

## SERIES 46 SPST and DPDT, 1/4 Amp

### FEATURES

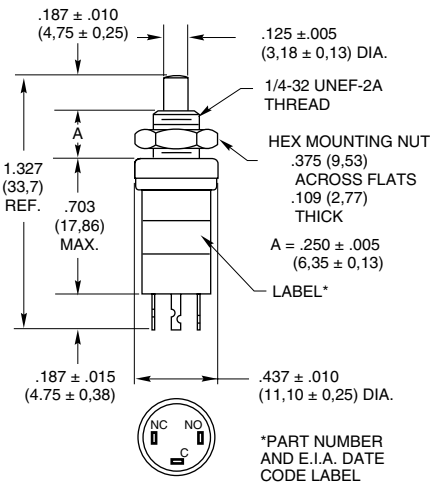
- Long Wipe Contact Assures High Reliability
- 250,000 Cycles of Operation



### DIMENSIONS In Inches (and millimeters)

#### Single Pole/Double Throw

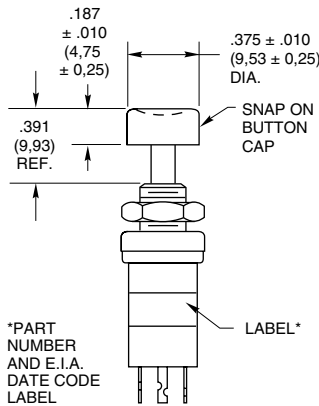
46-101\* (BBM)  
46-110\* (MBB)



Rating at 115 Vac Resistive	Rating at 220 Vac Resistive	Operations at Rated Load	*Complete Part Number	Button or Cap Color
1/4 Amp	1/8 Amp	250,000	46-101 RED	Red
			46-101 BLK	Black
			46-102 RED	Red
			46-102 BLK	Black
			46-110 RED	Red
			46-110 BLK	Black
			46-111 RED	Red
			46-111 BLK	Black

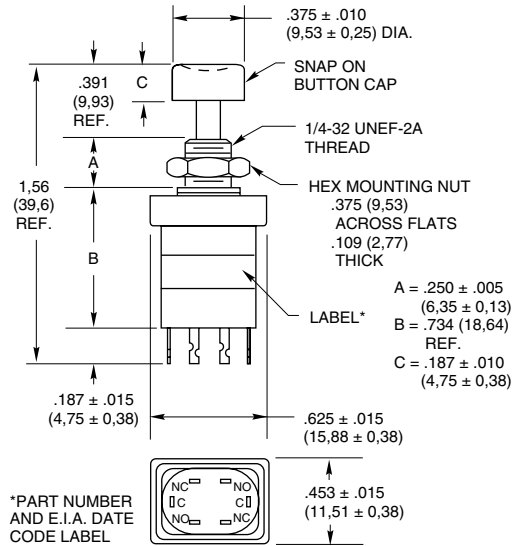
Action	Total Travel	Bottoming Force (oz.)	Mtg. Hole
Momentary	.180 (4,57) Min.	17 ± 5	17/64" (6,75)

46-102\* (BBM)  
46-111\* (MBB)



#### Double Pole/Double Throw

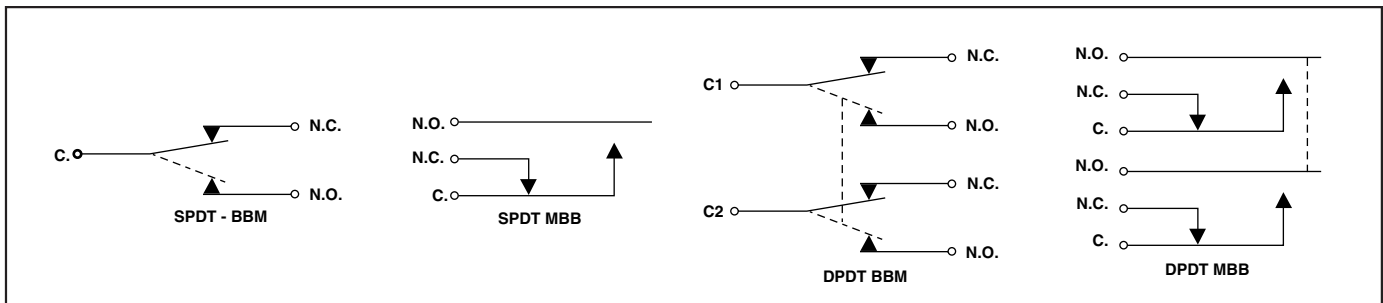
46-200\* (BBM)  
46-201\* (MBB)



Rating at 115 Vac Resistive	Rating at 220 Vac Resistive	Operations at Rated Load	*Complete Part Number	Cap Color
1/4 Amp	1/8 Amp	250,000	46-200 RED	Red
			46-200 BLK	Black
			46-201 RED	Red
			46-201 BLK	Black

Action	Total Travel	Bottoming Force (oz.)	Mtg. Hole
Momentary	.180 (4,57) Min.	35 ± 9	17/64" (6,75)

### CIRCUITRY



**SERIES 46**  
SPST and DPDT, 1/4 Amp

**FEATURES**

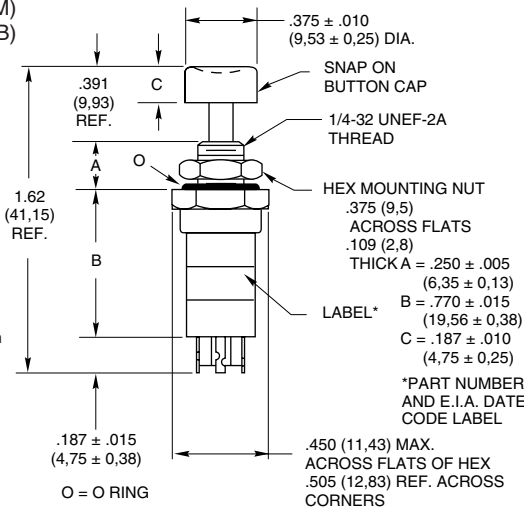
- Bushing and Button Seal
- Environmentally Sealed



**DIMENSIONS** In Inches (and millimeters)

**Sealed Bushing and Button Single Pole/Double Throw**

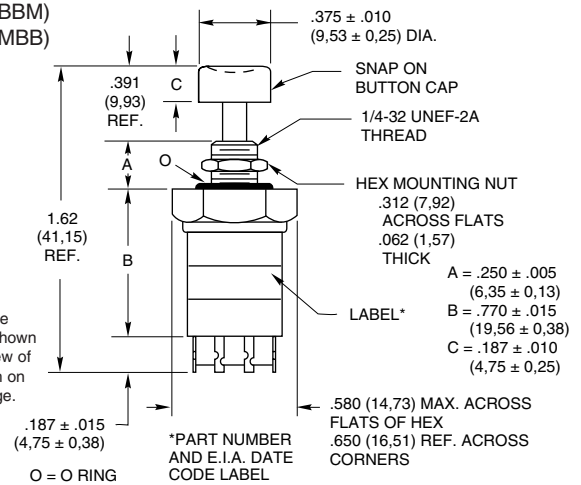
46-150\* (BBM)  
46-151\* (MBB)



Terminals are marked as shown in bottom view of SPDT switch on previous page.

**Sealed Bushing and Button Double Pole/Double Throw**

46-270\* (BBM)  
46-271\* (MBB)



Terminals are marked as shown in bottom view of DPDT switch on previous page.

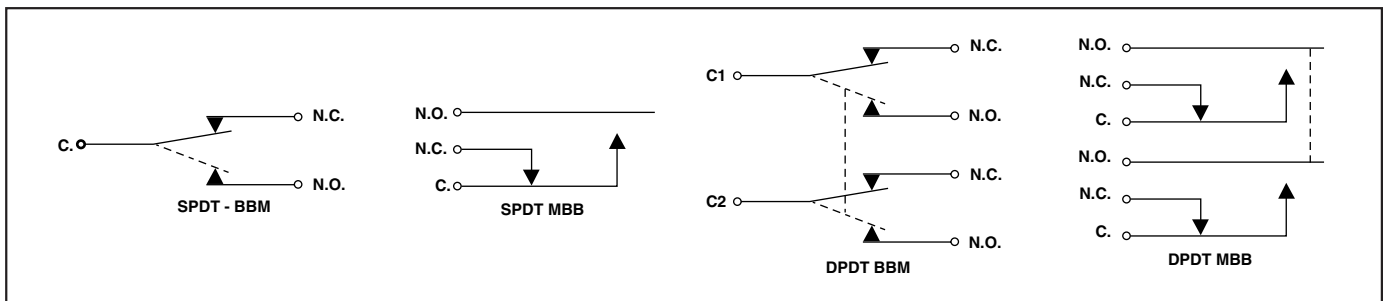
Rating at 115 Vac Resistive	Rating at 220 Vac Resistive	Operations at Rated Load	*Complete Part Number	Cap Color
1/4 Amp	1/8 Amp	100,000	46-150 RED 46-150 BLK 46-151 RED 46-151 BLK	Red Black Red Black

Action	Total Travel	Bottoming Force (oz.)	Mtg. Hole
Momentary	.180 (4,57) Min.	24 ± 4	17/64" (6,75)

Rating at 115 Vac Resistive	Rating at 220 Vac Resistive	Operations at Rated Load	*Complete Part Number	Cap Color
1/4 Amp	1/8 Amp	100,000	46-270 RED 46-270 BLK 46-271 RED 46-271 BLK	Red Black Red Black

Action	Total Travel	Bottoming Force (oz.)	Mtg. Hole
Momentary	.180 (4,57) Min.	48 ± 4	17/64" (6,75)

**CIRCUITRY**



Pushbutton Switches

## DIMENSIONS In Inches (and millimeters)

**Environmentally Sealed Double Pole/Double Throw**  
46-260\* (BBM)

$.375 \pm .010$   
(9,53  $\pm$  0,25) DIA.  
 SNAP ON BUTTON CAP  
 O-RING SEALED  
 3/8-32 UNEF-2A  
 THREAD TO .060 (1,5,24) MAX.  
 FROM SHOULDER  
 HEX MOUNTING NUT  
 .562 (14,2) ACROSS FLATS  
 .094 (2,40) THICK  
 SWITCH AND WIRE LEADS  
 ENCAPSULATED

A = 1.14 (29,0) MAX.  
 B = 22.00 (558,8) MAX.  
 C = .187  $\pm$  .010 (4,75  $\pm$  0,25)  
 D = .125  $\pm$  .005 (3,18  $\pm$  0,13)

$.390 \pm .010$   
(9,90  $\pm$  0,25)  
 $.281 \pm .010$   
(7,14  $\pm$  0,25)  
 $.250 \pm .010$   
(6,35  $\pm$  0,25)

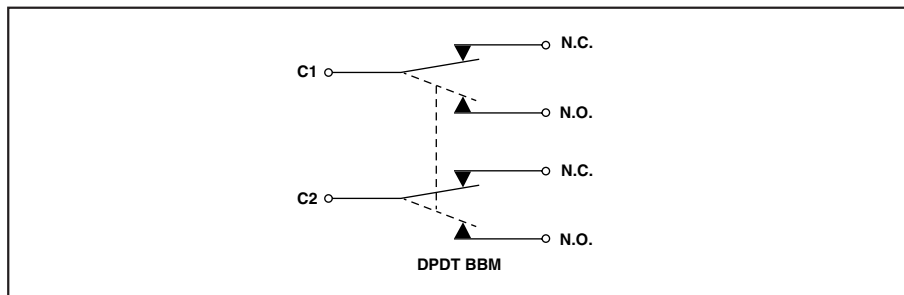
$.641 \pm .005$   
(16,28  $\pm$  0,13)  
 $.812 \pm .005$   
(20,62  $\pm$  0,13)  
 DIAMETER

Rating at 115 Vac Resistive	Rating at 220 Vac Resistive	Operations at Rated Load	*Complete Part Number	Cap Color
1/4 Amp	1/8 Amp	250,000	46-260 RED 46-260 BLK	Red Black

Action	Total Travel	Bottoming Force (oz.)	Mtg. Hole
Momentary	.180 (4,57) Min.	Approx. 45	25/64" (9,92)

## CIRCUITRY



## SPECIFICATIONS

### Rating Criteria

**Contact Resistance:** Less than 25 milliohms at the switch initially. Less than 4 milliohms/inch of wire.

**Voltage Breakdown:** 1,000 Vac between mutually insulated parts

**Insulation Resistance:** 1,000 megohms minimum

### Materials and Finishes

**Cover, Bushing, Mounting Nut:** Brass, tin zinc

**Shorting Bar:** Phosphor bronze, silver-plated.

**Terminals:** Phosphor bronze, silver contact surface. Terminal ends are tin/silver

**Base or Potting Shell:** Phenolic per MIL-M-14, type CFG

**Spring:** Tinned music wire

**Button Cap:** Polyethylene

**Button:** Polyphenylene sulfide (PPS) for 46-200 and 46-201. Polycarbonate for all other unsealed versions. Aluminum for all sealed versions.

**O-Ring Seal:** Nitrile per MIL-P-5516, class B

**Seal Adapter and Hex Nut (46-260):** Brass, zinc trivalent chromate-plated

**Wire Leads (46-260):** Per MIL-W-16878 type E. #26 AWG, insulated teflon, copper stranded wire

### Operating Features

**Break-Before-Make:** Rest position to N.C. break .020" (0,51) minimum. Rest position to N.O. Make .140" (3,35) maximum.

**Make-Before-Break:** Rest position to N.O. make .065"  $\pm$  .015 (1,65  $\pm$  0,38). Rest position to N.C. break .130"  $\pm$  .015 (3,30  $\pm$  0,38).

**Operating Temperature:** -40°C to +85°C

## STANDARD OPTIONS

Epoxy sealed terminals and wire leads, see page E-34 and E-35.

Decorative mountings, see pages E-24 to E-26.

## ACCESSORY



### Decorative Mounting Nut

Part No. 30C1023-1

Fits .250" (6,35) Bushing

For dimensions, materials and finishes, see page E-36.

## ORDERING INFORMATION

Description	Part No.
SPDT, BBM, Red Button	46-101 RED
SPDT, BBM, Black Button	46-101 BLK
SPDT, BBM, Red Cap	46-102 RED
SPDT, BBM, Black Cap	46-102 BLK
SPDT, MBB, Red Button	46-110 RED
SPDT, MBB, Black Button	46-110 BLK
SPDT, MBB, Red Cap	46-111 RED
SPDT, MBB, Black Cap	46-111 BLK
SPDT, BBM, Red Cap	46-150 RED
SPDT, BBM, Black Cap	46-150 BLK
SPDT, MBB, Red Cap	46-151 RED
SPDT, MBB, Black Cap	46-151 BLK
DPDT, BBM, Red Cap	46-200 RED
DPDT, BBM, Black Cap	46-200 BLK
DPDT, MBB, Red Cap	46-201 RED
DPDT, MBB, Black Cap	46-201 BLK
DPDT, BBM, Red Cap	46-270 RED
DPDT, BBM, Black Cap	46-270 BLK
DPDT, MBB, Red Cap	46-271 RED
DPDT, MBB, Black Cap	46-271 BLK
DPDT, BBM, Sealed, Red	46-260 RED
DPDT, BBM, Sealed, Black	46-260 BLK

### ACCESSORY

Decorative Nut	30C1023-1
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Available from your local Grayhill Distributor. For prices and discounts, contact a local Sales Office, an authorized local Distributor or Grayhill.