

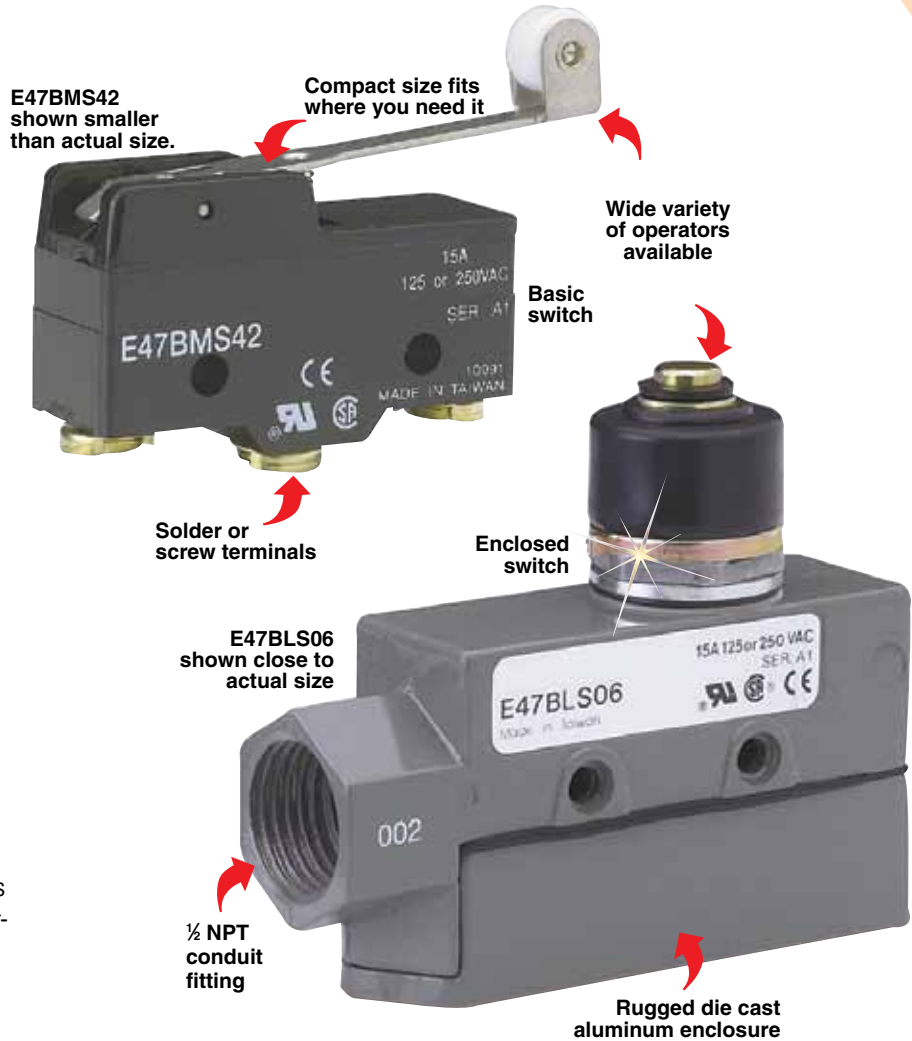
PRECISION LIMIT SWITCHES

E47 Series



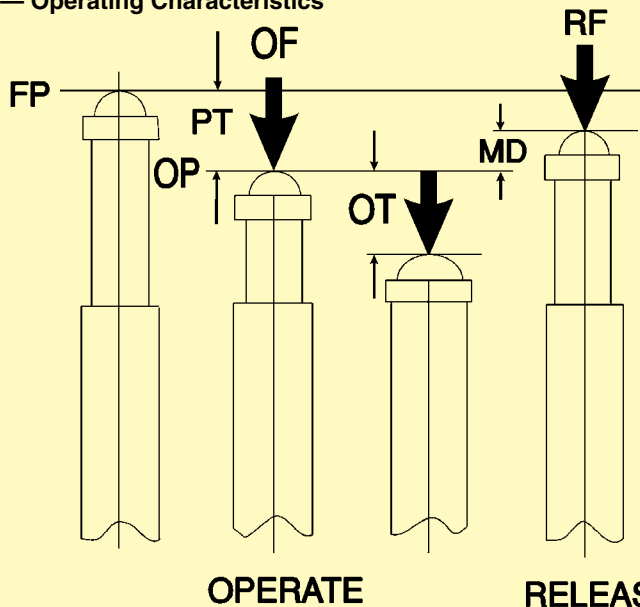
- Cost Effective and Compact
- Precision, Snap-Action Operators Provide Accurate Repeatability of Electrical and Mechanical Operating Characteristics
- High Current Capacity (up to 20 A) Allows Power Load Switching and Motor Handling Capability
- Enclosed Booted Versions Shield Actuators from Debris

The E47 precision limit switches provide high accuracy switching at an affordable price. A variety of standard features, such as current capacity, operating force, travel characteristics and actuators let you custom fit the switch to your application. The switches are available in their compact basic form or enclosed in a rugged metal housing. Cost effective and compact.




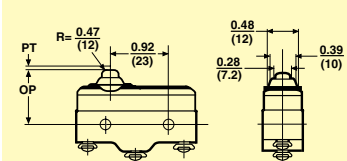

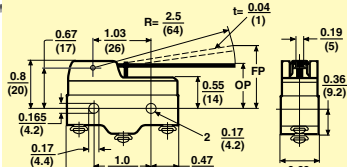

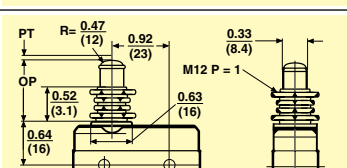

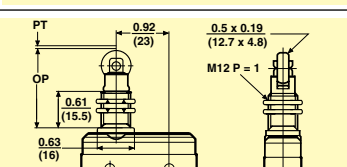

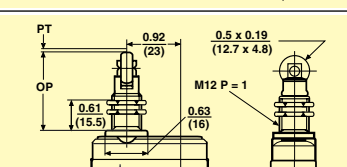

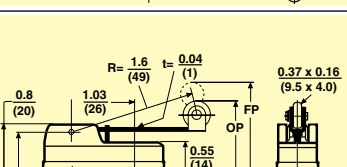

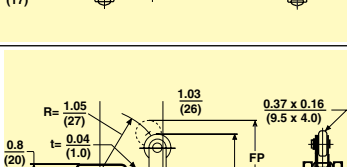

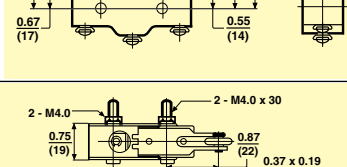
Limit Switches

Definitions — Operating Characteristics


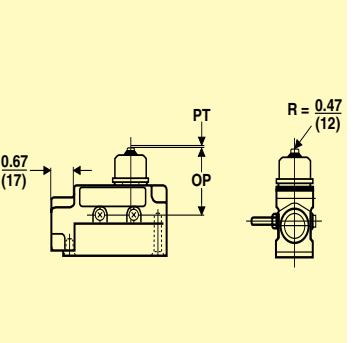

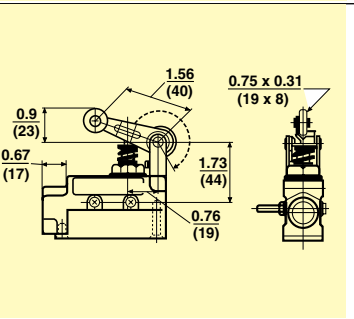

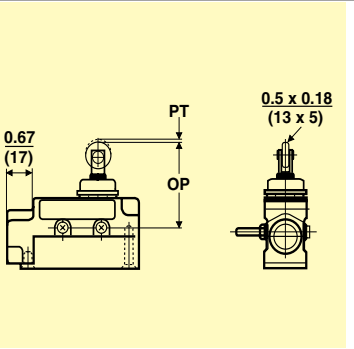

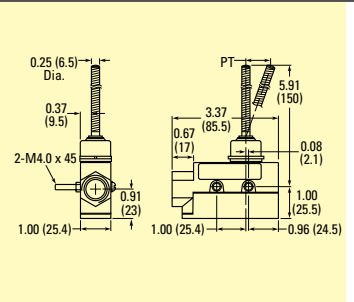


- OF – Operating Force
- RF – Return Force
- PT – Pre-Travel
- OT – Operating Travel
- MD – Movement Differential
- FP – Free Position
- OP – Operating Position

SCREW TERMINAL TYPE BASIC SWITCHES

MODEL NUMBER		DESCRIPTION	SPECIFICATIONS	All Dimensions: in (mm)	
15 A	20 A				
E47BMS02	N/A	Straight Plunger	OF Max: 350 g (12.3 oz) RF Max: 114 g (4.02 oz) PT Max: 0.4 mm (0.016") OT Max: 1.6 mm (0.063") MD Max: 0.05 mm (0.002") OP: 21.5 mm (0.846")		
E47BMS22	E47CMS22	Straight Lever	OF Max: 70 g (2.47 oz) RF Min: 14 g (0.49 oz) PT Max: 10 mm (0.394") OT Min: 5.6 mm (0.220") MD Max: 1.3 mm (0.051") FP Max: 28.2 mm (1.11") OP: 19 mm (0.748")		
E47BMS04	E47CMS04	Extended Straight Plunger	OF Max: 350 g (12.3 oz) RF Max: 114 g (4.02 oz) PT Max: 0.4 mm (0.016") OT Max: 5.5 mm (0.217") MD Max: 0.05 mm (0.002") OP: 21.5 mm (0.846")		
E47BMS10	N/A	Roller Plunger	OF Max: 350 g (12.3 oz) RF Max: 114 g (4.02 oz) PT Max: 0.4 mm (0.016") OT Max: 3.58 mm (0.14") MD Max: 0.05 mm (0.002") OP: 33.4 mm (1.315")		
E47BMS11	N/A	Cross Roller Plunger	OF Max: 350 g (12.3 oz) RF Max: 114 g (4.02 oz) PT Max: 0.4 mm (0.016") OT Max: 3.58 mm (0.14") MD Max: 0.05 mm (0.002") OP: 33.4 mm (1.315")		
E47BMS42	N/A	Extended Roller Lever	OF Max: 160 g (5.64 oz) RF Max: 22 g (0.78 oz) PT Max: 7.1 mm (0.28") OT Max: 4.0 mm (0.16") MD Max: 1.02 mm (0.04") FP Max: 36.5 mm (1.437") OP: 30.2 mm (1.189")		
E47BMS30	E47CMS30	Roller Lever	OF Max: 160 g (5.64 oz) RF Min: 42 g (1.48 oz) PT Max: 2.7 mm (0.106") OT Max: 2.4 mm (0.094") MD Max: 0.5 mm (0.02") FP Max: 32.5 mm (1.28") OP: 30.2 mm (1.189")		
E47BMS43	N/A	Extended Adjustable Roller	OF Max: 600 g (21.16 oz) RF Min: 300 g (10.58 oz) PT Max: 3.0 mm (0.118") OT Max: 6.0 mm (0.236") MD Max: 2.0 mm (0.079") FP Max: 41 mm (1.614") OP: 40.4 mm (1.591")		

ENCLOSED SWITCHES

MODEL NUMBER		DESCRIPTION	SPECIFICATIONS	All Dimensions: in (mm)
15 A	20 A			
E47BLS06	N/A	Booted Plunger	<p>OF Max: 800 g (28.22 oz) RF Min: 240 g (8.46 oz) PT Max: 2.0 mm (0.079") OT Max: 5.0 mm (0.197") MD Max: 0.1 mm (0.004") OP: 45.8 mm (0.016")</p>  	
E47BLS33	N/A	Booted Roller Lever	<p>OF Max: 640 g (22.57 oz) RF Min: 230 g (8.11 oz) PT Max: 5.0 mm (0.197") OT Max: 6.0 mm (0.236") MD Max: 0.4 mm (0.016")</p>  	
E47BLS08	N/A	Booted Roller Plunger	<p>OF Max: 500 g (17.64 oz) RF Min: 100 g (3.53 oz) PT Max: 1.0 mm (0.039") OT Max: 3.5 mm (0.138") MD Max: 0.005 mm (0.012") OP: 49.7 mm (1.957")</p>  	
E47BLS14	N/A	Booted Roller Lever	<p>OF Max: 60 g (2.11 oz) RF Min: 25 g (0.88 oz) PT Max: 13.2 mm (0.520") OT Max: 8.0 mm (0.315") MD Max: 1.0 mm (0.039")</p>  	

SPECIFICATIONS

Operating Speed: 0.01 m/second to 1 m/second

Operating Frequency:

Mechanical: 120 operations/minute

Electrical: 20 operations/minute

Mechanical Life:

3,000,000 operations maximum

Electrical Life:

500,000 operations minimum

Contact Resistance: 15 mΩ maximum, initial

Insulation Resistance: 100 mΩ minimum @ 500 Vdc

Dielectric 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: -25 to 80°C (-13 to 176°F)

Enclosed: -15 to 80°C (5 to 176°F)

Environmental Rating Enclosed, Booted: NEMA 1

Mounting Centers: 25.4 mm (1.0 in), #8 screw size

Terminal Screws: Bottom facing M4 x 0.7 (8 – 32) — screws with cup washers will accept 22 to 12 AWG (2.5 sq. mm maximum)

Threaded Bushing: 15/32 in

Housing Material: Mineral filled phenolic

Enclosure: Aluminum die casting

Conduit Fitting On Enclosed Type: ½ NPT



E47BMS02 shown larger than actual size



E47BMS22 shown larger than actual size

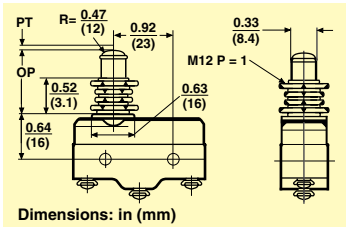
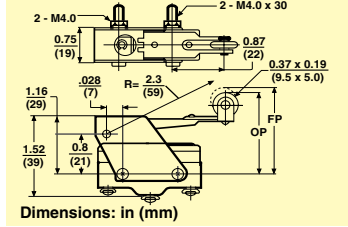
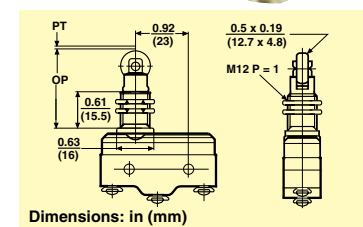
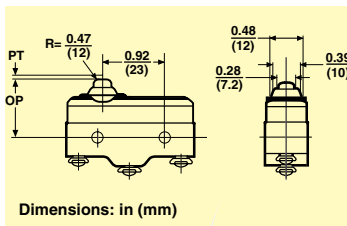
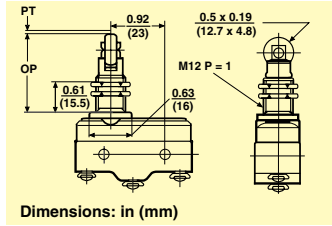
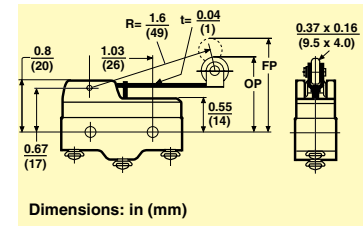
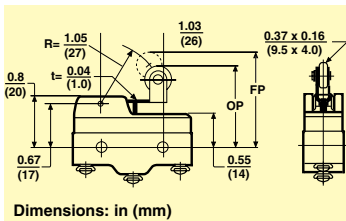
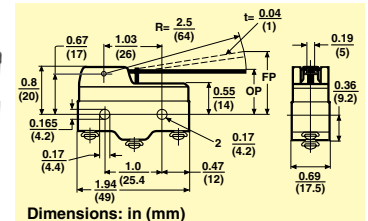


E47BMS10 shown larger than actual size

Ratings

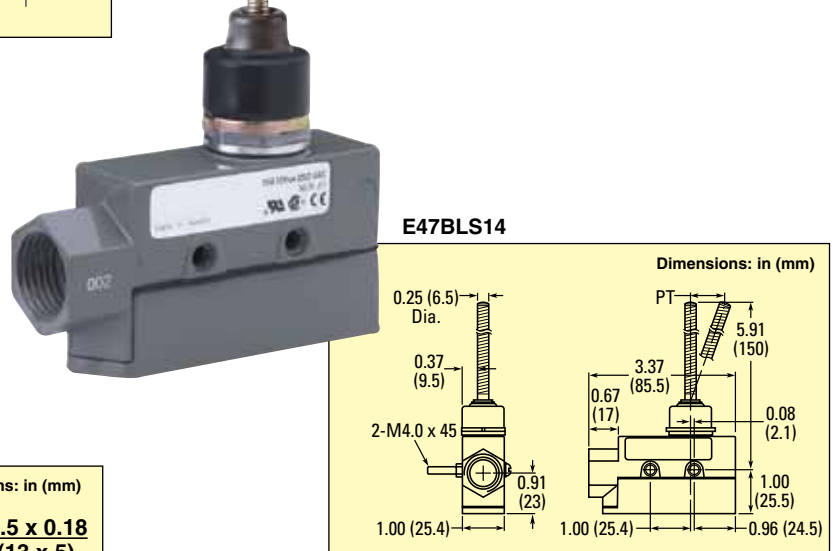
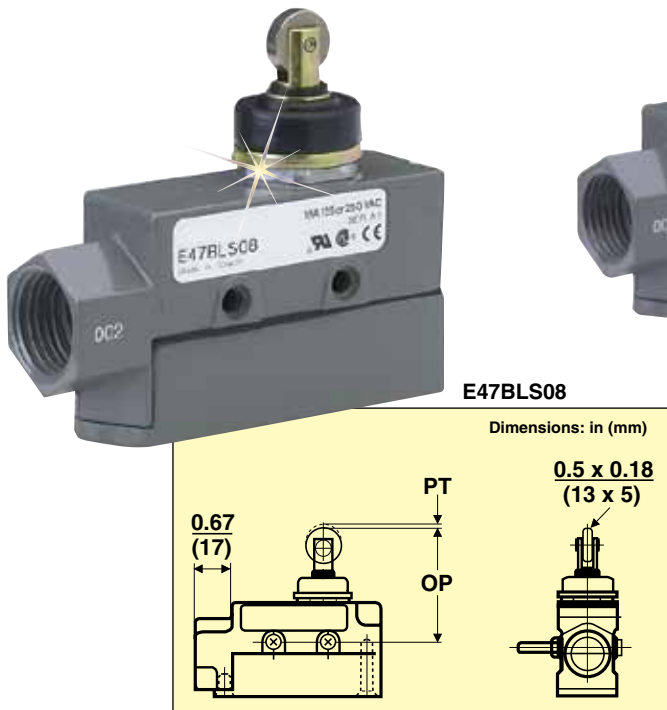
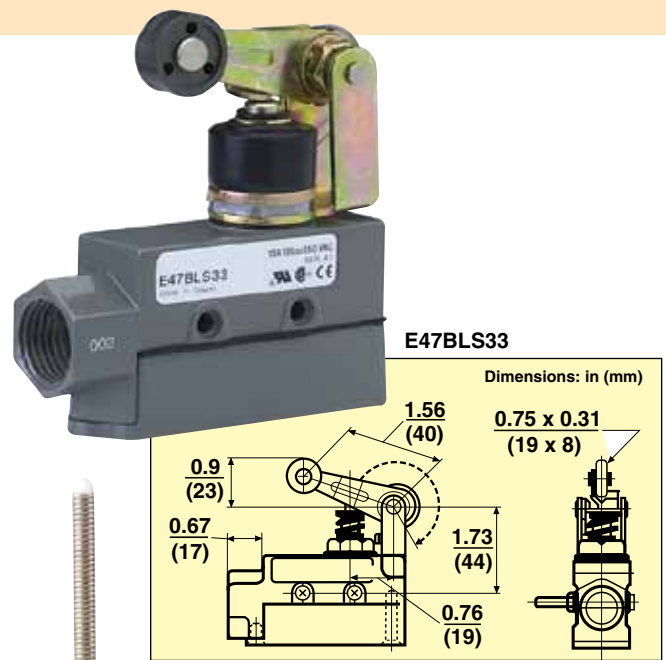
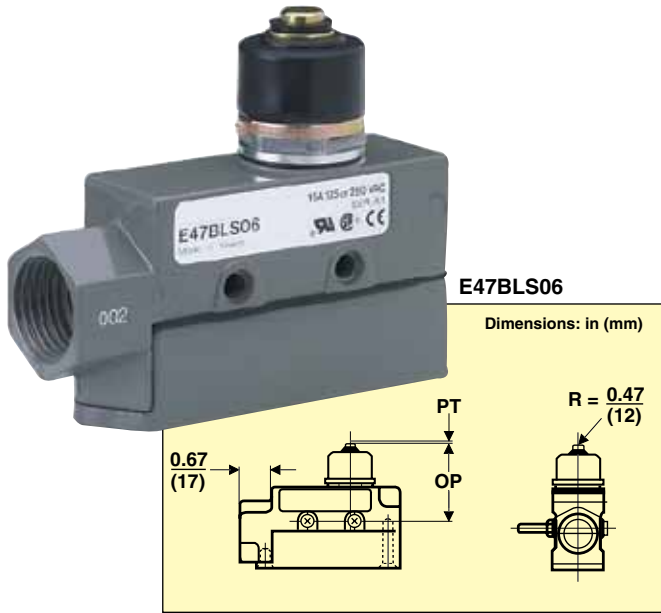
MODEL	RATED VOLTAGE	NON-INDUCTIVE LOAD (A)			NON-INDUCTIVE LOAD (A)			INRUSH CURRENT (A)	
		RESISTIVE LOAD	LAMP LOAD		INDUCTIVE LOAD	MOTOR LOAD		N C	N O
			N C AND N O	N C		N O	N C		
15 A	125 Vac	15	3.00	1.50	15.00	5.00	2.50	30 Max	15 Max
	250 Vac	15	2.50	1.25	15.00	3.00	1.50		
	500 Vac	3	1.50	0.75	2.50	1.50	0.75		
	8 Vac	15	3	1.5	15	5	2.5		
	14 Vdc	15	3	1.5	10	5	2.5		
	30 Vdc	6 (2)	3	1.5	5	5	2.5		
	125 Vdc	0.4	0.4	0.4	0.05	0.05	0.05		
	250 Vdc	0.2	0.2	0.2	0.03	0.03	0.03		
20 A	125 Vac	20	7.50	7.50	20	12.50	12.50	60 Max	30 Max
	250 Vac	20	7.50	7.50	20	8.30	8.30		
	500 Vac	6	4.00	4.00	5	2.00	2.00		
	8 Vac	20	3	1.5	20	12.5	12.5		
	14 Vdc	20	3	1.5	15	12.5	12.5		
	30 Vdc	6	3	1.5	5	5	5		
	125 Vdc	0.5	0.5	0.5	0.05	0.05	0.05		
	250 Vdc	0.25	0.25	0.25	0.03	0.03	0.03		

Notes: Inductive load has a power factor of 0.04 minimum (AC) and a time constant of 7 m/second (DC). Lamp load has an inrush current of 6 times steady-state current.

E47BMS04**E47BMS43****E47BMS10****E47BMS02****E47BMS11****E47BMS42****E47BMS30****E47BMS22****To Order****BASIC SWITCHES**

MODEL NO.	MODEL NO	DESCRIPTION
15 A	20 A	
E47BMS02		Straight plunger
E47BMS22	E47CMS22	Straight lever
E47BMS04	E47CMS04	Extended straight plunger
E47BMS10		Roller plunger
E47BMS11		Cross roller plunger
E47BMS42		Extended roller lever
E47BMS30	E47CMS30	Roller lever
E47BMS43		Extended adjustable roller

Comes complete with instruction manual.
 Ordering Example: E47BMS02, straight plunger limit switch.



To Order	
ENCLOSED SWITCHES	
MODEL NO.	DESCRIPTION
15 A	
E47BLS06	Booted plunger
E47BLS33	Booted roller lever
E47BLS08	Booted roller plunger
E47BLS14	Booted roller lever

Comes complete with instruction manual.
Ordering Example: E47BLS06, booted plunger limit switch.