



GRAYHILL

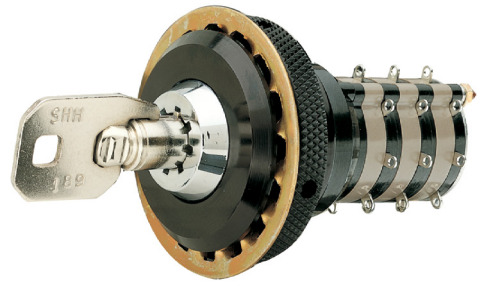
SERIES 44L High Current, 5 Amp

LOCK FEATURES

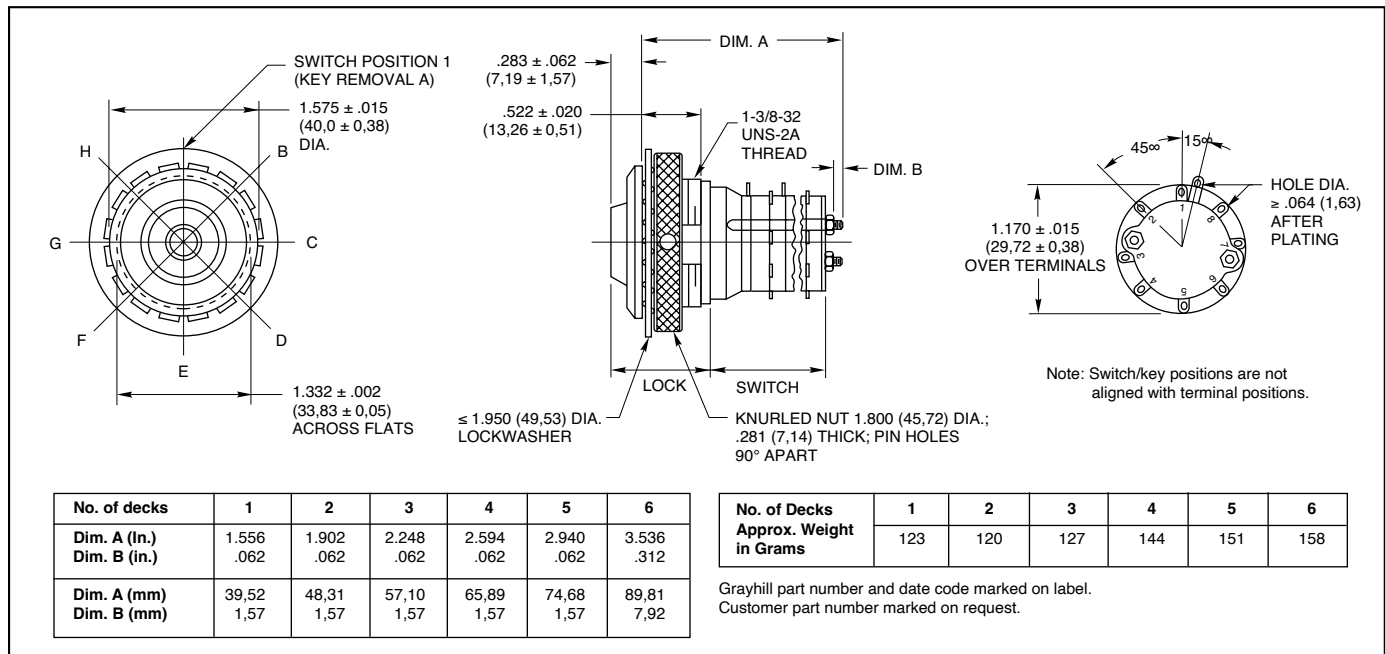
- 8-Pin, Round Key Security
- Options for Flat Keys, Special Keying, and Key Removals

SWITCH FEATURES

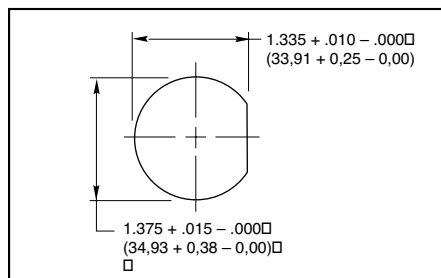
- High, 5 Amp Current Switching
- 45°, Up to 8 Poles Per Switch
- 25,000 Cycles of Operation
- RoHS Compliant



DIMENSIONS in inches (and millimeters)



RECOMMENDED PANEL CUT



LOCK SPECIFICATIONS

Keying: Each lock is keyed differently
Key Removal: All positions (45°, etc)
Special Options: Flat key with 90° or 180° increment key removals; 7 thru 12 decks

LOCK MATERIALS AND FINISHES

Bushing and Knurled Spanner Nut: Aluminum, black anodized
Keying Washer, Cover Support Plate, Shaft Extension: 302 Stainless steel
Internal and External Lockwashers: Brass, tin/zinc-plated or stainless steel.
Keys, Cylindrical: Stainless steel; 2 supplied

CHOICES AND LIMITATIONS

Style	Description	Angle of Throw	No. Of Decks	Poles/ Deck	Positions Per Pole	Shorting or Non-Shrtg.
Series 44 Switches						
L	Standard, Solder Lugs	45°	01 to 06	1	02 to 08	N or S
			01 to 03	2	02 to 04	N or S
			01 or 02	3	01 or 02	N
			01 or 02	4	01 or 02	N



SWITCH SPECIFICATIONS

Electrical Characteristics

Industrial Grade Switch

Switching Current and Life

The load-life values indicate the number of cycles of operation expected for the voltage, current and type of load. End of life is defined using the resistance and breakdown failure criteria listed below.

5A at	115 Vac, resistive
1A at	6 to 28 Vdc, resistive
2A at	115 Vac, inductive

Cycle of Operation: 360° rotation plus a 360° return

Test Conditions: 25°C, 68% relative humidity, atmospheric pressure

Life Expectancy:

With loads above:	25,000 cycles
Without load:	100,000 cycles

Contact Resistance:

End of life:	less than 20 mΩ
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Insulation Resistance:

(Between mutually insulated parts)

Initially:	50,000 MΩ
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Breakdown Voltage:

(Between mutually insulated parts)

Initially:	1,000 Vac
End of life:	500 Vac

Carry Current: 10A; maximum temperature rise 20°C

Mechanical Characteristics

Switching Mode:

45°, 1 or 2 poles: Shorting or non-shorting

45°, 3 or 4 poles: Non-shorting

Type of Contact: Wiping contacts

Contact Force: greater than 150g

Number of Terminals: Switches are provided with only the number of terminals needed

Stop Strength: greater than 15 in-lbs (1.70 Nm)

Switching Torque: 8-115 in-ozs (28 to 230 mNm), depending on the number of poles, number of decks, and angle of throw

Additional Characteristics

Switches of 6 or more decks have longer studs with extra mounting nuts for recommended double end mount

Materials and Finishes: Switch

Switch Bases: Melamine per MIL-M-14, 4

Switch Bases:

Industrial Grade: Melamine per MIL-M-14

Military: Diallyl per MIL-M-14

Cover, Deck Separators, End Plate, and

Rotor Mounting Plate: Phenolic per MIL-M-14

Shaft, Shaft Extension, Stop Arm, Stop

Washers, Rear Support Plate, Cover

Plate, Retaining Ring, Studs, Nuts:

Stainless steel

Detent Balls: Steel, nickel-plated

Detent Springs: Tinned music wire

Rotor Contact, and Stator (Base)

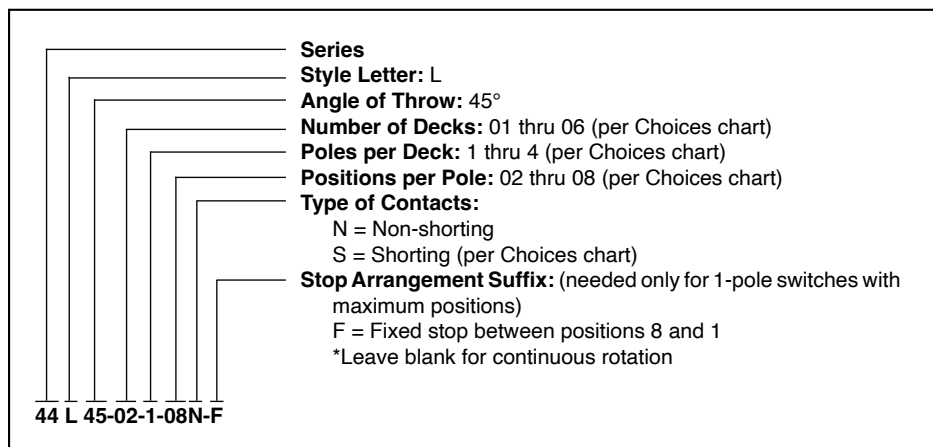
Contacts: Silver alloy

Common Plate, and Common Terminal:

Brass, 300μ inch, (7.6 μm) silver plate

Base Terminals: Brass, tin plated

ORDERING INFORMATION



Available from your local Grayhill Distributor.

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



GRAYHILL

SERIES 58

Single Deck, Antistatic

LOCK FEATURES

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

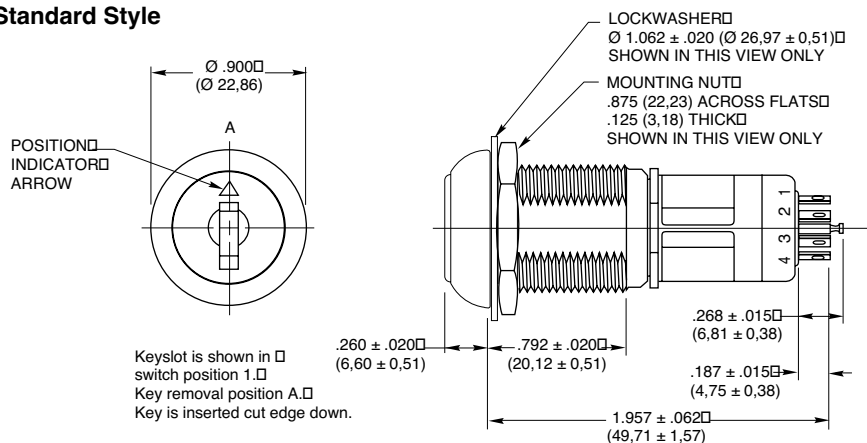
SWITCH FEATURES

- 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

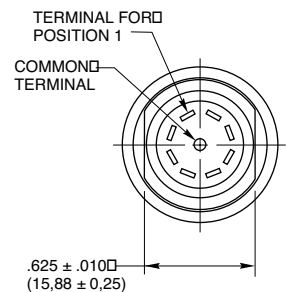


DIMENSIONS in inches (and millimeters)

Standard Style



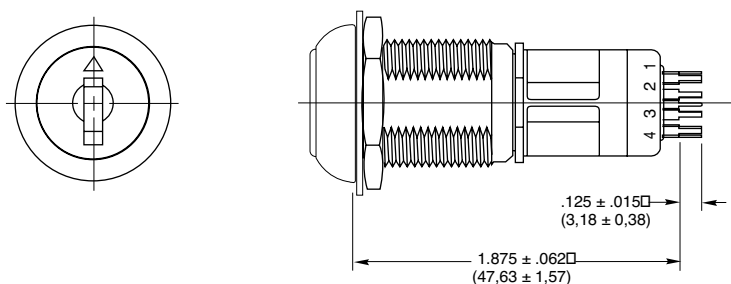
36°, 45°, 60°, or 90° Angle of Throw



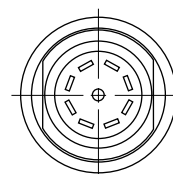
All terminals are provided regardless of the number of active switch positions.

PC Mount Style

Dimensions not shown are the same as above.



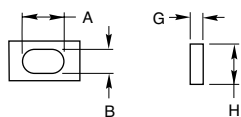
36°, 45°, 60°, or 90° Angle of Throw



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

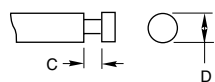
TERMINAL DETAIL

Solder Lug



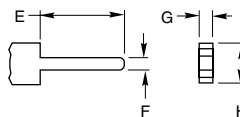
A = .064 ± .005 (1,63 ± 0,13)
B = .032 ± .004 (0,81 ± 0,10)

Solder Lug Common



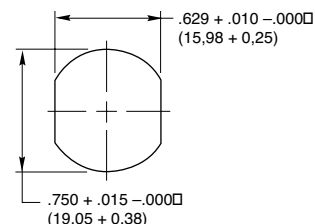
C = .050 ± .010 (1,27 ± 0,25)
D = .062 Ø ± .002 (1,57 Ø ± 0,05)
G = .020 ± .003 (0,51 ± 0,08)
H = .062 ± .004 (1,57 ± 0,10)

PC Mount



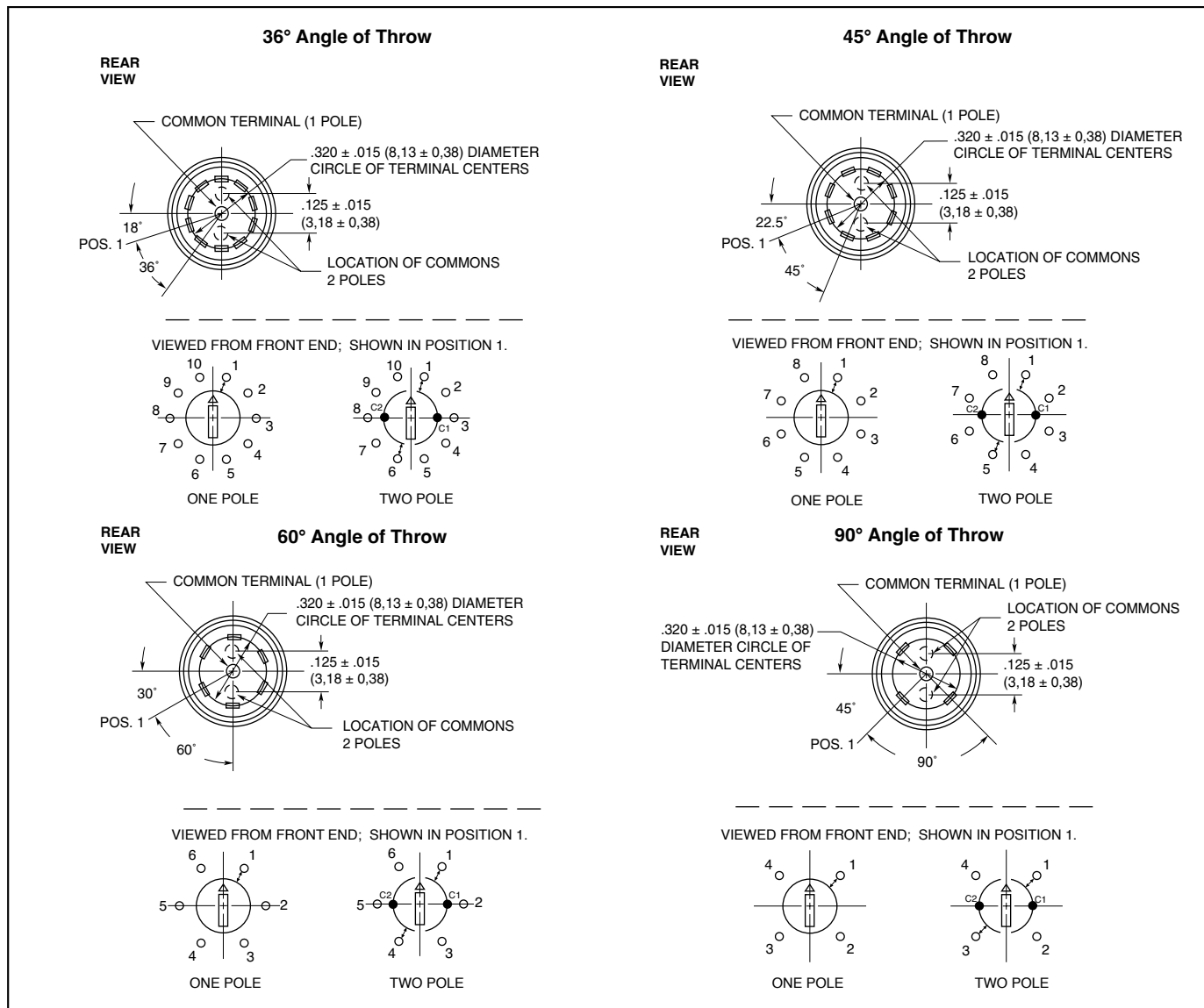
E = .125 ± .015 (3,18 ± 0,38)
F = .020 ± .003 (0,51 ± 0,08)

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 & Finishes

Keys: Brass; 2 supplied

Lock Barrel & Plug: Zinc, clear chromate

Lockwasher: Steel, tin zinc plated

Mounting Nut: Steel, nickel-plated

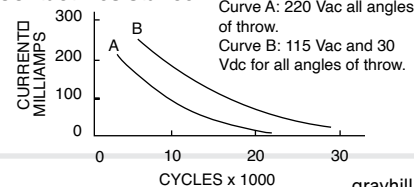
Tumbler Plates: Brass

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.

Contact Resistance:





SWITCH SPECIFICATIONS *Continued*

Initially: less than 10 mΩ End of life: less than 50 mΩ	to withstand 15,000 Vdc	Switch Base: Thermoset plastic
Insulation Resistance: (Between mutually insulated parts) Initially: 50,000 MΩ Minimum: 10,000 MΩ	Mechanical Characteristics Switching Mode: Shorting (make before break) or non-shorting (break before make) as limited by the Choices chart	Switch Housing: Nylon
Breakdown Voltage: (Between mutually insulated parts) more than 600 Vac	Type of Contact: Wiping	Detent Rotor: Nylon
Life Expectancy: Per chart; cycle is 1 rotation thru all active positions plus a full return.	Number of Terminals: All switches are provided with the full circle of terminals regardless of the number of active positions	Detent Balls: Steel, nickel-plated
Carry Current: 6A; maximum temperature rise 20°C	Stop Strength: 1.70 Nm maximum (15.0 in-lbs)	Detent Springs, and Contact Springs: Stainless steel
Anti-Static Voltage: Anti-static types tested	Switching Torque: 8 to 16 in-ozs	Common Ring: Brass, gold plate over silver plate
	Materials and Finishes	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.
Series 58J Switches						
J4: Standard—Key pulls at Position 1 and at 90 Degree Increments	A = Standard, Solder Lugs P = Standard, PC Mount	45°	1	1 2	02 to 08 02 to 04	N or S N or S
J8: Standard—Key Pulls at Each Position	A = Standard, Solder Lugs P = 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
J9: Standard—Key Pulls at Position 1 and at 180 Degrees	A = Standard, Solder Lugs P = 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

Series	58J8A36-01-1-10N-F
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	

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