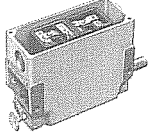


Rotating Shaft Switches — Type J

Rotating Shaft Limit Switches allow the shaft to be rotated a preset number of revolutions (adjustable from 1/2 to 100 with an accuracy of 1/20 of a turn) before the contacts will switch. A second set of contacts will trip when reaching a preset limit in the opposite direction. These switches are typically used in crane and hoist applications to provide end of travel stops for the hook assembly.

Model Selection

	Shaft to Cam Ratio	Max. Turns to Trip Contacts	Min. Turns to Trip Contacts	Over-travel Before Resetting Contacts	Reversal After Tripping to Reset Contacts	Circuit ①	Enclosure Rating	Catalog Number
	103:1	100 input shaft turns	1/2 input shaft turns	103 input shaft turns max.	1/8 input shaft turns min.	1N.O.-1N.C.	NEMA 1	10316H77
						2N.C.	NEMA 1	10316H50
						2N.O.-2N.C. ②	NEMA 4	10316H54 ②

- ① For replacement N.O. contacts, order 17-1403; N.C. contacts, order 17-1402.
- ② 10316H54 has factory set circuits, but is easily convertible to any of three circuits (2N.O.-2N.C., 4N.O. or 4N.C.). Full instructions enclosed with every switch.

Specifications

Shipping Weight	NEMA 1 Models 5.5 pounds
	NEMA 4 Models 13 pounds
Approvals	UL Listed, CSA Certified


Maximum Ampere Rating

State	AC Volts				DC Volts	
	120	240	480	600	120	240
Make	60	30	15	12	2.2	1.1
Break	6	3	1.5	1.2	2.2	1.1
Continuous ②	10	10	10	10	10	10

- ② Thermal rating. Valid only if switch does not have to make or break.

Pneumatic Time Delay Switches — Type LP

Model Selection

	Operator	Total Travel	Pre-travel	Circuit	Timed Contacts	Direction of Rotation ①	Catalog Number
	Side Rotary (Spring return to center)	50°	10°	1N.O.-1N.C.	ON Delay	CW	10316H1580
						CW & CCW	10316H1600
					OFF Delay	CW	10316H1610
						CW & CCW	10316H1630

- ① Field convertible

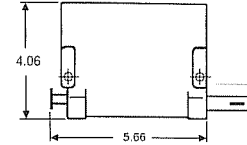
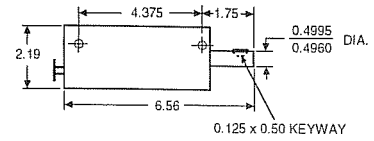
Specifications

Timing Range	0.05 to 60 seconds
ON Delay Function	Timing begins when lever is actuated and held
OFF Delay Function	Timing begins when lever is released
Repeat Accuracy ②	With 15 second or higher interval between timing periods: ±10% of setting maximum With less than 15 second interval between timing periods: ±25% of setting maximum
Operating Frequency	250 operations per minute maximum
Enclosure Rating	NEMA 4, 13
Operating Temperature	32° to 150°F (0° to 65°C)
Conduit Entrance	0.5 inch NPT
Shipping Weight	2 pounds
Approvals	UL Listed

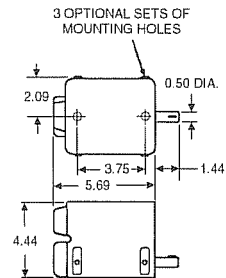
- ② To maintain operating accuracy during the timing cycle, the switch lever must be faster than the timed setting.

Approximate Dimensions in Inches (mm)

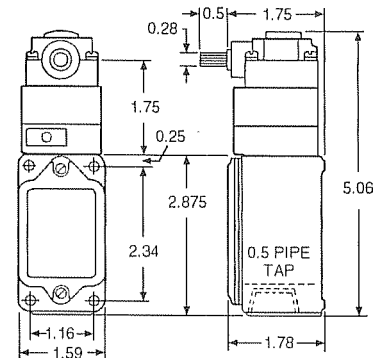
NEMA 1 Models



NEMA 4 Model



Approximate Dimensions in Inches (mm)



Electrical Data — Max. Contact Ratings/Pole

AC Volts	Current, Amperes			Volt Amperes		DC Volts	DC Cur., Amp
	Make	Break	Cont. ③	Make	Break		

All Switches 1N.O.-1N.C.

NEMA A600, R300 Rating							
120	60	6	10	7200	720	120	0.2
240	30	3				240	0.1
480	15	1.5					
600	12	1.2					

- ③ Thermal rating. Valid only if switch does not have to make or break.