



## Keylock Rotary Switches

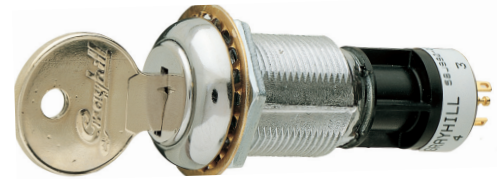
### SERIES 58 Single Deck, Antistatic

#### LOCK FEATURES

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

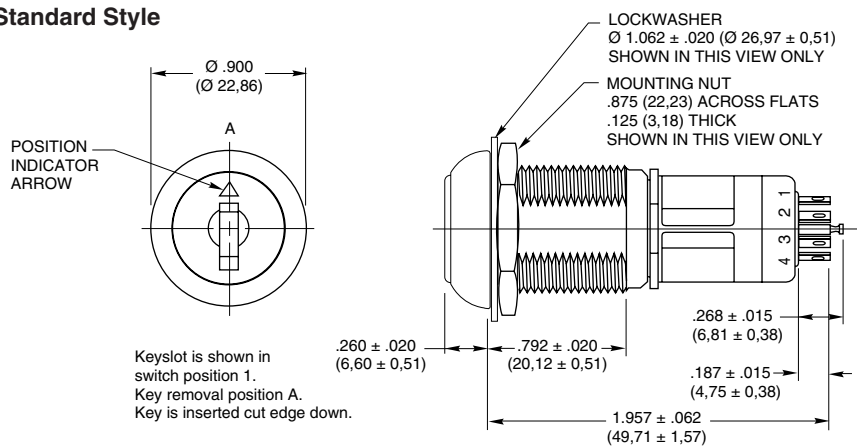
#### SWITCH FEATURES

- 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

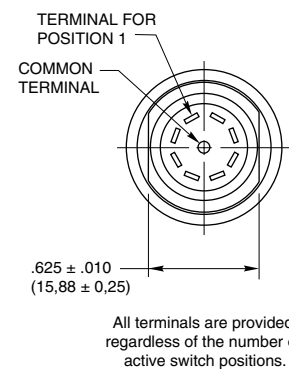


#### DIMENSIONS in inches (and millimeters)

##### Standard Style

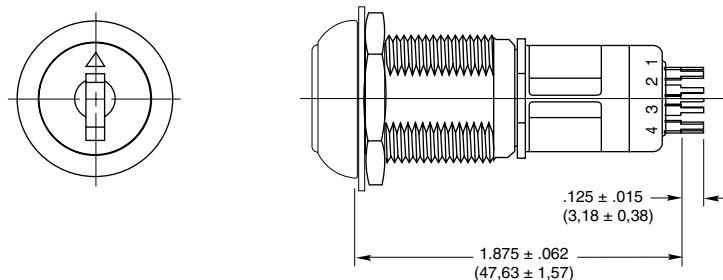


##### 36°, 45°, 60°, or 90° Angle of Throw

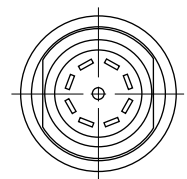


##### PC Mount Style

Dimensions not shown are the same as above.



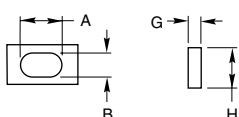
##### 36°, 45°, 60°, or 90° Angle of Throw



Grayhill part number and date code marked on label. Customer part number marked on request.

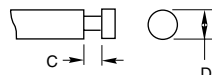
#### TERMINAL DETAIL

##### Solder Lug



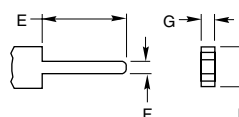
A =  $.064 \pm .005$  (1,63  $\pm$  0,13)  
B =  $.032 \pm .004$  (0,81  $\pm$  0,10)

##### Solder Lug Common



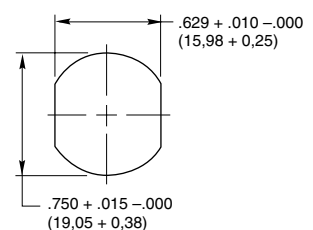
C =  $.050 \pm .010$  (1,27  $\pm$  0,25)  
D =  $.062 \varnothing \pm .002$  (1,57  $\varnothing \pm$  0,05)  
G =  $.020 \pm .003$  (0,51  $\pm$  0,08)  
H =  $.062 \pm .004$  (1,57  $\pm$  0,10)

##### PC Mount

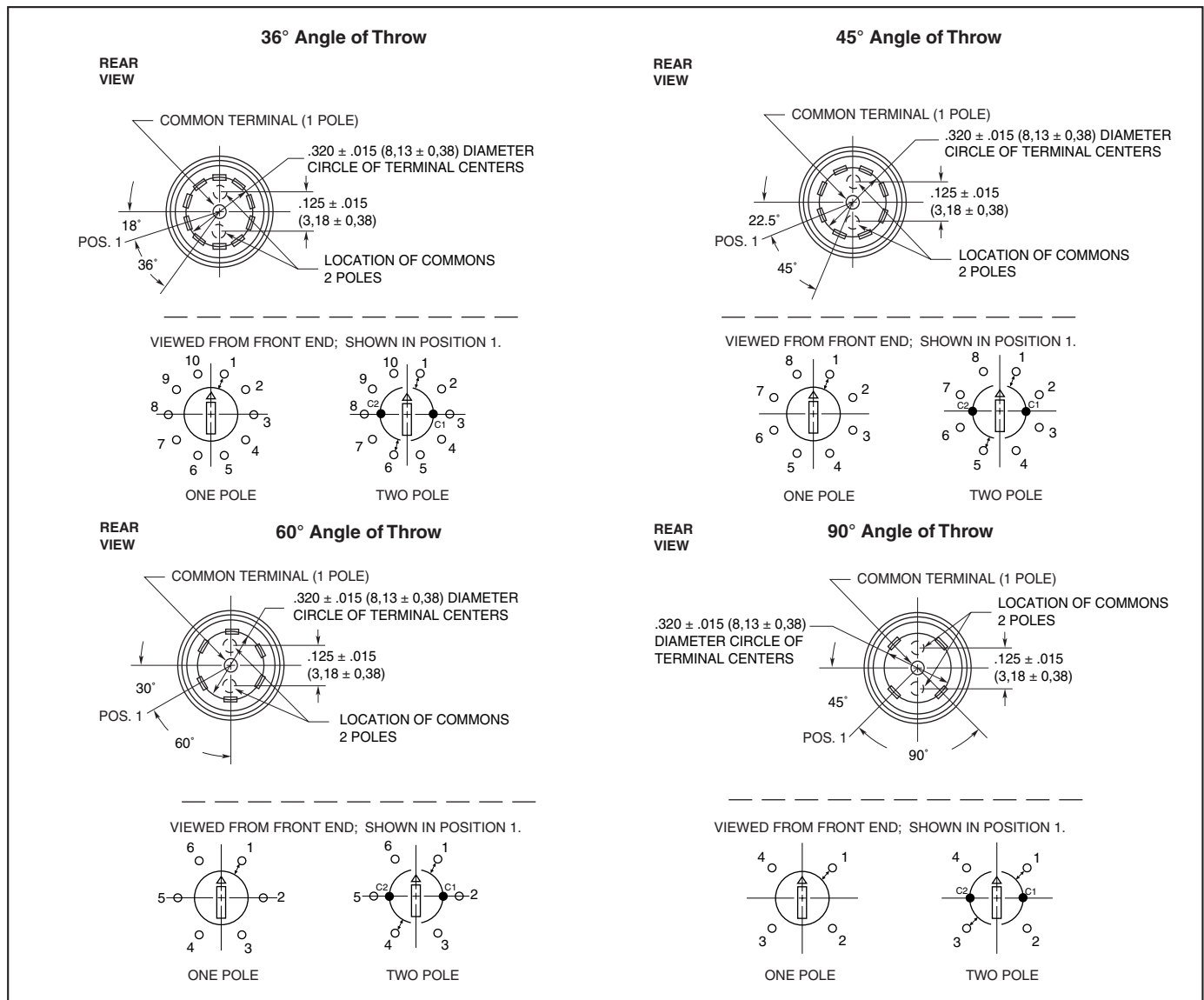


E =  $.125 \pm .015$  (3,18  $\pm$  0,38)  
F =  $.020 \pm .003$  (0,51  $\pm$  0,08)

#### RECOMMENDED PANEL CUT



## CIRCUITRY



## LOCK SPECIFICATIONS

## 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 &amp; Finishes

**Keys:** Brass; 2 supplied

**Lock Barrel & Plug:** Zinc, clear chromate

**Lockwasher:** Steel, tin zinc plated

**Mounting Nut:** Steel, nickel-plated

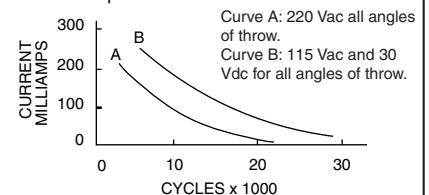
**Tumbler Plates:** Brass

## 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.





## Keylock Rotary Switches

### SWITCH SPECIFICATIONS *Continued*

**Contact Resistance:**

Initially: less than 10 mΩ  
End of life: less than 50 mΩ

**Insulation Resistance:** (Between mutually insulated parts)

Initially: 50,000 MΩ  
Minimum: 10,000 MΩ

**Breakdown Voltage:** (Between mutually insulated parts) more than 600 Vac

**Life Expectancy:** Per chart; cycle is 1 rotation thru all active positions plus a full return.

**Carry Current:** 6A; maximum temperature rise 20°C

**Anti-Static Voltage:** Anti-static types tested to withstand 15,000 Vdc

**Mechanical Characteristics**

**Switching Mode:** Shorting (make before break) or non-shorting (break before make) as limited by the Choices chart

**Type of Contact:** Wiping

**Number of Terminals:** All switches are provided with the full circle of terminals regardless of the number of active positions

**Stop Strength:** 1.70 Nm maximum (15.0 in-lbs)

**Switching Torque:** 8 to 16 in-ozs

**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

Lock Style and Description*	Switch Style and Description	Angle of Throw	No. Of Decks	Poles/ Deck	Positions Per Pole**	Shorting or Non-Shrtg.
<b>Series 58J Switches</b>						
<b>J4: Standard—Key pulls at Position 1 and at 90 Degree Increments</b>	<b>A</b> = Standard, Solder Lugs <b>P</b> = Standard, PC Mount	45°	1	1 2	02 to 08 02 to 04	N or S N or S
<b>J8: Standard—Key Pulls at Each Position</b>	<b>A</b> = Standard, Solder Lugs <b>P</b> = Standard, PC Mount	36°	1	1 2	02 to 10 02 to 05	N or S N or S
		45°	1	1 2	02 to 08 02 to 04	N or S N or S
		90°	1	1 2	02 to 04 02	N N
<b>J9: Standard—Key Pulls at Position 1 and at 180 Degrees</b>	<b>A</b> = Standard, Solder Lugs <b>P</b> = Standard, PC Mount	36°	1	1 2	02 to 10 02 to 05	N or S N or S
		45°	1	1 2	02 to 08 02 to 04	N or S N or S
		60°	1	1 2	02 to 06 02 to 03	N N
		90°	1	1 2	02 to 04 02	N N

\*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

	<b>Series</b> <b>Lock Style:</b> per Choices Chart J4, J8, J9 <b>Switch Style:</b> per Choices Chart A or P <b>Angle of Throw:</b> 36, 45, 60 or 90 (per Choices chart) <b>Number of Decks:</b> 01 <b>Poles per Deck:</b> = 1 or 2 (per Choices chart) <b>Positions per Pole:</b> 02 thru 10 (per Choices chart) <b>Type of Contacts:</b> (per Choices chart) N = Non-shorting S = Shorting <b>Stop Arrangement Suffix:</b> (needed only for 1-pole switches with maximum positions) F = Fixed stop between last and first positions *Leave blank for continuous rotation
<b>58J8A36-01-1-10N-F</b>	

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

# Mouser Electronics

Authorized Distributor

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## Grayhill:

[58J9A60-01C03N](#) [58J9A90-01B03N](#) [58J9P36-01B09N](#) [58J8P45-01B05N](#) [58J9P36-01B08N](#) [58J9A36-01B05S](#)  
[58J9A45-01C02N](#) [58J8P45-01B04N](#) [58J9A45-01C03S](#) [58J8A36-01C03N](#) [58J8A36-01B10N](#) [58J8A36-01B05N](#)  
[58J8A45-01A08N](#) [58J4A45-01A08N](#) [58J8P90-01B02N](#) [58J8A45-01B04N](#) [58J8A36-01B03N](#) [58J8P36-01C03S](#)  
[58J8A36-01C04N](#) [58J8P36-01C05N](#) [58J8A45-01B07N](#) [58J9A90-01B02N](#) [58J4A45-01C02N](#) [58J9A36-01C03S](#)  
[58J8A90-01B02N](#) [58J8A36-01C02N](#) [58J8A45-01B08S](#) [58J9A90-01C02N](#) [58J8A90-01A04N](#) [58J9A60-01B03N](#)  
[58J9A36-01B05N](#) [58J9A60-01B02N](#) [58J4A45-01C03S](#) [58J8A45-01C04N](#) [58J9A45-01B05N](#) [58J8A45-01C02N](#)  
[58J8A45-01B02N](#) [58J9A36-01B03N](#) [58J1007](#) [58J8A36-01B06N](#) [58J8A90-01C02N](#) [58J8A45-01B05N](#) [58J4A45-](#)  
[01B05N](#) [58J8A36-01B04N](#) [58J8P36-01B05N](#) [58J8A45-01B04S](#) [58J9A36-01B02N](#) [58J8A36-01B02N](#) [58J9P90-](#)  
[01C02N](#) [58J9A60-01C02N](#) [58J4A45-01C02S](#) [58J9P45-01C04S](#) [58J8A36-01C05N](#)