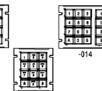
### **81 Series Full Travel Keypad**

Rated for 3 million operations. Features long keystroke, silicone rubber actuators, conductive ink contacts and membrane matrix circuitry. Two choices for flex tail termination — -C = (2) 0.10 spacing single row connectors; -Z exposed traces for (2) 0.10 spacing zero-insertion-force connectors. All keypads have black legends on white keycap, legends are molded into plastic keys for long life. Keypad can be mounted directly to PCB or front panel. Legends are alphanumeric telephone plus A through D on -014 and -016. Operating Temperature: -40°C to 80°C. Contact Resistance: Less than 100  $\Omega$ .









|  | ı  | ı  | 1  |   |
|--|--|--|--|---|
| Stock  | Mfr.'s   | Size/  | EA   | CH  |
| No.  | Туре   | Termination  | 1-24   | 25-99   |
| 948-2019<br>948-2020<br>948-2021<br>948-2022<br>948-2023<br>948-2024<br>948-2025<br>948-2026 | 81AB2-112-C<br>81AB2-112-Z<br>81AB2-113-C<br>81AB2-113-Z<br>81BB2-014-C<br>81BB2-014-Z<br>81BB2-016-C<br>81BB2-016-Z | 3×4/Connector<br>3×4/Exposed traces<br>3×4/Connector<br>3×4/Exposed traces<br>4×4/Connector<br>4×4/Exposed traces<br>4×4/Connector<br>4×4/Exposed traces | 54.26<br>49.29<br>54.26<br>49.29<br>67.72<br>62.74<br>67.72<br>62.74 | 50.17<br>45.56<br>50.17<br>45.56<br>62.60<br>58.00<br>58.00 |

### **Series 96 Quality, Economical Conductive Rubber Keypads**

- Available Options: E.L. Panel Backlighting (EL=Backlit) and EMI/RFI Shielding (S=Shielding)
  Front (Top) Panel (F=Front Panel) or Rear (Flush) Panel Mounting Available
  Operations Per Button: 3,000,000 Standard, 1,000,000 Backlit and Shielded
  Compatible with High Resistance Logic Circuitry and Excellent Operator Feedback
  Matrix Circuitry
  Rated For 5 mA @ 12 Vdc for 0.5 Sec.
  Operating Temperature: -30°C to +80°C
  Legending: -102 and -006 Feature Black-On-White Legends, -152 and -056 Feature White-On-Black Legends
  3 × 4 Numeric Telephone 2.7" × 2.0" (68.56 × 50.8)

  4 × 4 Alphanumeric Telephone Plus A Thru D 3.0" × 2.2" (76.02 × 55.88)

| Stock    | Mfr.'s          | 0             | EACH  |         |
|----------|-----------------|---------------|-------|---------|
| No.      | Туре            | Configuration | 1-99  | 100-499 |
| 948-7874 | 96AB2-102-F     | 3×4           | 11.22 | 10.37   |
| 948-7882 | 96AB2-102-FS    | 3 × 4         | 14.53 | 13.40   |
| 948-7884 | 96AB2-102-F-EL  | 3 × 4         | 49.17 | 45.40   |
| 948-7886 | 96AB2-102-FS-FL | 3×4           | 52.47 | 48.43   |
| 948-7876 | 96AB2-152-F     | 3×4           | 11.22 | 10.36   |
| 948-7888 | 96AB2-152-FS    | 3×4           | 14.53 | 13.40   |
| 948-7890 | 96AB2-152-F-FL  | 3×4           | 49.17 | 45.40   |
| 948-7892 | 96AB2-152-FS-FL | 3×4           | 52.47 | 48.43   |

| Stock    | Mfr.'s          |               | E     | ACH     |
|----------|-----------------|---------------|-------|---------|
| No.      | Туре            | Configuration | 1-99  | 100-499 |
| 948-7878 | 96BB2-006-F     | 4×4           | 12.50 | 11.55   |
| 948-7894 | 96BB2-006-FS    | $4 \times 4$  | 15.44 | 14.28   |
| 948-7896 | 96BB2-006-F-EL  | $4 \times 4$  | 50.09 | 46.25   |
| 948-7898 | 96BB2-006-FS-EL | $4 \times 4$  | 53.40 | 49.29   |
| 948-7880 | 96BB2-056-F     | $4 \times 4$  | 12.50 | 11.55   |
| 948-7891 | 96BB2-056-FS    | $4 \times 4$  | 15.44 | 14.25   |
| 948-7893 | 96BB2-056-F-EL  | $4 \times 4$  | 50.09 | 46.25   |
| 948-7895 | 96BB2-056-FS-EL | $4 \times 4$  | 53.40 | 49.29   |

- 5 TA T 1 T B 9 Y T C - 6 B

### **Series 84LS 12 and 16 Button Environmentally Sealed Keypads**



Series 84LS 12 and 16 button keypads have matrix circuitry output and are completely sealed by a silicon rubber boot. Legends are epoxy printed on the top surface of the boot. 3 × 4 legend is numeric telephone and  $4\times4$  is hexadecimal notation as shown in the figure.  $3\times4$  is  $2.35^{\circ}\times3.1^{\circ}\times4.7^{\circ}\times3.1^{\circ}$ . Termination accommodates standard connector. Integral studs mount to panel. Rated for 3,000,000 operations per button; 10 mA at 24 VDC.

| 948-9820. | 84LS-AB2-112. | 3 × 4 Kevpa  | d. Matrix. 1 | -99EACH | 1 41.38 |
|-----------|---------------|--------------|--------------|---------|---------|
| 100-499   |               |              |              | EACH    | 1 38.25 |
| 948-9822  | 84LS-BB2-014. | 4 × 4 Kevnad | 1. Matrix. 1 | -99EACH | 44.27   |
|           |               |              |              |         | 40 93   |

### **How To Select**

42D, 44D, 71D and 56D Series are adjustable stop rotary switches. As listed, they are available with one or two poles per deck. Stop pins or washers can be removed from the front of the switch and replaced to set the number of positions per pole from two to the maximum number noted. Selections of the switch series depends upon the stricting current requirements and the size restrictions of the application. The Series 56D is a single deck design with the lowest switching

current rating, 200 mA, but requiring the least amount of space. The Series 42D and 44D switch up to 1 ampere of current, but are the largest in diameter at one inch. The Series 71D is GRAYHILL's most popular multi-deck switch providing a mid range 250 mA switching in an approximate one-half inch diameter. These switches are form, fit and function equivalent to their fixed stop counterparts, which can also be ordered from Allied Electronics.

# **42D and 44D Series**

Fully enclosed switches interchange with fixed stop models. Electrical Ratings:
Make/break 1 amp, carry 10 amps at 115 VAC, resistive. Insulation Resistance:
50,000 megohms initial, 10,000 megohms minimum. Non-shorting contacts. 1/2-32NEF bushing. Behind-Panel Depth:
1-deck — 1.025°, 2-deck — 1.371°, 3-deck — 2.063°. 42D Series. 10-position switch. 36° indexing. 1 diameter.

44D Series. 12-position switch. 30° indexing. 1.162° diameter.

| Stock<br>No. | Mfr.'s          | Poles | Decks | EACH  |         |
|--------------|-----------------|-------|-------|-------|---------|
|              | Туре            |       |       | 1-99  | 100-499 |
| 948-7224     | 42D36-01-1-AJN  | 1     | 1     | 35.72 | 31.14   |
| 948-7225     | 42D36-01-2-AJN  | 2     | 1     | 35.13 | 32.47   |
| 948-7226     | 42D36-02-1-AJN  | 1     | 2     | 43.89 | 40.56   |
| 948-7227     | 42D36-02-2-AJN  | 2     | 2     | 46.79 | 40.81   |
| 948-7228     | 44D30-01-1-AJN  | 1     | Ī     | 34.57 | 31.96   |
| 948-7229     | 44D30-01-2-AJN  | ż     | 1     | 36.03 | 31.42   |
| 948-7230     | 44D30-02-1-AJN  | Ĩ     | ż     | 45.93 | 42.46   |
| 948-7231     | 44D30-02-2-AJN  | ż     | 2     | 48.82 | 42.57   |
| 948-7232     | 44D30-03-1-A.IN | ī     | 3     | 57 29 | 49 96   |

## 19 Series 15-Amp Power Tap Rotary Switches



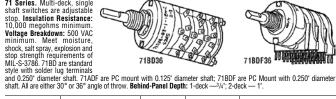


UL Recognized. Single pole, single deck units have 2 to 11 positions plus common, with 30° indexing. Available in solder lug terminal with 0.125' wire hole or Faston terminal with 0.080' wire hole. 15 amps, 120 VAC, non-inductive load. Contact Resistance: 10 milliohms at 2 VDC and 100 mA; contacts are non-shorting. Insulation Resistance: 100,000 megohms. Voltage Breakdown: 2500 VAC.

| Stock  | Mfr.'s   | Positions                        | ositions Terminals   | EAUTI   |   |
|--|--|----------------------------------|--|---|---|
| No.  | Type   | reminais                         | 1-24   | 25-99   |   |
| 948-7277<br>948-7278<br>948-7280<br>948-7282<br>948-7284<br>948-7285<br>948-7287 | 19001-5UL<br>19001-6UL<br>19001-8UL<br>19001-11UL<br>19101-4UL<br>19101-5UL<br>19101-7UL | 5<br>6<br>8<br>11<br>4<br>5<br>7 | Solder<br>Solder<br>Solder<br>Solder<br>Faston<br>Faston<br>Faston | 24.21<br>25.34<br>27.60<br>30.91<br>23.10<br>24.21<br>26.45 | 22.39<br>23.42<br>25.52<br>26.84<br>20.05<br>22.38<br>23.07 |

### 71 Series 1/4 Amp, Adjustable Stop Rotary Switches

71 Series. Multi-deck, single shaft switches are adjustable stop. Insulation Resistance: 10,000 megohms minimum. Voltage Breakdown: 500 VAC minimum. Meet moisture,





| Stock  | Mfr.'s   | Decks            | Positions           | Е                                | ACH                              |
|--|--|------------------|---------------------|----------------------------------|----------------------------------|
| No.  | Туре   | Deurs            | rusitions           | 1-99                             | 100-499                          |
| 948-7243<br>948-7247<br>948-7248<br>948-7249 | 71BD36-01-1-AJN<br>71BD30-01-1-AJN<br>71BD30-01-2-AJN<br>71BD30-02-1-AJN | 1<br>1<br>1<br>2 | 10<br>12<br>6<br>12 | 13.95<br>13.95<br>14.49<br>18.07 | 12.90<br>12.90<br>13.20<br>16.70 |

| Printed Circuit | Terminals        |     |    |       |       |
|-----------------|------------------|-----|----|-------|-------|
| 948-7253        | 71ADF30-01-1-AJN | 1 2 | 12 | 15.24 | 14.09 |
| 948-7257        | 71BDF36-02-1-AJN |     | 10 | 20.92 | 19.34 |

### 56 Series 1/2" Diameter **Single Rotary Switches**

Economically priced, high quality, single deck rotary switches from GRAYHILL require a minimum of space. Rated to make and break 200 mA of current at 115 VAC or 30 VDC, resistive load for 10,000 cycles of operation. Maximum Contact Resistance: 100 milliohms, minimum of 10,000 megohms, insulation resistance. Voltage Breakdown: 600 VAC. The Series 56 switches that are listed below are adjustable stop to allow you to set and reset the number of positions per pole to suit the application's need. These switches have non-shorting contacts, please contact Allied Electronics for shorting contact types.

### Solder Lug Terminals — Part Nos. Containing 'S' Have Shaft/Panel Seal

| Stock  | Mfr.'s  | Mfr.'s                |                          | EACH                                    |                                       |
|--|---|-----------------------|--------------------------|---|---------------------------------------|
| No.  | Type Poles Positions  | POSITIONS             | 1-24                     | 25-99                                   |                                       |
| 948-7166<br>948-7167<br>948-7173<br>948-8004<br>948-7165 | 56D36-01-1-AJN<br>56D36-01-2-AJN<br>56SD36-01-1-AJN<br>56D30-01-1-AJN<br>56D30-01-2-AJN | 1<br>2<br>1<br>1<br>2 | 10<br>5<br>10<br>12<br>6 | 9.58<br>10.68<br>10.41<br>9.90<br>10.98 | 8.62<br>9.82<br>9.62<br>9.15<br>10.00 |
| Printed Circuit  | Terminals   |                       |                          |   |                                       |
|  |   | 1                     |                          | 1                                       | 1                                     |

*224 ◄ ALLIED* 

See Our Manufacturer Index Located In Section 1