

## SERIES 30 and 46 Decorator Line

### FEATURES

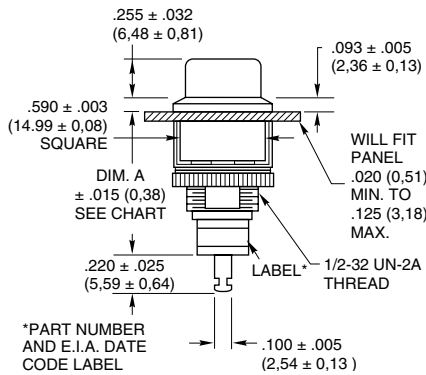
- Attractive Front Panel Bezels (6 choices)
- Space-Saving: Only 11/16" Square
- SPST with Option of Positive Feel
- SPDT, DPDT with Momentary Contact or Alternate Action
- Sturdy Metal Sleeve or Bushing and Nut Provide Secure Mounting



### DIMENSIONS In Inches (and millimeters)

#### SPST—Normally Open

30-01-01-500-\*  
30-01-04-500-\*

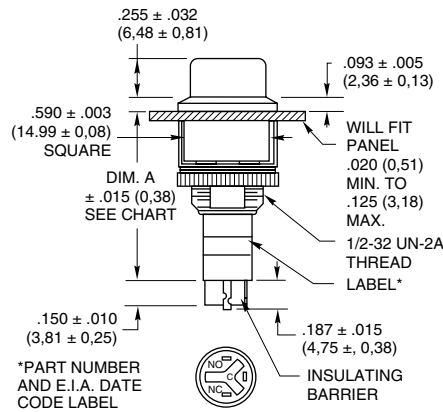


\*PART NUMBER AND E.I.A. DATE CODE LABEL

| Feature   | Partial Part No. | Dim. A        |
|-----------|------------------|---------------|
| Momentary | 30-01-01-500-*   | .880 (22,35)  |
| Pos. Feel | 30-01-04-500-*   | 1.037 (26,34) |

#### SPDT—Break Before Make

46-01-05-500-\*  
46-01-07-500-\*



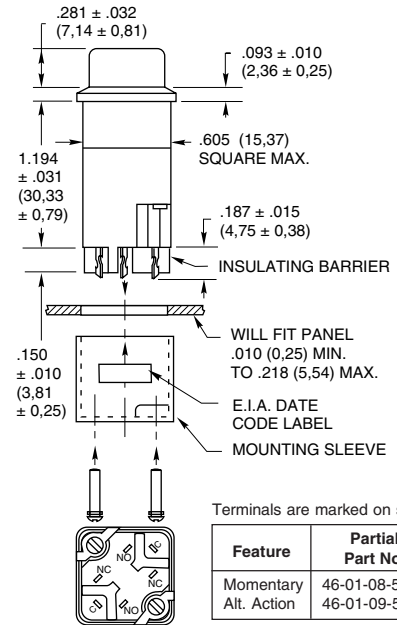
\*PART NUMBER AND E.I.A. DATE CODE LABEL

Terminals are marked on switch.

| Feature     | Partial Part No. | Dim. A        |
|-------------|------------------|---------------|
| Momentary   | 46-01-05-500-*   | 1.174 (29,82) |
| Alt. Action | 46-01-07-500-*   | 1.264 (32,11) |

#### DPDT—Break Before Make

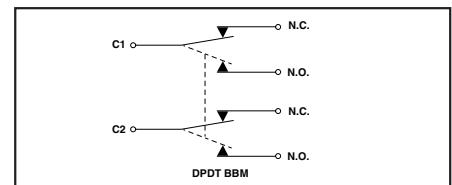
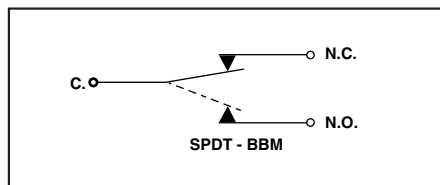
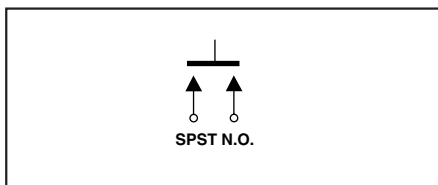
46-01-08-500-\*  
46-01-09-500-\*



Terminals are marked on switch.

| Feature     | Partial Part No. |
|-------------|------------------|
| Momentary   | 46-01-08-500-*   |
| Alt. Action | 46-01-09-500-*   |

### CIRCUITRY



### FRONT VIEWS AND MOUNTING

RECOMMENDED PANEL CUTOUT FOR SQUARE BEZEL SWITCHES

**Mounting Hardware**  
**For 46-01-08-500 & 46-01-09-500**  
 (See drawing above—mounting hardware shipped loose.)  
**For SPST & SPDT switches**  
 One internal tooth lockwasher  
 One knurled ring nut .640 ± .010 (16,26 ± 0,25) DIA.  
 .094 ± .010 (2,39 ± 0,25) Thk.

Note: All switches fit panels up to .250 (6,35) thick.  
Front and back panel access required for installation.

\*Partial part number; complete part number by adding a dash for button color: white -01; red -03; green -04; blue -05; yellow -06 or black -07, see Ordering Information.

**SPECIFICATIONS**

**Material and Finishes**

**Lockwasher (Round Bezel):** Steel, zinc trivalent chromate-plated

**Behind Panel Plate (Square Bezel):** Steel, zinc trivalent chromate-plated

**Mounting Sleeve and Screws (46-01-08-500, 46-01-09-500 only):** Steel, zinc trivalent chromate-plated. **Base:** Phenolic per MIL-M-14, Type CFG

**Square Bezel:** ABS (SPST, SPDT), thermoset plastic (DPDT)

**Mounting Nut, Bushing, and Round Bezel:** Brass, tin zinc

**Button Cap:** ABS (UL version is PPS)

**Shorting Bar:** Series 30—Fine silver contact area

Series 46—Phosphor bronze, silver-plated

**Terminals:** Series 30—Fine silver contact area with silver-plated terminal ends

Series 46—Silver contact surface with tin/silver clad terminal ends

**Spring:** Tinned music wire

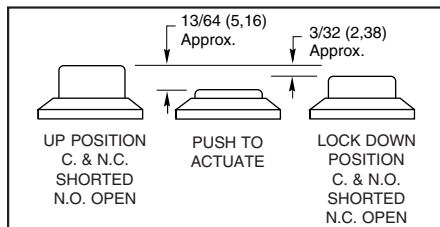
**Plunger:** Polyphenylene sulfide (PPS) for 30-01-01-500-X and 46-01-05-500-X. Nickel-plated brass for 46-01-07-500-X, 46-05-07-502-X, 46-01-09-500-X and 46-05-09-502-X. Zinc trivalent chromate-plated brass for 46-01-08-500-X. Polycarbonate for all others.

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

**ALTERNATE ACTION (PUSH-PUSH) OPERATING SEQUENCE**

Part Number\* 46-05-07-502, 46-05-09-502, 46-01-07-500, 46-01-09-500

Alternate action (Push-Push) switches provide a maintained actuated position until the button is pushed again to release.



**STANDARD OPTIONS**

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

**ORDERING INFORMATION & OPERATING FEATURES**

| Butt Contact   | Square Bezel   | Round Bezel    | Circuitry | Feature                    | Total Travel              | Bottoming Force | Actuating Force | Overtravel |
|----------------|----------------|----------------|-----------|----------------------------|---------------------------|-----------------|-----------------|------------|
| Butt Contact   | 30-01-01-500-* | 30-05-01-502-* | SPST-N.O. | Momentary                  | .080 ± .015 (2,03 ± 0,38) | —               | 10 ± 4 oz.      | —          |
|                | 30-01-04-500-* | 30-05-04-502-* | SPST-N.O. | Positive Feel & Overtravel | .156 ± .015 (3,96 ± 0,38) | —               | 18 ± 4 oz.      | .046 Min.  |
| Wiping Contact | 46-01-05-500-* | 46-05-05-502-* | SPDT      | Momentary                  | .180 min. (4,57)          | 1.1 ± .25 Lbs.  | —               | —          |
|                | 46-01-07-500-* | 46-05-07-502-* | SPDT      | Alternate Action           | .210 ± .015 (5,33 ± 0,38) | 1.5 ± .25 Lbs.  | —               | —          |
|                | 46-01-08-500-* | 46-05-08-502-* | DPDT      | Momentary                  | .180 min. (4,57)          | 1.6 ± .5 Lbs.   | —               | —          |
|                | 46-01-09-500-* | 46-05-09-502-* | DPDT      | Alternate Action           | .210 ± .015 (5,33 ± 0,38) | 1.8 ± .5 Lbs.   | —               | —          |

\*Partial part number; complete the part number by adding a dash for button color: white -01; red -03; green -04; blue -05; yellow -06 or black -07.

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

**RATINGS**

| Electrical Ratings            | Series 30  | Series 46                    |
|-------------------------------|--|------------------------------|
| <b>Contacts</b>               | Butt type  | Wiping type                  |
| <b>Rating at 115 Vac Res.</b> | 1 Amp  | 0.25 Amp                     |
| <b>Rating at 220 Vac Res.</b> | 0.5 Amp  | 0.125 Amp                    |
| <b>Circuitry</b>              | SPST-N.O. (Standard); SPST-N.O. (w/Overtravel), SPST-N.O. (w/Positive Feel)  | SPDT, DPDT Break Before Make |
| <b>Life Expectancy</b>        | SPST-N.O. (Standard): 1,000,000 operations<br>SPST-N.O. (w/Positive Feel): 200,000 operations;<br>SPST-N.O. (w/Overtravel): 500,000 operations | 250,000 operations           |
| <b>Contact Resistance</b>     | 25 milliohms or less on a new switch   |                              |
| <b>Voltage Breakdown</b>      | 1000 Vac between mutually insulated parts  |                              |
| <b>Insulation Resistance</b>  | 1000 megohms minimum   |                              |
| <b>Operating Temperature</b>  | -40°C to +85°C   |                              |

**LEGENDS**

All button caps can be printed in epoxy ink. Any type style or design can be used to produce the legend. If News Gothic Condensed style is used, limits can be approximated from the chart below; actual limits depend on specific legend.

There is a per-button impression charge. A nominal set up charge per legend applies to orders of 1 to 99 pieces. (Non-standard legends are subject to a one time tooling charge. Contact Grayhill for more specifics.)

| Grayhill Type Identification No. | Character Height (Typ.) | Sample Style and Sizes | Square Button Character and Line Limitation |            | Round Button Character and Line Limitation |      |
|----------------------------------|-------------------------|------------------------|---|------------|--|------|
|                                  |                         |                        | Character                                   | Line       | Character                                  | Line |
| 4GH088                           | .083 (2,1)              | ABCDEFGHIJ             | 6 Char. 2 Lines                             | TAB LOCATE | 3 Char. 1 Line                             | OFF  |
| 1GH125                           | .138 (3,5)              | ABCDEFGHIJ             | 5 Char. 1 Lines                             | INDEX      | 3 Char. 1 Line                             | TAB  |
| 3GH187                           | .207 (5,3)              | ABCDEF                 | 3 Char. 1 Line                              | OFF        | 2 Char. 1 Line                             | 15   |
| 2GH250                           | .276 (7,0)              | ABCD                   | 2 Char. 1 Line                              | 15         | N/A  | N/A  |

Pushbutton Switches



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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