

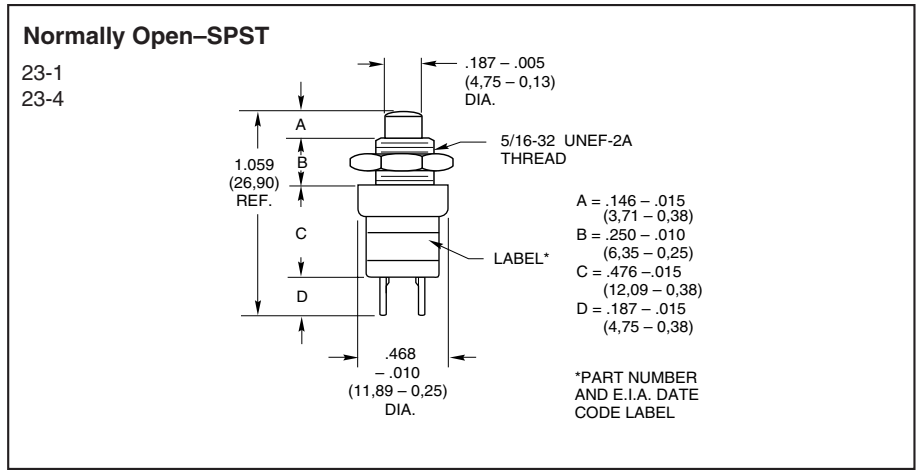
SERIES 23
SPST, 1/4 Amp

FEATURES

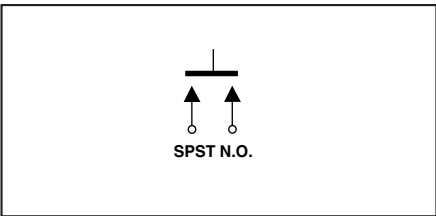
- Momentary Contact
- 100,000 Cycles of Operation



DIMENSIONS in inches (and millimeters)



CIRCUITRY



ACCESSORY



SPECIFICATIONS

Rating Criteria

Rated: To-Make-and-Break: 1/4 Amp at 115 Vac, or 1/8 Amp at 220 Vac resistive.

Contact Resistance: 25 milliohms maximum on a new switch.

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

Insulation Resistance: 1,000 megohms minimum.

Materials and Finishes

Mounting Nut and Cover Bushing: Brass, tin zinc

Base: Phenolic per MIL-M-14, Type CFG.

Button: Polycarbonate

Terminals: Brass, silver-plated.

Spring: Tinned music wire

Shorting Bar: Phosphor bronze, silver-plated.

Operating Temperature: -40° to +85°C

Operating Features

Total Button Travel: .095 ± .010 (2,41 ± 0,25)

Overtravel: .005 (0,13) minimum

Actuating Force: 16 ± 4 ounces

Mounting Hole: 21/64" (8,33)

ORDERING INFORMATION

Description & Button Color	Part No.
SPST, N.O., Red	23-1
SPST, N.O., Black	23-4
Accessory Nut	23C1024-1

Pushbutton Switches

SEALED TERMINAL AND WIRE LEAD OPTIONS OPTION -E AND -EW

FEATURES

- 1/4, 1/2, and 1 Amp
- Limit, Overtravel, or Panel Seal
- Butt or Wiping Contact
- Normally Open or Normally Closed
- Momentary or Push/Pull
- Series 23, 30, 39 and 46



Option -E
Epoxy-Sealed
Terminals



Option -EW,
Potted Base & 6"
Wire Leads

SPECIFICATIONS

Rating Criteria

Make and Break Current Rating: See page for standard part number

Contact Resistance: 25 milliohms maximum on a new switch. Less than 4 milliohms per inch of wire for wire lead option styles.

Insulation Resistance: 1,000 megohms minimum between mutually insulated parts

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

Materials and Finishes

Potting Sleeve (Series 39): Thermoset Plastic

Wire Leads: #26AWG, (.99mm diameter) insulated Teflon, Copper stranded wire, per MIL-W-16878, Type E. Ends are stripped 0.250" (6.35) and solder dipped. For other specifications, see Page References.

Standard Part Number Red Button	Standard Part Number Black Button	Choices of Suffix	Length Behind Panel In inches (and millimeters)	
			Standard Switch & Terminals	-EW Style Body
23-1	23-4	-E	0.665 (16,89)	—
30-1	30-3	-E, -EW	0.592 (15,04)	0.645 (16,38)
30-15	30-37	-E, -EW	0.679 (17,25)	0.728 (18,49)
30-17 RED	30-17 BLK	-E, -EW	0.958 (24,33)	1.007 (25,58)
30-16 RED	30-16 BLK	-E, -EW	0.958 (24,33)	1.007 (25,58)
30-251 RED	30-251 BLK	-E, -EW	0.632 (16,05)	0.685 (17,40)
30-252 RED	30-252 BLK	-E, -EW	0.645 (16,38)	0.700 (17,78)
30-32 RED	30-32 BLK	-E, -EW	0.867 (22,02)	0.896 (22,76)
30-6	30-2	-E, -EW	0.605 (15,37)	0.640 (16,26)
30-601 RED	30-601 BLK	-E, -EW	0.592 (15,04)	0.645 (16,38)
39-1*	39-3*	-EW**	0.315 (8,00)	0.440 (11,18)
39-12*	39-2	-E, -EW	0.490 (12,45)	0.575 (14,61)
39-101	39-24*	-EW**	0.455 (11,56)	0.575 (14,61)
39-351 RED	39-351 BLK	-EW**	0.650 (16,51)	0.775 (19,69)
39-352 RED*	39-352 BLK*	-E, -EW	0.350 (8,89)	0.450 (11,43)
39-601 RED	39-601 BLK	-E, -EW	0.529 (13,44)	0.630 (16,00)
39-701***	—	-EW*	0.315 (8,00)	0.440 (11,18)
39-702***	—	-EW**	0.800 (20,32)	0.925 (23,50)
46-101 RED	46-101 BLK	-E, -EW	0.510 (12,95)	0.750 (19,05)
46-102 RED	46-102 BLK	-E, -EW	0.890 (22,61)	0.957 (24,31)
46-110 RED	46-110 BLK	-E, -EW	0.890 (22,61)	0.957 (24,31)
46-111 RED	46-111 BLK	-E, -EW	0.890 (22,61)	0.957 (24,31)
46-150 RED	46-150 BLK	-E, -EW	0.890 (22,61)	0.957 (24,31)
46-151 RED	46-151 BLK	-E, -EW	0.957 (24,31)	1.024 (26,01)
46-200 RED	46-200 BLK	-E	0.957 (24,31)	1.024 (26,01)
46-201 RED	46-201 BLK	-E	0.921 (23,39)	—
46-270 RED	46-270 BLK	-E	0.921 (23,39)	—
46-271 RED	46-271 BLK	-E	0.957 (24,31)	—
		-E	0.921 (23,39)	—
		-E	0.957 (24,31)	—

*Epoxy potting sleeve enlarges the diameter of the -EW style to 0.300 (7,62).

**Sealed terminal (-E) option is not necessary; terminals have sealed construction.

***Natural Color Button

†Adjustable from 1.214 (30,84) to 1.334 (33,88) dependent on button height, see switch pages.

ORDERING INFORMATION

Use the Selector Charts at the beginning of the section to select a series. Use the pages listed there or referenced here to select a switch.

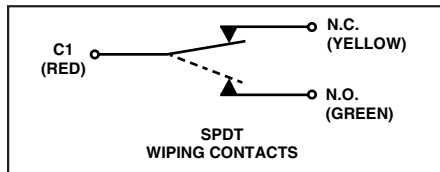
To order epoxy sealed terminals, add the suffix -E to the selected part number as allowed in the chart. **Example:** 30-1-E.

To order the epoxy-potted version with 6-inch wire leads, use the suffix -EW as allowed in the chart. **Example:** 39-1-EW

Available From Your Local Grayhill Distributors. For prices and discounts, contact a local Sales Office, an authorized local Distributor or Grayhill.

Standard Part Number Without Options Choice of Button Color (see switch pages)	Standard Part Number Choice of Button Color (see switch pages)	Choices of Options	Length Behind Panel In inches (and millimeters)	
			Standard Switch & Terminals	-EW Style Body
—	30-001-A-XX	-E, -EW	1.119 (28,42)	1.172 (29,77)
—	30-002-A-XX	-E, -EW	1.132 (28,75)	1.167 (29,64)
—	30-015-A-XX	-E, -EW	1.204 (30,58)	1.253 (31,83)
—	30-017-A-XX	-E, -EW	Adjustable†	Adjustable†
30-01-01-500-XX	30-1-1-50-XX	-E, -EW	1.100 (27,94)	1.153 (29,29)
30-01-04-500-XX	30-1-4-50-XX	-E, -EW	1.257 (31,93)	1.310 (33,27)
30-05-01-502-XX	30-5-1-52-XX	-E, -EW	0.930 (23,62)	0.983 (24,97)
30-05-04-502-XX	30-5-4-52-XX	-E, -EW	1.130 (28,70)	1.183 (30,05)
—	30-601-A-XX	-E, -EW	1.119 (28,42)	1.172 (29,77)
46-01-05-500-XX	46-1-5-50-XX	-E, -EW	1.361 (34,57)	1.428 (36,27)
46-01-07-500-XX	46-1-7-50-XX	-E, -EW	1.451 (36,86)	1.518 (38,56)
46-01-08-500-XX	46-1-8-50-XX	-E	1.381 (35,08)	—
46-01-09-500-XX	46-1-9-50-XX	-E	1.381 (35,08)	—
46-05-05-502-XX	46-5-5-52-XX	-E, -EW	1.179 (29,95)	1.246 (31,65)
46-05-07-502-XX	46-5-7-52-XX	-E, -EW	1.465 (37,21)	1.532 (38,91)
46-05-08-502-XX	46-5-8-52-XX	-E	1.188 (30,18)	—
46-05-09-502-XX	46-5-9-52-XX	-E	1.317 (33,45)	—
—	46-102-A-XX	-E, -EW	1.417 (35,99)	1.484 (37,69)
—	46-111-A-XX	-E, -EW	1.417 (35,99)	1.484 (37,69)
—	46-200-A-XX	-E	1.448 (36,78)	—
—	46-201-A-XX	-E	1.448 (36,78)	—

CIRCUITRY: Series 46



*Epoxy potting sleeve enlarges the diameter of the -EW style to 0.300 (7,62).
 **Sealed terminal (-E) option is not necessary; terminals have sealed construction.
 ***Natural Color Button
 †Adjustable from 1.214 (30,84) to 1.334 (33,88) dependent on button height, see switch pages.

Pushbutton Switches

ACCESSORIES

For Pushbutton Switches



Decorative Mounting Nuts



Button Caps

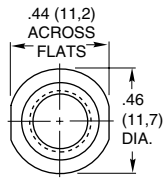
Button Guard



Pendant Housing

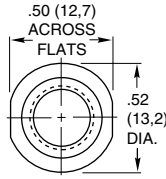
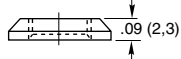
DIMENSIONS In Inches (and millimeters)

Decorative Mounting Nuts



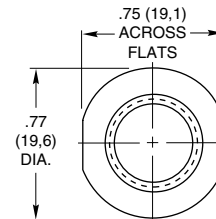
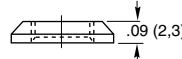
30C1023-1

Brass, nickel-plated for 1/4" (6,35) bushing.



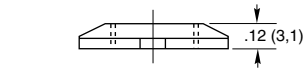
23C1024-1

Brass, nickel-plated for 5/16" (7,93) bushing.

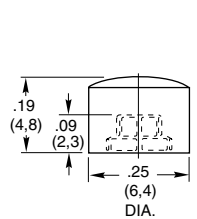


07C1040-1

Brass, nickel-plated for 15/32" (11,9) bushing.



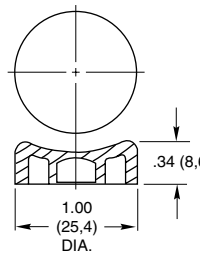
Button Caps and Guard



30B1012

Thermosetting plastic (Fasten to button with cyanoacrylate adhesive) black, red or white.

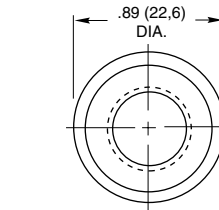
For use with all Series 30 and 39 switches except part number 39-101. See switch pages.



07Z1047

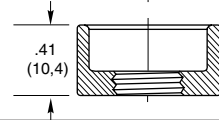
Thermoplastic, black or red color.

For use with Series 2000 and Series 7 switches. See switch pages.

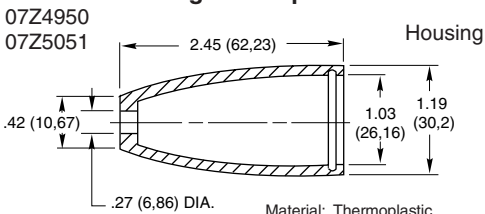


10C1015-1

Brass, zinc trivalent chromate-plated for 15/32" (11,9) bushing.



Remote Switching Accessories Pendant Housing and Caps

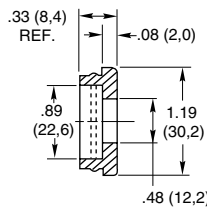


07Z4950

07Z5051

Housing

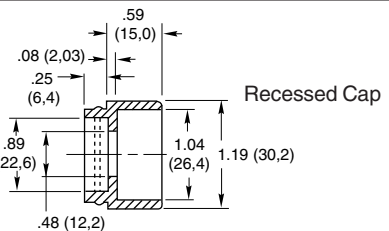
Material: Thermoplastic
Specials: other colors available on special order.



Flat Cap

Application:

All grayhill pushbutton switches with 15/32-32 bushings: catalog numbers 2201, 2202, 07-7, 07-8, 07-21, 07-22, 07-26, 4001, 4002, 10-9, 10-10, 10-100, 10-101, 30-16, 30-17 and 30-32. any other switch with 15/32-32 bushing if it fits housing.



Recessed Cap

ORDERING INFORMATION:

Mounting Nuts, Button Caps, and Guards

Part Number	Color
07C1040-1	Decorative Nut
23C1024	Decorative Nut
30C1023-1	Decorative Nut
07Z1047-1 BLK	Black Button Cap
07Z1047-2 RED	Red Button Cap
10C1015-1	Button Guard
30B1012-5	Red Cap
30B1012-8	White Cap
30B1012-9	Black Cap

Pendant Housing and Caps

Part Number	Description
07Z4950 RED	Red Flat Cap & Housing
07Z4950 BLK	Black Flat Cap & Housing
07Z5051 RED	Red Rcstd Cap & Housing
07Z5051 BLK	Black Rcstd Cap & Housing

Sold only as sets of one housing and one cap.

Available from your local Grayhill Distributor.

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