Optical Encoders

Series 62P Low Cost, PC Mount



FEATURES

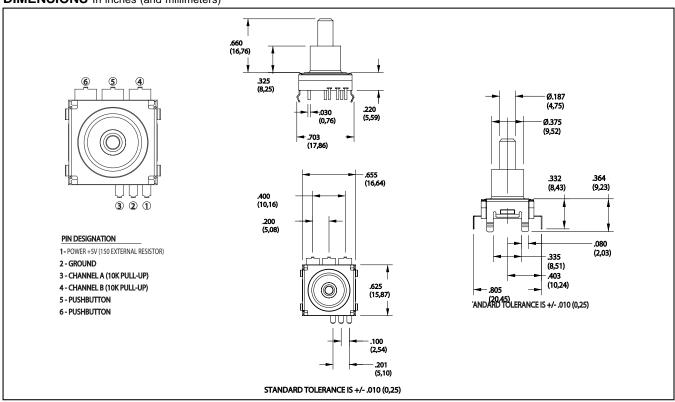
- Low Cost
- Compact Size
- PC Mount
- No De-Bouncing Required
- Reliable, Up to 2 Million Cycles
- · Choice of Detent and Pushbutton Force
- Available in 16 Positions
- Quadrature Output

APPLICATIONS

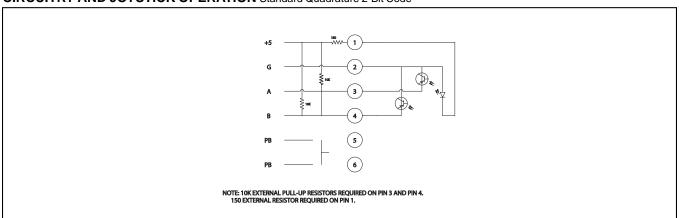
- Automotive Controls
- White Goods
- Audio



DIMENSIONS In inches (and millimeters)

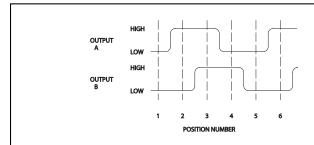


CIRCUITRY AND JOYSTICK OPERATION Standard Quadrature 2-Bit Code



561 Hillgrove Avenue • LaGrange, IL 60525 • Phone: 708.354.1040 • Fax: 708.354.2820 • www.grayhill.com

WAVEFORM AND TRUTH TABLE Standard Quadrature 2-Bit Code



CLOCKWISE ROTATION		
POSITION	OUTPUT A	ООТРОТ В
1		
2	•	
3	•	•
4		•

INDICATES LOGIC HIGH; BLANK INDICATES LOGIC LOW. CODE REPEATED EVERY 4

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

Mechanical Ratings Operating Torque:

H: 1.4 in-oz +/- 0.6 in-oz initial L: 0.6 in-oz +/- 0.3 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

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 Thermo-

plastic

Bushing: Thermoplastic

Terminal Pins: Brass, Tin plated **Detent Spring: Stainless Steel**

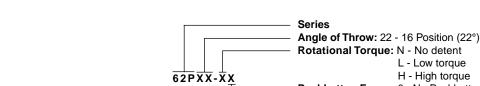
Dome: Stainless Steel

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



Pushbutton Force: 0 - No Pushbutton 4 - 300 gram dome

6 - 450 gram dome

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

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