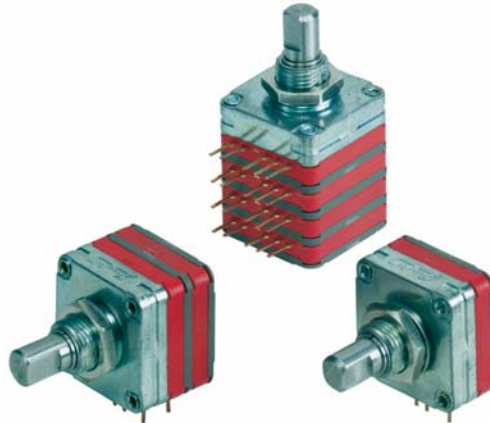


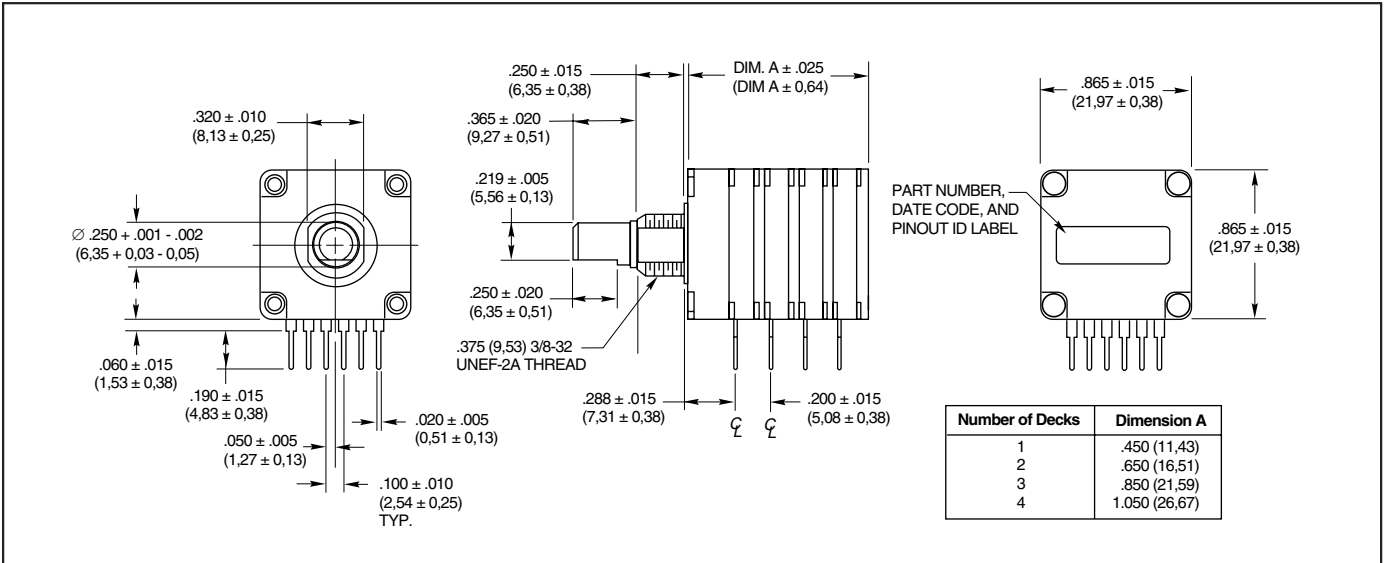
**SERIES 25**  
Multi-Deck

**FEATURES**

- Multiple Code and Indexing Choices
- Reliability Tested to Listed Specifications
- Less than 1.0" Square
- Termination Choices
- Panel and Shaft Seal Option
- Manufactured to ISO 9001 and Military Standards
- Custom Configurations Available



**DIMENSIONS** In inches (and millimeters)



Optical and Mechanical Encoders

**SPECIFICATIONS**

**Electrical Ratings**

**Switching Loads:** 150 mA at 120 Vac, resistive; 150 mA at 28 Vdc, resistive  
**Current Carrying Capacity:** 250 mA at 28 Vdc, resistive  
**Contact Resistance:** 75 mΩ maximum after life  
**Insulation Resistance:** 1000 mΩ minimum between terminals and shaft  
**Voltage Breakdown:** 1000 Vac minimum between terminals and shaft  
**Life Expectancy:** 50,000 cycles at rated loads  
**Contacts:** Shorting

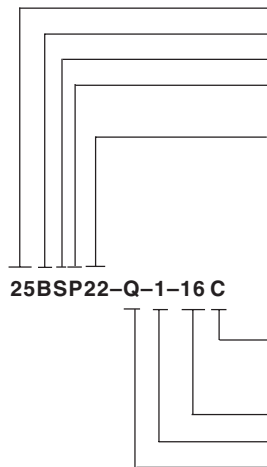
**Mechanical Ratings**

**Stop Strength:** 10 in-lbs minimum  
**Rotational Torque:** 4-20 in-oz, dependent on the number of decks  
**Operating Temperature Range:** -65°C to +85°C  
**Non-Turn Device:** Flatted mounting bushing, .375" dia. x .320"  
**Package Size:** .865" square  
**Termination:** PC terminals, .100" on center. Decks are .200" apart.

**Materials and Finishes**

**Bushing:** Die cast zinc alloy, tin-zinc plated  
**Mounting Hardware:** plated brass  
**Decks, Deck Separators, End Plate:** Thermoplastic  
**Contacts and Terminals:** Gold, silver, nickel-plated beryllium copper  
**Shaft, Stop Blades:** Stainless Steel  
**Detent Balls:** Steel, nickel-plated  
**Rivets:** Brass, zinc-plated

**ORDERING INFORMATION**



**Series 25:** Multi-deck  
**Shaft size:** B = 1/4" diameter shaft  
**Sealed or non-sealed:** S = Shaft and panel seal; No letter = no seal  
**Terminal structure:** P = PC, perpendicular to shaft; R = PC, rear facing (one deck only); F = PC, front facing (one deck only).  
**Angle of throw (determines the maximum number of positions):**  
 10 = 10°, 36 positions; 11 = 11.25°, 32 positions; 12 = 12°, 30 positions;  
 15 = 15°, 24 positions; 18 = 18°, 20 positions; 22 = 22.5°, 16 positions;  
 30 = 30°, 12 positions; 45 = 45°, 8 positions; 60 = 60°, 6 positions;  
 90 = 90°, 4 positions.

**Stop arrangement:** For switches with maximum positions, add C for continuous rotation; add F for stop between first and last. No notation required for less than maximum positions.  
**Number of positions:** Maximum is dependent on the angle of throw. Minimum is two.  
**Number of decks:** One through four possible.  
**Code output:**  
 B = Binary available in 22.5°  
 Q = Quadrature  
 G = Gray available in 22.5°

Specials include 1/8" diameter shaft, custom angles of throw for binary, binary complement and gray code outputs. Contact Grayhill Sales for availability.

Control 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.