825136-0
A101SY9CQ04				unthreaded .35 (8.9)	printed circuit			4-1825136-1
A101SYAB04				1/4-40 threaded .35 (8.9)	right angle	gold		4-1825136-2
A101SYAQ04						silver		4-1825136-3
A101SYAV2B04					vertical right angle	gold		1825136-8
A101SYCB04					printed circuit			4-1825136-4
A101SYCQ04						silver		4-1825136-5
A101SYWQ04					wire wrap			4-1825136-7
A101SYZB04					wire lug	gold		4-1825136-8
A101SYZQ04						silver		4-1825136-9
A101T1ZB04			lg. tgl. & bushing	unthreaded .28 (7.1)		gold		5-1825136-2
A101T1ZQ04						silver		5-1825136-3
A101TCQ04					printed circuit			5-1825136-4
A101TZQ04					wire lug			5-1825136-5
A103KZQ04		On-Off-On	locking					1825137-1
A103MD9AB04			bat short		right angle	gold		1825137-2
A103MD9AG04						Au over Ag		1825137-3
A103MD9AQ04						silver		1825137-4
A103MD9AV2B04					vertical right angle	gold		1825137-5
A103P3ZQ04			flatted	1/4-40 threaded .35 (8.9)	wire lug	silver		1825137-6
A103SD9AQ04			bat long	unthreaded .28 (7.1)	right angle			1825137-7
A103SD9AV2B04					vertical right angle	gold		1825137-8
A103SD9AV2Q04						silver		1825137-9
A103SDCB04				1/4-40 threaded .28 (7.1)	printed circuit	gold		1-1825137-0
A103SDCQ04						silver		1-1825137-1
A103SDZQ04					wire lug			1-1825137-2
A103SYAQ04				1/4-40 threaded .35 (8.9)	right angle			1-1825137-3
A103SYAV2B04					vertical right angle	gold		2-1825136-5
A103SYAV2Q04						silver		1-1825137-4
A103SYCB04					printed circuit	gold		1-1825137-5
A103SYCQ04						silver		1-1825137-6
A103SYWB04					wire wrap	gold		1-1825137-7
A103SYWQ04					right angle	silver		1-1825137-8
A103SYZB04					wire lug	gold		1-1825137-9
A103SYZQ04						silver		2-1825137-0
A103T1CG04			lg. tgl. & bushing	unthreaded .28 (7.1)	printed circuit	Au over Ag		2-1825137-1
A103T1ZQ04					wire lug	silver		2-1825137-2
A103TZQ04								2-1825137-3

Preferred parts in bold print

Toggle Switches

Gemini A Series (Continued)

Product key	Poles	Function	Toggles	Bushing	Terminations	Contacts	Material	Part Number
A105MD9AB04	1	(On)-Off-(On)	bat short	unthreaded .28 (7.1)	right angle	gold	RoHS compliant	2-1825137-4
A105MD9AQ04						silver		2-1825137-5
A105MYV30Q04				1/4-40 threaded .35 (8.9)	vertical support		2-1825137-6	
A105P3CG04			flatted		printed circuit	Au over Ag		2-1825137-7
A105P3CQ04						silver	2-1825137-8	
A105P3ZQ04					wire lug		2-1825137-9	
A105SD9AB04			bat long	unthreaded .28 (7.1)	right angle	gold		3-1825137-1
A105SD9AV2Q04					vertical right angle	silver		3-1825137-2
A105SD9V30B04					vertical support	gold	3-1825137-3	
A105SYAB04				1/4-40 threaded .35 (8.9)	right angle		3-1825137-4	
A105SYAV2B04					vertical right angle		3-1825137-5	
A105SYCB04					printed circuit		3-1825137-6	
A105SYCQ04						silver	3-1825137-7	
A105SYZB04					wire lug	gold	3-1825137-8	
A105SYZQ04						silver	3-1825137-9	
A105T1ZB04			lg. tgl.& bushing	unthreaded .28 (7.1)		gold		4-1825137-0
A105T1ZQ04						silver		4-1825137-1
A105TZQ04							4-1825137-2	
A107KAV2Q04		On-Off-(On)	locking		vertical right angle			4-1825137-3
A107KZB04				wire lug	gold	4-1825137-4		
A107MD9AV2B04			bat short		vertical right angle		4-1825137-5	
A107MD9CQ04					printed circuit	silver	4-1825137-6	
A107MD9V30Q04					vertical support		4-1825137-7	
A107P3ZQ04			flatted	1/4-40 threaded .35 (8.9)	wire lug		4-1825137-8	
A107SYAQ04			bat long		right angle		4-1825137-9	
A107SYCB04					printed circuit	gold	5-1825137-0	
A107SYCQ04						silver	5-1825137-1	
A107SYZQ04					wire lug		5-1825137-2	
A107TZB04			lg. tgl.& bushing	unthreaded .28 (7.1)		gold	5-1825137-3	
A108MD9AB04		On-(On)	bat short		right angle		5-1825136-6	
A108P3CQ04			flatted	1/4-40 threaded .35 (8.9)	printed circuit	silver	5-1825136-8	
A108P3ZQ04					wire lug		5-1825136-9	
A108SD9AQ04			bat long	unthreaded .28 (7.1)	right angle		6-1825136-0	
A108SDZQ04					1/4-40 threaded .28 (7.1)	wire lug		6-1825136-1
A108SYCB04				1/4-40 threaded .35 (8.9)	printed circuit	gold	6-1825136-2	
A108SYCQ04						silver	6-1825136-3	
A108SYZQ04					wire lug		6-1825136-4	
A201KAB04	2	On-On	locking	unthreaded .28 (7.1)	right angle	gold		1825138-1
A201KD9AQ04						silver		1825138-2
A201KZQ04					wire lug		1825138-3	
A201L1D9V30Q04			lever		vertical support		1825138-5	
A201MD9AB04			bat short		right angle	gold		1825138-6
A201MD9AQ04						vertical right angle	silver	1825138-7
A201MD9AV2B04						gold	1825138-8	
A201MD9AV2Q04						silver	1825138-9	
A201MDAQ04				1/4-40 threaded .28 (7.1)	right angle		1-1825138-0	
A201MYAQ04				1/4-40 threaded .35 (8.9)			1-1825138-2	
A201MYCB04					printed circuit	gold	1-1825138-3	
A201MYZQ04					wire lug	silver	1-1825138-4	
A201P3ZQ04			flatted				1-1825138-5	
A201SCWZB04			bat long	1/4-40 threaded .37 (9.4)		gold		1-1825138-6
A201SD9AQ04					unthreaded .28 (7.1)	right angle	silver	1-1825138-7
A201SD9AV2Q04					vertical right angle		1-1825138-8	
A201SDCB04				1/4-40 threaded .28 (7.1)	printed circuit	gold	1-1825138-9	
A201SDZQ04					wire lug	silver	2-1825138-0	
A201SY9AB04				unthreaded .35 (8.9)	right angle	gold	2-1825138-1	
A201SYAB04				1/4-40 threaded .35 (8.9)			2-1825138-2	
A201SYAQ04						silver	2-1825138-3	
A201SYCB04					printed circuit	gold	2-1825138-4	
A201SYCQ04						silver	2-1825138-5	
A201SYWQ04					wire wrap		2-1825138-6	
A201SYZB04					wire lug	gold	2-1825138-7	
A201SYZQ04						silver	2-1825138-8	
A201T1ZQ04			lg. tgl.& bushing	unthreaded .28 (7.1)				2-1825138-9
A201TZQ04								

Preferred parts in bold print

Toggle Switches

Gemini A Series (Continued)

Product key	Poles	Function	Toggles	Bushing	Terminations	Contacts	Material	Part Number
A203KZQ04	2	On-Off-On	locking	unthreaded .28 (7.1)	wire lug	silver	RoHS	1825139-1
A203MD9AB04			bat short		right angle	gold	compliant	1825139-2
A203P3AV2Q04			flatted	1/4-40 threaded .35 (8.9)	vertical right angle	silver		1825139-3
A203P3ZQ04					wire lug			1825139-4
A203SD9AV2B04			bat long	unthreaded .28 (7.1)	vertical right angle	gold		1825139-5
A203SD9AV2Q04						silver		
A203SDZQ04				1/4-40 threaded .28 (7.1)	wire lug			1825139-7
A203SYCB04				1/4-40 threaded .35 (8.9)	printed circuit	gold		1825139-8
A203SYCQ04						silver		1825139-9
A203SYZQ04					wire lug			1-1825139-0
A203T1ZQ04			lg. tgl.& bushing	unthreaded .28 (7.1)				1-1825139-1
A203TZQ04								
A205KZB04		(On)-Off-(On)	locking			gold		1-1825139-3
A205P3ZQ04			flatted	1/4-40 threaded .35 (8.9)		silver		1-1825139-4
A205SD9AB04			bat long		unthreaded .28 (7.1)	right angle	gold	
A205SYCB04				1/4-40 threaded .35 (8.9)	printed circuit			1-1825139-6
A205SYCQ04						silver		1-1825139-7
A205SYZQ04					wire lug			1-1825139-8
A205T1ZQ04			lg. tgl.& bushing	unthreaded .28 (7.1)				1-1825139-9
A205TZQ04								
A207P3ZQ04		On-Off-(On)	flatted	1/4-40 threaded .35 (8.9)				2-1825139-1
A207SYCB04			bat long			printed circuit	gold	
A207SYCQ04						silver		2-1825139-3
A207SYZQ04					wire lug			2-1825139-4
A207T1ZQ04			lg. tgl.& bushing	unthreaded .28 (7.1)				2-1825139-5
A207TZQ04								
A208KZG04		On-(On)	locking			Au over Ag		3-1825138-2
A208P3ZQ04			flatted	1/4-40 threaded .35 (8.9)		silver		3-1825138-3
A208SD9AQ04			bat long		unthreaded .28 (7.1)	right angle		
A208SD9AV2Q04					vertical right angle			3-1825138-5
A208SYCB04				1/4-40 threaded .35 (8.9)	printed circuit	gold		3-1825138-6
A208SYCQ04						silver		3-1825138-7
A208SYZQ04					wire lug			3-1825138-8
A208T1ZQ04			lg. tgl.& bushing	unthreaded .28 (7.1)				3-1825138-9
A208TZQ04								
A211KZB04		On-On-On	locking			gold		2-1825139-7
A211MD9AQ04			bat short		right angle	silver		2-1825139-8
A211MYCQ04				1/4-40 threaded .35 (8.9)	printed circuit			2-1825139-9
A211P3CQ04			flatted					3-1825139-0
A211P3V40G04					vertical support	Au over Ag		3-1825139-1
A211P3ZQ04					wire lug	silver		3-1825139-2
A211SCWCQ004			bat long	1/4-40 threaded .37 (9.4)	printed circuit			3-1825139-3
A211SDZQ04				1/4-40 threaded .28 (7.1)	wire lug			3-1825139-4
A211SHZQ04				1/4-40 threaded .3 (7.6)				3-1825139-5
A211SY9AQ04				unthreaded .35 (8.9)	right angle			3-1825139-6
A211SYCQ04				1/4-40 threaded .35 (8.9)	printed circuit			3-1825139-7
A211SYZB04					wire lug	gold		3-1825139-8
A211SYZQ04						silver		3-1825139-9
A211T1ZQ04			lg. tgl.& bushing	unthreaded .28 (7.1)				4-1825139-0
A213SYZQ04		On-On-(On)	bat long	1/4-40 threaded .35 (8.9)				4-1825139-2
A215SD9V30B04		(On)-On-(On)		unthreaded .28 (7.1)	vertical support	gold		4-1825139-3
A215SY9AQ04				unthreaded .35 (8.9)	right angle	silver		4-1825139-4
A215SYZQ04				1/4-40 threaded .35 (8.9)	wire lug			4-1825139-5

Preferred parts in bold print

Toggle Switches