

SERIES 62C

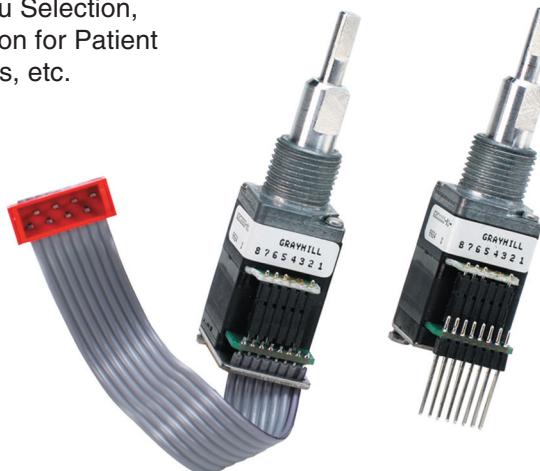
Concentric Shaft

FEATURES

- Economical Size
- Combined Functionality
- Optically Coupled for More than a Million Cycles of Operations
- Optional Integral Pushbutton
- Compatible with CMOS, TTL, and HCMOS Logic
- Available with 12, 16, 24, and 32 Detent Positions for Each Code Section
- Choices of Cable Length and Terminations
- Available in 3.3 Volt Input. (Contact Grayhill for details)

APPLICATIONS

- Used to Set Radio Frequency, Drill Depth, RPM, Menu Selection, Parameter Selection for Patient Monitoring Devices, etc.



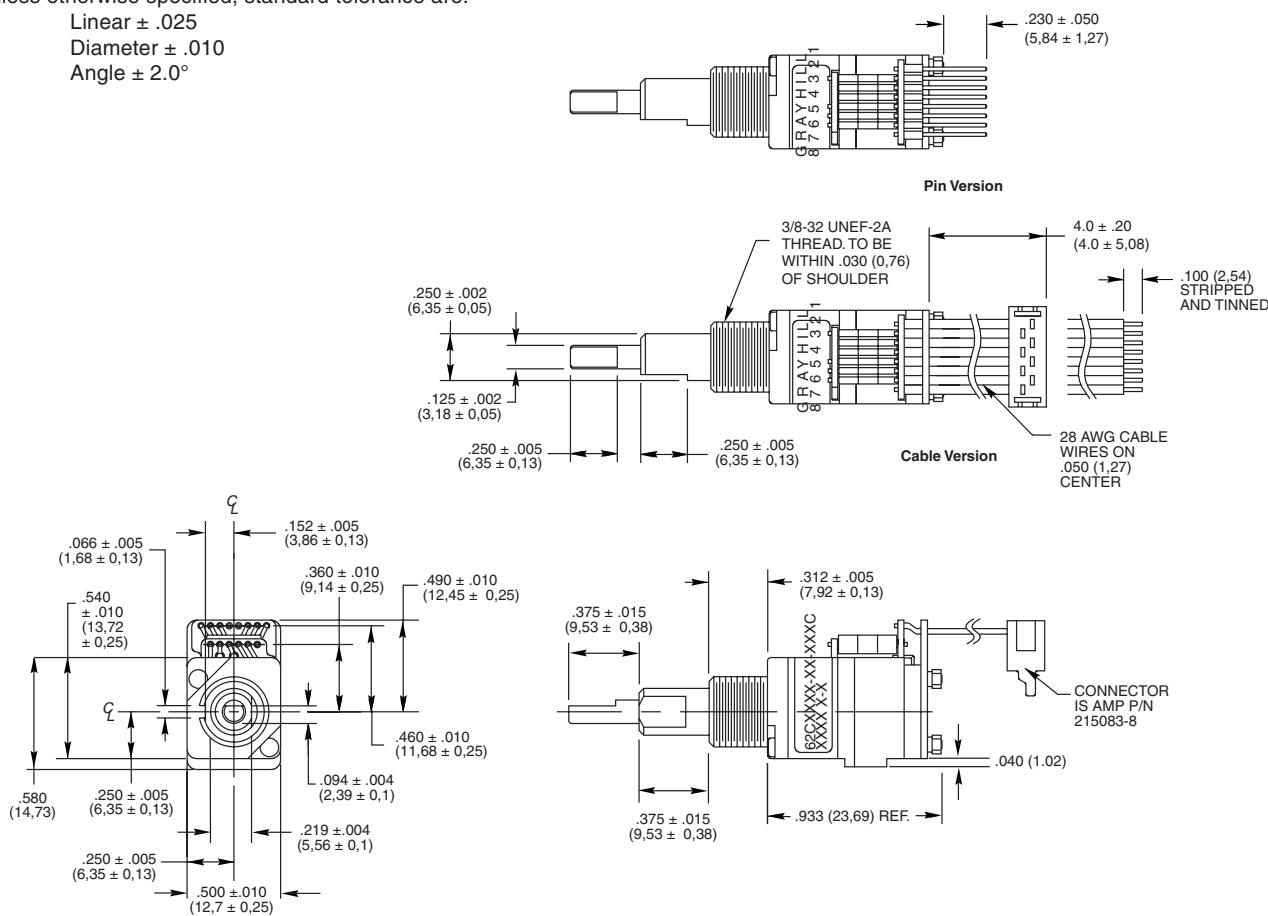
DIMENSIONS In inches (and millimeters)

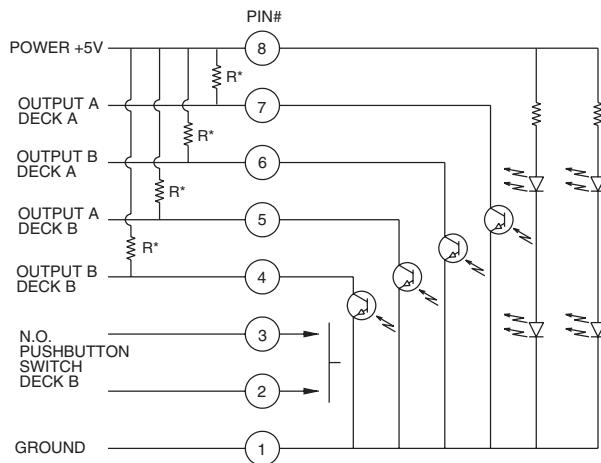
Unless otherwise specified, standard tolerance are:

Linear $\pm .025$

Diameter $\pm .010$

Angle $\pm 2.0^\circ$

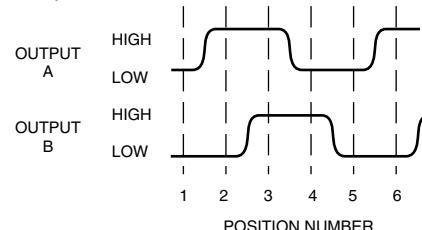


CIRCUITRY, TRUTH TABLE AND WAVEFORM: Standard Quadrature 2-Bit Code

* External pull-up resistors required for operation (2.2kΩ)

Clockwise Rotation		
Position	Output A	Output B
1		
2	●	
3	●	●
4		●

● Indicates logic high; blank indicates logic low. Code repeats every 4 positions.

**SPECIFICATIONS****Pushbutton Switch Ratings**

Rating: 5 Vdc, 10 mA, 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, less than 10 mS at break

Actuation Life: 3,000,000 operations

Actuation Force: 1000 ± 300 grams

Pushbutton Travel: .010 / .025 inch

Encoder Ratings

Coding: 2-bit quadrature coded output

Operating Voltage: 5 ± .25 Vdc

Supply Current: 50 mA maximum at 5 Vdc

Logic High: 3.8V minimum

Logic Low: 0.8V maximum

Logic Rise and Fall Times: less than 30 mS

Operating Torque: 2.0 in-oz ± 1.4 in-oz initially

Rotational Life: more than 1,000,000 cycles of operation (1 cycle = 360° rotation and return)

Shaft Push Out Force: 45 lbs minimum

Mounting Torque: 15 in-lbs maximum

Operating Speed: 100 RPM maximum

Axial Shaft Play: .010 maximum for each shaft

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 6 mS, half sine, 12.3 ft/s Test 2: 100g for 6 mS, sawtooth, 9.7 ft/s

Materials and Finishes

Bushing: Zinc casting

Shaft: Aluminum

Shaft Retaining Ring: Stainless steel

Detent Spring: Stainless steel

Printed Circuit Board: NEMA grade FR-4

Terminals: Brass, tin-plated

Mounting Hardware: One brass, nickel-plated nut and lockwasher supplied with each switch. (Nut is 0.094 inches thick by 0.562 inches across flats)

Rotor: Thermoplastic

Code Housing: Reinforced thermoplastic

Pushbutton Dome: Stainless steel

Pushbutton Housing: Thermoplastic

Pushbutton Contact: Brass, nickel-plated

Dome Retaining Disk: Thermoplastic

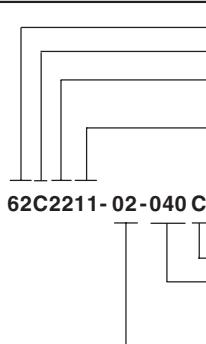
Strain Relief: Stainless steel

Cable: 28 AWG, stranded/top coated wire, PVC coated on .050 centers (cable version only)

Header Pins: Phosphor bronze, tin-plated

Insulator: Glass-filled polyester

Spacer: Zinc casting

ORDERING INFORMATION**Series**

Style: C = Concentric

Angle of Throw (Deck A): 11 = 11.25° or 32 positions, 15 = 15° or 24 positions, 22 = 22.5° or 16 positions, 30 = 30° or 12 Positions

Angle of Throw (Deck B): 11 = 11.25° or 32 positions, 15 = 15° or 24 positions, 18 = 18° or 20 positions, 22 = 22.5° or 16 positions, 30 = 30° or 12 Positions

Termination: S = stripped cable, C = connector, P = pins

Cable Termination: 040 = 4.0in. Cable is terminated with Amp Connector P/N 215083-6. See Amp Mating Guide for mating connector details.

* Eliminate cable length if ordering pins. (Ex: 62C2211-02-P)

Pushbutton Option: 01 = w/o pushbutton
02 = with pushbutton

Custom custom shaft, pushbutton actuation force and termination options are available.

Available from your local 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:

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