

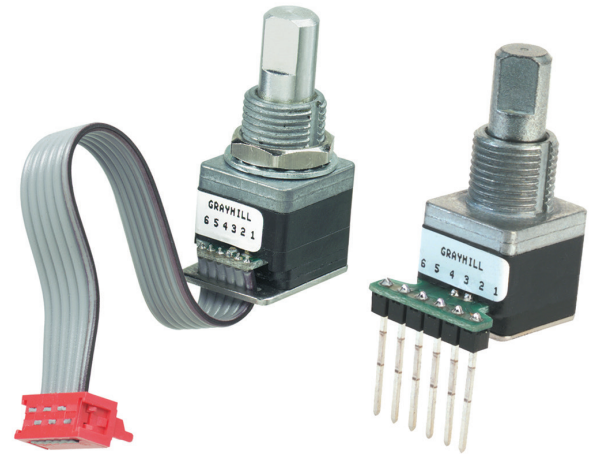
## SERIES 62A, V, D 1/2" Package

### FEATURES

- Low Cost
- Long Life
- Available in 3.3 or 5.0 Vdc Operating Voltages
- High Torque Version to Emphasize Rotational Feel
- Economical Size
- Optically Coupled for More than a Million Cycles
- Optional Integral Pushbutton
- Compatible with CMOS, TTL and HCMOS Logic Levels
- Available in 12, 16, 20, 24 and 32 Detent Positions (Non-detent also available)
- Choice of Cable Lengths and Terminations

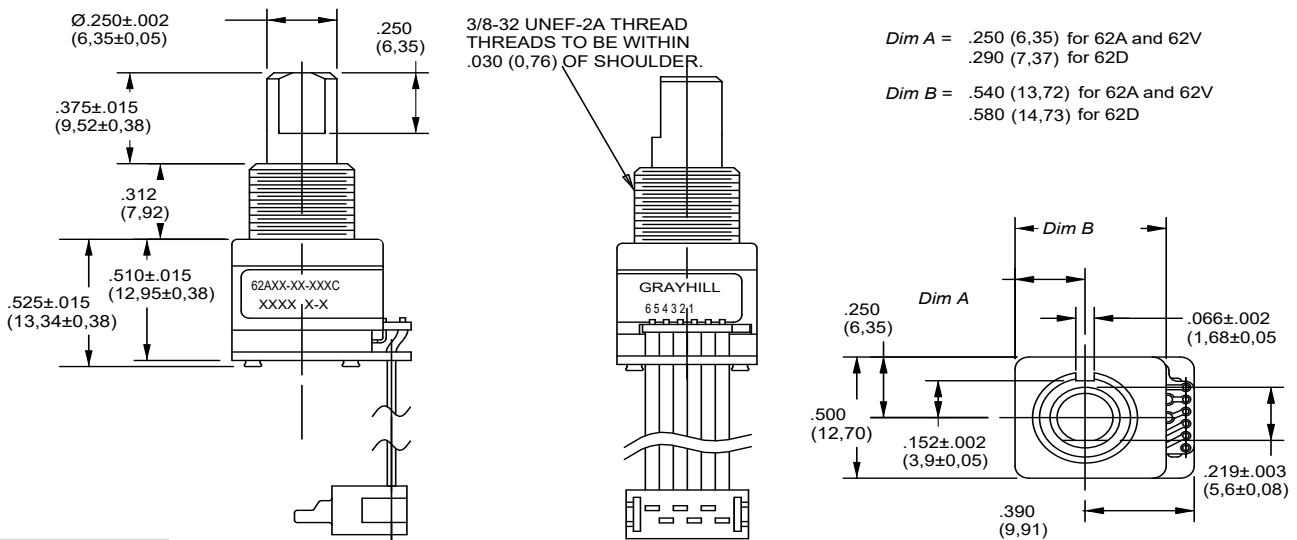
### APPLICATIONS

- Global Positioning/Driver Information Systems

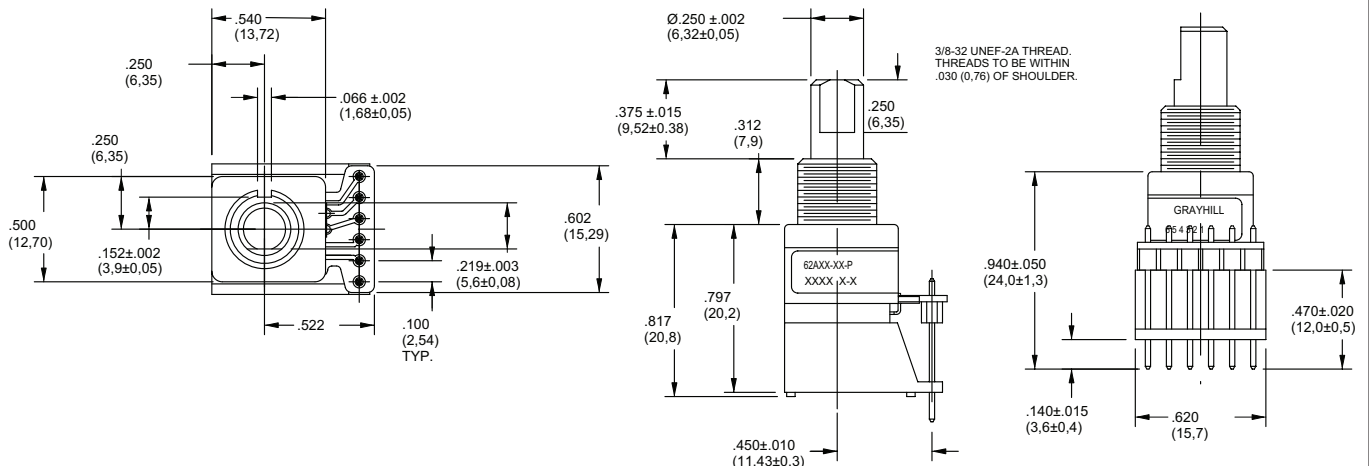


### DIMENSIONS in inches (and millimeters)

#### Cable Version



#### Pin Version



TERMINATION OPTIONS

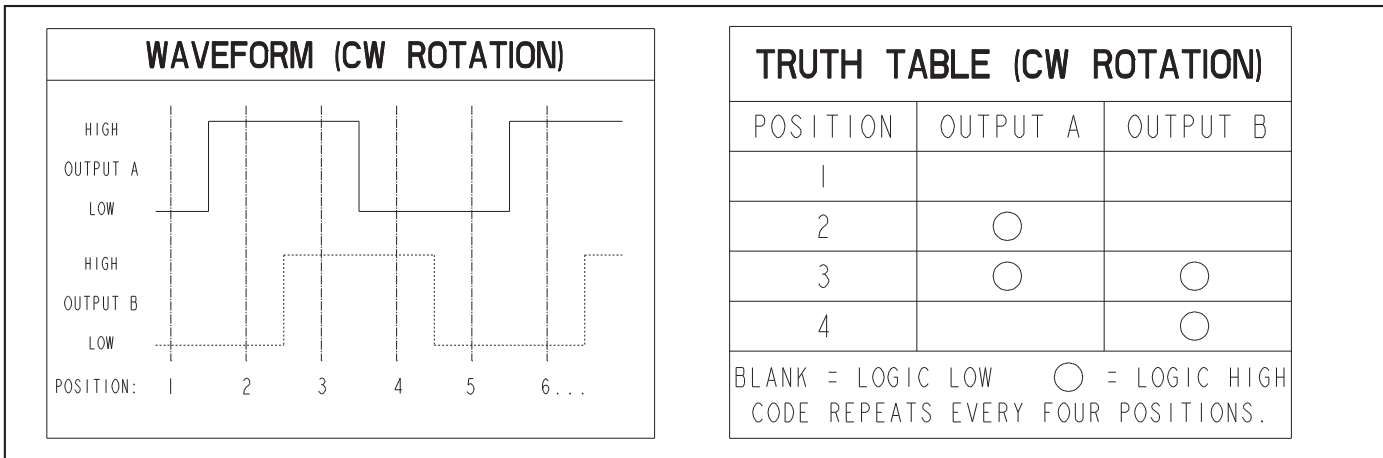


Optical and Mechanical Encoders

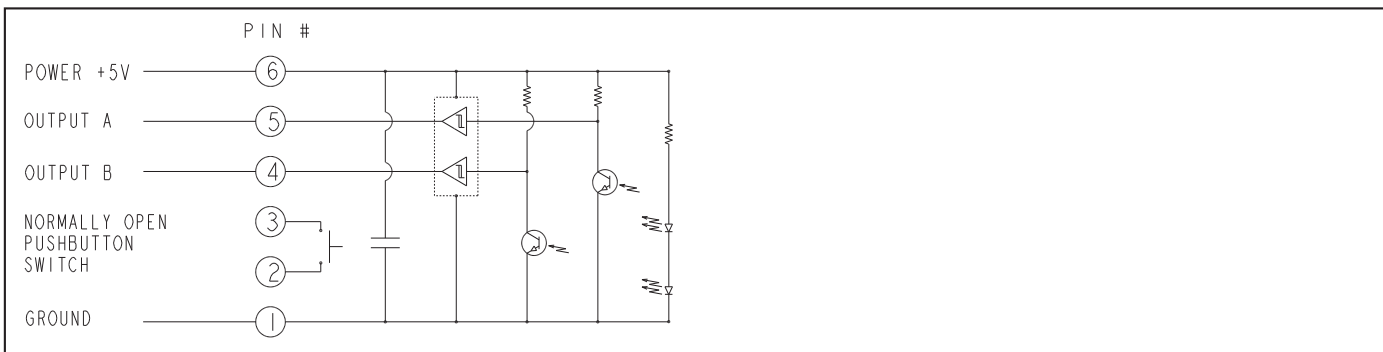
**SUPPLY CURRENT & LOGIC OUTPUT CHARACTERISTICS**

		A & D STYLE	V STYLE
OPERATING VOLTAGE:		5.00±.25 Vdc.	3.30±.125 Vdc.
SUPPLY CURRENT:		30 mA MAXIMUM.	50 mA MAXIMUM.
LOGIC OUTPUT CHARACTERISTICS:	SMT OPTICS	PUSH-PULL OUTPUTS COMPATIBLE WITH CMOS, TTL AND HCMOS LOGIC.	
		LOGIC HIGH: $V_{OH} = 4.5$ Vdc MIN AT $I_{OH} = -8.0$ mA & $V_{CC} = 5.00$ Vdc.	N/A
		LOGIC LOW: $V_{OL} = 0.5$ Vdc MAX AT $I_{OL} = 8.0$ mA.	N/A
	WIREBOND OPTICS	OPEN COLLECTOR PHOTOTRANSISTOR OUTPUT.	
		LOGIC HIGH: $V_{OH} = 3.8$ Vdc MIN at $V_{CC} = 5.00$ Vdc WITH $2.2k\Omega$ PULL-UP RESISTOR.	LOGIC HIGH: $V_{OH} = 2.3$ Vdc MIN at $V_{CC} = 3.30$ Vdc WITH $2.2k\Omega$ PULL-UP RESISTOR.
		LOGIC LOW: $V_{OL} = 0.8$ Vdc MAX AT $I_{OL} = 2.0$ mA WITH $2.2k\Omega$ PULL-UP RESISTOR.	LOGIC LOW: $V_{OL} = 0.8$ Vdc MAX AT $I_{OL} = 1.0$ mA WITH $2.2k\Omega$ PULL-UP RESISTOR.

**WAVEFORM AND TRUTH TABLE** Standard Quadrature 2-Bit Code



**CIRCUITRY: SURFACE MOUNT OPTICS** Pushpull Outputs (62A22, 62A15, 62A11)



**CIRCUITRY: WIREBOND OPTICS** Open Collector Outputs (All Others)



Optical and Mechanical Encoders