Designed for highly accurate switching

Eaton's E47 Precision Limit Switches are an ideal cost-effective solution for applications requiring high switching accuracy. The switches have high-performance specifications for current capacity, operating force and travel characteristics. Output is rated up to 20A, so a direct circuit without relays can be designed. This allows less wiring and quicker installation, and reduces the number of components that could fail over time. The E47 is available with a wide variety of operator acuators, including lever, plunger and roller combination styles. For applications requiring actuator protection, the E47 is available enclosed in a rugged metal housing. With so many options, E47 Precision Limit Switches are perfect for interacting with or customizing to your application, while providing an industry leading service life.

Precise problem solver

With many different configurations, Eaton can solve your most demanding applications. The E47 offers operating forces from as low as 0.35 ounces to as high as 28.22 ounces and pre-travel limits as low as 0.016 of an inch.

With a wide variety of operating styles available, the E47 is guaranteed to meet your requirements.

Included in the line are:

- Pin plungers for maximum precision
- Adjustable levers that allow additional over travel
- Different lever styles that provide additional over travel and adjustability
- Highly polished rollers provided for those applications requiring a smooth finish

Quality and support

The quality, reliability, and performance you've come to expect from Eaton is apparent in the E47 limit switch family. The models are UL® recognized and CSA® certified and are backed by Eaton's world-class sensor application engineers, on call five days week to provide assistance with specifying, installing, troubleshooting, and servicing of Eaton limit switch products. You can reach them by calling 1-800-426-9184, ext. 1.

Target applications:

- Agriculture machinery
- Vending machines
- Packaging machinery
- HVAC equipment
- Test instruments
- Semi trailer trucks
- Boom trucks
- Sliding gates
- Elevators

Key product features:

- Compact housing is ideal for use where space is restricted
- Precision, snap-action operators provide accurate repeatability of electrical and mechanical operating characteristics
- High current capacity (up to 20A) allows power load switching and motor handling capability
- Enclosed booted versions shield actuators from debris
- Increased durability and conduit connection
- Screw and solder terminations as standard; customizable space terminal option available
- Terminal wire covers available with both a 45- and a 90-degree conduit interface

Approvals:

- UL® recognized
- CSA® certified
- RoHS compliant

EATON

Powering Business Worldwide

Specifications

Operating speed	0.01m/second to 1m/second
Operating frequency	
Mechanical	120 operations/minute
Electrical	20 operations/minute
Mechanical life	3,000,000 operations minimum
Electrical life	500,000 operations minimum
Contact resistance	15m ohms maximum, initial
Insulation resistance	100m ohms minimum @ 500 Vdc
Deilectric strength between non-current carrying parts	1000 Vac, 50/60 Hz for 1 minute
Between current carrying parts and ground	2000 Vac, 50/60 Hz for 1 minute
Ambient operating temperature	
Basic	–13° to 176°F (–25° to 80°C)
Enclosed	5° to 176°F (–15° to 80°C)
Environmental rating	
Enclosed, booted	NEMA® ❶
Mounting centers	1.0 in (25.4 mm), #8 screw size
Terminal screws	Bottom facing M4 x 0.7 (8–32)—screws with cup washers will accept 22–12 AWG (2.5 sq. mm maximum) Maximum torque: 10 in-lbs
Threaded bushing	15/32 in
Material of construction	Mineral-filled phenolic
Enclosure rating	Aluminum die casting (ADC-3/A380); Seal boot: Nitrile butyl rubber (NRB)
Conduit fitting on enclosed type	1/2 in NPT

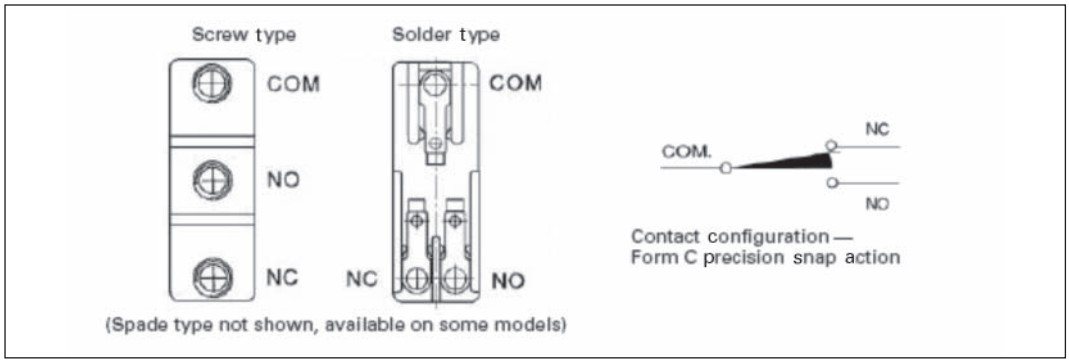
❶ Inductive load has a power factor of 0.04 maximum (AC) and a time constant of 7m/second (DC).

Ratings

		Non-Inductive Load (A)			Inductive Load (A)				
		Resistive Load	Lamp Load		Inductive Load	Motor Load		Inrush Current (A)	
Model	**Rated Voltage (V)**	**N.C. and N.O.**	**N.C.**	**N.O.**	**N.C. and N.O.**	**N.C.**	**N.O.**	**N.C.**	**N.O.**
15A	125 Vac	15.00	3.00	1.50	15.00	5.00	2.50	30 max.	15 max.
	250 Vac	15.00	2.50	1.25	15.00	3.00	1.50		
	500 Vac	3.00	1.50	0.75	2.50	1.50	0.75		
	8 Vdc	15.00	3.00	1.50	15.00	5.00	2.50		
	14 Vdc	15.00	3.00	1.50	10.00	5.00	2.50		
	30 Vdc	6.00 ❷	3.00	1.50	5.00	5.00	2.50		
	125 Vdc	0.40	0.40	0.40	0.05	0.05	0.05		
	250 Vdc	0.20	0.20	0.20	0.03	0.03	0.03		
20A	125 Vac	20.00	7.50	7.50	20.00	12.50	12.50	60 max.	30 max.
	250 Vac	20.00	7.50	7.50	20.00	8.30	8.30		
	500 Vac	6.00	4.00	4.00	5.00	2.00	2.00		
	8 Vdc	20.00	3.00	1.50	20.00	12.50	12.50		
	14 Vdc	20.00	3.00	1.50	15.00	12.50	12.50		
	30 Vdc	6.00	3.00	1.50	5.00	5.00	5.00		
	125 Vdc	0.50	0.50	0.50	0.05	0.05	0.05		
	250 Vdc	0.25	0.25	0.25	0.03	0.03	0.03		

❷ Lamp load was an inrush current of six times steady-state current.

Terminal configurations



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