

## SERIES 39

SPST, 150 mA to 1/2 Amp

### FEATURES

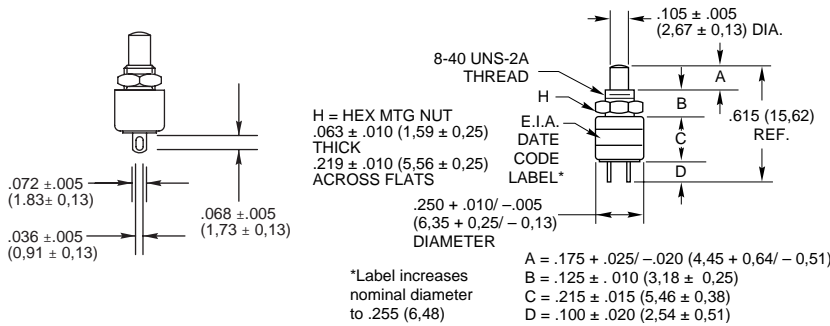
- Requires an Absolute Minimum of Space
- Molded-In Terminals in SPST-N.O.
- Solder Lug Terminals



### DIMENSIONS In Inches (and millimeters)

#### Normally Open-SPST Economy and Standard Version

39-1  
39-3  
39-601\*



#### Economy Version

Electrical Ratings		Operations at Rated Load	*Complete Part Number	Button Color
At 5 Vdc 150 mA	At 20 Vdc 20 mA	1,000,000	39-601 RED 39-601 BLK	Red Black

Action	Total Travel	Actuating Force (oz.)	Mtg. Hole
Momentary	.035 ± .015 (0,89 ± 0,38)	4 + 4 - 2	11/64" (4,37) DIA.

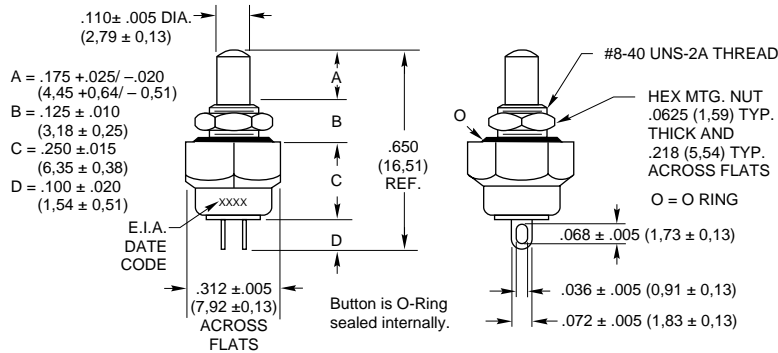
#### Standard

Electrical Ratings		Operations at Rated Load	Complete Part Number	Button Color
At 115 Vac 1/2 Amp Res.	At 220 Vac 1/4 Amp Res.	1,000,000	39-1 39-3	Red Black

Action	Total Travel	Actuating Force (oz.)	Mtg. Hole
Momentary	.035 ± .015 (0,89 ± 0,38)	4 + 4 - 2	11/64" (4,37) DIA.

#### Normally Open-SPST with Sealed Bushing and Button

39-351\*

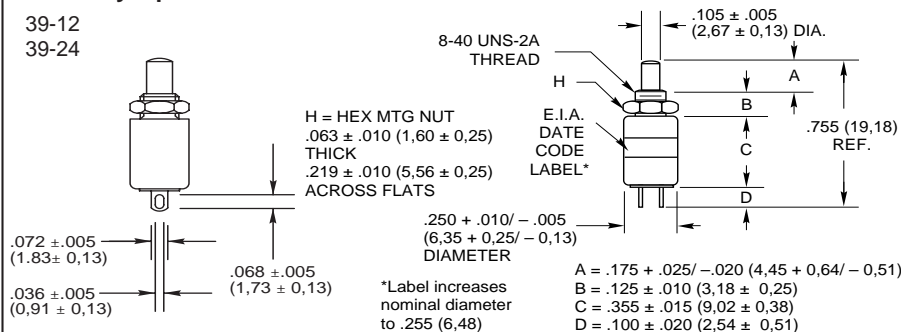


Rating at 115 Vac Resistive	Rating at 220 Vac Resistive	Operations at Rated Load	*Complete Part Number	Button Color
1/2 Amp	1/4 Amp	250,000	39-351 RED 39-351 BLK	Red Black

Action	Total Travel	Actuating Force (oz.)
Momentary	.035 ± .015 (0,89 ± 0,38)	16 ± 8

#### Normally Open-SPST with Overtravel

39-12  
39-24



Rating at 115 Vac Resistive	Rating at 220 Vac Resistive	Operations at Rated Load	Complete Part Number	Button Color
1/2 Amp	1/4 Amp	100,000	39-12 39-24	Red Black

Action	Total Travel	Over Travel	Actuating Force (oz.)	Mtg. Hole
Momentary	.130 ± .025 (3,30 ± 0,64)	.015 (0,38) Min.	5 ± 3	11/64" (4,37) DIA.

**DIMENSIONS** In Inches (and millimeters)

**Normally Closed-SPST**  
39-2

H = HEX MTG NUT  
.063 ± .010 (1.60 ± 0.25)  
THICK  
.219 ± .010 (5.56 ± 0.25)  
ACROSS FLATS

8-40 UNS-2A  
THREAD

E.I.A. DATE  
CODE  
LABEL\*

\*Label increases nominal diameter to .255 (6.48)

Rating at 115 Vac Resistive	Rating at 220 Vac Resistive	Operations at Rated Load	Part Number	Cap Color
1/4 Amp	1/8 Amp	250,000	39-2	Black

Action	Total Travel	Actuating Force (oz.)	Mtg. Hole
Momentary	.042 ± .010 (1.07 ± 0.25)	+ 4 4 - 2	.172 (4.37) DIA.

**Normally Closed-SPST with Sealed Bushing and Button**  
39-352\*

#8-40 UNS-2A  
THREAD

H = HEX MTG. NUT  
.0625 (1.59) TYP.  
THICK AND  
.218 (5.56) TYP.  
ACROSS FLATS

O-RING

E.I.A. DATE  
CODE  
LABEL\*

\*Label increases nominal diameter to .255 (6.48)

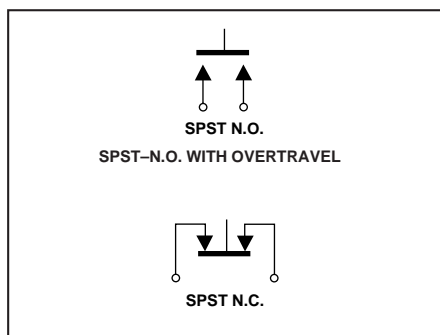
Button is o-ring sealed internally.

Rating at 115 Vac Resistive	Rating at 220 Vac Resistive	Operations at Rated Load	*Complete Part Number	Button Color
1/4 Amp	1/8 Amp	100,000	39-352 RED 39-352 BLK	Red Black

Action	Total Travel	Actuating Force (oz.)
Momentary	.042 ± .010 (0.17 ± 0.25)	8 ± 4

Pushbutton Switches

**CIRCUITRY**



**Materials and Finishes**

- Mounting Nut:** Brass, cadmium-plated
- Housing:** Aluminum, clear anodized for 39-351 and 39-352; Brass, cadmium-plated for others
- Button:** Thermoset plastic
- Base:** Thermoset plastic
- Shorting Bar:** Fine silver for 39-2 and 39-352; brass, gold-plated over nickel plate for 39-601; fine silver, gold-plated for others
- Terminals:** Fine silver for 39-2 and 39-352; commercial bronze with gold-plated fine silver contact surface for others
- Spring:** Tinned music wire
- O-Rings:** (39-351 and 39-352) Internal ring is silicone; external ring is buna 'N'

**STANDARD OPTIONS**

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

**ORDERING INFORMATION**

Part Number	Description
39-1	N.O., Red Button
39-2	N.C., Black Button
39-3	N.O., Black Button
39-12	N.O., Overtravel Red Button
39-24	N.O., Overtravel Black Button
39-351 RED	N.O., Sealed, Red Button
39-351 BLK	N.O., Sealed, Black Button
39-352 RED	N.C., Sealed, Red Button
39-352 BLK	N.C., Sealed, Black Button
39-601 RED	N.O., Economy, Red Button
39-601 BLK	N.O., Economy, Black Button

Accessory cap may be used with all switches shown except 39-2.

**SPECIFICATIONS**

**Rating Criteria**

- Contact Resistance:** 25 milliohms maximum on a new switch
- Voltage Breakdown:** 1,000 Vac between mutually insulated parts
- Insulation Resistance:** 1,000 megohms minimum
- Operating Temperature:** -40°C to +85°C
- Mounting Torque:** 2 inch-pounds

**ACCESSORY**

**Button Cap**  
Part No. 30B1012  
For use with part numbers 39-351 and 39-352. (Fasten to button with Cyanoacrylate Adhesive) See page E-36 for dimensions.

Accessory Part Number	Description
30B1012-5	Red Button Cap
30B1012-9	Black Button Cap
30B1012-8	White Button Cap

**Available from your local Grayhill Distributor.** For prices and discounts, contact a local Sales Office, an authorized local Distributor or Grayhill.