

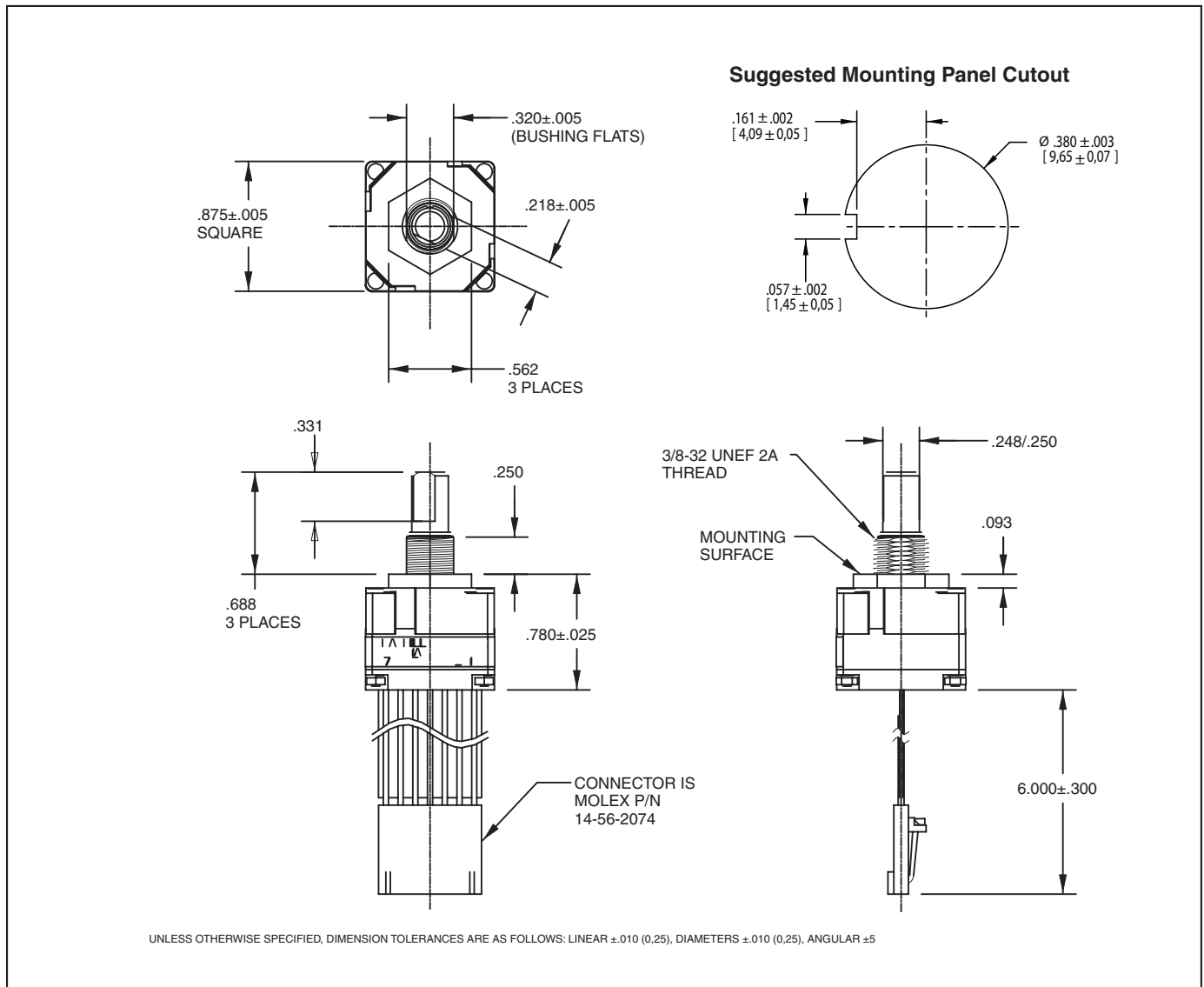
SERIES 61A Custom, Absolute

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)



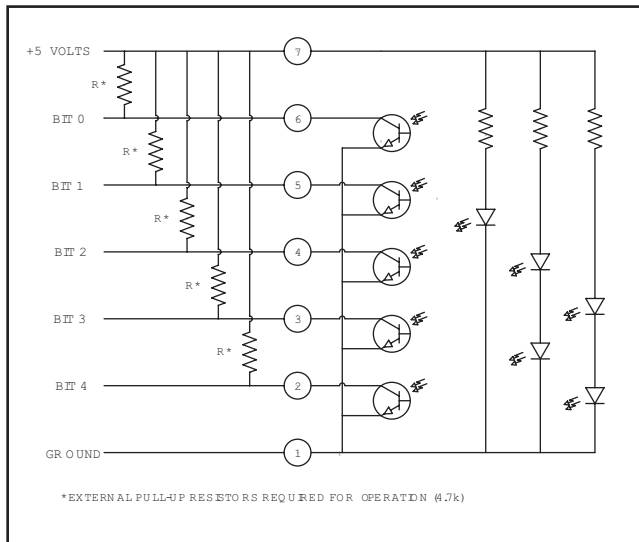
DIMENSIONS in inches (and millimeters)





Optical 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

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

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

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.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Encoders](#) category:

Click to view products by [Grayhill](#) manufacturer:

Other Similar products are found below :

[6-1393048-0](#) [6-1393048-5](#) [62AG22-H5-P](#) [62B22-LP-030C](#) [63K25](#) [63K32](#) [63KS100](#) [63KS64](#) [63R100](#) [63R50-020](#) [63RS256-060](#) [700-09-36](#)
[RE12D300-201-1](#) [1393047-3](#) [2-1393047-2](#) [T101-5C2-111-M1](#) [T101-5C3-111-M1](#) [T101-5C4-111-M1](#) [385001M0439](#) [385001M0216](#)
[V23401H1409B101](#) [V23401T8002B802](#) [V23401U6019B609](#) [E69-1](#) [E69DF10](#) [E69-FCA](#) [62B11-LP-100S](#) [62B11-LPP-040C](#) [62N11-P](#)
[62S22-H9-120S](#) [62S30-L0-200C](#) [62V15-02-080S](#) [63K64](#) [63KS100-040](#) [63R64-050](#) [63RS64](#) [700-16-16](#) [V23401D3002B301](#) [3-1393048-1](#)
[63KS128](#) [63KS256](#) [1-1879391-5](#) [GH65C11-N-SO](#) [62S15-M0-P](#) [1393047-1](#) [E69-FCA02](#) [E69-FCA04](#) [E69-DF20](#) [E69-DF2](#) [63R50](#)