

## Quick Reference Guide

### Green Pushbutton and Toggle Series Switches

The Green Series switch offering includes both pushbutton and toggle switches all rated to 6A/3A@125/250VAC and 4A@28VDC. The life expectancy depending on function (momentary or push on push off) and number of poles from 40,000 up to 80,000 cycles at full load this is accomplished due to silver slugs in the contact area. In addition to the silver slugs all contact surfaces are gold flashed this inhibits oxidation and also offers a very low initial contact resistance. The design also includes overmolded terminals which eliminate any voids which is possible with epoxy sealed terminals. The Green Series Toggle offer wide range of toggle bat options including a splash proof switch the MTE series and locking toggle MTL series. In the pushbuttons we offer our standard button style MPA plus a splash proof design MPE and our very robust actuator the MPG Mustang series.

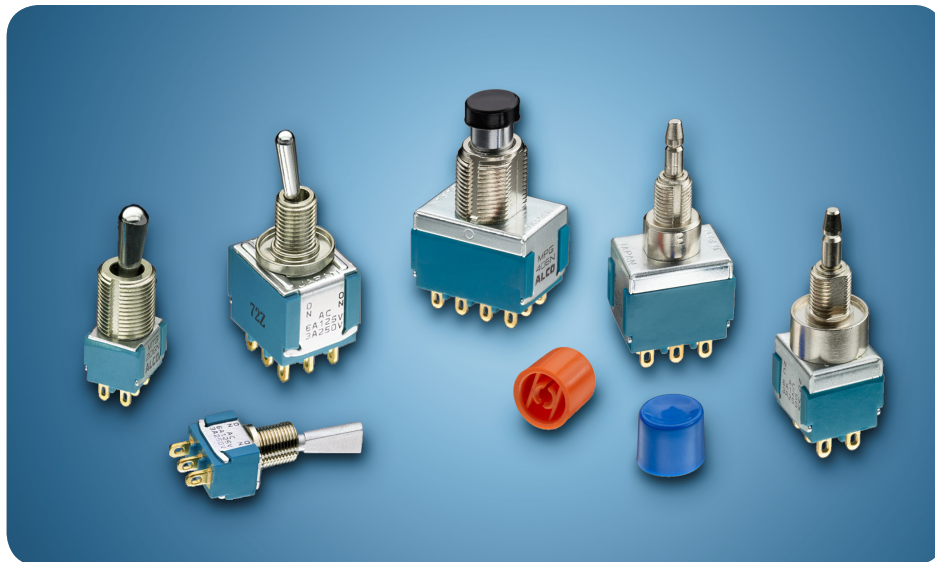
#### FEATURES AND BENEFITS

- Wire lug, PC terminals, right angle and vertical right angle offered
- Customer selected actuator cap size and color on MPA series
- MTE series splash proof toggle actuator
- MPE series sealed to IP65
- Entire series with overmolded terminals
- Actuator guards, decorative hardware, and silicone boot seals available

#### PRODUCT APPLICATIONS

- Military/Aerospace
- Commercial
- Industrial
- Instrumentation
- Medical

Typical Performance Characteristics	
Contact configuration	spdt, dpdt, 3pdt, 4pdt
Contact timing	break-before-make
Contact rating, max	6 A @ 125 VAC, 3 A @ 250 VAC
Electrical life (pushbutton only)	push on/push off: 30,000 cycles momentary: 20,000 cycles
Contact resistance, initial	10 mOhms max.
Insulation resistance	1,000 MOhms min.
Dielectric strength	1,500 Volts rms @ sea level
Actuator force	4 to 20 N (400 to 2000 gf)
Actuator travel	3.44 mm (pushbuttons) 24°-26° (toggles)
Environmental Specifications	
Operating temperature	-20°C to +80°C
Storage temperature	-40°C to +80°C
Solder heat resistance	wave solder capable to 265°C
Seal	MPE switches IP65 overmolded terminals MTE series splash proof toggle actuator 'O' ring
Material Specifications	
Contacts	copper alloy silver clad gold flash
Actuator	brass nickel plated
Terminals	copper alloy silver clad gold flash
Terminal seal	overmolded
Case	alkyd polyester (green) UL94-V-0
Frame	stainless steel
Support bracket (toggle only)	steel nickel plated
Spring (toggle only)	music wire
RoHS Directive 2002/95/EC	compliant



**PUSHBUTTON SWITCHES PRODUCT KEY**

	Typical Product Key						<b>MP</b>	<b>A</b>	<b>1</b>	<b>06</b>	<b>D</b>	<b>RA</b>
<b>Type</b>	Green Series pushbutton switches, panel mount											
<b>Bushing style</b>	A 1/4-40 3.4mm actuator E 1/4-40 3.4mm actuator with 'O' rings G 15/32-32 large actuator											
<b>Number of poles</b>	1 single pole                      3 3 pole 2 double pole                      4 4 pole											
<b>Rating</b>	06 6 Amp											
<b>Function</b>	1 & 3 pole                      2 & 4 pole D push-on/push-off              N push-on/push-off F momentary                      R momentary											
<b>Terminals</b>	blank wire lug                      PC printed circuit board											



PART NUMBERS						
Product key	Bushing	No. of poles	Function	Terminals	Material	Part Number
MPA106D	1/4-40 3.4mm actuator	single pole	push-on/push-off	wire lug	RoHS compliant	2-1437567-8
MPA106F	1/4-40 3.4mm actuator	single pole	momentary	wire lug	RoHS compliant	2-1437567-9
MPA106FPC	1/4-40 3.4mm actuator	single pole	momentary	pcb	RoHS compliant	3-1437567-0
MPA206N	1/4-40 3.4mm actuator	double pole	push-on/push-off	wire lug	RoHS compliant	3-1437567-1
MPA206NPC	1/4-40 3.4mm actuator	double pole	push-on/push-off	pcb	RoHS compliant	3-1437567-2
MPA206R	1/4-40 3.4mm actuator	double pole	momentary	wire lug	RoHS compliant	3-1437567-3
MPA206RPC	1/4-40 3.4mm actuator	double pole	momentary	pcb	RoHS compliant	3-1437567-4
MPA306D	1/4-40 3.4mm actuator	3 poles	push-on/push-off	wire lug	RoHS compliant	3-1437567-5
MPA306F	1/4-40 3.4mm actuator	3 poles	momentary	wire lug	RoHS compliant	3-1437567-6
MPA406N	1/4-40 3.4mm actuator	4 poles	push-on/push-off	wire lug	RoHS compliant	3-1437567-7
MPA406R	1/4-40 3.4mm actuator	4 poles	momentary	wire lug	RoHS compliant	3-1437567-8
MPE106D	1/4-40 3.4mm actuator with 'O' ring	single pole	push-on/push-off	wire lug	RoHS compliant	4-1437567-2
MPE106F	1/4-40 3.4mm actuator with 'O' ring	single pole	momentary	wire lug	RoHS compliant	4-1437567-3
MPE206N	1/4-40 3.4mm actuator with 'O' ring	double pole	push-on/push-off	wire lug	RoHS compliant	4-1437567-4
MPE206R	1/4-40 3.4mm actuator with 'O' ring	double pole	momentary	wire lug	RoHS compliant	4-1437567-5
MPE306F	1/4-40 3.4mm actuator with 'O' ring	3 poles	momentary	wire lug	RoHS compliant	4-1437567-6
MPE406N	1/4-40 3.4mm actuator with 'O' ring	4 poles	push-on/push-off	wire lug	RoHS compliant	4-1437567-7
MPE406R	1/4-40 3.4mm actuator with 'O' ring	4 poles	momentary	wire lug	RoHS compliant	4-1437567-8
MPG106D	15/32-32 large actuator	single pole	push-on/push-off	wire lug	RoHS compliant	4-1437567-9
MPG106F	15/32-32 large actuator	single pole	momentary	wire lug	RoHS compliant	5-1437567-0
MPG206N	15/32-32 large actuator	double pole	push-on/push-off	wire lug	RoHS compliant	5-1437567-1
MPG206NPC	15/32-32 large actuator	double pole	push-on/push-off	pcb	RoHS compliant	5-1437567-2
MPG206R	15/32-32 large actuator	double pole	momentary	wire lug	RoHS compliant	5-1437567-3
MPG206RPC	15/32-32 large actuator	double pole	momentary	pcb	RoHS compliant	5-1437567-4
MPG306D	15/32-32 large actuator	3 poles	push-on/push-off	wire lug	RoHS compliant	5-1437567-5
MPG306F	15/32-32 large actuator	3 poles	momentary	wire lug	RoHS compliant	5-1437567-6
MPG406N	15/32-32 large actuator	4 poles	push-on/push-off	wire lug	RoHS compliant	5-1437567-7
MPG406R	15/32-32 large actuator	4 poles	momentary	wire lug	RoHS compliant	5-1437567-8

TOGGLE SWITCHES PRODUCT KEY

		Typical Product Key																								
		<b>MT</b>	<b>A</b>	<b>1</b>	<b>06</b>	<b>E</b>	<b>PC</b>																			
Type	Green Series toggle switches, panel mount																									
Toggle & Bushing	<ul style="list-style-type: none"> <li><b>A</b> .410 long round toggle, 1/4-40 bushing</li> <li><b>A8</b> .410 long round toggle, 1/4-40 bushing, right angle &amp; vertical right angle</li> <li><b>B</b> .600 long round toggle with plastic tip, 1/4-40 bushing</li> <li><b>E</b> .410 long round toggle, 1/4-40 bushing with 'O' ring seal</li> <li><b>F</b> .485 long flat toggle, 1/4-40 bushing</li> <li><b>G</b> .452 long large diameter round toggle, 15/32 bushing</li> <li><b>G2</b> .685 long large diameter round toggle, 15/32 bushing</li> <li><b>L</b> locking toggle, 1/4-40 bushing</li> <li><b>M</b> .270 long round toggle, 1/4-40 bushing</li> <li><b>M8</b> .270 long round toggle, 1/4-40 bushing, right angle &amp; vertical right angle</li> </ul>																									
Number of poles	<ul style="list-style-type: none"> <li><b>1</b> single pole</li> <li><b>2</b> double pole</li> <li><b>3</b> 3 pole</li> <li><b>4</b> 4 pole</li> </ul>																									
Rating	<b>06</b> 6 Amp																									
Function	<table border="0" style="width: 100%;"> <tr> <td style="width: 33%;"><b>1 &amp; 3 pole</b></td> <td style="width: 33%;"><b>2 &amp; 4 pole</b></td> <td style="width: 33%;"><b>1 &amp; 2 pole functionality *</b></td> </tr> <tr> <td><b>D</b> ON-ON</td> <td><b>N</b> ON-ON</td> <td><b>PA</b> ON-ON-ON</td> </tr> <tr> <td><b>E</b> ON-OFF-ON</td> <td><b>P</b> ON-OFF-ON</td> <td><b>SA</b> (ON)-ON-(ON)</td> </tr> <tr> <td><b>F</b> ON-(ON)</td> <td><b>R</b> ON-(ON)</td> <td><b>TA</b> ON-ON-(ON)</td> </tr> <tr> <td><b>G</b> (ON)-OFF-(ON)</td> <td><b>S</b> (ON)-OFF-(ON)</td> <td colspan="2" style="text-align: center;"><small>* 2 and 4 pole design, internally connected for 1 and 2 pole functionality</small></td> </tr> <tr> <td><b>H</b> ON-OFF-(ON)</td> <td><b>T</b> ON-OFF-(ON)</td> <td></td> </tr> </table>							<b>1 &amp; 3 pole</b>	<b>2 &amp; 4 pole</b>	<b>1 &amp; 2 pole functionality *</b>	<b>D</b> ON-ON	<b>N</b> ON-ON	<b>PA</b> ON-ON-ON	<b>E</b> ON-OFF-ON	<b>P</b> ON-OFF-ON	<b>SA</b> (ON)-ON-(ON)	<b>F</b> ON-(ON)	<b>R</b> ON-(ON)	<b>TA</b> ON-ON-(ON)	<b>G</b> (ON)-OFF-(ON)	<b>S</b> (ON)-OFF-(ON)	<small>* 2 and 4 pole design, internally connected for 1 and 2 pole functionality</small>		<b>H</b> ON-OFF-(ON)	<b>T</b> ON-OFF-(ON)	
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<b>H</b> ON-OFF-(ON)	<b>T</b> ON-OFF-(ON)																									
Terminations	<ul style="list-style-type: none"> <li><b>blank</b> wire lug</li> <li><b>PC</b> printed circuit board</li> <li><b>RA</b> right angle</li> <li><b>VRA</b> vertical right angle</li> </ul>																									



PART NUMBERS							
Product key	Toggle	Bushing	Poles	Terminations	Material	Part Number	
MTA106D	.410 round	1/4-40 bushing	1	wire lug	RoHS Compliant	1-1437558-0	
MTA106DPC	.410 round	1/4-40 bushing	1	pc board	RoHS Compliant	1-1437558-1	
MTA106E	.410 round	1/4-40 bushing	1	wire lug	RoHS Compliant	1-1437558-2	
MTA106EPC	.410 round	1/4-40 bushing	1	pc board	RoHS Compliant	1-1437558-3	
MTA106F	.410 round	1/4-40 bushing	1	wire lug	RoHS Compliant	1-1437558-4	
MTA106FPC	.410 round	1/4-40 bushing	1	pc board	RoHS Compliant	1-1437558-5	
MTA106G	.410 round	1/4-40 bushing	1	wire lug	RoHS Compliant	1-1437558-6	
MTA106GPC	.410 round	1/4-40 bushing	1	pc board	RoHS Compliant	1-1437558-7	
MTA206N	.410 round	1/4-40 bushing	2	wire lug	RoHS Compliant	2-1437558-0	
MTA206NPC	.410 round	1/4-40 bushing	2	pc board	RoHS Compliant	2-1437558-1	
MTA206P	.410 round	1/4-40 bushing	2	wire lug	RoHS Compliant	2-1437558-2	
MTA206PPC	.410 round	1/4-40 bushing	2	pc board	RoHS Compliant	2-1437558-5	
MTA206R	.410 round	1/4-40 bushing	2	wire lug	RoHS Compliant	2-1437558-7	
MTA206RPC	.410 round	1/4-40 bushing	2	pc board	RoHS Compliant	2-1437558-8	
MTA206S	.410 round	1/4-40 bushing	2	wire lug	RoHS Compliant	2-1437558-9	
MTA206SPC	.410 round	1/4-40 bushing	2	pc board	RoHS Compliant	3-1437558-1	
MTA306D	.410 round	1/4-40 bushing	3	wire lug	RoHS Compliant	3-1437558-5	
MTA306DPC	.410 round	1/4-40 bushing	3	pc board	RoHS Compliant	3-1437558-6	
MTA306E	.410 round	1/4-40 bushing	3	wire lug	RoHS Compliant	3-1437558-7	
MTA306EPC	.410 round	1/4-40 bushing	3	pc board	RoHS Compliant	3-1437558-8	
MTA306F	.410 round	1/4-40 bushing	3	wire lug	RoHS Compliant	3-1437558-9	
MTA306FPC	.410 round	1/4-40 bushing	3	pc board	RoHS Compliant	4-1437558-0	
MTA406N	.410 round	1/4-40 bushing	4	wire lug	RoHS Compliant	4-1437558-3	
MTA406NPC	.410 round	1/4-40 bushing	4	pc board	RoHS Compliant	4-1437558-4	
MTA406P	.410 round	1/4-40 bushing	4	wire lug	RoHS Compliant	4-1437558-5	
MTA406PPC	.410 round	1/4-40 bushing	4	pc board	RoHS Compliant	4-1437558-8	

PART NUMBERS <i>(continued)</i>						
Product key	Toggle	Bushing	Poles	Terminations	Material	Part Number
MTB106D	.600 round, w plastic tip	1/4-40 bushing	1	wire lug	RoHS Compliant	6-1437558-2
MTB106E	.600 round, w plastic tip	1/4-40 bushing	1	wire lug	RoHS Compliant	6-1437558-3
MTB206N	.600 round, w plastic tip	1/4-40 bushing	2	wire lug	RoHS Compliant	6-1437558-4
MTB206P	.600 round, w plastic tip	1/4-40 bushing	2	wire lug	RoHS Compliant	6-1437558-5
MTB306D	.600 round, w plastic tip	1/4-40 bushing	3	wire lug	RoHS Compliant	6-1437558-6
MTB406N	.600 round, w plastic tip	1/4-40 bushing	4	wire lug	RoHS Compliant	6-1437558-7
MTE106D	.410 round	1/4-40, O-ring seal	1	wire lug	RoHS Compliant	6-1437558-8
MTE106E	.410 round	1/4-40, O-ring seal	1	wire lug	RoHS Compliant	6-1437558-9
MTE106F	.410 round	1/4-40, O-ring seal	1	wire lug	RoHS Compliant	7-1437558-0
MTE106G	.410 round	1/4-40, O-ring seal	1	wire lug	RoHS Compliant	7-1437558-1
MTE206N	.410 round	1/4-40, O-ring seal	2	wire lug	RoHS Compliant	7-1437558-2
MTE206P	.410 round	1/4-40, O-ring seal	2	wire lug	RoHS Compliant	7-1437558-3
MTE206R	.410 round	1/4-40, O-ring seal	2	wire lug	RoHS Compliant	7-1437558-5
MTE206S	.410 round	1/4-40, O-ring seal	2	wire lug	RoHS Compliant	7-1437558-6
MTE306D	.410 round	1/4-40, O-ring seal	3	wire lug	RoHS Compliant	7-1437558-8
MTE306E	.410 round	1/4-40, O-ring seal	3	wire lug	RoHS Compliant	7-1437558-9
MTE406N	.410 round	1/4-40, O-ring seal	4	wire lug	RoHS Compliant	8-1437558-0
MTE406P	.410 round	1/4-40, O-ring seal	4	wire lug	RoHS Compliant	8-1437558-1
MTF106D	.485 flat	1/4-40 bushing	1	wire lug	RoHS Compliant	8-1437558-3
MTF106E	.485 flat	1/4-40 bushing	1	wire lug	RoHS Compliant	8-1437558-4
MTF106F	.485 flat	1/4-40 bushing	1	wire lug	RoHS Compliant	8-1437558-5
MTF106G	.485 flat	1/4-40 bushing	1	wire lug	RoHS Compliant	8-1437558-6
MTF206S	.485 flat	1/4-40 bushing	2	wire lug	RoHS Compliant	9-1437558-6
MTF306D	.485 flat	1/4-40 bushing	3	wire lug	RoHS Compliant	1437559-6
MTF406N	.485 flat	1/4-40 bushing	4	wire lug	RoHS Compliant	1437559-8
MTG106D	.452 large diam. round	15/32 bushing	1	wire lug	RoHS Compliant	1-1437559-1
MTG106E	.452 large diam. round	15/32 bushing	1	wire lug	RoHS Compliant	1-1437559-2
MTG106F	.452 large diam. round	15/32 bushing	1	wire lug	RoHS Compliant	1-1437559-3
MTG106G	.452 large diam. round	15/32 bushing	1	wire lug	RoHS Compliant	1-1437559-4
MTG206N	.452 large diam. round	15/32 bushing	2	wire lug	RoHS Compliant	1-1437559-8
MTG206P	.452 large diam. round	15/32 bushing	2	wire lug	RoHS Compliant	2-1437559-0
MTG206R	.452 large diam. round	15/32 bushing	2	wire lug	RoHS Compliant	2-1437559-2
MTG206S	.452 large diam. round	15/32 bushing	2	wire lug	RoHS Compliant	2-1437559-3
MTG306D	.452 large diam. round	15/32 bushing	3	wire lug	RoHS Compliant	2-1437559-8
MTG306E	.452 large diam. round	15/32 bushing	3	wire lug	RoHS Compliant	2-1437559-9
MTG406N	.452 large diam. round	15/32 bushing	4	wire lug	RoHS Compliant	3-1437559-1
MTG406P	.452 large diam. round	15/32 bushing	4	wire lug	RoHS Compliant	3-1437559-2
MTL106D	locking	1/4-40 bushing	1	wire lug	RoHS Compliant	3-1437559-4
MTL106E	locking	1/4-40 bushing	1	wire lug	RoHS Compliant	3-1437559-5
MTL206N	locking	1/4-40 bushing	2	wire lug	RoHS Compliant	3-1437559-7
MTL206P	locking	1/4-40 bushing	2	wire lug	RoHS Compliant	3-1437559-9
MTL206S	locking	1/4-40 bushing	2	wire lug	RoHS Compliant	4-1437559-1
MTL306D	locking	1/4-40 bushing	3	wire lug	RoHS Compliant	4-1437559-2
MTL306E	locking	1/4-40 bushing	3	wire lug	RoHS Compliant	4-1437559-3
MTL406N	locking	1/4-40 bushing	4	wire lug	RoHS Compliant	4-1437559-4
MTM106DPC	.270 round	1/4-40 bushing	1	pc board	RoHS Compliant	4-1437559-6
MTM106EPC	.270 round	1/4-40 bushing	1	pc board	RoHS Compliant	4-1437559-7
MTM106FPC	.270 round	1/4-40 bushing	1	pc board	RoHS Compliant	4-1437559-8
MTM206NPC	.270 round	1/4-40 bushing	2	pc board	RoHS Compliant	4-1437559-9
MTM306DPC	.270 round	1/4-40 bushing	3	pc board	RoHS Compliant	5-1437559-3
MTM406NPC	.270 round	1/4-40 bushing	4	pc board	RoHS Compliant	5-1437559-4
MTL106D	locking	1/4-40 bushing	1	wire lug	RoHS Compliant	3-1437559-4
MTL106E	locking	1/4-40 bushing	1	wire lug	RoHS Compliant	3-1437559-5
MTL206N	locking	1/4-40 bushing	2	wire lug	RoHS Compliant	3-1437559-7
MTL206P	locking	1/4-40 bushing	2	wire lug	RoHS Compliant	3-1437559-9
MTL206S	locking	1/4-40 bushing	2	wire lug	RoHS Compliant	4-1437559-1
MTL306D	locking	1/4-40 bushing	3	wire lug	RoHS Compliant	4-1437559-2
MTL306E	locking	1/4-40 bushing	3	wire lug	RoHS Compliant	4-1437559-3
MTL406N	locking	1/4-40 bushing	4	wire lug	RoHS Compliant	4-1437559-4
MTM106DPC	.270 round	1/4-40 bushing	1	pc board	RoHS Compliant	4-1437559-6
MTM106EPC	.270 round	1/4-40 bushing	1	pc board	RoHS Compliant	4-1437559-7
MTM106FPC	.270 round	1/4-40 bushing	1	pc board	RoHS Compliant	4-1437559-8
MTM206NPC	.270 round	1/4-40 bushing	2	pc board	RoHS Compliant	4-1437559-9
MTM306DPC	.270 round	1/4-40 bushing	3	pc board	RoHS Compliant	5-1437559-3
MTM406NPC	.270 round	1/4-40 bushing	4	pc board	RoHS Compliant	5-1437559-4

# How to Specify in 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: \_\_\_\_\_ Momentary: \_\_\_\_\_

Termination: \_\_\_\_\_ Thru-Hole (PC) \_\_\_\_\_ Surface Mount \_\_\_\_\_ Wire Lug \_\_\_\_\_ Quick Connect \_\_\_\_\_ Other

Sealing Contamination Requirements: \_\_\_\_\_

## Product Processing Considerations

Anticipated Soldering Process: \_\_\_\_\_ Hand \_\_\_\_\_ Wave \_\_\_\_\_ SMT \_\_\_\_\_ Other

## FOR MORE INFORMATION

### TE Technical Support Center

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Netherlands:	+31 (0) 73-6246-999
China:	+86 (0) 400-820-6015

Part numbers in this brochure are RoHS Compliant\*, unless marked otherwise.

\*as defined [www.te.com/leadfree](http://www.te.com/leadfree)

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