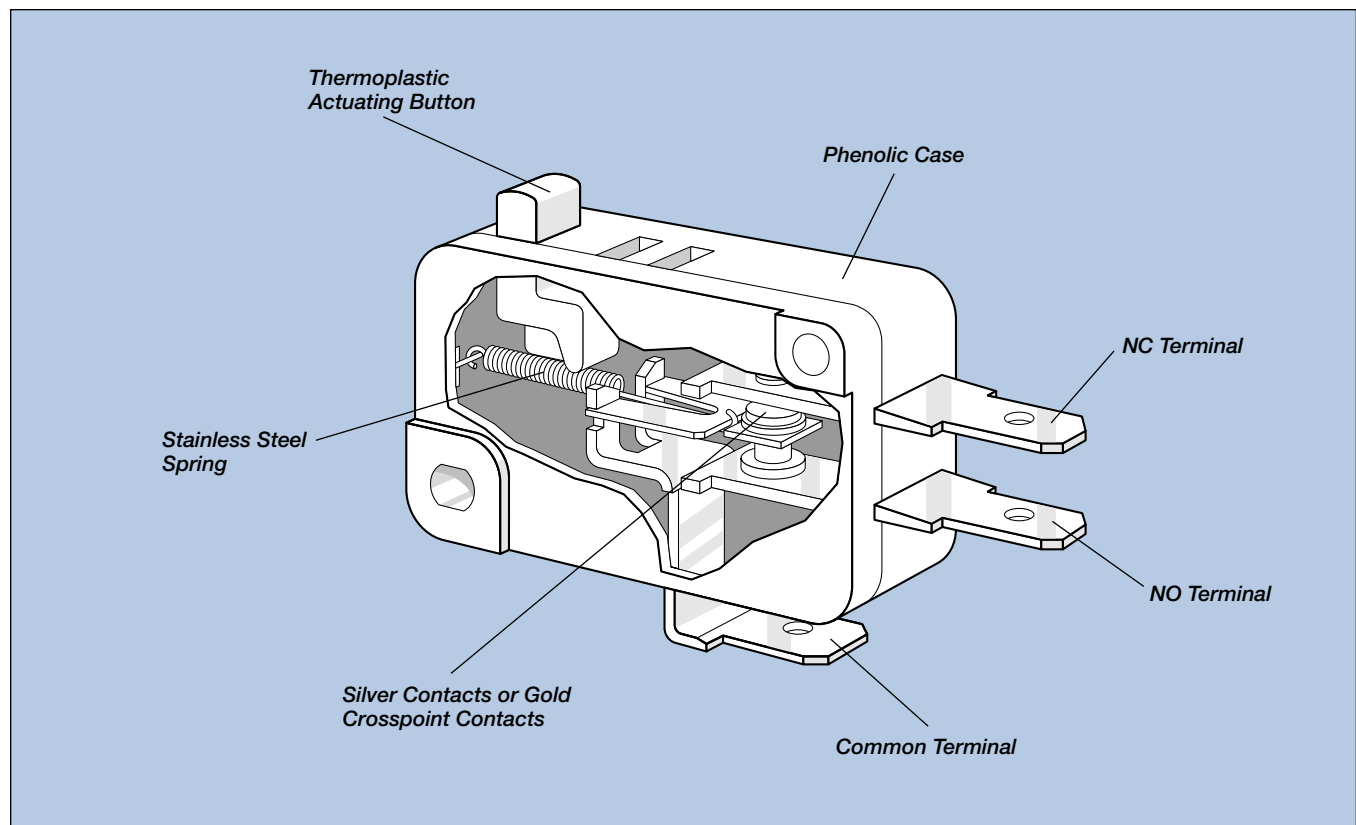
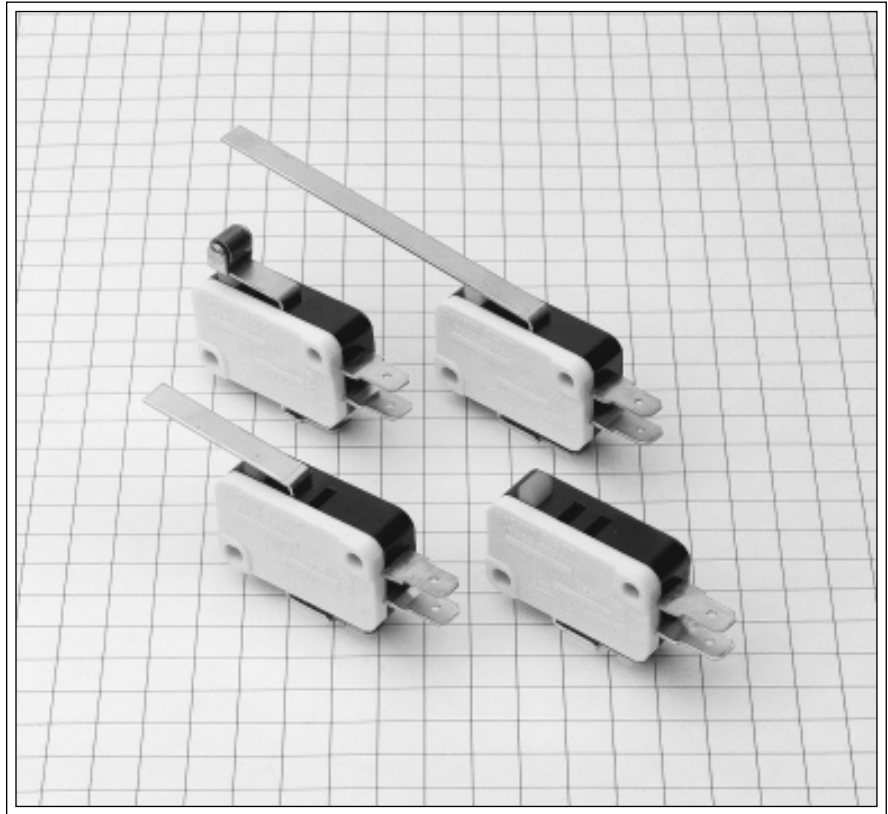


E Series Standard Force Miniature

E21	0.1 amp
E22	3 amp
E23	5 amp
E31	1 amp
E33	10 amp
E34	15 amp

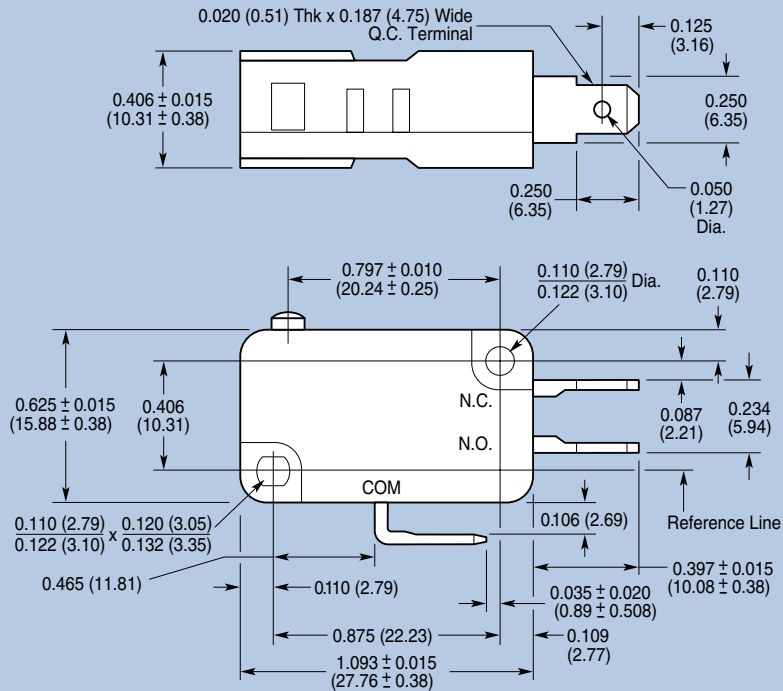
Features

- 6 current ratings AC
- 3 current ratings DC
- Choice of actuator styles
- Choice of terminals
- 3 contact arrangements
- Long life coil spring mechanism
- Custom designs
- Agency approved extended life versions
- High temperature versions available



E Series Standard Force Miniature

Dimensions: Inches (mm)



3

Contacts and Ratings

Series Prefix	Rating
E21	0.1 amp 125 VAC Gold Crosspoint Contacts
Temperature Rating	-40° to +85°C. 130°C, 150°C optional
DC Recognition	-00DC 0.25 amp, 30VDC
E22	3 amp 125/250 VAC, 1/10 H.P., 250 VAC Silver Alloy Contacts
Temperature Rating	-40° to +85°C. 130°C, 150°C optional
DC Recognition	-00DC 0.1 amp, 125VDC
E23	5 amp 1/4 H.P., 125/250 VAC Silver Alloy Contacts
Temperature Rating	-40° to +85°C. 130°C, 150°C optional
E31	1 amp 125 VAC Gold Crosspoint Contacts
Temperature Rating	-40° to +85°C
E33	10 amp 1/2 H.P., 125/250 VAC Silver Alloy Contacts
Temperature Rating	-40° to +85°C. 130°C, 150°C optional
DC Recognition	-00DC 6 amp, 30VDC
E34	15 amp 1/2 H.P., 125/250 VAC Silver Alloy Contacts
Temperature Rating	-40° to +85°C. 130°C, 150°C optional
Flammability Rating	UL94HB

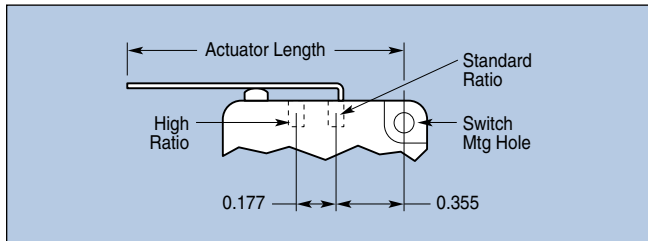
Electrical Specifications/Life

See electrical life chart on page 11-4.

E Series Standard Force Miniature

Actuators

Many special forms and lengths of actuators are available. Standard type integral hinged lever and roller actuators are available in choice of 2 mounting positions. Actuator lengths are dimensioned from centerline of switch mounting hole as shown.



Circuitry

Contact arrangement available in choice of single pole double throw or single pole single throw, either normally open or normally closed. In general normally open may be specified by changing suffix number from 00 to 01 and normally closed by changing suffix number to 02.

Mounting

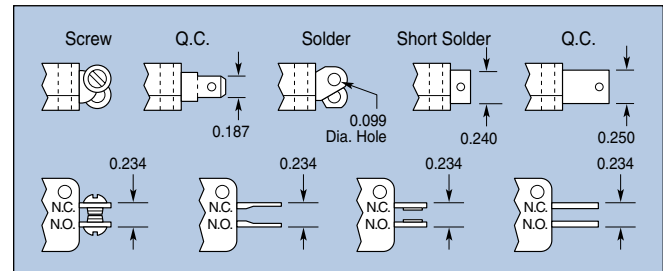
Recommended mounting screw size: #4-40 round head.
Recommended torque on screw: 4 inch lbs. max.

Materials

	E21, E22	E23, E33, E31	E34
Case	General Purpose Phenolic	General Purpose Phenolic	General Purpose Phenolic
Actuating Button	Thermoplastic Acetal	Thermoplastic Acetal	Thermoplastic Acetal
Common Terminals	Silver Plated Brass	Silver Plated Brass	Silver Plated Copper
NO & NC Terminals	Brass	Brass	Copper
Moving Blade	Spring Brass	E23: Brass E33: Silver Plated Beryllium Copper	Silver Plated Beryllium Copper
Contacts	E22: Silver Alloy E21: Gold Crosspoint	E23, E33: Silver Alloy E31: Gold Crosspoint	Silver Alloy
Spring	Stainless Steel	Stainless Steel	Stainless Steel
Auxilliary Actuators	Aluminum	Cold-rolled Steel (Nickel Plated)	Cold-rolled Steel (Nickel Plated)
Roller	Sintered Stainless Steel	Sintered Stainless Steel	Sintered Stainless Steel

Terminals

Choice of screw, solder, or two quick connect terminals.



Note: 0.187" Quick Connect terminals are standard. Normally, to order screw terminals add 10 to suffix number. To order solder terminals add 20 to suffix number and to order 0.250" Q.C. terminals add 40 to suffix number.

Terminal	SPDT	SPSTNO	SPSTNC
QC 0.187	-00A	-01A	-02A
Screw	-10A	-11A	-12A
Solder	-20A	-21A	-22A
Short Solder	-30A	-31A	-32A
QC 0.250	-40A	-41A	-42A

How to Order

Select the current rating you need. Combine the corresponding Series/Prefix number with the appropriate suffix number for the switch type, circuitry and terminals you require.

E Series Standard Force Miniature

Characteristics: OF – Operating Force, PT – Pretravel, OP – Operating Point,
OT – Overtravel, MD – Movement Differential, AL – Actuator Length

Switch Types	OF Max. gms.			PT Max. inches	OP* Inches	OT Min. inches	MD Max. Inches	AL Inches Tolerance $\pm .031$
 -00A	E21	E22	E23	0.047	0.578 ± 0.020	0.050	0.010	—
	75	75	170					
	E31	E33	E34					
	170	285	400					
 -00H	E21	E22	E23	0.062	0.600 ± 0.020	0.050	0.016	0.865
	75	75	170					
	E31	E33	E34					
	170	285	400					
 -50H	E21	E22	E23	0.125	0.600 ± 0.045	0.085	0.030	1.400
	35	35	86					
	E31	E33	E34					
	86	144	200					
 -50HL	E21	E22	E23	0.220	0.600 ± 0.075	0.130	0.040	1.580
	20	20	51					
	E31	E33	E34					
	51	86	120					
 -00K	E21	E22	E23	0.047	0.806 ± 0.030	0.040	0.010	0.810
	75	75	170					
	E31	E33	E34					
	170	285	400					
 -50K	E21	E22	E23	0.125	0.806 ± 0.045	0.085	0.030	1.340
	35	35	86					
	E31	E33	E34					
	86	144	200					
 -50KL	E21	E22	E23	0.200	0.806 ± 0.075	0.120	0.040	1.516
	25	25	51					
	E31	E33	E34					
	51	86	120					
 -50P	E21	E22	E23	0.125	1.045 ± 0.045	0.085	0.030	1.340
	35	35	86					
	E31	E33	E34					
	86	144	200					

Remarks: * Measured above reference line. Refer to dimensional drawing on page 3-19.