



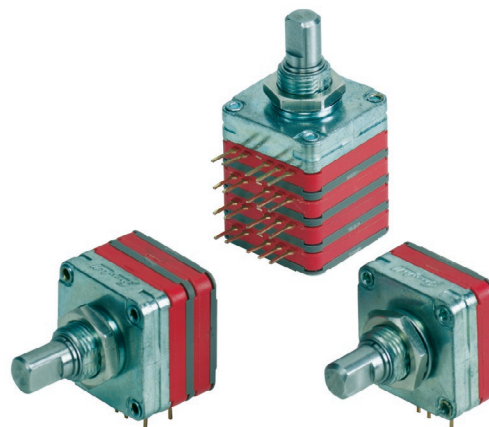
Mechanical Encoders

SERIES 25

Multi-Deck

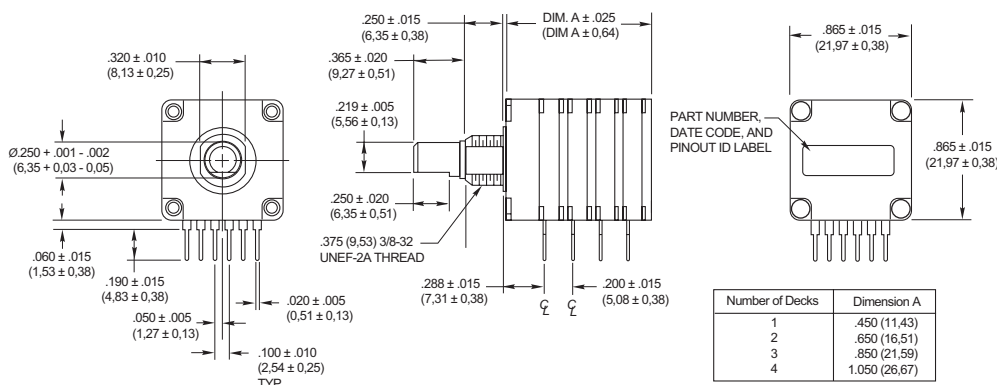
FEATURES

- 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

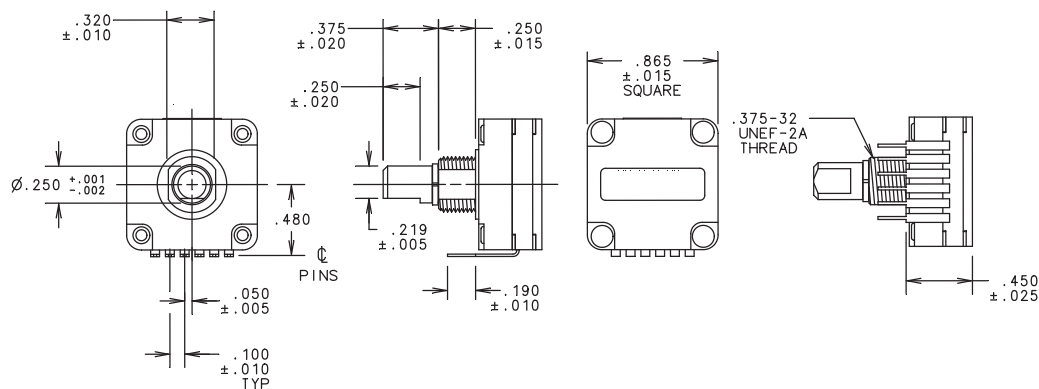


DIMENSIONS in inches (and millimeters)

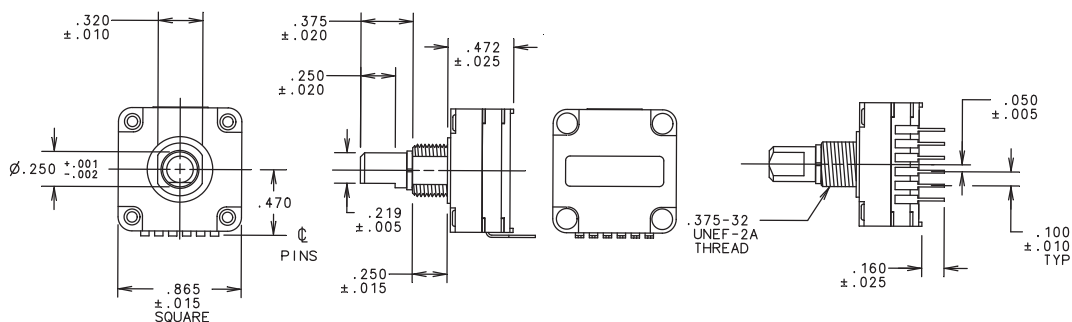
BP Style: Terminals Perpendicular to Shaft



BF Style: Front-Facing Terminals (Single Deck Only)



BR Style: Rear-Facing Terminals (Single Deck Only)



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 max. 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

Hardware: Hex nut and lockwasher supplied

Materials and Finishes

Bushing: Die cast zinc alloy, tin-zinc plated

Mounting Hardware: plated brass

Decks, Deck Separators, End Plate: Thermoplastic

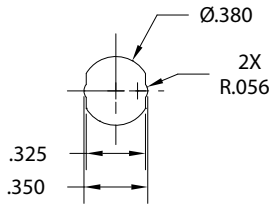
Contacts and Terminals: Gold, silver, nickel-plated beryllium copper

Shaft, Stop Blades: Stainless Steel

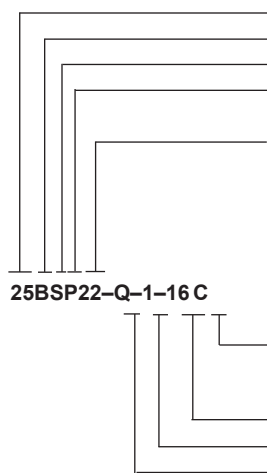
Detent Balls: Steel, nickel-plated

Rivets: Brass, zinc-plated

RECOMMENDED PANEL CUTOUT



ORDERING INFORMATION



25BSP22-Q-1-16C

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; 36 = 36°, 10 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 (contact Grayhill for availability)

Q = Quadrature

G = Gray (contact Grayhill for availability)

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.

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