

Optical Encoders

SERIES 62T

Thumbwheel with Pushbutton

FEATURES

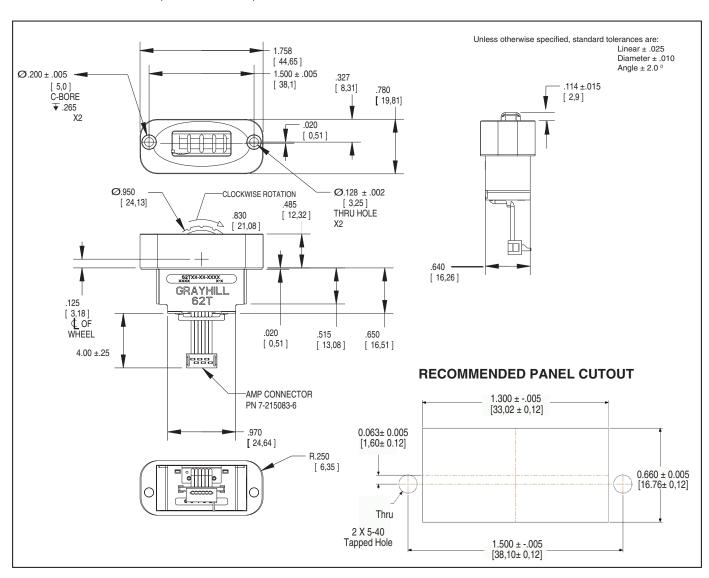
- Scroll and select functions
- · Sealed against dust and particles
- Custom bezels that will blend with HMI grips and control panels
- Optional integrated pushbutton with over three million actuations
- MIL-STD-202 and MIL-STD-810F Compliant
- · Standard panel seal
- Choice of cable length and termination

APPLICATIONS

- Scroll & select equipment in industrial and non-automotive transportation applications
- · Display selectors
- Hand-grip joysticks



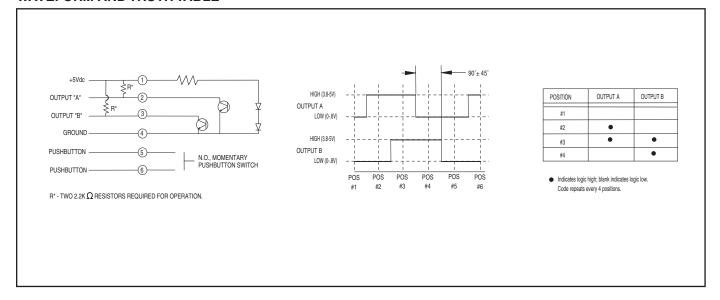
DIMENSIONS in inches (and millimeters)



Optical Encoders



WAVEFORM AND TRUTH TABLE



SPECIFICATIONS

Environmental Specifications

MIL-STD-810F Qualified

Operating Temperature Range: -40°C to 85°C Storage Temperature Range: -55°C to 100°C Humidity: 240 hours at 95% humidity

at 30° C

Mechanical Vibration: Harmonic motion with amplitude of 15g, within a varied frequency of 10 to 2000 Hz

Mechanical Shock:

Test 1: 100g for 6 ms half-sine wave with a velocity change of 12.3 ft/sec

Test 2: 100g for 6 ms sawtooth wave with a velocity change of 9.7 ft/sec

Pushbutton Electrical and Mechanical Specifications

Rating: 10mA @ 5 Vdc Contact Resistance: <10ohms Life: 3 million actuations minimum Contact Bounce: <4 ms make, <10ms

hreak

Actuation Force: N - None, 7-700g,

10 - 1000q.

Thumbwheel Travel: .060 ± .015 in

Rotary Electrical and Mechanical Specifications

Operating Voltage: 5.00±0.25 Vdc Supply Current: 25mA Max.

Output: Open collector phototransistor, external pull up resistors are required Output Code: Two-bit quadrature, channel A

leads channel B by 90° electrically during clockwise rotation of the thumbwheel Logic high shall be no less than 3.8 Vdc Logic low shall be no greater than 0.8 Vdc Power Consumption: 125 mW Max. Mechanical Life: 1,000,000 cycles of

operation for Low and Non-Rotational Torque. 500,000 cycles of operation for Medium Rotational Torque. 1 cycle is a rotation through all positions and a full return.

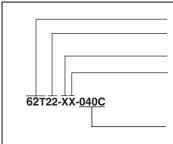
Average Rotational Torque:

M: 2.2±.75 in-oz, L: 1.2±0.5 in-oz, N: <0.50 in-oz. Initially torque shall be within 75% of

initial value throughout life.

Materials and Finishes

Face Plate: Plastic Wheel: Plastic



Series

Angle of Throw: 22 = 22.5° for code change and 16 detent positions

Rotational Torque: N = Non-Detent, L=Low Torque, M=Medium Torque

Pushbutton Option: 0=No Pushbutton, 7=700 grams, 10=1000 grams

Termination: C = .050 Center ribbon Cable with connector

Cable Termination: 040=4.0 inches. Cable is terminated with Amp Connector P/N 7-215083-6.

See Amp Mateability Guide for Mating Connector details.

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