



1950 Precision Limit Switch

Standard Type



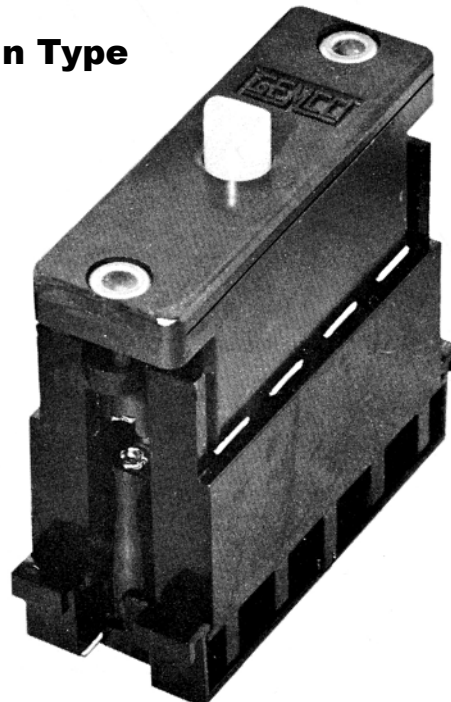
Features:

- **N.O. and N.C. Single and Double Throw.**
- **2 N.O. and 2 N.C. DPDT.**
- **Snap Action Silver Cadmium Oxide Contacts with high contact pressure and low resistance.**
- **Precision Operation for repeat accuracy, reliability and long life performance.**
- **Contact mechanism completely enclosed in a molded case.**
- **Rugged Duty Nylon Operating Button for optimum strength and high speed reliability.**
- **Terminal screws or plug-in socket readily accessible for ease of wiring.**
- **UL Recognized.**
- **Temperature Limits, -50°F to 185°F.**

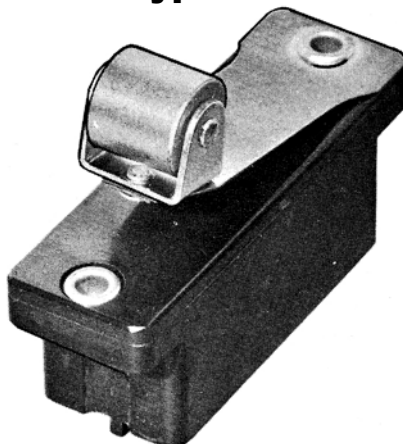
Sealed Plunger Type



Plug-In Type



Leaf Roller Type





1950 Precision Limit Switch

Description

The Gemco Precision Snap Switches are designed for industrial duty applications where compact size, complete reliability and millions of trouble free operations are required.

Construction

The housing is a molded material which has an excellent resistance to arcing and carbon tracking. The operating button is of molded nylon, a material with excellent wear characteristics. The button is well guided at the top and bottom to ensure accurate repeatability and minimum wear. The large button diameter and bearing surface allows it to be actuated by either a rotating or a reciprocating cam.

Mounting Snap Switch

The mounting of the Snap Switch is accomplished with two No. 6 screws in the brass eyelets, which also serve to rivet and seal the case. The No. 6-32 binder head terminal screws in the rear of the unit are easily accessible.

Plug-In Socket

The new plug-in socket allows for substitution of switches without disturbing the original wiring. They are provided with saddle clamp wiring and have a convenient marking strip.

Saddle Clamp Terminals

Facilitates assembly of a single or multi-stranded conductor where connector fittings are not being used. Assures isolation for individual connectors. Available on SPDT only.

1950

1

B

A

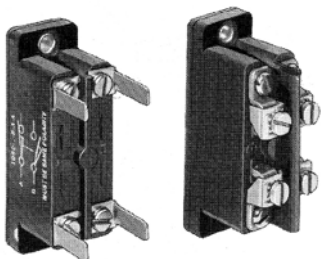
AO

Code	Contact Arrangement
1	SPDT 1 N.O. 1 N.C.
4	DPDT 2 N.O. 2 N.C.

Code	Terminal
B	Binder
P	Plug-In, Single or Double Pole
C	915/917 Cycl-Set, Single or Double Pole
D	Saddle Clamp, Single or Double Pole

Code	Mounting Arrangement
A	Front
B	Side, not available on plug-in

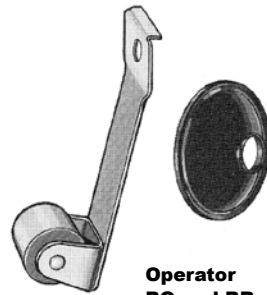
Code	Type of Operator
AO	Plunger Cam Operated
AR	Plunger Cam Operated, with Boot
BO	Lever and 1/2" Dia. Roller Ass'y
BR	Lever and 1/2" Dia. Roller Ass'y, with Boot
DO	Push Operated Plunger (Cycl-Set & 2004 K RLS)
DR	Push Operated Plunger, with Boot



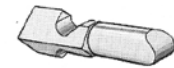
Terminal P



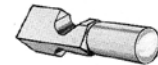
Terminal D



Operator BO and BR



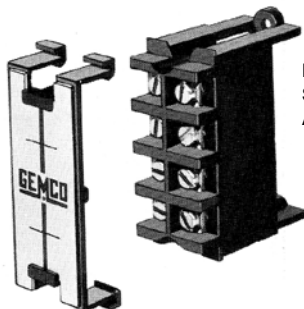
Operator AO



Operator DO



Roller Follower Adaptor



Plug-In Socket Ass'y

Plug-In Socket Assembly Not Including Limit Switch

SPDT, Part Number SD-1345-D

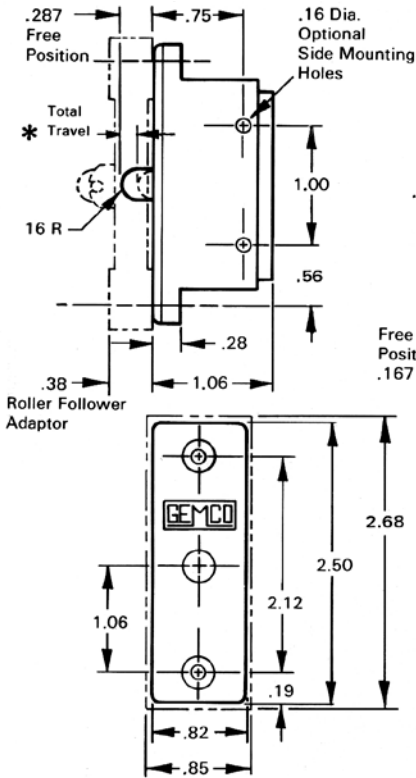
DPDT, Part Number SD-1320-D

Roller Follower Adaptor for AO and AR numbered snap switches, Part Number SD-1571-B

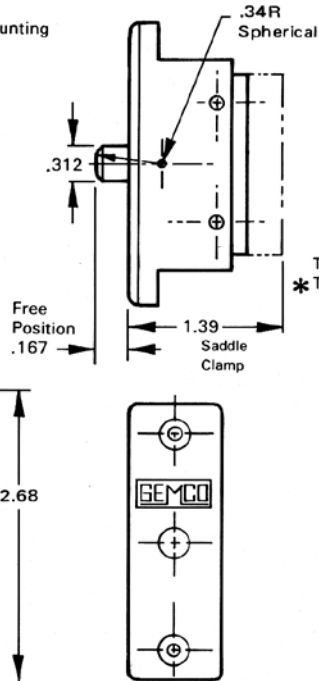


1950 Precision Limit Switch

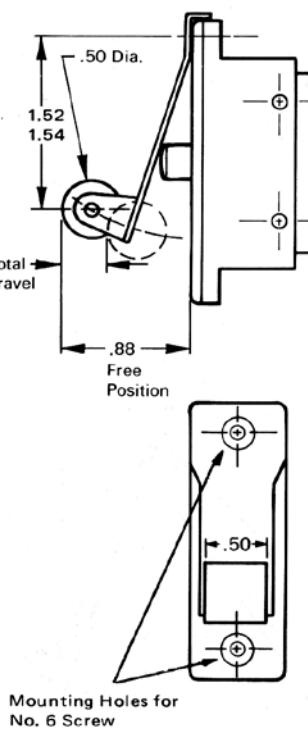
Snap Switch with Standard AO Operator and Adaptor Option



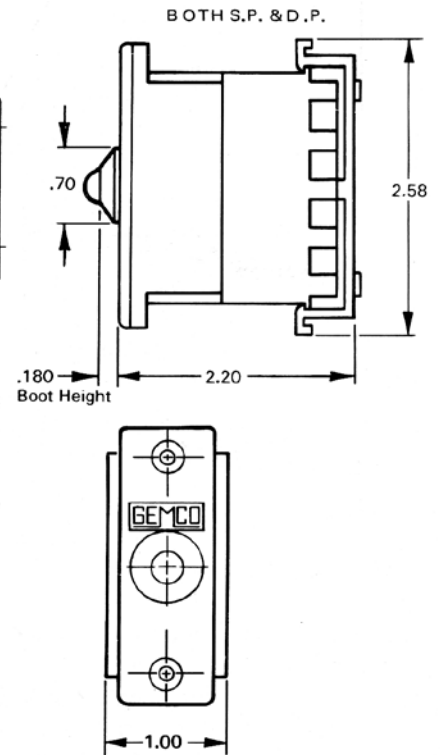
Snap Switch with Standard DO Operator and Saddle Clamp Option (SPDT Only)



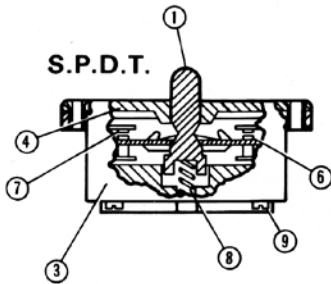
Snap Switch with Standard BO Operator and Leaf Roller



Plug-In Snap Switch with Plug-In Socket Ass'y and Plunger Boot Option



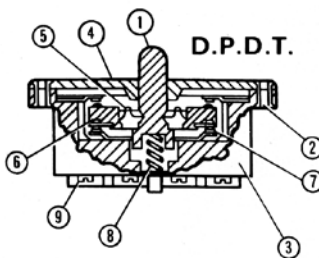
Dimensions above are for both SPDT and DPDT switches.



S.P.D.T.

1. Plunger
2. Eyelet
3. Enclosure
4. Contact Spring
5. Movable Contact Ass'y
6. Stationary Contact Ass'y
7. Return Spring
8. Terminal Screws
9. Terminal Screws

Operating Data Standard Operator		
	SPDT	DPDT
Pre-Travel	.057-.074	.057-.074
Differential	.015-.025	.025-.046
Re-Set Over-Travel	.032-.059	.015-.046
Total Travel	.103-.120	.103-.120
Operating Force	14-16 oz.	14-16 oz.



D.P.D.T.

Special Purpose Switches		
Part Number	Description	Product Line
1950-1404	SPDT	1970
1950-1405	DPDT	1970
1950-1406	SPST*	1970
1950-1408	SPDT*	915/917/2004
* Slow Make, Slow Break		

Leaf Roller Operator		
	SPDT	DPDT
Pre-Travel	.145-.185	.145-.185
Differential	.038-.063	.063-.115
Re-Set Over-Travel	.077-.099	.047-.087
Total Travel	.220-.230	.220-.230
Operating Force	14-16 oz.	14-16 oz.



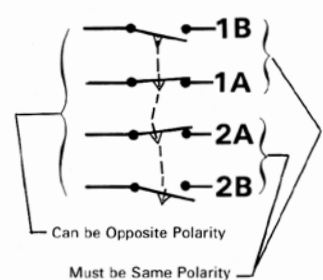
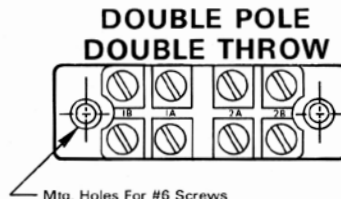
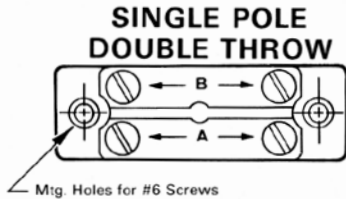
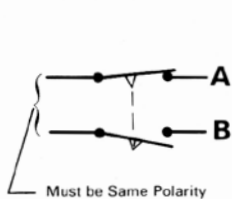
1950 Precision Limit Switch

Electrical Contacts

The welded silver cadmium oxide contacts provide many advantages including high conductivity, excellent resistance to sticking contacts, and minimal electrical erosion. The presence of cadmium oxide gives the high arc quenching characteristics of cadmium without losing the high conductivity of silver. This is because the cadmium oxide remains as discrete particles throughout the silver base and each exhibits its own physical characteristics.

ELECTRICAL CONTACT RATINGS

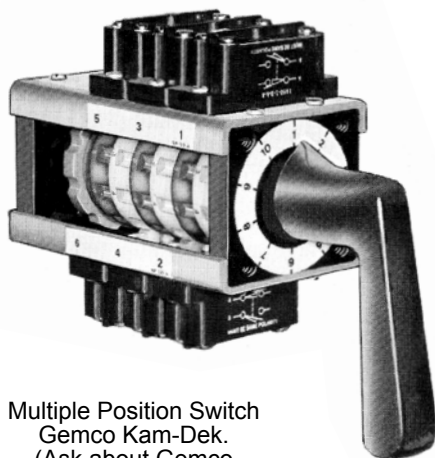
Switch Type	Contacts	Volts	AC						Volts	DC	
			Inductive Pilot Duty 35% Power Factor				Resistive 75% Power Factor			Inductive Pilot Duty and Resistive	
			Make		Break		Con- tinuous Carrying Amperes	Make, Break and Continuous Carrying Amperes		Make and Break Amperes	Con- tinuous Carrying Amps.
			Amps.	VA	Amps.	VA						Double Throw
1950-4	DPDT	115	30	3450	3	345	10	10	115	0.2	10
		230	15	3450	1.5	345	10	10	230	0.1	10
		440	7.5	3450	0.75	345	10	10	600	.....	10
		575	6	3450	0.6	345	10	10			
1950-1	SPDT	110	40	.....	15	.....	15	15	115	0.25	15
		220	20	.....	10	.....	15	15	230	0.1	15
		440	10	.....	6	.....	15	15	600	.....	15
		600	8	.....	5	.....	15	15			



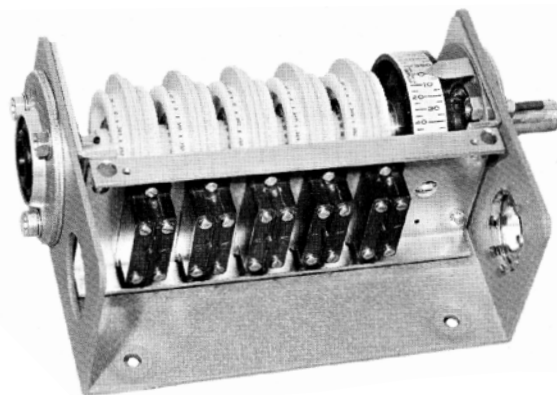
Application Note

The N.O. and N.C. contact of the SPDT snap switch must be used on circuits of the same polarity. The two pole snap switch has two electrically separate poles which can be used on opposite polarities. However, the N.O. and N.C. circuit of each pole of the two pole snap switch must be used on the same polarity.

Applications Using Gemco Precision Limit Switches



Multiple Position Switch
Gemco Kam-Dek.
(Ask about Gemco
Series 1946.)



Gemco 5 Circuit NEMA 1 Rotating Cam Limit
Switch with Timing Dial.
(Ask about Gemco Series 1980 and 1981.)