

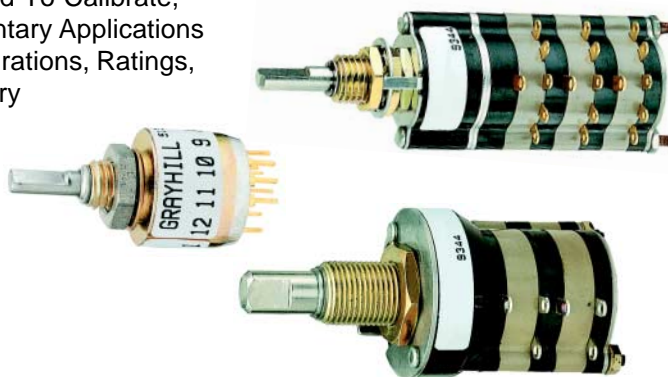
## SERIES 08,09,42,44,50 Spring Return

### FEATURES

- Hold-To-Test, Hold-To-Calibrate, And Other Momentary Applications
- Choice of Configurations, Ratings, Styles and Circuitry

### DESCRIPTION

A spring return rotary switch has 1 or more momentary positions. Maintaining contact at momentary positions requires rotational force. Releasing the force allows the mechanism to return the contact to a normal, or detent, position.



### DIMENSIONS

**Series 08 & 09**

| No. of Decks | Dim A         | Dim B       |
|--------------|---------------|-------------|
| 1            | .960 (24,38)  | .062 (1,57) |
| 2            | 1.228 (31,19) | .062 (1,57) |
| 3            | 1.496 (38,0)  | .062 (1,57) |
| 4            | 1.764 (44,81) | .062 (1,57) |
| 5            | 2.032 (51,61) | .062 (1,57) |
| 6            | 2.550 (64,77) | .312 (7,92) |

For all other dimensions and specifications, see Standard Switch pages.

**Series 50**  
Equivalent to Series 50 Standard Switches

500 ± .015 (12,7 ± 0,38) DIA.  
320 ± .015 (8,13 ± 0,38) CIRCLE OF CENTERS  
36° ± 3°  
COMMON

For all other dimensions and specifications, see Standard Switch pages.

**Series 42 & 44**

| No. of Decks | Dim. A        |
|--------------|---------------|
| 1            | 1.025 (26,04) |
| 2            | 1.371 (34,82) |
| 3            | 1.717 (43,61) |

For all other dimensions and specifications, see Standard Switch pages.

Rotary Switches

### STANDARD SWITCH PAGES

- Series 08 & 09      Pages F-45  
Series 42 & 44      Pages F-51  
Series 50            Pages F-15

### CONFIGURATIONS

This configuration indicates a counterclockwise force is required to hold the switch at position #1. "M" indicates a momentary position counterclockwise of "D" and "D", detented ones.

|           |   |   |   |
|-----------|---|---|---|
| Positions | 1 | 2 | 3 |
|           | M | D | D |

Releasing this force breaks contact with position #1 and returns the switch to #2. Normal rotary switch detent action occurs when the switch is rotated between position #2 and #3.

All of the configurations (except *MDM*) list a basic 2 position arrangement which is shown in italics. Example: *MDDDDD* or *DDDDDM*. Several positions can be added during the switch construction at the factory; but, any configuration must always contain the 2 basic positions.

### SELECTING A SWITCH

**1. Select a Configuration:** The total number of positions always includes the 2 basic positions. A (4) position switch of *DDDDM* configuration would have 3 detent positions counterclockwise of the momentary position.

**2. Select Series, Angle of Throw, and Style:** See the Choices Chart. The basic switch description, series, and throw are as follows:

|                           |          |          |
|---------------------------|----------|----------|
| 1/2", 1/4 Amp, multi-deck | 08 = 36° | 09 = 30° |
| 1", 1 Amp, multi-deck     | 42 = 36° | 44 = 30° |
| 1/2", 200 mA, single deck | 50 = 36° |          |

Electrical ratings are the same as those of the conventional switches with the exception of life. Life is limited to 10,000 cycles of operation (25,000 cycles for Series 50) due to the spring arrangement. Dimensions are the same as for conventional types except for the shaft flat orientation of the 3, 4, 5, and 6 pole, Series 09 and 44 in the *DDDDM* configuration (see chart).

**3. Select Poles & Positions Per Pole:** If you do not find the poles and positions per pole you need in one series, try another or contact the factory. If the behind panel length is a problem, select a multi-pole type instead of a single deck.

### OPTIONS

Watertight panel seal; Multi-pole switches that exceed the limits noted in the Selector Chart; Series 50 *MD* or *DM* configurations in Military styles; Series 08, 09, & 44 in *MMMDMM*, and in *MMDDMM*, and in *MMMMMD*.  
**Not available through Distributors**

### ORDERING INFORMATION

Create the part number using this example.

**93103-2-04S**

- Stem number from chart (4 or 5 digits)
- Number of Decks
- Number of Poles/Deck
- Type of Contacts: S=Shorting, N=Non-Shorting
- Number of Positions/Pole

Exception: Numbers beginning with 5 are already complete part numbers.

Control knobs available, see page E-39.

**CHOICES AND LIMITATIONS**

| Con-figuration | Conven-tional Switch | Description Of Style | Spring Return Stem Number (See Ordering Info.) | No. Of Decks                         | Poles Per Deck             | Positions Per Pole & Contact Type   | Location Of Unique Position, Detent or Momentary                      | Term. Opp. Flat**     |
|----------------|----------------------|----------------------|--|--------------------------------------|----------------------------|---|---|-----------------------|
| DDDDDM         | 08A36                | Standard             | 8317   | 1 to 6<br>1 to 3                     | 1<br>2                     | 02 to 05 (N or S)<br>02 to 05 (N or S)  | M 5<br>M 5, 10  | 5<br>5                |
|                | 09A30                | Standard             | 9310   | 1 to 6<br>1 to 3<br>1 or 2<br>1<br>1 | 1<br>2<br>3<br>4<br>5 or 6 | 02 to 06 (N or S)<br>02 to 06 (N or S)<br>02 to 04 (N or S)<br>02 or 03 (N or S)<br>02 (N or S) | M 6<br>M 6, 12<br>M 4, 8, 12<br>M 3, 6, 9, 12<br>M 2, 4, 6, 8, 10, 12 | 6<br>6<br>4<br>3<br>2 |
|                | 42A36                | Standard             | 42349  | 1 to 3<br>1                          | 1<br>2                     | 02 to 05 (N or S)<br>02 to 05 (N or S)  | M 5<br>M 5, 10  | 5<br>5                |
|                | 42M36                | Military             | 42352  | 1 to 3<br>1                          | 1<br>2                     | 02 to 05 (N or S)<br>02 to 05 (N or S)  | M 5<br>M 5, 10  | 5<br>5                |
|                | 44A30                | Standard             | 44346  | 1 to 3<br>1                          | 1<br>2                     | 02 to 06 (N or S)<br>02 to 06 (N or S)  | M 6<br>M 6, 12  | 6<br>6                |
|                | 44M30                | Military             | 44350  | 1 to 3<br>1                          | 1<br>2                     | 02 to 06 (N or S)<br>02 to 06 (N or S)  | M 6<br>M 6, 12  | 6<br>6                |
| MDDDDD         | 08A36                | Standard             | 8319   | 1 to 6<br>1 to 3                     | 1<br>2                     | 02 to 05 (N or S)<br>02 to 05 (N or S)  | M 1<br>M 1, 6   | 1<br>1                |
|                | 09A30                | Standard             | 9312   | 1 to 6<br>1 to 3<br>1 or 2<br>1<br>1 | 1<br>2<br>3<br>4<br>5 or 6 | 02 to 06 (N or S)<br>02 to 06 (N or S)<br>02 to 04 (N or S)<br>02 or 03 (N or S)<br>02 (N or S) | M 1<br>M 1, 7<br>M 1, 5, 9<br>M 1, 4, 7, 10<br>M 1, 3, 5, 7, 9, 11    | 1<br>1<br>1<br>1<br>1 |
|                | 09M30                | Military             | 9356   | 1 to 3<br>1<br>1                     | 1<br>2<br>3                | 02 to 06 (N or S)<br>02 to 06 (N or S)<br>02 to 04 (N or S)                                     | M 1<br>M 1, 7<br>M 1, 5, 9  | 1<br>1<br>1           |
|                | 42A36                | Standard             | 42350  | 1 to 3<br>1                          | 1<br>2                     | 02 to 05 (N or S)<br>02 to 05 (N or S)  | M 1<br>M 1, 6   | 1<br>1                |
|                | 42M36                | Military             | 42353  | 1 to 3<br>1                          | 1<br>2                     | 02 to 05 (N or S)<br>02 to 05 (N or S)  | M 1<br>M 1, 6   | 1<br>1                |
|                | 44A30                | Standard             | 44312  | 1 to 3<br>1                          | 1<br>2                     | 02 to 06 (N or S)<br>02 to 06 (N or S)  | M 1<br>M 1, 7   | 1<br>1                |
|                | 44M30                | Military             | 44351  | 1 to 3<br>1                          | 1<br>2                     | 02 to 06 (N or S)<br>02 to 06 (N or S)  | M 1<br>M 1, 7   | 1<br>1                |
| MDM            | 50A36                | Std., Solder Lug     | 503265-1-03N*                                  | 1                                    | 1                          | 03N   | D 2   | 2                     |
|                | 50P36                | Std., PC Mount       | 503267-1-03N*                                  | 1                                    | 1                          | 03N   | D 2   | 2                     |
|                | 8A36                 | Standard             | 8316   | 1 to 6<br>1 to 3                     | 1<br>2                     | 03 (N or S)<br>03 (N or S)  | D 2<br>D 2, 7   | 2<br>2                |
|                | 9A30                 | Standard             | 9311   | 1 to 6<br>1 to 3<br>1 or 2<br>1      | 1<br>2<br>3<br>4           | 03 (N or S)<br>03 (N or S)<br>03 (N or S)<br>03 (N or S)  | D 2<br>D 2, 8<br>D 2, 6, 10<br>D 2, 5, 8, 11                          | 2<br>2<br>2<br>2      |
|                | 42A36                | Standard             | 42348  | 1 to 3<br>1                          | 1<br>2                     | 03 (N or S)<br>03 (N or S)  | D 2<br>D 2, 7   | 2<br>2                |
|                | 42M36                | Military             | 42351  | 1 to 3<br>1                          | 1<br>2                     | 03 (N or S)<br>03 (N or S)  | D 2<br>D 2, 7   | 2<br>2                |
|                | 44A30                | Standard             | 44345  | 1 to 3<br>1                          | 1<br>2                     | 03 (N or S)<br>03 (N or S)  | D 2<br>D 2, 8   | 2<br>2                |
|                | 44M30                | Military             | 44349  | 1 to 3<br>1                          | 1<br>2                     | 03 (N or S)<br>03 (N or S)  | D 2<br>D 2, 8   | 2<br>2                |

\*This is a complete (not stem) part number.  
 \*\*Terminal opposite shaft flat when switch is in its unique (detent or momentary) position.

Available from your local Grayhill Distributor

For prices and discounts, contact a local Sales Office In CHINA(Beijing) Phone: (010)6851-9097.

Rotary Switches