

# 2.1

## Limit Switches

### E47 Precision Switches

#### E47 Precision Switches

2



### E47 Precision Switches

#### Product Description

E47 Precision Switches from Eaton's electrical sector provide high accuracy switching at an affordable price. A variety of standard features, such as current capacity, operating force, travel characteristics and actuators, lets you custom fit the switch to your application.

The switches are available in their compact basic form, or enclosed in a rugged, metal housing.

#### Features

- Compact housings are 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

### Contents

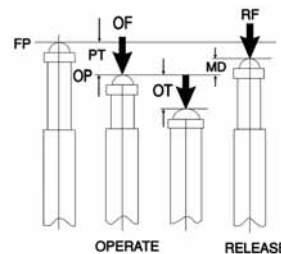
#### Description

	<i>Page</i>
E47 Precision Switches	
Product Selection	
Basic Switches . . . . .	<b>V8-T2-7</b>
Enclosed Switches . . . . .	<b>V8-T2-9</b>
Accessories . . . . .	<b>V8-T2-10</b>
Technical Data and Specifications . . . . .	<b>V8-T2-10</b>
Dimensions . . . . .	<b>V8-T2-12</b>



### Operating Characteristics

#### Definitions



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

### Standards and Certifications

- UL Recognized
- CSA Certified
- CE
- RoHS



#### **⚠ DANGER**

**THIS SENSOR IS NOT A SAFETY DEVICE AND IS NOT INTENDED TO BE USED AS A SAFETY DEVICE. This sensor is designed only to detect and read certain data in an electronic manner and perform no use apart from that, specifically no safety-related use. This sensor product does not include self-checking redundant circuitry, and the failure of this sensor product could cause either an energized or de-energized output condition, which could result in death, serious bodily injury, or property damage.**

For the most current information on this product, visit our Web site: [www.eaton.com](http://www.eaton.com)

For Customer Service in the U.S. call 1-877-ETN CARE (386-2273), in Canada call 1-800-268-3578. For Application Assistance in the U.S. and Canada call 1-800-426-9184.

## Product Selection

## Basic Switches

## E47 Precision Switches—Basic

Type	Specifications <sup>①</sup>	15A Catalog Number	20A Catalog Number
<b>Pin Plunger</b>			
 Pin Plunger			
Screw terminal	OF max.—12.3 oz (350g) RF max.—4.02 oz (114g) PT max.—0.016 in (0.4 mm)	<b>E47BMS01</b>	<b>E47CMS01</b>
Solder terminal	OT max.—0.005 in (0.13 mm) MD max.—0.002 in (0.05 mm) OP—0.626 in (15.9 mm)	<b>E47BML01</b>	<b>E47CML01</b> <sup>②</sup>
<b>Extended Plunger</b>			
 Extended Plunger			
Screw terminal	OF max.—12.3 oz (350g) RF max.—4.02 oz (114g) PT max.—0.016 in (0.4 mm)	<b>E47BMS03</b>	—
Solder terminal	OT max.—0.063 in (1.6 mm) MD max.—0.002 in (0.05 mm) OP—1.11 in (28.2 mm)	<b>E47BML03</b>	—
<b>Straight Plunger</b>			
 Straight Plunger			
Screw terminal	OF max.—12.3 oz (350g) RF max.—4.02 oz (114g) PT max.—0.016 in (0.4 mm)	<b>E47BMS02</b>	<b>E47CMS02</b>
Solder terminal	OT max.—0.063 in (1.6 mm) MD max.—0.002 in (0.05 mm) OP—0.846 in (21.5 mm)	<b>E47BML02</b>	<b>E47CML02</b>
<b>Reversed Lever</b>			
 Reversed Lever			
Screw terminal	OF max.—5.29 oz (150g) RF max.—0.49 oz (14g) PT max.—0.16 in (4 mm)	<b>E47BMS21</b>	—
Solder terminal	OT max.—0.063 in (1.6 mm) MD max.—0.051 in (1.3 mm) FP max.—0.81 in (20.6 mm)	<b>E47BML21</b>	—
Spade terminal	OP—0.685 in (17.4 mm)	<b>E47BMT21</b>	—
<b>Straight Lever</b>			
 Straight Lever			
Screw terminal	OF max.—2.47 oz (70g) RF min.—0.49 oz (14g) PT max.—0.394 in (10 mm) OT max.—0.220 in (5.6 mm)	<b>E47BMS22</b>	<b>E47CMS22</b>
Solder terminal	MD max.—0.051 in (1.3 mm) FP max.—1.11 in (28.2 mm) OP—0.748 in (19 mm)	<b>E47BML22</b>	—
<b>Standard Lever</b>			
 Standard Lever			
Screw terminal	OF max.—3.53 oz (100g) RF min.—0.99 oz (28g) PT max.—0.197 in (5.0 mm) OT max.—0.079 in (2.0 mm)	<b>E47BMS20</b>	—
Solder terminal	MD max.—0.039 in (1.0 mm) FP max.—0.976 in (24.8 mm) OP—0.748 in (19 mm)	<b>E47BML20</b>	—
<b>Extended Straight Plunger</b>			
 Extended Straight Plunger			
Screw terminal	OF max.—12.3 oz (350g) RF max.—4.02 oz (114g) PT max.—0.016 in (0.4 mm)	<b>E47BMS04</b>	<b>E47CMS04</b>
Screw terminal (with space lugs)	OT max.—0.217 in (5.5 mm) MD max.—0.002 in (0.05 mm) OP—0.858 in (21.8 mm)	<b>E47BMT04</b>	—
Solder terminal		<b>E47BML04</b>	<b>E47CML04</b>

**Notes**

<sup>①</sup> OF = Operating Force; RF = Return Force; PT = Pre-Travel; OT = Over-Travel; MD = Movement Differential; FP = Free Position; OP = Operating Position.

<sup>②</sup> Contact Eaton's Sensor Applications Department at 1-800-426-9184 for approval status.