



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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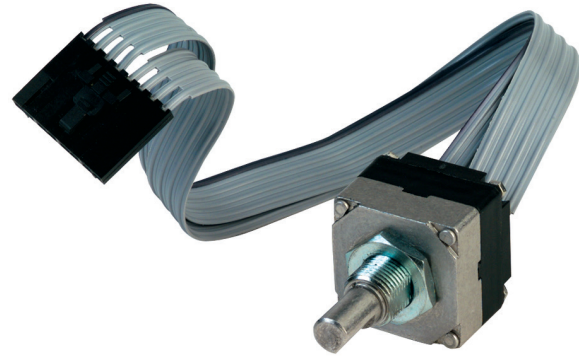
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



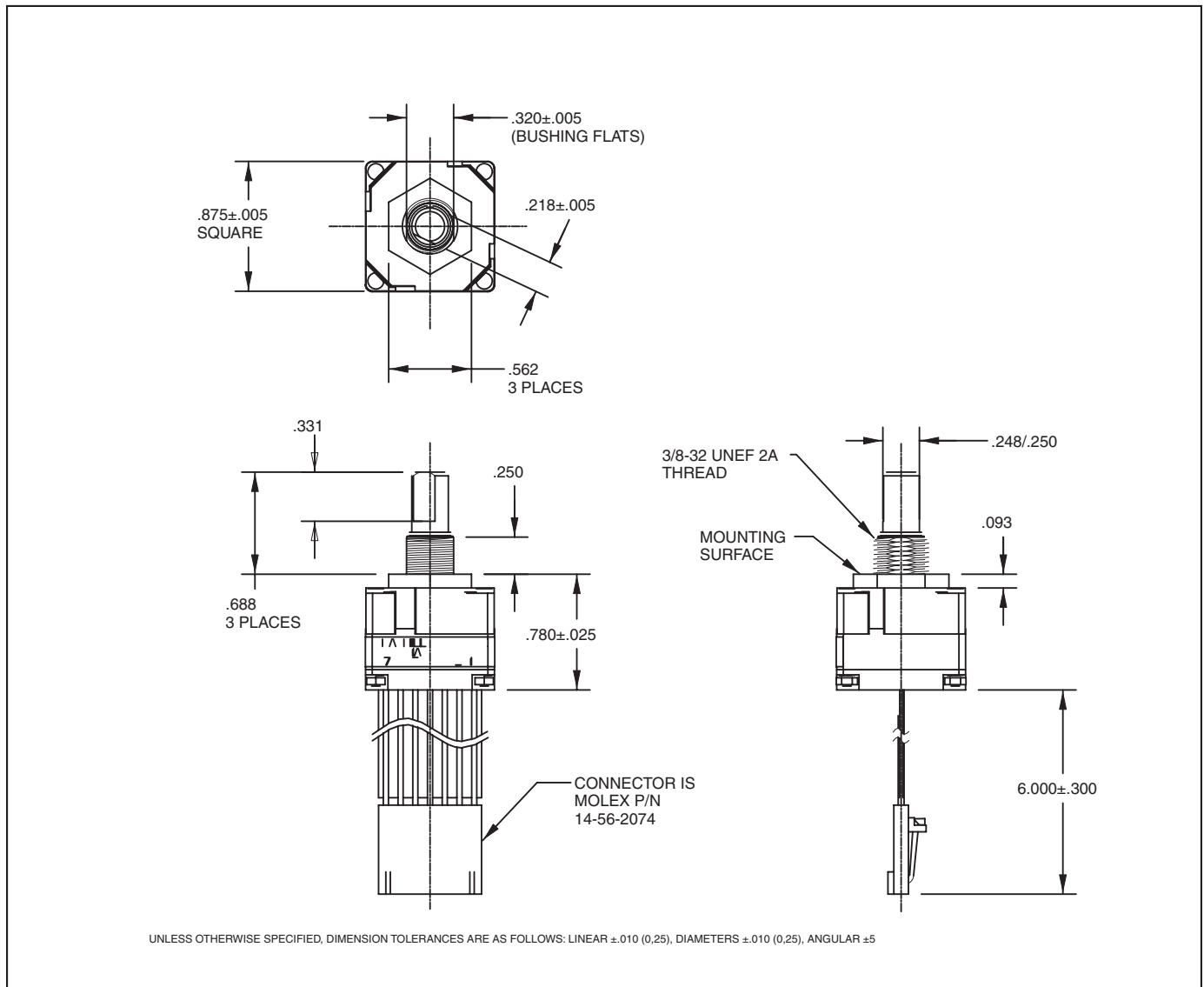
SERIES 61A
Custom, Absolute

FEATURES

- Absolute Position Sensing
- 3, 4, or 5-Bit Custom Output Coding
- Available in 8, 16 and 32 detent positions
- Fixed Stops Only
- Angles of Throw to 45° (Design Specifications Will Dictate the Angle of Throw)

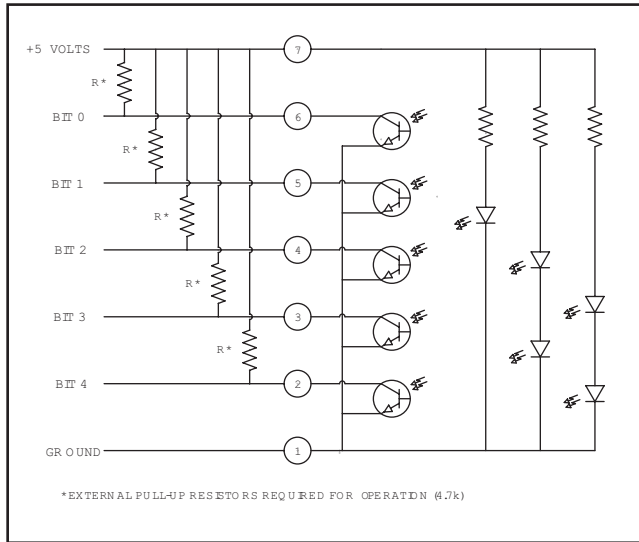


DIMENSIONS in inches (and millimeters)



Optical and Mechanical Encoders

CIRCUITRY



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 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: 12 ±4 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

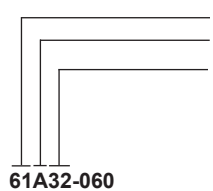
Environmental

Operating Temp. Range: -40°C to +85°C
Storage Temp. Range: -55°C to +100°C
Vibration: MIL-STD 202, method 204, cond. 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 inch thick by 0.562 inch across flats.

ORDERING INFORMATION



Series

Style: A = Absolute position sensing

Number of positions: 32 = 32 positions with 10° of throw
 16 = 16 positions with 18° of throw
 8 = 8 positions with 36° of throw

Termination: 060 = 6.0 inches cable 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, or Grayhill direct.