

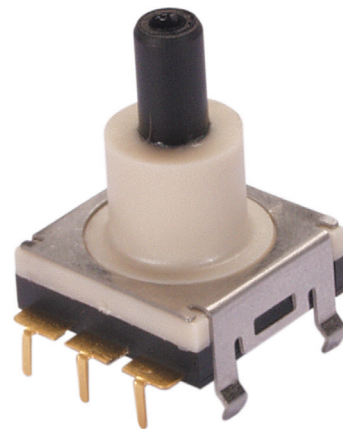
SERIES 62P
Low Cost, PC Mount

FEATURES

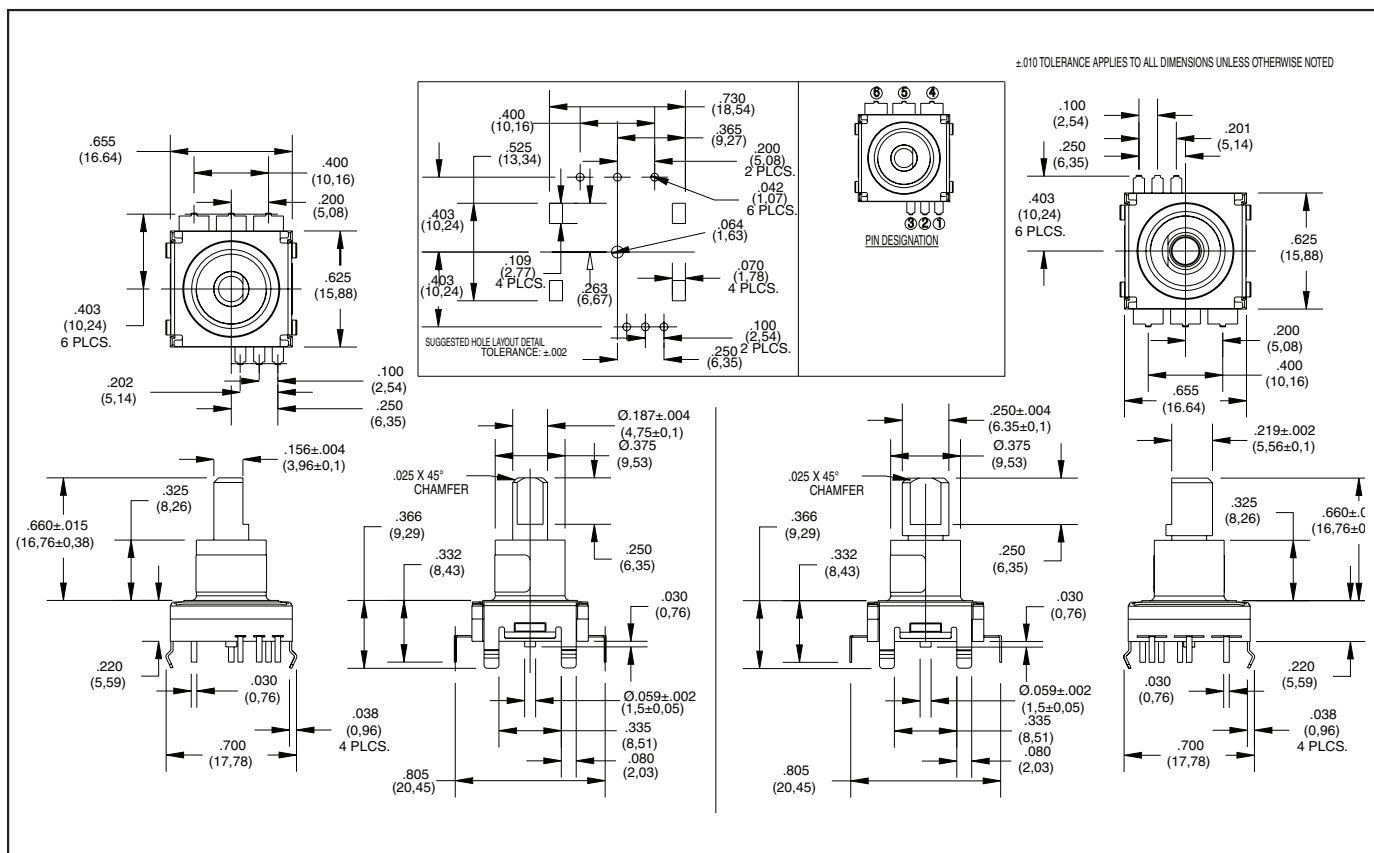
- Low Cost
- Compact Size
- PC Mount
- No De-Bouncing Required
- Reliable, Up to 2 Million Cycles
- Choice of Detent and Pushbutton Force
- Available in 16 Positions
- Quadrature Output

APPLICATION

- Automotive Controls
- White Goods
- Audio

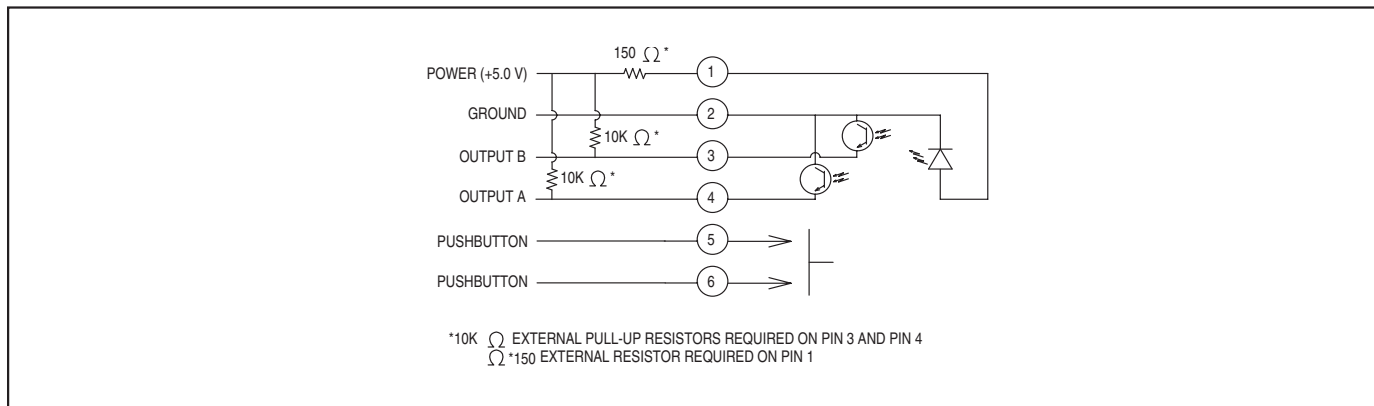


DIMENSIONS In inches (and millimeters)

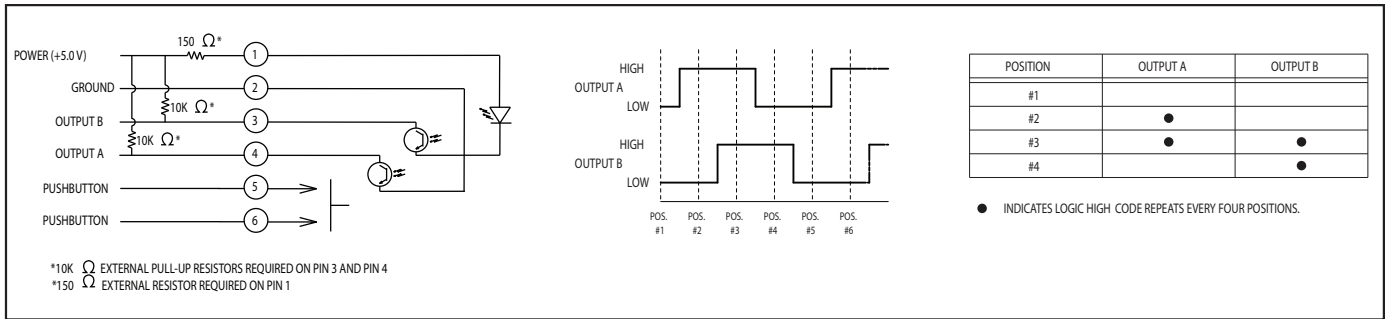


Optical and Mechanical Encoders

CIRCUITRY



WAVEFORM AND TRUTH TABLE Standard Quadrature 2-bit Code



SPECIFICATIONS

Electrical Ratings

Operating Voltage: 5 Vdc +/- .25 Vdc
Supply Current: 30mA maximum at 5 Vdc
Logic High: 3.0V minimum
Logic Low: 1.0V maximum
Logic Rise and Fall: less than 30 ms

Pushbutton Switch Ratings

Rating: 5.0 Vdc at 10mA resistive
Contact Resistance: less than 10 ohms (TTL or CMOS compatible)
Voltage Breakdown: 250 Vac between mutually insulated parts
Contact Bounce: less than 4 ms at make and less than 10 ms at break
Actuation Life: 3,000,000 operations
Actuation Force: 6: 600 +/- 200 grams
 4: 450 +/- 150 grams
Shaft Travel: .015 ± .010 inch

Mechanical Ratings

Operating Torque:
 H: 1.4 in-oz +/- 0.6 in-oz initial
 L: 0.6 in-oz +/- 0.3 in-oz initial
 N: <0.5 in-oz initial
Rotational Life:
 H&L: 500,000 cycles
 N: 2 million cycles
 (1 cycle = 360 degree rotation and return)
Shaft Push Out Force:
 20 lbs minimum
Operating Speed: 100 RPM maximum
Axial Shaft Play: .010 maximum
Environmental Ratings
Operating Temperature Range:
 -40°C to 85°C
Storage Temperature Range:
 -55°C to 100°C
Relative Humidity: 90-95% at 40°C for 96 hours
Vibration Resistance: Harmonic motion with Amplitude of 15g, within a varied 10 to 2000 Hz frequency for 12 hours per MIL-STD-202, Method 204
Mechanical Shock Resistance:
 Test 1: Tested at 100g for 6mS, half sine, 12.3 ft/s.

Test 2: 100g for 6mS, Sawtooth, 9.7 ft/s

Materials and Finishes

Code/Pushbutton Housing: Thermoplastic
Shaft: Thermoplastic
Code/Detent Rotor: Reinforced Thermoplastic
Bushing: Thermoplastic
Terminal Pins: Brass, Tin plated
Detent Spring: Stainless Steel
Dome: Stainless Steel
Pushbutton Contact: Nickel plated brass
Phototransistor: Planar Silicon
Detent Balls:
 .0625 dia. Stainless Steel
Infrared Emitter:
 Gallium Aluminum Arsenide
Label:
 White Thermal Transfer Cast Film.
 Adhesive Coated
Bracket: Stainless Steel, Tin plated

ORDERING INFORMATION

