



Optical Encoders

SERIES 62R

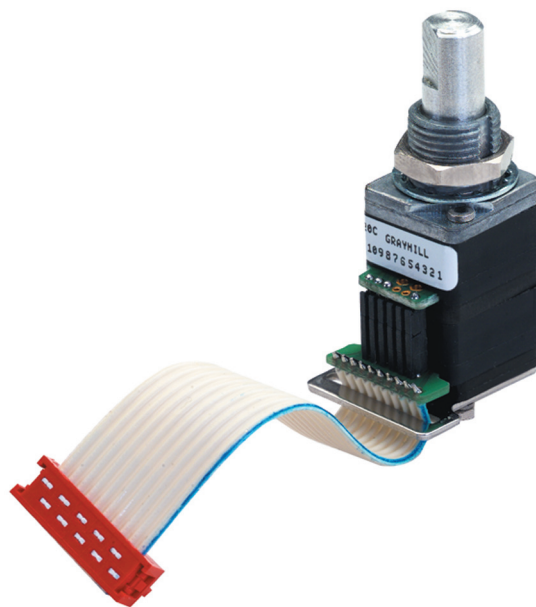
1/2" Package, Redundant Circuitry

FEATURES

- Redundant Circuitry
- 1 Million Rotational Cycles
- Compatible with CMOS, TTL and HCMOS Logic
- Optional Integral Pushbutton
- Available in 12, 16, and 24 Detent Positions
- Choices of Cable Length and Terminations
- Ideal for Critical Applications

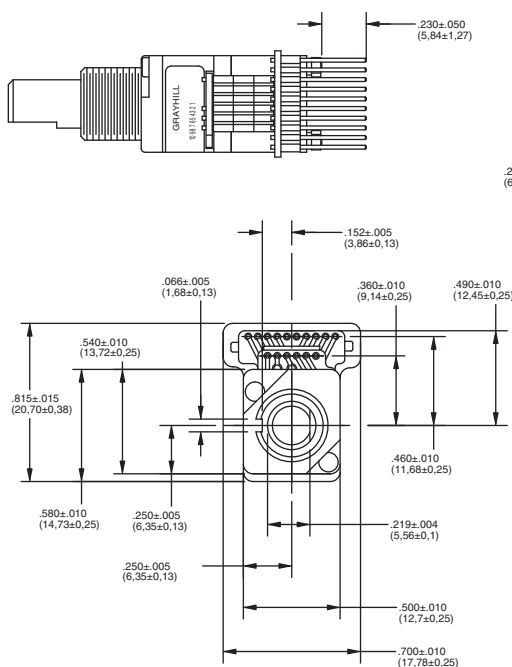
APPLICATIONS

- Cockpit Controls
- Medical Equipment

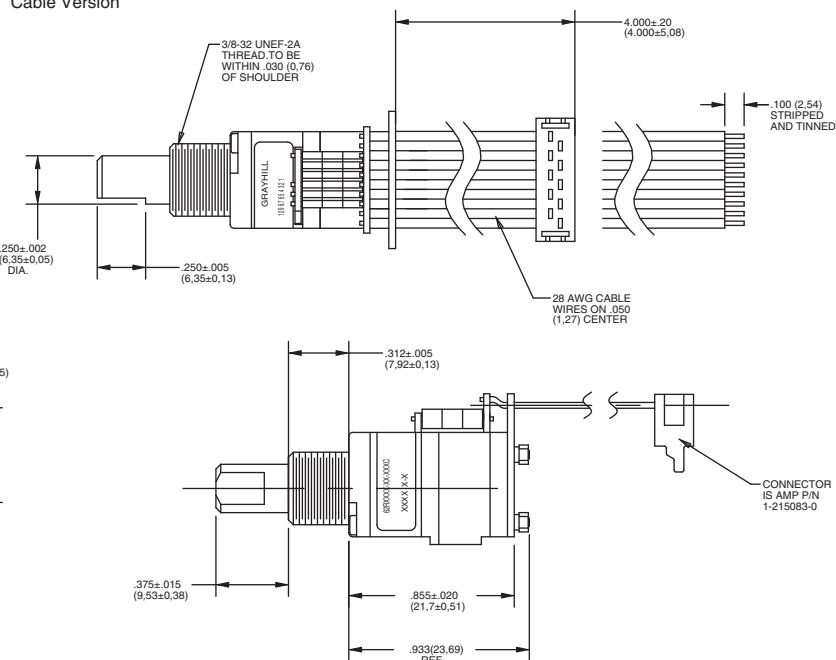


DIMENSIONS in inches (and millimeters)

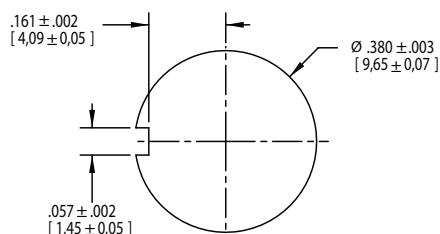
Pin Version



Cable Version

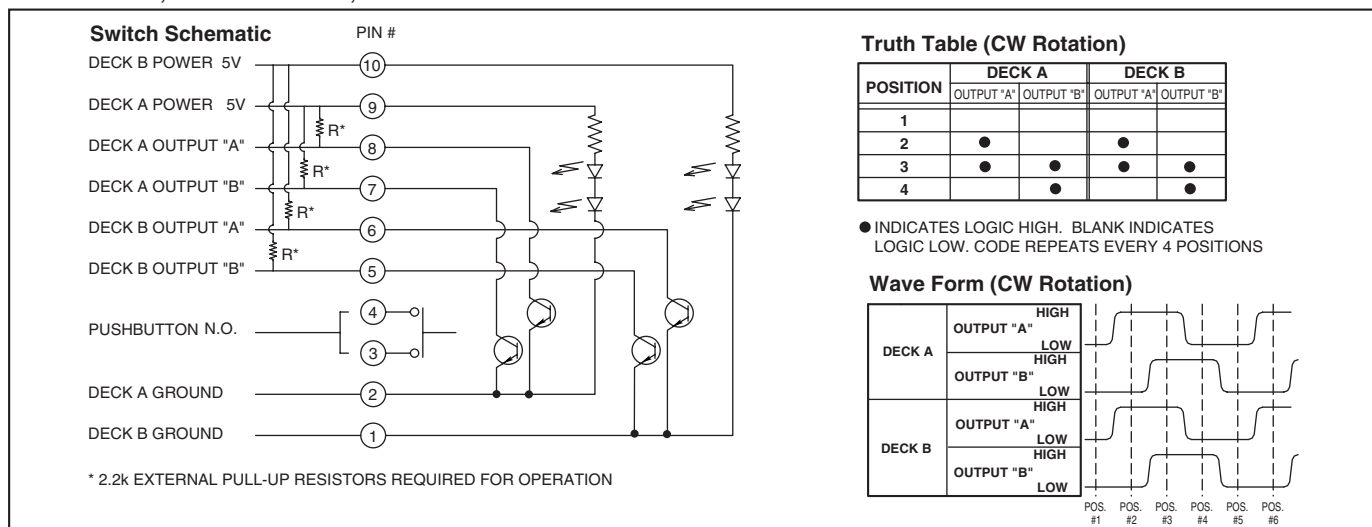


RECOMMENDED PANEL CUTOUT



Unless otherwise specified, standard tolerances are ± 0.10 (0,25)

CIRCUITRY, TRUTH TABLE, AND WAVEFORM Standard Quadrature 2-Bit Code



SPECIFICATIONS

Pushbutton Switch Ratings

Pushbutton Rating: 10 mA, 5 Vdc, resistive
Contact Resistance: less than 10 ohms (TTL or CMOS compatible)

Pushbutton Life: 3 million actuations min.

Contact Bounce: less than 4 mS at make and less than 10 mS at break

Actuation Force: 1000 ±300 grams

Pushbutton Travel: .010/.025"

Switch Ratings

Coding: 2-bit quadrature coded output

Operating Voltage: 5.0 ±.25 Vdc

Voltage Breakdown: 250 Vac between mutually insulated parts

Supply Current: 30 mA maximum@5.0 Vdc (per deck)

Logic Output Characteristics:

Logic High: 3.5 Vdc minimum

Logic Low: 1.5 Vdc maximum

Mechanical Life: 1,000,000 cycles minimum (One cycle is a rotation through all positions and a full return)

Minimum Sink Current: 2.0 mA

Power Consumption: 150mW max. (per deck)

Output: open collector phototransistor

Optical Rise and Fall Times: less than 30 mS maximum

Operating Torque: 3.5 ±1.4 in-oz initially

Shaft Push Out Force: 45 lbs minimum

Mounting Torque: 15 in-lbs max.

Terminal Strength: 15 lbs cable pull-out force min.

Operating Speed: 100 RPM max.

Environmental Ratings

Operating Temperature Range: -40°C to 85°C

Storage Temperature Range: -55°C to 100°C

Vibration Resistance: Harmonic motion with amplitude of 15G's, within a varied 10 to 2000 Hz frequency for 12 hours

Mechanical Shock: Test 1: 100g, 6 mS, half sine, 12.3 ft/s; Test 2: 100g, 6 mS, sawtooth, 9.7 ft/s

Humidity: 90–95% at 40°C for 96 hours

Materials and Finishes

Shaft: Aluminum

Bushing: Zinc casting

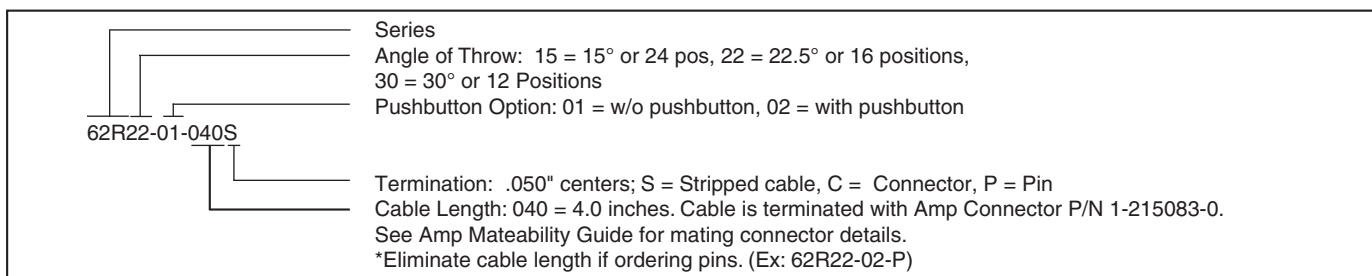
Mounting Hardware: One brass, nickel-plated nut and zinc-plated spring steel with clear trivalent chromate finish lockwasher supplied with each switch. (Nut is 0.094 inches thick by 0.433 inches across flats)

This product series is ROHS Compliant.

OPTIONS

Contact Grayhill for custom terminations, shaft and bushing configurations, and resolutions. Control knobs are also available.

ORDERING INFORMATION



Custom materials, styles, colors, and markings are available. Control knobs available.

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Grayhill:

[62R30-02-100S](#)