

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
- High temperature versions available – contact factory
- **Cadmium** contacts for high load requirements

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 ¹	Circuitry	Actuator ¹
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

¹See Actuator Specifications section for available actuator/type combinations

Electrical Specifications per UL1054 – Min 6000 Operations

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 Specifications⁴

E19/G20 Series

Actuator		Max Operating Force g (lb)	Max Pre-Travel mm (in)	Operating Point ⁵ mm (in)	Min Over- Travel mm (in)	Max Movement Differential mm (in)	Actuation Length ⁶ 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 ⁵ mm (in)	Min Over- Travel mm (in)	Max Movement Differential mm (in)	Actuation Length ⁶ 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

⁴Contact factory regarding combinations not shown

⁵Measured above reference line; refer to dimensional drawing below

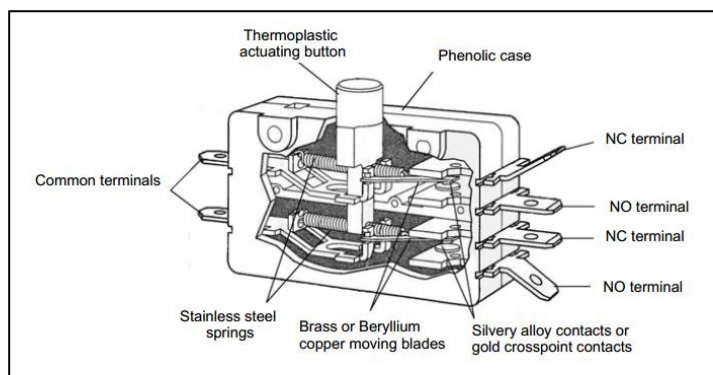
⁶Actuator tolerances ± 0.791 mm (0.031"); E14 H and K actuators are shorter and formed up 11° at the button

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

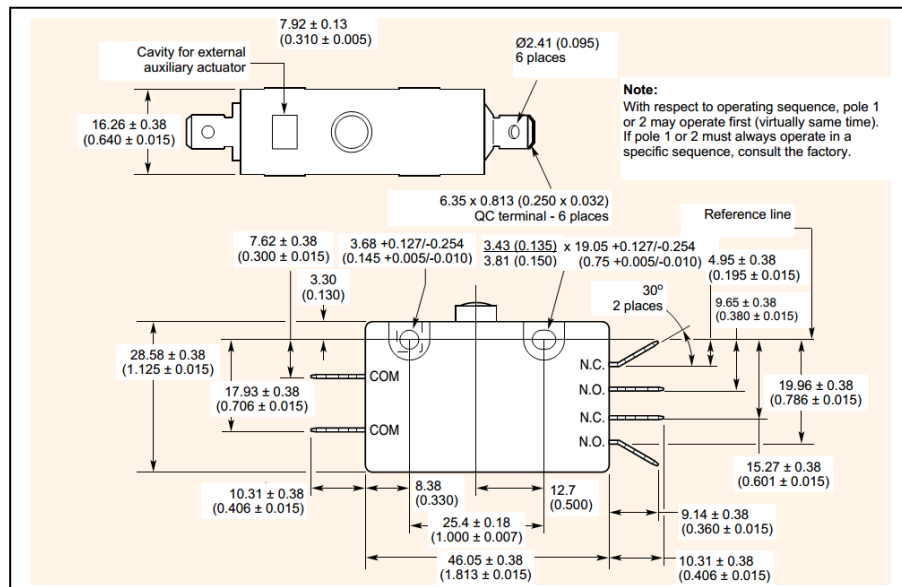
Temperature Rating	105 °C (221 °F) standard 150 °C (302 °F) available
Flammability Rating	UL94HB



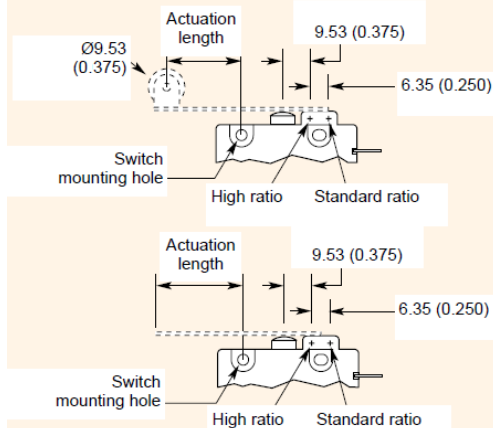
Dimensions – see page 3

<https://switches-sensors.zf.com/>

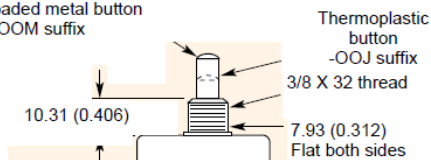
Dimensions – mm (inches)



Actuators



Extra over-travel with internal spring-loaded metal button -OOM suffix



Optional hardware

Brass hex nut : 00120023

Plated hex nut: 00120028