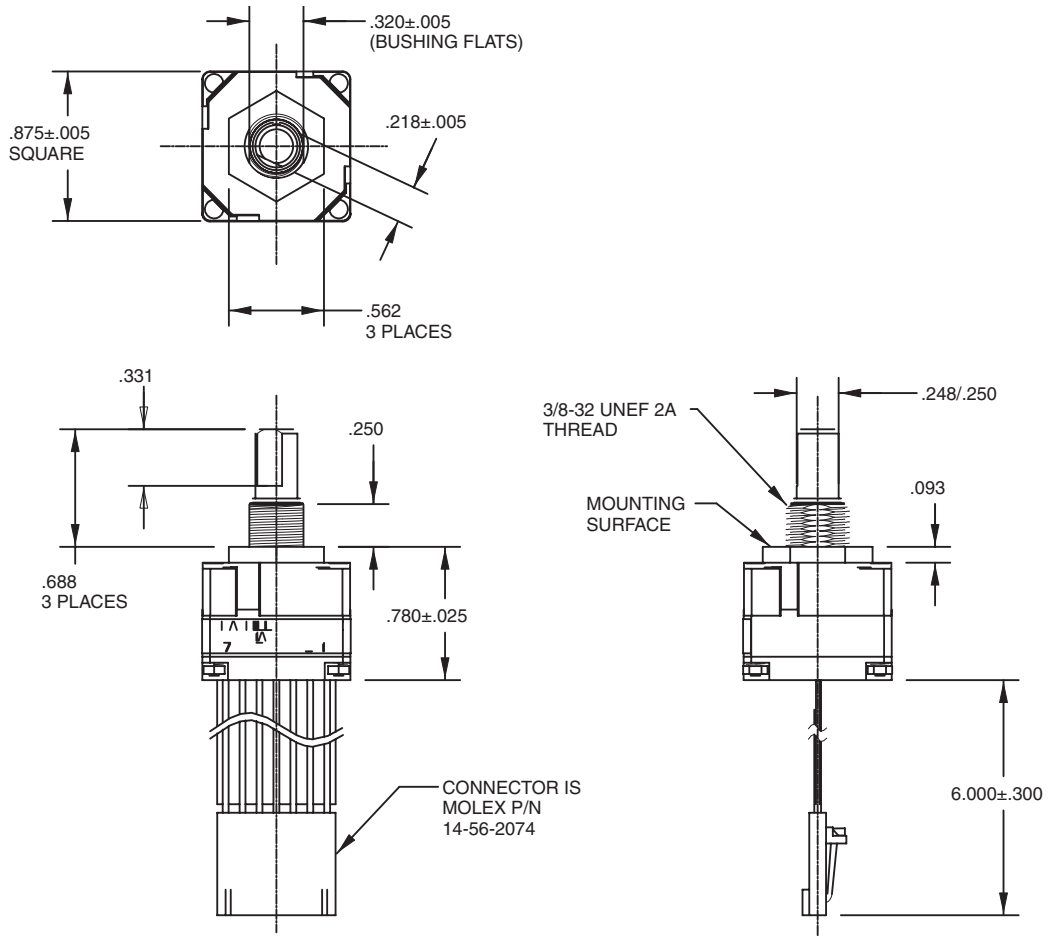
SERIES 61A
Custom, Absolute

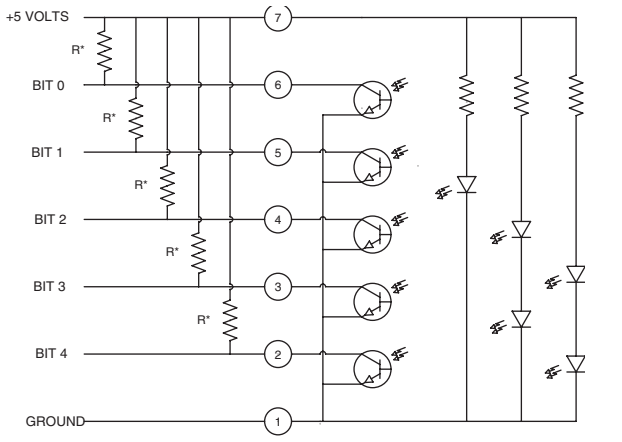
FEATURES
- Absolute Position Sensing
- 3, 4, or 5-Bit Custom Output Coding
- 8 to 32 Positions
- Fixed Stops Only
- Angles of Throw to 45° (Design Specifications Will Dictate the Angle of Throw)

DIMENSIONS In inches (and millimeters)



UNLESS OTHERWISE SPECIFIED, DIMENSION TOLERANCES ARE AS FOLLOWS: LINEAR ±.010 (0,25), DIAMETERS ±.010 (0,25), ANGULAR ±5

CIRCUITRY



* EXTERNAL PULL-UP RESISTORS REQUIRED FOR OPERATION (4.7k)

TRUTH TABLE

3 BIT, 8 POSITION

Position	B2	B3	B4
1			
2			●
3		●	●
4		●	
5	●	●	
6	●	●	●
7	●		●
8	●		

● INDICATES LOGIC HIGH
BLANK INDICATES LOGIC LOW

4 BIT, 16 POSITION

Position	B1	B2	B3	B4
1				
2				●
3			●	●
4			●	
5		●	●	
6		●	●	●
7		●		●
8		●		
9	●	●		
10	●	●		●
11	●	●	●	●
12	●	●	●	
13	●		●	
14	●		●	●
15	●			●
16	●			

● INDICATES LOGIC HIGH
BLANK INDICATES LOGIC LOW

5 BIT, 32 AND 24 POSITION

Position	B0	B1	B2	B3	B4
1					
2					●
3				●	●
4				●	
5			●	●	
6			●	●	●
7			●		●
8			●		
9		●	●		
10		●	●		●
11		●	●	●	●
12		●	●	●	
13		●		●	
14		●		●	●
15		●			●
16		●			
17	●	●			
18	●	●			●
19	●	●		●	●
20	●	●		●	
21	●	●	●	●	
22	●	●	●	●	●
23	●	●	●		●
24	●	●	●		
25	●		●		
26	●		●		●
27	●		●	●	●
28	●		●	●	
29	●			●	
30	●			●	●
31	●				●
32	●				

● INDICATES LOGIC HIGH
BLANK INDICATES LOGIC LOW

SPECIFICATIONS

Ratings

Operating Voltage: 5 ±.25V DC
Supply Current: 85 mA maximum at 5V DC
Life: 1 million cycles of operation; 1 cycle is rotation through all positions and a full return
Rotational Torque: 1.5 in-oz (Initial)
Output High: 3.8V minimum for CMOS & HCMOS; 2.7V minimum for TTL
Output Low: 0.8V maximum
Shaft Push Out Force: 25 lbs.
Mounting Torque: 10 in-lb maximum
Load Current: 5 mA maximum per channel
Logic Rise and Fall Times: 30 mSec typical

Environmental

Operating Temperature Range: -40°C to +85°C
Storage Temperature Range: -55°C to +100°C
Vibration: MIL-STD 202, method 204, condition B
Mechanical Shock: 100 g's, 6 ms, half Sine 12.3 ft/s and 100 g's, 6 ms, sawtooth, 9.7 ft/s
Humidity: 90-95% Relative humidity at 40°C for 96 hrs.

Materials and Finishes

Detent Housing: Stainless Steel
Bushing: Brass, tin/zinc plated
Shaft: Stainless steel
Detent Balls: Steel, nickel-plated
Code Housings: Nylon 6/10
Backplate: Nylon 6/10
Aperture: Chemically etched stainless steel with black oxide finish
Rotor: Electroformed nickel and chemically etched stainless steel with black oxide finish
Detent Springs: Tinned music wire
PC Boards: NEMA grade FR-4
Through Bolts: Stainless steel, unplated
Through Bolt Nuts: Stainless steel
Mounting Hardware: One brass, tin/zinc-plated nut and one stainless steel, zinc-plated lockwasher supplied with each switch. Nut is 0.094 inches thick by 0.562 inches across flats.

ORDERING INFORMATION

Series
Style: A = unsealed
Number of positions: 32 = 32 positions with 10" of throw
16 = 16 positions with 18" of throw
8 = 8 positions with 26" of throw

61A32-060

Termination: Cable Termination: 060=6.0 inches. Cable is terminated with Molex connector P/N 14-56-2074.

Available from your local Grayhill Component Distributor. For prices and discounts, contact a local Sales Office, an authorized local Distributor in CHINA(Beijing)Tel:(010)6851-9097.