

Limit Switches

Swagelok limit switches indicate the position of a valve by means of an electrical signal. The signal can also be used to actuate other components, such as fail-safe alarm systems.

Features

- Limit switch can be used with any Swagelok ball valve pneumatic actuator assembly and with manual 63, 65, 67, and 68 series ball valves.
- Cam arrangement allows switch actuation at any point in valve cycle.
- Cam position and switch sequence can be adjusted without tools.
- Either switch can be adjusted independently of the other.
- Self-lifting, captive pressure plates provide quick and secure electrical connections.
- Stainless steel mounting bracket supports entire valve-actuator-limit switch assembly.
- O-ring seals for cap and shaft protect internal components from rain, dust, and oil.
- Limit switch assembly meets specifications for NEC Class I (NEMA 7), Division I, Groups C and D; and NEC Class II (NEMA 9), Division I, Groups E, F, and G.
- Limit switch is UL listed and CSA certified.

Technical Data

Temperature Rating

-13 to 185°F (-25 to 85°C)

Electrical Data

Two switches; single-pole, double-throw circuit

Electrical Ratings

UL/CSA rating: L23

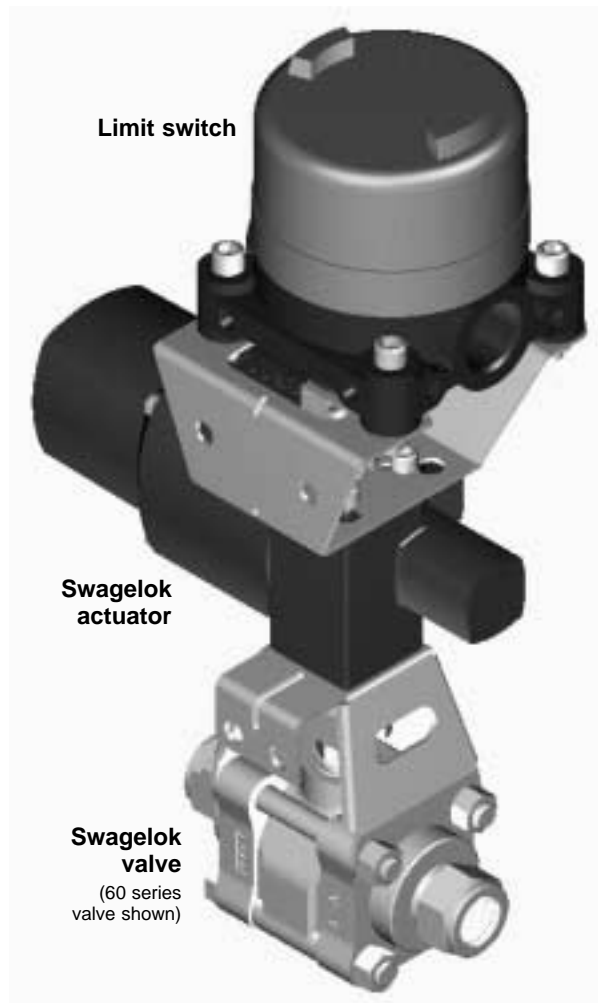
20 A; 120, 240, or 480 V (ac), inductive and resistive

1 hp, 120 V (ac); 2 hp, 240 V (ac)

0.5 A, 125 V (dc); 0.25 A, 250 V (dc) resistive

Wiring

Conduit should be installed in accordance with NEC 501-4 and 501-5.

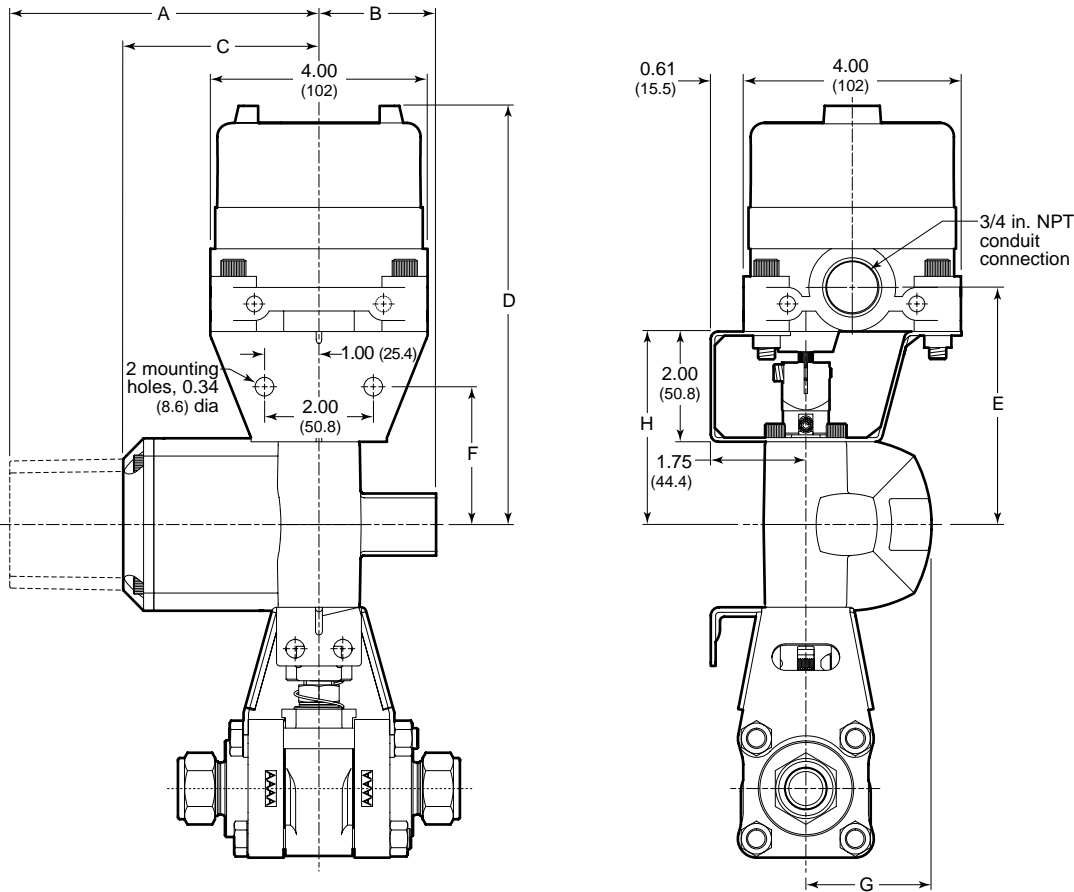


Materials of Construction

Component	Material
Housing	Epoxy-coated aluminum
Coupling	Anodized aluminum
Actuator bracket	Stainless steel
O-rings	Buna N

Dimensions

Dimensions, in inches (millimeters), are for reference only and are subject to change.



Swagelok Actuator Model	Kit Ordering Number	Dimensions, in. (mm)							
		A (S)	B	C (D)	D	E	F	G	H
131, 151	MS-LSK-A1-131	3.45 (87.9)	1.56 (37.1)	2.63 (66.9)	7.22 (183)	3.92 (99.6)	2.12 (53.8)	1.73 (43.9)	3.12 (79.2)
133, 153	MS-LSK-A1-133	5.70 (145)	2.16 (54.9)	3.73 (95.1)	7.65 (195)	4.36 (111)	2.56 (65.0)	2.32 (58.9)	3.56 (90.4)
135, 155	MS-LSK-A1-135	8.75 (222)	3.16 (80.3)	5.26 (134)	8.40 (214)	5.11 (130)	3.31 (84.1)	3.27 (83.1)	4.31 (110)

(S) = spring return; (D) = double acting.

Ordering Information

Limit Switch Kits

Limit switch kits include limit switch, actuator bracket, coupling, and mounting plate. Select an ordering number from the **Dimensions** table above.

Factory-Assembled Valves with Limit Switches

To order a limit switch on any Swagelok ball valve pneumatic actuator assembly or on manual 63, 65, 67, and 68 series ball valves, add **-L1** to the valve ordering number.

Examples: SS-45F8-33C-**L1** for a 45 series valve with normally closed pneumatic actuator and limit switch
 SS-63TS8-**L1** for a manual 63 series valve with limit switch

Safe Product Selection

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

Caution: Do not mix or interchange parts with those of other manufacturers.