

# Snap Action Switch

## Single Pole General Purpose

E13, E14, G13



### Features

- Choice of 3 current ratings
- Long life coil spring, snap action mechanism
- Agency approved extended life versions available
- RoHS compliant
- High temperature versions available – contact factory

### Typical Applications

- Household appliances
- Automated assembly lines
- Brake switch on utility vehicles
- Industrial and accessible door openers
- Vending machines

### Part Number Breakdown

**E13-00E0**

Example: E13-00E0 is a 15 A, SPDT pole switch with a standard ratio button actuator.

Series Type		Type <sup>1</sup>		Circuitry		Actuator <sup>1</sup>	
E13	Single pole 15 A	0	Standard ratio actuator or button	0	Double Throw	A	Button for E14
E14	Single pole 25 A	5	High ratio actuator	1	Normally Open	E	Button for E13
G13	Single pole 0.1 A			2	Normally Closed	H	Lever
						J	Button with ferrule
						K	Roller
						M	Button with extra over-travel and ferrule

<sup>1</sup>Actuator Type 5 only available with H and K actuators

### Electrical Specifications per UL1054

E13 <sup>2</sup>	6000 operations; 100,000 available – contact factory	15 A, 125 / 250 VAC ¾ HP, 125 VAC / 1 ½ HP, 250 VAC <sup>2</sup> 2 A, 48 VDC
E14 <sup>2</sup>	6000 operations	25 A, 125 / 250 VAC 1 HP, 125 VAC / 2 HP, 250 VAC <sup>2</sup> 2 A, 48 VDC
G13	100,000 operations	0.1 A, 125 VAC 0.1 A, 30 VDC

<sup>2</sup>DC ratings to 105 °C (221 °F) only

### Commonly Stocked Distributor Parts

E13-00E0	E13-00M0	E14-00A0	E14-01M0
E13-00H0	E13-01E0	E14-00H0	E14-50H0
E13-00J0	E13-01H0	E14-00K0	G13-00M0
E13-00K0	E13-50H0	E14-00M0	G13-50H0

### Notes:








Part numbers with a leading 0 are functionally no different than without a leading 0 (ex.: 0E13-00E0 is the same switch as E13-00E0). Quick-connect terminals are standard; for custom screw terminals, contact the factory or your distributor.

For configurable part numbers not listed above or for custom part numbers, contact the factory or your distributor










## Actuator Specifications<sup>3</sup>

### E13/G13 Series

Actuator		Max Operating Force g (lb)	Max Pre-Travel mm (in)	Operating Point <sup>4</sup> mm (in)	Min Over-Travel mm (in)	Max Movement Differential mm (in)	Actuation Length <sup>5</sup> mm (in)
E		425 (0.94)	1.27 (0.050)	7.24 ± 0.51 (0.285 ± 0.020)	2.54 (0.100)	0.38 (0.015)	N/A
H		100 (0.22)	6.35 (0.250)	7.93 ± 1.57 (0.312 ± 0.062)	4.75 (0.187)	2.36 (0.093)	38.10 (1.500)
H	High ratio 	65 (0.14)	8.71 (0.343)	7.14 ± 1.57 (0.281 ± 0.062)	4.75 (0.187)	3.56 (0.14)	44.45 (1.750)
J		425 (0.94)	1.27 (0.050)	17.02 ± 0.76 (0.670 ± 0.030)	2.74 (0.108)	0.38 (0.015)	N/A
K		100 (0.22)	6.35 (0.250)	18.24 ± 1.57 (0.718 ± 0.062)	4.75 (0.187)	2.36 (0.093)	35.33 (1.391)
K	High ratio 	63 (0.14)	10.24 (0.403)	17.45 ± 1.57 (0.687 ± 0.062)	4.75 (0.187)	2.36 (0.093)	41.28 (1.625)
M		425 (0.94)	1.27 (0.050)	20.63 ± 0.76 (0.812 ± 0.030)	5.54 (0.218)	0.38 (0.015)	N/A

### E14 Series

Actuator		Max Operating Force g (lb)	Max Pre-Travel mm (in)	Operating Point <sup>4</sup> mm (in)	Min Over-Travel mm (in)	Max Movement Differential mm (in)	Actuation Length <sup>5</sup> mm (in)
A		850 (1.87)	2.54 (0.100)	6.30 ± 0.66 (0.248 ± 0.026)	1.27 (0.050)	0.38 (0.015)	N/A
H		280 (0.62)	7.93 (0.312)	11.89 ± 1.57 (0.468 ± 0.062)	2.67 (0.105)	1.27 (0.050)	20.85 (0.821)
H	High ratio 	170 (0.37)	13.34 (0.525)	11.10 ± 1.57 (0.437 ± 0.062)	5.54 (0.218)	2.03 (0.080)	27.20 (1.071)
J		850 (1.87)	2.54 (0.100)	16.08 ± 0.76 (0.633 ± 0.030)	1.27 (0.050)	0.38 (0.015)	N/A
K		285 (0.63)	8.84 (0.348)	21.84 ± 1.57 (0.860 ± 0.062)	3.30 (0.130)	1.14 (0.045)	17.48 (0.688)
K	High ratio 	211 (0.47)	12.27 (0.483)	21.03 ± 1.57 (0.828 ± 0.062)	5.54 (0.218)	1.85 (0.073)	23.95 (0.943)
M		850 (1.87)	2.54 (0.100)	19.69 ± 0.76 (0.775 ± 0.030)	4.27 (0.168)	0.38 (0.015)	N/A

<sup>3</sup>Contact factory regarding combinations not shown

<sup>4</sup>Measured above reference line; refer to dimensional drawing below

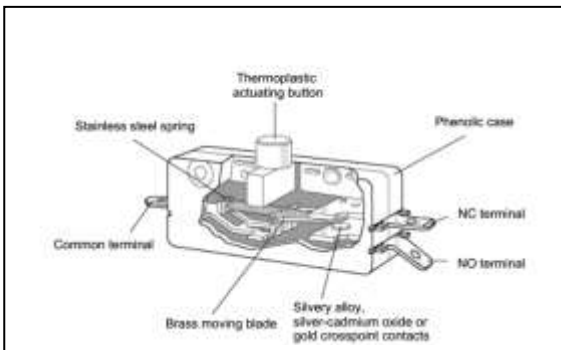
<sup>5</sup>Actuator tolerances ± 0.791 mm (0.031"); G13 has operating point tolerance of ± 7.62 (0.30); E14 H and K actuators are shorter and formed up 11° at the button

## Material Specifications

Case	General Purpose Phenolic
Actuating Button	Thermoplastic
Common Terminal	Copper Alloy
NO and NC Terminal	Copper Alloy (E13, G13) Copper (E14)
Moving Blade	Copper Alloy (E13, G13) Copper (E14)
Spring	Stainless Steel
Auxiliary Actuators	Cold-Rolled Steel (Nickel-Plated)
Roller	Sintered Stainless Steel
Contacts	Gold Crosspoint (G13) Silver Alloy (E13, E14)

## Environmental Specifications

Temperature Rating	105 °C (221 °F) standard 150 °C (302 °F) available 200 °C (392 °F) available for E13
Flammability Rating	UL94HB



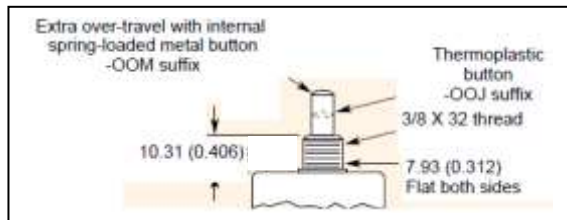
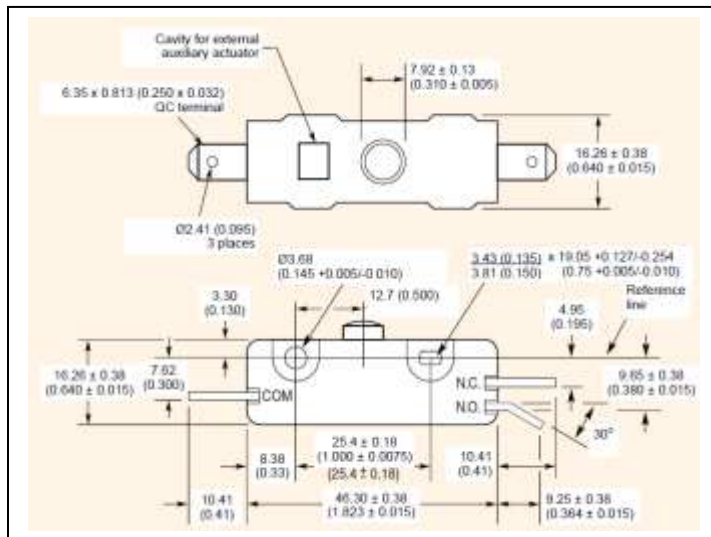
## Dimensions – see page 3

<http://switches-sensors.zf.com> ZF Electronics Systems Pleasant Prairie, LLC (“ZF”) acquired the rights to the CHERRY branded switches and sensors in 2008. Although ZF divested its interest in the CHERRY name in 2015, the switches and sensors remain unchanged and are now sold under the ZF brand.

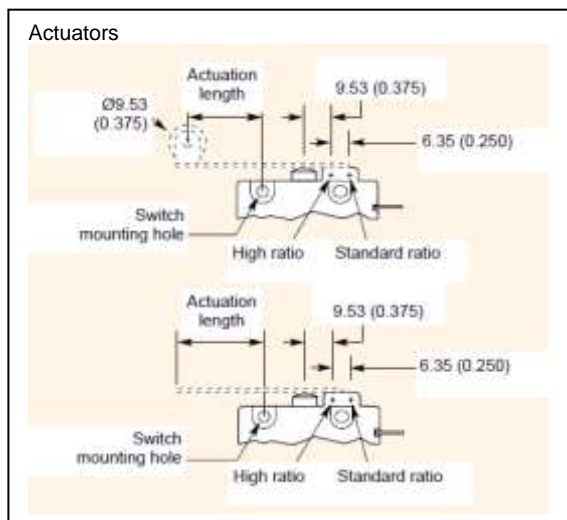
Page 2 of 3, Last update 2018-01-17, Specifications subject to change without notice.



## Dimensions – mm (inches)



Optional hardware  
 Brass hex nut : 00120023  
 Plated hex nut: 00120028



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