

# **Quick Reference Guide**Gemini Series Switches

The TE Connectivity extensive Gemini A and Gemini AE Series offer one and two poles with multi-circuit configurations, including: momentary function, locking toggle to avoid unwanted switching as well as bat and flat toggles in different lengths. The Gemini AE Series meets IP67 requirements. Terminals are epoxy sealed to prevent the entry of flux, solvent and other contaminants. Gemini A & Gemini AE Switches are available with solder lug, PC, wire wrap, vertical, bracketed and angle-mount PC terminal choices.

The Gemini series offers engineers many different combinations of toggle or rocker switches for their applications.

# **FEATURES**

# Toggles

- · Gold, gold over silver or silver contacts
- Epoxy sealed terminals
- Stainless steel frame with brass tin plated solder support
- Hardware included
- · Boot seals available
- AE meets IP67 requirements

#### Rockers

- Multiple actuator colors available
- G and Q contacts UL recognition
- AE meets IP67 requirements

# **APPLICATIONS**

These devices are well suited for designs requiring human interface via toggle or rocker-style switch, including:

- Industrial equipment
- Audio-visual equipment
- Outdoor concert and lighting equipment
- Medical
- Instrumentation
- Communication equipment



# **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 : 5A @ 125VAC or 28VDC resistive 0.4VA @ 20V AC or DC or

2A @ 250VAC resistive Silver: 5A @ 125VAC or 28VDC resistive

Electrical Life: 6000 cycles

Contact Resistance, Initial: 10 mOhms max. at 2-4 VDC 100 mA

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 to +85°C **Storage Temperature**: -30 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 finish nickel

#### 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

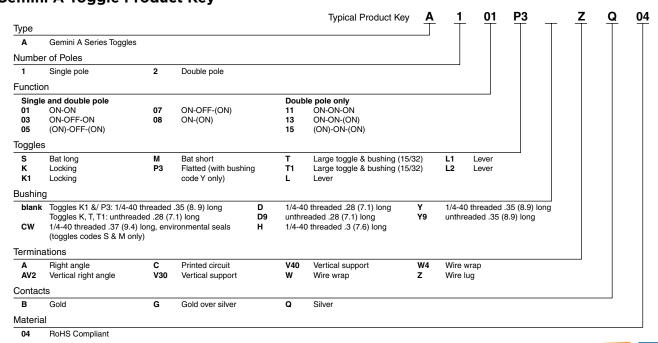
**Bushing**: Brass alloy finish nickel **Internal Actuator**: Phenolic **Spring**: Music wire

Support Bracket : Brass tin plated

Seal : Epoxy

# Gemini A Toggle Product Key



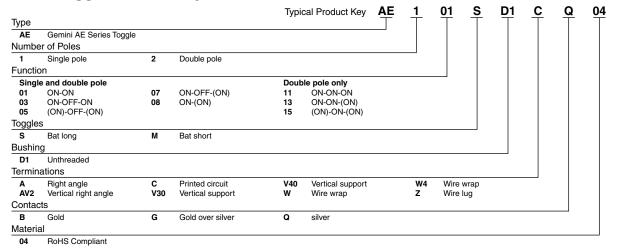




GEMINI A SE	RIES T	OGGLES						
Product Key	Poles	Function	Toggles	Bushing	Terminations	Contacts	Material	Part Number
A101KZQ04	1	ON-ON	Locking	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	1825136-7
A101MD9AB04	1	ON-ON	Bat Short	Unthreaded .28 (7.1)	Right Angle	Gold	RoHS Compliant	1-1825136-2
A101MD9AQ04	1	ON-ON	Bat Short	Unthreaded .28 (7.1)	Right Angle	Silver	RoHS Compliant	1-1825136-4
A101MD9AV2B04	1	ON-ON	Bat Short	Unthreaded .28 (7.1)	Vertical Right Angle	Gold	RoHS Compliant	1-1825136-5
A101MDZQ04	1	ON-ON	Bat Short	1/4-40 Threaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	2-1825136-2
A101MYZQ04	1	ON-ON	Bat Short	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	2-1825136-4
A101SCWZQ04	1	ON-ON	Bat Long	1/4-40 threaded .37 (9.4)	Wire Lug	Silver	RoHS Compliant	3-1825136-1
A101SD9AB04	1	ON-ON	Bat Long	Unthreaded .28 (7.1)	Right Angle	Gold	RoHS Compliant	3-1825136-2
A101SD9V30B04	1	ON-ON	Bat Long	Unthreaded .28 (7.1)	Vertical Support	Gold	RoHS Compliant	3-1825136-6
A101SHZQ04	1	ON-ON	Bat Long	1/4-40 threaded .3 (7.6)	Wire Lug	Silver	RoHS Compliant	4-1825136-0
A101SYCB04	1	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Gold	RoHS Compliant	4-1825136-4
A101SYCQ04	1	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	4-1825136-5
A101SYZB04	1	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Gold	RoHS Compliant	4-1825136-8
A101SYZQ04	1	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	4-1825136-9
A101TCQ04	1	ON-ON	Lg. Tgl. & Bushing	Unthreaded .28 (7.1)	Printed Circuit	Silver	RoHS Compliant	5-1825136-4
A101TZQ04	1	ON-ON	Lg. Tgl. & Bushing	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	5-1825136-5
A103KZQ04	1	ON-OFF-ON	Locking	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	1825137-1
A103MD9AV2B04	1	ON-OFF-ON	Bat Short	Unthreaded .28 (7.1)	Vertical Right Angle	Gold	RoHS Compliant	1825137-5
A103SYCQ04	1	ON-OFF-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	1-1825137-6
A103SYWB04	1	ON-OFF-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Wrap	Gold	RoHS Compliant	1-1825137-7
A103SYWQ04	1	ON-OFF-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Right Angle	Silver	RoHS Compliant	1-1825137-8
A103SYZB04	1	ON-OFF-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Gold	RoHS Compliant	1-1825137-9
A105MD9AB04	1	(ON)-OFF-(ON)	Bat Short	Unthreaded .28 (7.1)	Right Angle	Gold	RoHS Compliant	2-1825137-4
A105SYCQ04	1	(ON)-OFF-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	3-1825137-7
A105SYZQ04	1	(ON)-OFF-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	3-1825137-9
A105TZQ04	1	(ON)-OFF-(ON)	Lg. Tgl. & Bushing	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	4-1825137-2
A107SYCQ04	1	ON-OFF-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	5-1825137-1
A107SYZQ04	1	ON-OFF-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	5-1825137-2
A108SYZQ04	1	ON-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	6-1825136-4
A201KAB04	2	ON-ON	Locking	Unthreaded .28 (7.1)	Right Angle	Gold	RoHS Compliant	1825138-1
A201KZQ04	2	ON-ON	Locking	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	1825138-3
A201MD9AB04	2	ON-ON	Bat Short	Unthreaded .28 (7.1)	Right Angle	Gold	RoHS Compliant	1825138-6
A201MD9AQ04	2	ON-ON	Bat Short	Unthreaded .28 (7.1)	Right Angle	Silver	RoHS Compliant	1825138-7
A201MD9AV2Q04	2	ON-ON	Bat Short	Unthreaded .28 (7.1)	Vertical Right Angle	Silver	RoHS Compliant	1825138-9
A201SYCB04	2	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Gold	RoHS Compliant	2-1825138-4
A201SYCQ04	2	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	2-1825138-5
A201SYZB04	2	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Gold	RoHS Compliant	2-1825138-7
A201SYZQ04	2	ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	2-1025138-8
A201TZQ04	2	ON-ON	Lg. Tgl. & Bushing	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	3-1825138-1
A203KZQ04	2	ON-OFF-ON	Locking	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	1825139-1
A203MD9AB04	2	ON-OFF-ON	Bat Short	Unthreaded .28 (7.1)	Right Angle	Gold	RoHS Compliant	1825139-2
A203SYCQ04	2	ON-OFF-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	1825139-9
A203SYZQ04	2	ON-OFF-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	1-1825139-0
A203TZQ04	2	ON-OFF-ON	Lg. Tgl. & Bushing	Unthreaded .28 (7.1)	Wire Lug	Silver	RoHS Compliant	1-1825139-2
A205SYCQ04	2	(ON)-OFF-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)	Printed Circuit	Silver	RoHS Compliant	1-1825139-7
A205SYZQ04	2	(ON)-OFF-(ON)	Bat Long Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	1-1825139-7
A20551ZQ04 A207SYZQ04	2			1/4-40 Threaded .35 (8.9)	Wire Lug	Silver		2-1825139-4
A20751ZQ04 A208SYZQ04		ON-OFF-(ON)	Bat Long	1/4-40 Threaded .35 (8.9)			RoHS Compliant	
	2	ON-(ON)	Bat Long	` '	Wire Lug	Silver	RoHS Compliant	3-1825138-8
A211SYZQ04	2	ON-ON-ON	Bat Long	1/4-40 Threaded .35 (8.9)	Wire Lug	Silver	RoHS Compliant	3-1825139-9

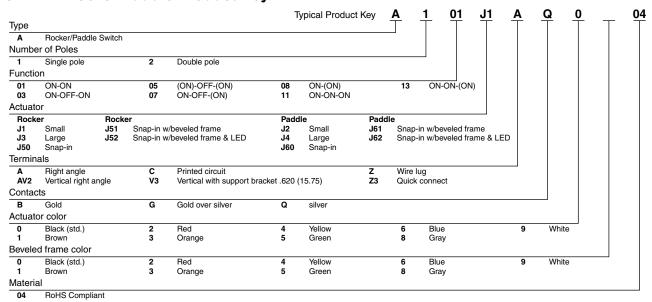


# **Gemini AE Toggle Product Key**



GEMINI AE SERIES TOGGLES									
Product Key	Poles	Function	Toggles	Bushing	Terminations	Contacts	Material	Part Number	
AE101MD1AB04	1	ON-ON	Bat Short	Unthreaded	Right Angle	Gold	RoHS Compliant	1825142-1	
AE101MD1AQ04	1	ON-ON	Bat Short	Unthreaded	Right Angle	Gold over Silver	RoHS Compliant	1825142-4	
AE101MD1AV2B04	1	ON-ON	Bat Short	Unthreaded	Vertical Right Angle	Gold	RoHS Compliant	1825142-5	
AE101MD1CB04	1	ON-ON	Bat Short	Unthreaded	Printed Circuit	Gold	RoHS Compliant	1825142-8	
AE101SD1AB04	1	ON-ON	Bat Long	Unthreaded	Right Angle	Gold	RoHS Compliant	1-1825142-5	
AE101SD1CB04	1	ON-ON	Bat Long	Unthreaded	Printed Circuit	Gold	RoHS Compliant	2-1825142-0	
AE103MD1AV2B04	1	ON-OFF-ON	Bat Short	Unthreaded	Vertical Right Angle	Gold	RoHS Compliant	2-1825142-5	
AE103SD1CB04	1	ON-OFF-ON	Bat Long	Unthreaded	Printed Circuit	Gold	RoHS Compliant	3-1825142-0	
AE105SD1CB04	1	ON-OFF-ON	Bat Long	Unthreaded	Printed Circuit	Gold	RoHS Compliant	3-1825142-9	
AE201SD1AV2B04	2	ON-ON	Bat Long	Unthreaded	Vertical Right Angle	Gold	RoHS Compliant	1825143-9	
AE201SD1CB04	2	ON-ON	Bat Long	Unthreaded	Printed Circuit	Gold	RoHS Compliant	1-1825143-0	
AE201SD1CQ04	2	ON-ON	Bat Long	Unthreaded	Printed Circuit	Silver	RoHS Compliant	1-1825143-1	
AE203SD1AV2B04	2	ON-OFF-ON	Bat Long	Unthreaded	Vertical Right Angle	Gold	RoHS Compliant	1-1825143-7	
AE203SD1AV2Q04	2	ON-OFF-ON	Bat Long	Unthreaded	Vertical Right Angle	Silver	RoHS Compliant	1-1825143-8	
AE203SD1CB04	2	ON-OFF-ON	Bat Long	Unthreaded	Printed Circuit	Gold	RoHS Compliant	1-1825143-9	

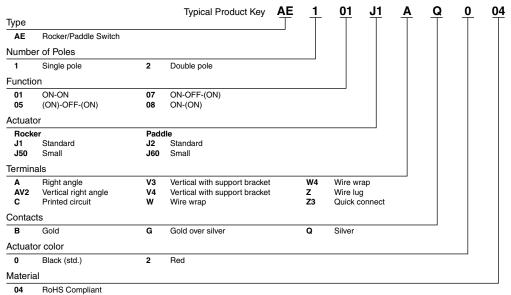
# **Gemini A Rocker Paddle Product Key**





GEMINI A SERIES ROCKER/PADDLE									
Product Key	Poles	Function	Actuator	Terminals	Contacts	Act. Color	Fr. Color	Material	Part Number
A101J1AV2Q004	1	ON-ON	Small	Vertical Right Angle	Silver	Black	N/A	RoHS Compliant	1-1571986-1
A101J1ZQ004	1	ON-ON	Small	Wire Lug	Silver	Black	N/A	RoHS Compliant	1-1571986-7
A101J51ZQ0004	1	ON-ON	Snap-in	Wire Lug	Silver	Black	Black	RoHS Compliant	3-1571986-4
A103J51ZQ0004	1	ON-OFF-ON	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	4-1571986-5
A105J1ZQ004	1	(ON)-OFF-(ON)	Small	Wire Lug	Silver	Black	N/A	RoHS Compliant	5-1571986-3
A105J3ZQ004	1	(ON)-OFF-(ON)	Large	Wire Lug	Silver	Black	N/A	RoHS Compliant	5-1571986-9
A105J51ZQ0004	1	(ON)-OFF-(ON)	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	6-1571986-1
A107J51ZQ0004	1	ON-OFF-(ON)	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	6-1571986-5
A108J51ZQ0004	1	ON-(ON)	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	6-1571986-9
A201J1AQ004	2	ON-ON	Small	Right Angle	Silver	Black	N/A	RoHS Compliant	1571987-2
A201J1AV2Q004	2	ON-ON	Small	Vertical Right Angle	Silver	Black	N/A	RoHS Compliant	1571987-4
A201J50ZQ004	2	ON-ON	Snap-in	Wire Lug	Silver	Black	N/A	RoHS Compliant	1-1571987-4
A201J51ZQ0004	2	ON-ON	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	1-1571987-5
A201J61ZQ0004	2	ON-ON	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	1-1571987-9
A203J51ZQ0004	2	ON-OFF-ON	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	2-1571987-6
A203J61ZQ0004	2	ON-OFF-ON	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	2-1571987-7
A205J51ZQ0004	2	(ON)-OFF-(ON)	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	3-1571987-3
A205J61ZQ0004	2	(ON)-OFF-(ON)	Snap-in, Frame	Wire Lug	Silver	Black	Black	RoHS Compliant	3-1571987-4

# **Gemini AE Rocker Paddle Product Key**



GEMINI AE SERIES ROCKER/PADDLE										
Product Key	Poles	Function	Actuator	Terminals	Contacts	Act. Color	Material	Part Number		
AE101J1AQ004	1	ON-ON	Standard	Right Angle	Silver	Black	RoHS Compliant	1571988-2		
AE101J1AV2Q004	1	ON-ON	Standard	Vertical Right Angle	Silver	Black	RoHS Compliant	1571988-4		
AE101J1V3B004	1	ON-ON	Standard	Br620 (15.75)	Gold	Black	RoHS Compliant	1571988-5		
AE105J1V3B004	1	(ON)-OFF-(ON)	Standard	Br620 (15.75)	Gold	Black	RoHS Compliant	1-1571988-0		
AE201J1AV2Q004	2	ON-ON	Standard	Vertical Right Angle	Silver	Black	RoHS Compliant	1571989-2		
AE201J1V3B004	2	ON-ON	Standard	Br620 (15.75)	Gold	Black	RoHS Compliant	1571989-3		



# **How to Specify a Switch**

# **Electrical Considerations**

Voltage of Applications:	Current of Application:					
Circuitry Configuration: Number of Poles:	Number of Throws:					
Number of Operations anticipated:						
Agency Approvals or Listings Desired:						
Mechanical Considerations						
Type of Switch (Actuator Type): Toggle _	Pushbutton	Rotary _	Rocker	Other		
Switch Function (On/Off/On):	On/Off:	Mor	mentary:			
Termination: Thru-Hole (PC) Surfa	ce Mount	Wire Lug	Quick Connect	Other		
Sealing Contamination Requirements:						
Product Processing Considerations						
Anticipated Soldering Process: Hand	Wave	SMTOthe	r			

#### FOR MORE INFORMATION

# **TE Technical Support Center**

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A323S1CWZQ A423S1CWZG-M8 1201W 12156AX408 12147AGKX679 12246X778 12TW49-3D 130312 13037L 13001X
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