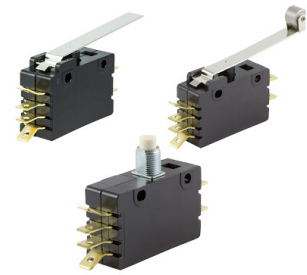


# Snap Action Switch

## Double Pole General Purpose

E19, E20, G20



### 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

**E19-00A0**

Example: E19-00A0 is a 15 A, normally open DPDT pole switch with a standard ratio button actuator.

Series Type		Type <sup>1</sup>		Circuitry		Actuator <sup>1</sup>	
E19	Double pole 15 A	0	Standard ratio actuator or button	0	Double Throw	A	Button
E20	Double pole 20 A	5	High ratio actuator	1	Normally Open	H	Lever
G20	Double pole 0.1 A			2	Normally Closed	J	Button with ferrule
						K	Roller
						M	Button with extra over-travel and ferrule

<sup>1</sup>See Actuator Specifications section for available actuator/type combinations

### Electrical Specifications per UL1054 – Min 6000 Operations

Series	Operations	Current and Power Ratings
E19	6000 operations; 100,000 available – contact factory	15 A, 125 / 250 VAC ¾ HP, 125 VAC / 1 ½ HP, 250 VAC
E20	6000 operations	20 A, 125 / 250 VAC 1 HP, 125 VAC / 2 HP, 250 VAC
G20	100,000 operations	0.1 A, 125 VAC

### Commonly Stocked Distributor Parts








E19-00A0	E19-00M0	E20-00H0	E20-50K0
E19-00H0	E19-50H0	E20-00K0	
E19-00J0	E19-50K0	E20-00M0	
E19-00K0	E20-00A0	E20-50H0	

Note: Part numbers with a leading 0 are functionally no different than without a leading 0 (ex.: 0E19-00A0 is the same switch as E19-00A0)










## Actuator Specifications<sup>4</sup>

### E19/G20 Series

Actuator		Max Operating Force g (lb)	Max Pre-Travel mm (in)	Operating Point <sup>5</sup> mm (in)	Min Over-Travel mm (in)	Max Movement Differential mm (in)	Actuation Length <sup>6</sup> mm (in)
A		850 (1.87)	1.27 (0.050)	7.24 ± 0.76 (0.285 ± 0.030)	2.03 (0.080)	0.38 (0.015)	N/A
H		205 (0.45)	6.99 (0.275)	7.92 ± 1.57 (0.312 ± 0.062)	4.75 (0.187)	2.36 (0.093)	38.10 (1.500)
H	High ratio 	130 (0.28)	10.16 (0.400)	7.14 ± 1.57 (0.281 ± 0.062)	4.75 (0.187)	3.56 (0.140)	44.45 (1.750)
J		850 (1.87)	1.27 (0.050)	17.02 ± 0.76 (0.670 ± 0.030)	2.30 (0.080)	0.38 (0.015)	N/A
K		212 (0.47)	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 	150 (0.33)	7.92 (0.312)	17.45 ± 1.57 (0.687 ± 0.062)	4.75 (0.187)	3.56 (0.140)	41.78 (1.645)
M		850 (1.87)	1.27 (0.050)	20.62 ± 0.76 (0.812 ± 0.030)	5.54 (0.218)	0.38 (0.015)	N/A

### E20 Series

Actuator		Max Operating Force g (lb)	Max Pre-Travel mm (in)	Operating Point <sup>5</sup> mm (in)	Min Over-Travel mm (in)	Max Movement Differential mm (in)	Actuation Length <sup>6</sup> mm (in)
A		1280 (2.82)	2.54 (0.100)	6.30 ± 0.76 (0.248 ± 0.030)	1.27 (0.050)	0.38 (0.015)	N/A
H		425 (0.94)	8.38 (0.330)	11.89 ± 1.57 (0.468 ± 0.062)	3.96 (0.156)	1.27 (0.050)	20.85 (0.821)
H	High ratio 	285 (0.63)	15.24 (0.600)	11.10 ± 1.57 (0.437 ± 0.062)	3.96 (0.156)	2.03 (0.080)	27.20 (1.071)
J		1280 (2.82)	2.54 (0.100)	6.30 ± 0.76 (0.248 ± 0.030)	1.27 (0.050)	0.38 (0.015)	N/A
K		425 (0.94)	8.84 (0.348)	21.84 ± 1.57 (0.860 ± 0.062)	3.96 (0.156)	1.14 (0.045)	17.48 (0.688)
K	High ratio 	312 (0.69)	13.34 (0.525)	21.03 ± 1.57 (0.828 ± 0.062)	3.71 (0.146)	1.91 (0.075)	22.91 (0.902)
M		1280 (2.82)	2.54 (0.100)	19.66 ± 0.76 (0.774 ± 0.030)	4.78 (0.188)	0.38 (0.015)	N/A

<sup>4</sup>Contact factory regarding combinations not shown

<sup>5</sup>Measured above reference line; refer to dimensional drawing below

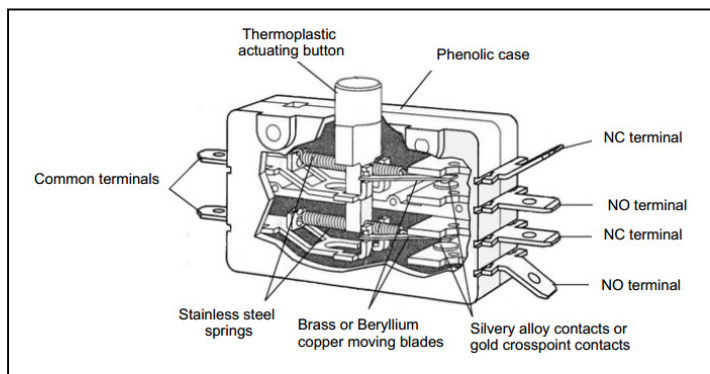
<sup>6</sup>Actuator tolerances ± 0.791 mm (0.031"); E14 H and K actuators are shorter and formed up 11° at the button

## 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
Flammability Rating	UL94HB



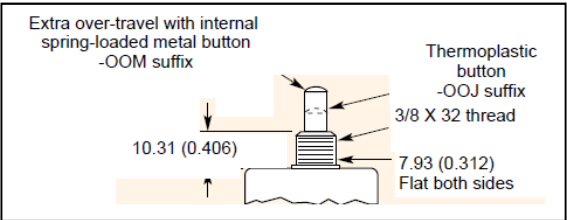
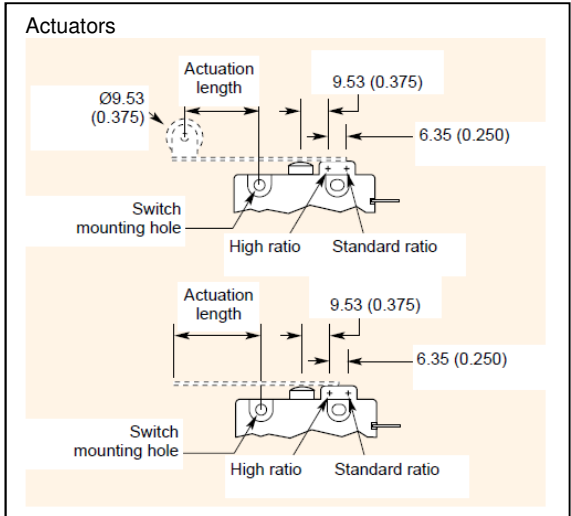
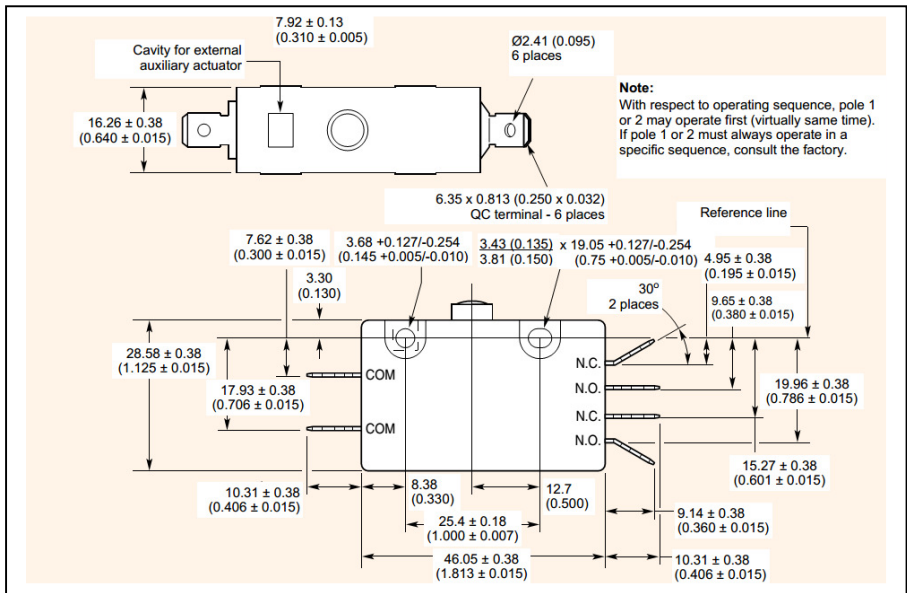
## Dimensions – see page 3

<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 2017-10-02, Specifications subject to change without notice.



**Dimensions – mm (inches)**



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

