SERIES 58
Single Deck, Antistatic

LOCK FEATURES
• Minimum Space Behind Panel
• 15,000 Vdc Static Protection
• 5 Tumbler-Plate Security
• In-Panel Key Recoding

SWITCH FEATURES
• Economical
• Solder Lug or PC Mount
• 36°, 45°, 60°, or 90° Throws
• 1 or 2 Poles Per Switch
• Up to 10 Positions for 1 Pole
• 200 mA for 25,000 Cycles

DIMENSIONS in inches (and millimeters)

Standard Style

A = .064 ± .005 (1.63 ± 0.13)
B = .032 ± .004 (0.81 ± 0.10)
C = .050 ± .010 (1.27 ± 0.25)
D = .062 Ø ± .002 (1.57 Ø ± 0.05)
G = .020 ± .003 (0.51 ± 0.08)
H = .062 ± .004 (1.57 ± 0.10)

PC Mount Style

Dimensions not shown are the same as above.

TERMINAL DETAIL

Solder Lug

Solder Lug Common

PC Mount

RECOMMENDED PANEL CUT

Grayhill part number and date code marked on label. Customer part number marked on request.
General Characteristics
Mounting: By bushing, nut and lockwasher
Keying: All locks keyed alike except by special order
Orientation of Keylock Switch: Lock flats on both sides with key upright (cut side down) in position 1.
Key Removals:
36° Throw Switch At every position or 
At 0° & 180°
45° Throw Switch At every position or 
At 0°, 90°, 180°, 270°
60° Throw Switch At every position or 
At 0°, 180°
90° Throw Switch At every position or 
At 0°, 180°
Optional pulls Contact Grayhill

Materials & Finishes
Keys: Brass; 2 supplied
Lock Barrel & Plug: Zinc, clear chromate
Lockwasher: Steel, tin zinc plated
Mounting Nut: Steel, nickel-plated
Tumbler Plates: Brass

LOCK SPECIFICATIONS

CIRCUITRY

36° Angle of Throw

| COMMON TERMINAL (1 POLE) | 320 ± .015 (8.13 ± 0.38) DIAMETER CIRCLE OF TERMINAL CENTERS |
| POS. 1 | 18° |
| LOCATION OF COMMONS | 2 POLES |

VIEWED FROM FRONT END; SHOWN IN POSITION 1.

ONE POLE | TWO POLE

60° Angle of Throw

| COMMON TERMINAL (1 POLE) | 320 ± .015 (8.13 ± 0.38) DIAMETER CIRCLE OF TERMINAL CENTERS |
| POS. 1 | 30° |
| LOCATION OF COMMONS | 2 POLES |

VIEWED FROM FRONT END; SHOWN IN POSITION 1.

ONE POLE | TWO POLE

45° Angle of Throw

| COMMON TERMINAL (1 POLE) | 320 ± .015 (8.13 ± 0.38) DIAMETER CIRCLE OF TERMINAL CENTERS |
| POS. 1 | 45° |
| LOCATION OF COMMONS | 2 POLES |

VIEWED FROM FRONT END; SHOWN IN POSITION 1.

ONE POLE | TWO POLE

90° Angle of Throw

| COMMON TERMINAL (1 POLE) | 320 ± .015 (8.13 ± 0.38) DIAMETER CIRCLE OF TERMINAL CENTERS |
| POS. 1 | 90° |
| LOCATION OF COMMONS | 2 POLES |

VIEWED FROM FRONT END; SHOWN IN POSITION 1.

ONE POLE | TWO POLE

Materials & finishes

SWITCH SPECIFICATIONS

Electrical Characteristics
Chart is shown for non-shorting contacts and resistive load and for the life limiting criteria indicated below. The data for the curve was measured at sea level, 25°C and 68% relative humidity. Contact Grayhill for more information if any of the following is true: life limiting criteria are more critical than those listed; more cycles of operation are required; a larger make and break current is required; the operating environment includes elevated temperatures or reduced pressures.

<table>
<thead>
<tr>
<th>CURRENT LOAD (MILLIAMPS)</th>
<th>CURVE A: 220 Vac all angles of throw.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycles x 1000</td>
<td>Curve B: 115 Vac and 30 Vdc for all angles of throw.</td>
</tr>
</tbody>
</table>

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**SWITCH SPECIFICATIONS**  
*Continued*

<table>
<thead>
<tr>
<th>Contact Resistance:</th>
<th>Anti-Static Voltage: Anti-static types tested to withstand 15,000 Vdc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initially: less than 10 mΩ</td>
<td></td>
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<tr>
<td>End of life: less than 50 mΩ</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Insulation Resistance: (Between mutually insulated parts)</th>
<th>Mechanical Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initially: 50,000 MΩ</td>
<td>Switching Mode: Shorting (make before break) or non-shorting (break before make) as limited by the Choices chart</td>
</tr>
<tr>
<td>Minimum: 10,000 MΩ</td>
<td>Type of Contact: Wiping</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Breakdown Voltage: (Between mutually insulated parts) more than 600 Vac</th>
<th>Number of Terminals: All switches are provided with the full circle of terminals regardless of the number of active positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Expectancy: Per chart; cycle is 1 rotation thru all active positions plus a full return.</td>
<td>Stop Strength: 1.70 Nm maximum (15.0 in-lbs)</td>
</tr>
<tr>
<td>Carry Current: 6A; maximum temperature rise 20°C</td>
<td>Switching Torque: 8 to 16 in-ozs</td>
</tr>
</tbody>
</table>

**Materials and Finishes**

- **Switch Base:** Thermoset plastic
- **Switch Housing:** Nylon
- **Detent Rotor:** Nylon
- **Detent Balls:** Steel, nickel-plated
- **Detent Springs, and Contact Springs:** Stainless steel
- **Common Ring:** Brass, gold plate over silver plate
- **Terminals:** Brass, gold over silver and nickel plate
- **Rotor Contact:** Precious metal, gold alloy

**CHOICES AND LIMITATIONS**

<table>
<thead>
<tr>
<th>Lock Style and Description*</th>
<th>Switch Style and Description</th>
<th>Angle of Throw</th>
<th>No. Of Decks</th>
<th>Poles/Deck</th>
<th>Positions Per Pole**</th>
<th>Shorting or Non-Shrtg.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series 58J Switches</strong></td>
<td></td>
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<tr>
<td>J4: Standard–Key pulls at Position 1 and at 90 Degree Increments</td>
<td>A = Standard, Solder Lugs P = Standard, PC Mount</td>
<td>45°</td>
<td>1</td>
<td>1</td>
<td>02 to 08 02 to 04 N or S N or S</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>36°</td>
<td>1</td>
<td>1</td>
<td>02 to 10 02 to 05 N or S N or S</td>
<td></td>
</tr>
<tr>
<td>J8: Standard–Key Pulls at Each Position</td>
<td>A = Standard, Solder Lugs P = Standard, PC Mount</td>
<td>45°</td>
<td>1</td>
<td>1</td>
<td>02 to 08 02 to 04 N or S N or S</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>90°</td>
<td>1</td>
<td>1</td>
<td>02 to 04 02 N</td>
<td></td>
</tr>
<tr>
<td>J9: Standard–Key Pulls at Position 1 and at 180 Degrees</td>
<td>A = Standard, Solder Lugs P = Standard, PC Mount</td>
<td>36°</td>
<td>1</td>
<td>1</td>
<td>02 to 10 02 to 05 N or S N or S</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>45°</td>
<td>1</td>
<td>1</td>
<td>02 to 08 02 to 04 N or S N or S</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>60°</td>
<td>1</td>
<td>1</td>
<td>02 to 06 02 to 03 N</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>90°</td>
<td>1</td>
<td>1</td>
<td>02 to 04 02 N</td>
<td></td>
</tr>
</tbody>
</table>

*Standard Keylock has anti-static protection. All keylock versions available without anti-static protection, with a reduced overall body length. Contact Grayhill for more information.

**For single pole switches with maximum positions, specify continuous rotation or fixed stop when ordering.**

**ORDERING INFORMATION**

- **Series**
- **Lock Style:** per Choices Chart J4, J8, J9
- **Switch Style:** per Choices Chart A or P
- **Angle of Throw:** 36, 45, 60 or 90 (per Choices chart)
- **Number of Decks:** 01
- **Poles per Deck:** = 1 or 2 (per Choices chart)
- **Positions per Pole:** 02 thru 10 (per Choices chart)
- **Type of Contacts:** (per Choices chart)
  - N = Non-shorting
  - S = Shorting
- **Stop Arrangement Suffix:** (needed only for 1-pole switches with maximum positions)
  - F = Fixed stop between last and first positions
  - *Leave blank for continuous rotation

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