



# PRECISION LIMIT SWITCHES

Starts at  
**\$11.70**



- 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.

E47BMS42, \$11.70 shown smaller than actual size.

Compact size fits where you need it

Wide variety of operators available

Basic switch

Solder or screw terminals

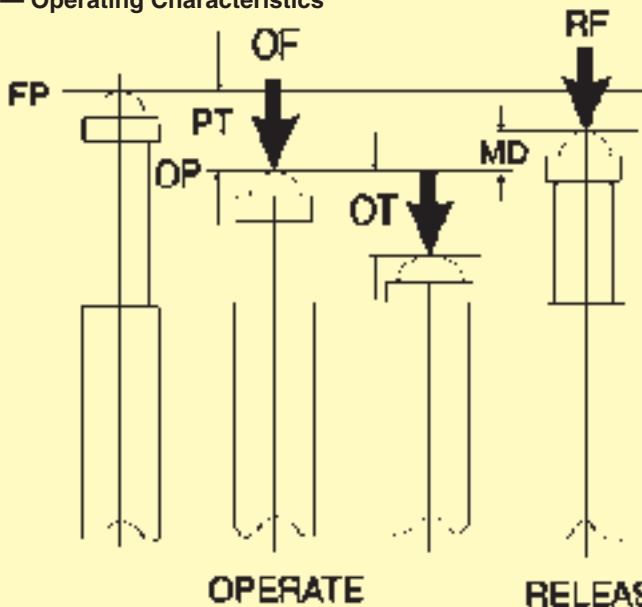
E47BLS06, \$35.25 shown close to actual size

Enclosed switch

1/2" NPT conduit fitting

Rugged die cast aluminum enclosure

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



## ENCLOSED SWITCHES

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

### 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 m Ω maximum, initial

**Insulation Resistance:** 100 m Ω 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, \$9.75, shown larger than actual size



E47BMS22, \$9.15, shown larger than actual size



E47BMS10, \$17.40, shown larger than actual size

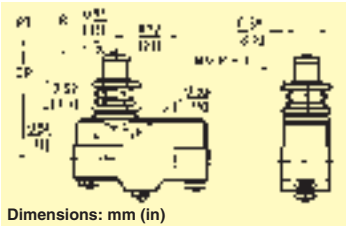
### Ratings

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.



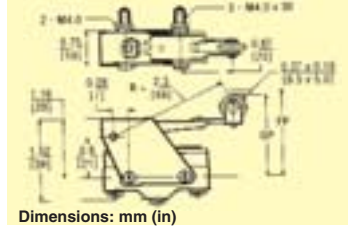
E47BMS04,  
\$16.20



Dimensions: mm (in)



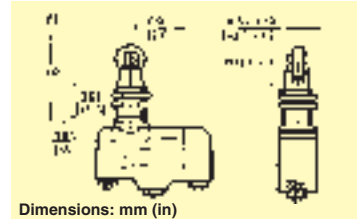
E47BMS43,  
\$13.30



Dimensions: mm (in)



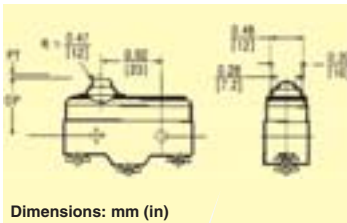
E47BMS10,  
\$17.40



Dimensions: mm (in)



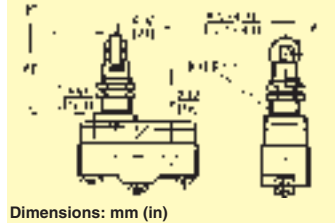
E47BMS02, \$9.75



Dimensions: mm (in)



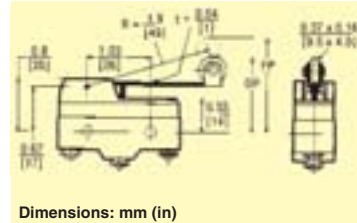
E47BMS11, \$17.40



Dimensions: mm (in)



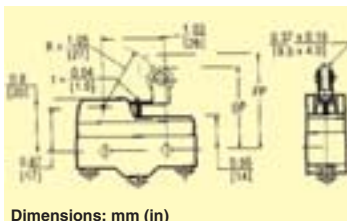
E47BMS42, \$11.70



Dimensions: mm (in)



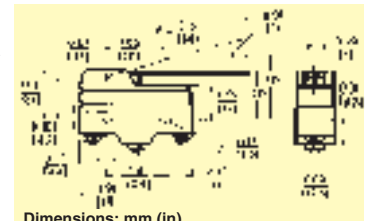
E47BMS30, \$11.10



Dimensions: mm (in)



E47BMS22, \$9.15



Dimensions: mm (in)

**To Order** (Specify Model Number)

**MOST POPULAR MODELS HIGHLIGHTED!**

**BASIC SWITCHES**

MODEL NO.	PRICE	MODEL NO.	PRICE	DESCRIPTION
15 A		20 A		
E47BMS02	\$9.75			Straight plunger
E47BMS22	9.15	E47CMS22	\$8.65	Straight lever
E47BMS04	16.20	E47CMS04	15.50	Extended straight plunger
E47BMS10	17.40			Roller plunger
E47BMS11	17.40			Cross roller plunger
E47BMS42	11.70			Extended roller lever
E47BMS30	11.10	E47CMS30	11.90	Roller lever
E47BMS43	13.30			Extended adjustable roller

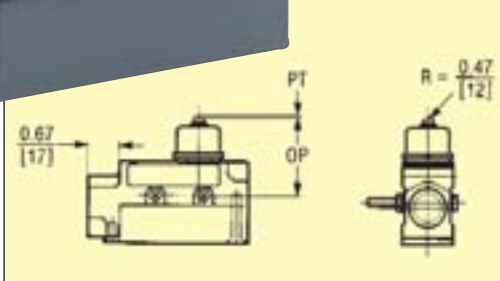
Comes with complete instruction manual.

Ordering Example: E47BMS02, Straight plunger limit switch, \$9.75.



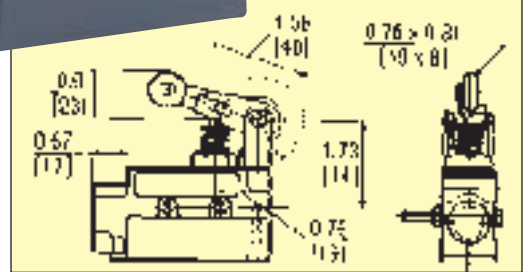
**E47BLS06, \$35.25**

Dimensions: mm (in)



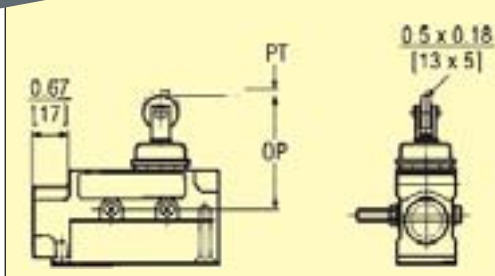
**E47BLS33, \$52**

Dimensions: mm (in)



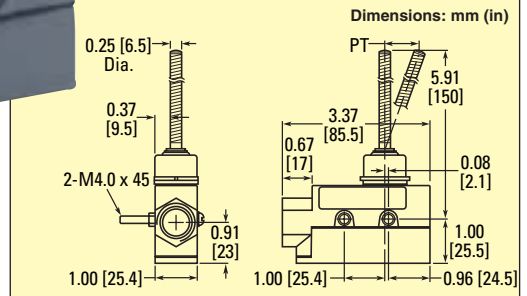
**E47BLS08, \$53**

Dimensions: mm (in)



**E47BLS14, \$40.25**

Dimensions: mm (in)



**To Order (Specify Model Number)**

**ENCLOSED SWITCHES**

MODEL NO.	PRICE	DESCRIPTION
15 A		
E47BLS06	\$35.25	Booted plunger
E47BLS33	52.00	Booted roller lever
E47BLS08	53.00	Booted roller plunger
E47BLS14	40.25	Booted roller lever

Comes with complete instruction manual.

Ordering Example: E47BLS06, Booted plunger limit switch, \$35.25.

**ALL MODELS AVAILABLE FOR FAST DELIVERY!**



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