SERIES 25L

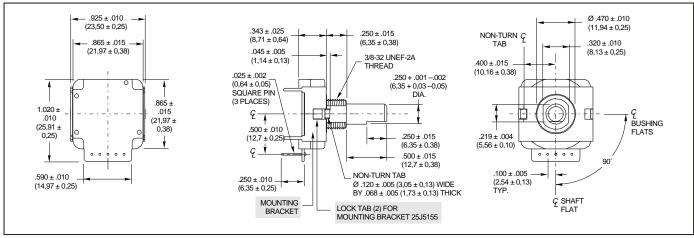
Hex, Gray and Quadrature Code

FEATURES

- Price Competitive to Similar Designs
- Quality Construction and Contact Materials
- Multiple Code and Indexing Choices
- 100,000 Life Cycles
- Less than 1.0" Square
- Manufactured to ISO 9001 Standards



DIMENSIONS In inches (and millimeters)



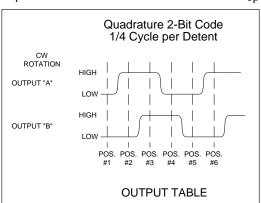
TRUTH TABLES

	Clockwise Rotation				
	4-Bit Gray Code-16 Position				
Switch Position	Code Position	1	Ou 2	tput 4	8
1	0				
2	1	•			
3	2	•	•		
4	3		•		
5	4		•	•	
6	5	•	•	•	
7	6	•		•	
8	7			•	
9	8			•	•
10	9	•		•	•
11	10	•	•	•	•
12	11		•	•	•
13	12		•		•
14	13	•	•		•
15	14	•			•
16	15				•

•	indicates closed	circuit;	biank	indicates
	open circuit.			

Clockwise Rotation						
	4-Bit Binary Code Hexadecimal-16 Position					
Switch Position	Code Position	1	Ou	tput 4	8	
1	0					
2	1	•				
3	2		•			
4	3	•	•			
5	4			•		
6	5	•		•		
7	6		•	•		
8	7	•	•	•		
9	8				•	
10	9	•			•	
11	10		•		•	
12	11	•	•		•	
13	12			•	•	
14	13	•		•	•	
15	14		•	•	•	
16	15	•			_	

Indicates closed circuit; blank indicates open circuit.



1/4 C	rature 2-Bit C Cycle per Det	ode ent
Switch Position	"A" Output "B"	
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		•
33		
34	•	
35	•	•
36		•
Indiant	مم ماممه	ad airauit

Clockwise Rotation

 Indicates closed circuit; blank indicates open circuit. Code repeats every 4 positions.



SPECIFICATIONS

Electrical Ratings

Switching Loads: 1.5 mA at 115 Vac, resistive;

150 mA at 14 Vdc, resistive Current Carrying Capacity: 250 mA maximum at 28 Vdc, resistive load Contact Resistance: 75 mΩ, typical

Insulation Resistance: 1000 $m\Omega$ minimum

between terminals

Voltage Breakdown: 1000 Vac minimum

between terminals

Life Expectancy: 100,000 cycles of operation at rated loads. One cycle of operation is a rotation through all of the active positions and a return to the starting position.

Mechanical Ratings

Rotational Torque: 2 to 6 in-oz

Operating Temperature Range: $-65\,C^{\circ}$ to $+85\,C^{\circ}$ Storage Temperature Range: $-65\,C^{\circ}$ to $+85\,C^{\circ}$ Continuous Rotation: All standard switches are continuous rotation. Desired stop locations supplied upon request.

Anti-Rotation Device: Integral non-turn tab, flatted bushing, .375" diameter, .320 double "D" across flats.

Termination: Standard is PC style, parallel to shaft, facing rear. Options include PC, parallel to shaft, facing front; PC, perpendicular to shaft. **Panel Mounting Torque:** 10 in-lbs maximum

Materials and Finishes

Bushing/Housing and Shaft/Rotor: Reinforced thermoplastic

Detent Ball: Stainless steel, nickel-plated

Detent Spring: Tinned music wire

Contacts: Beryllium copper, gold plate over

Terminals: Copper alloy, CDA #725, solder

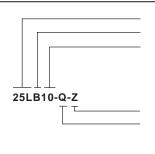
plate over nickel

Output Board: FR-4, copper/nickel-plated Mounting Hardware: Brass, cadmium-plated

hex nut

Mounting Bracket: Stainless Steel, tin-plated

ORDERING INFORMATION



* Cadmium free

Series: 25L = Economical, single deck encoder **Housing Color:** B = Black housing*; R = Red housing

Angle of Throw: $10 = 10^{\circ}$, 36 positions; $11 = 11.25^{\circ}$, 32 positions;

15 = 15°, 24 positions; 18 = 18°, 20 positions; 22 = 22.5°, 16 positions; 30 = 30°, 12 positions;

 $45 = 45^{\circ}$, 8 positions

Mounting Bracket: Z = with bracket, Blank = no bracket **Code Output:** H = Hexadecimal available only in 22.5°

G = Gray available only in 22.5°

Q = Quadrature (2-bit)

Custom materials, styles, color and markings are available. Custom knobs available, see page I-57.

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