

SERIES 61B

16, 24, or 32 Position, **Optional Pushbutton**

FEATURES

- Positions Screen Cursor
- More Friendly than Keyboards
- Permits Visual Concentration
- Economic Touchscreen Alternative
- Pushbutton for Entry Function
- Detent for Tactile Feedback and Minimal Backlash
- Optical Coupled for Long Life
- Rugged Construction

APPLICATIONS

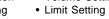
Display Input

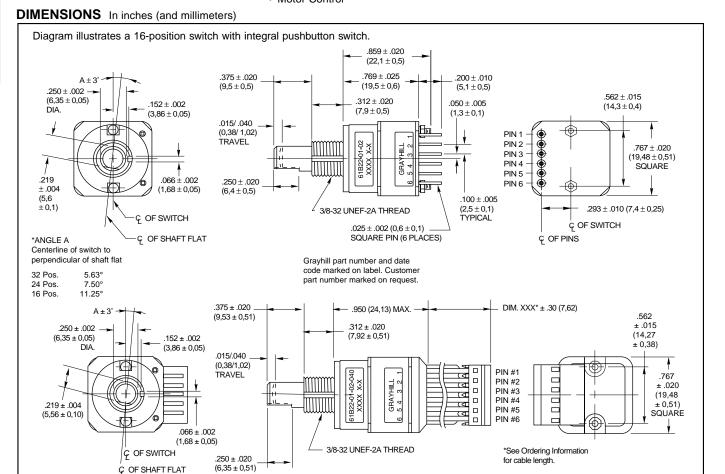
The Series 61 rotary encoder switch can move cursor or icon on a display. Use the rotary and pushbutton switch to simply select a menu item and enter it, or write more elaborate display software. Use the Series 61 to input limit settings for a monitored function. Change an item on a checklist to a new value while viewing the remainder of the list.

Incremental Input

Use the Series 61 with an interface chip to provide step by step input for setting radio frequency, drill depth, RPM, etc. These changes are usually a few steps, and you need not turn the switch several revolutions for the desired value. Some examples are as follows:

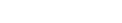
- Robot Position
 - Volume Setting
- Radio Tuning Motor Control





Unless otherwise indicated, tolerances are ± .010 (0,25)





SPECIFICATIONS

Pushbutton Switch Ratings

Rating: 5 Vdc, 10 mA, Resistive Contact Resistance: less than 10 (TTL or CMOS Compatible)

Voltage Breakdown: 250 Vac between mutually insulated parts.

Contact Bounce: Less than 4 milliseconds at make and less than 10 milliseconds at break **Actuation Life:** 3,000,000 operations **Actuation Force:** Maximum actuation force of 615 grams and a minimum actuation force of 415 grams.

Encoder Ratings

Coding: 2-bit quadrature coded output Operating Voltage: 5 ±.25 Vdc Supply Current: 30 mA maximum at 5 Vdc Logic High: 3.8V minimum Logic Low: 0.8V maximum Logic Rise and Fall Times: Rise Time less than 30 mS at 16.6 RPM. Fall Time less tham 30 mS at 16.6 RPM. **Operating Torque:** $2.0 \pm .75$ in-oz **Rotational Life:** more than 1,000,000 cycles of operation (1 cycle = 360° rotation and return)

Shaft Push Out Force: 50 lbs minimum Mounting Torque: 15 in-lbs maximum

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, within a varied 10 to 2000 Hz frequency for 12 hours per MIL-STD-202, Method 204

Shock Resistance: Test 1: 100g for 6 mS half sine wave with velocity change of 12.3 ft/s. Test 2: 100g for 6 mS, sawtooth wave with velocity change of 9.7 ft/s.

Relative Humidity: 90–95% at 40°C for 96 hours

Materials and Finishes

Detent Cover: Thermosetting plastic Bushing: Zinc casting, cadmium-plated per QQP-416, Class 2, Type II Shaft: Reinforced thermoplastic Note: Earlier versions may have electropolished stainless steel shafts (still available in customs only). Detent Balls: Passivated, stainless steel Detent Spring: Tinned music wire

Grayhill

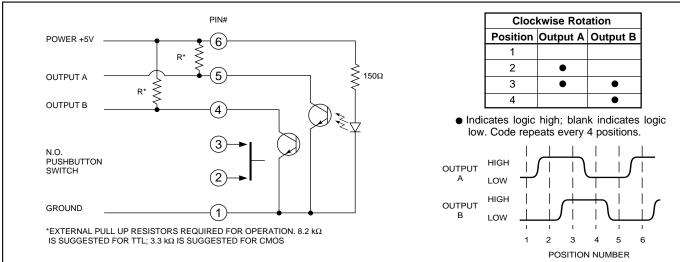
Printed Circuit Boards: NEMA Grade FR-4 Board Terminals: Copper alloy, CDA No. 725 Through Bolts: Stainless steel, unplated Through Bolt Nuts: Stainless steel Switch Assembly Cover and Code Rotor:

PBT polyester thermoplastic

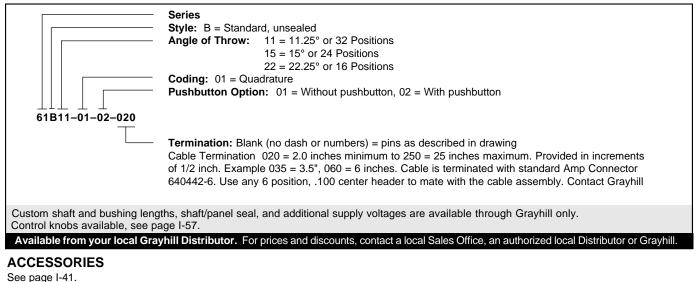
Mounting Hardware: One brass, cadmiumplated nut and lockwasher supplied with each switch. Nut is 0.094" thick by 0.562" across flats. Strain Relief: PBT polyester thermoplastic (cable version only)

Cable: 26 AWG, stranded/tinned wire, PVC coated on .100 (2,54) centers (cable version only)

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



ORDERING INFORMATION



Grayhill, Inc. • 561 Hillgrove Avenue • LaGrange, Illinois 60525-5997 • USA • Phone: 708-354-1040 • Fax: 708-354-2820 • www.grayhill.com

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Encoders category:

Click to view products by Grayhill manufacturer:

Other Similar products are found below :

6-1393048-0 6-1393048-5 62AG22-H5-P 62B22-LP-030C 63K25 63K32 63KS100 63KS64 63R100 63R50-020 63RS256-060 700-09-36 RE12D300-201-1 1393047-3 2-1393047-2 T101-5C2-111-M1 T101-5C3-111-M1 T101-5C4-111-M1 385001M0439 385001M0216 V23401H1409B101 V23401T8002B802 V23401U6019B609 E69-1 E69DF10 E69-FCA 62B11-LP-100S 62B11-LPP-040C 62N11-P 62S22-H9-120S 62S30-L0-200C 62V15-02-080S 63K64 63KS100-040 63R64-050 63RS64 700-16-16 V23401D3002B301 3-1393048-1 63KS128 63KS256 1-1879391-5 GH65C11-N-SO 62S15-M0-P 1393047-1 E69-FCA02 E69-FCA04 E69-DF20 E69-DF2 63R50