

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

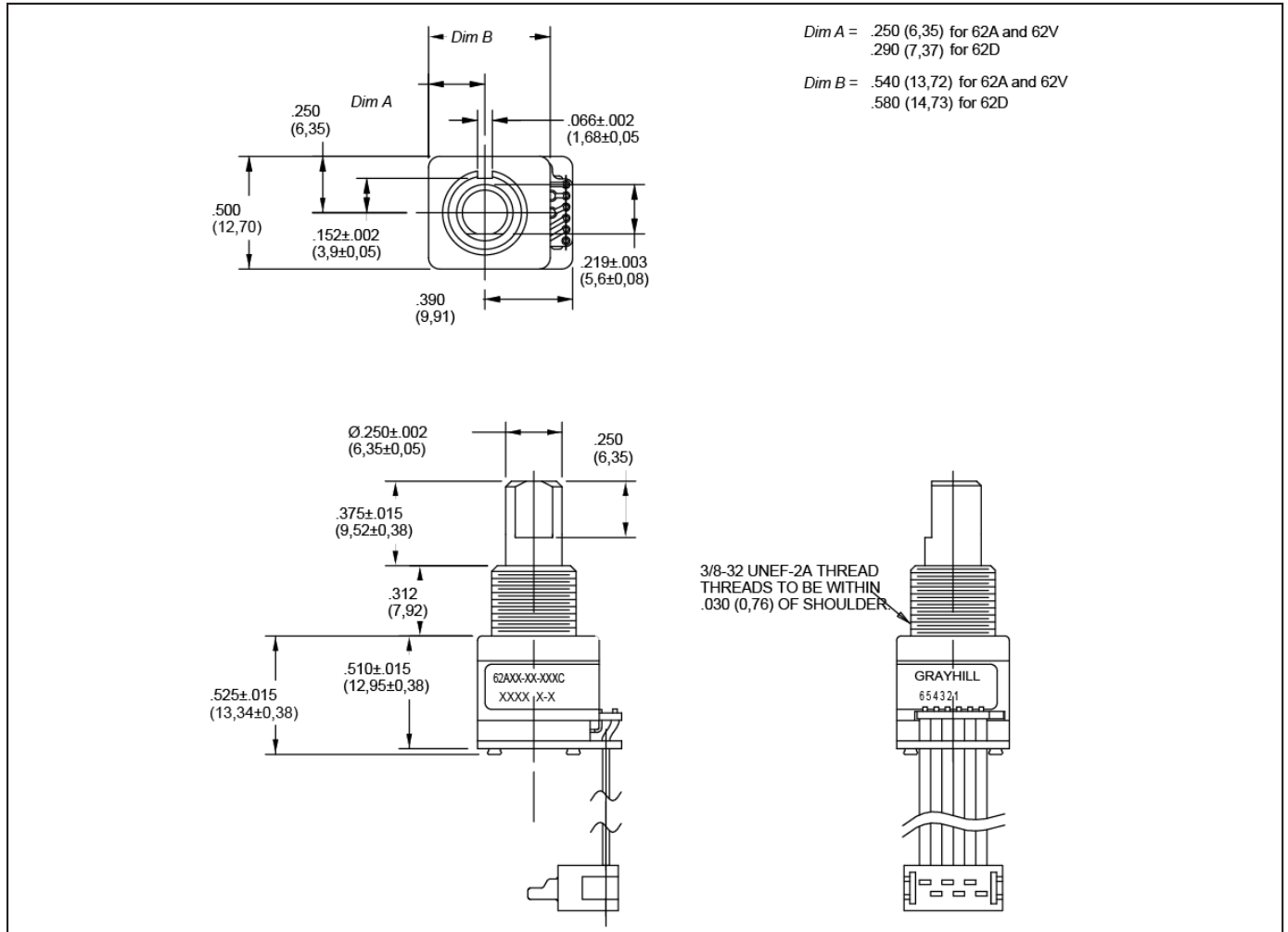
APPLICATIONS

- Global Positioning/Driver Information Systems
- Medical Equipment



Optical and Mechanical Encoders

DIMENSIONS in inches (and millimeters)



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:	PUSH-PULL OUTPUTS COMPATIBLE WITH CMOS, TTL AND HCMOS LOGIC.		
	SMT OPTICS	LOGIC HIGH: $V_{OH} = 4.5 \text{ Vdc MIN AT } I_{OH} = -8.0 \text{ mA \& } V_{CC} = 5.00 \text{ Vdc.}$	N/A
		LOGIC LOW: $V_{OL} = 0.5 \text{ Vdc MAX AT } I_{OL} = 8.0 \text{ mA.}$	N/A
	WIREBOND OPTICS	OPEN COLLECTOR PHOTOTRANSISTOR OUTPUT.	
		LOGIC HIGH: $V_{OH} = 3.8 \text{ Vdc MIN at } V_{CC} = 5.00 \text{ Vdc WITH } 2.2\text{k}\Omega \text{ PULL-UP RESISTOR.}$	LOGIC HIGH: $V_{OH} = 2.3 \text{ Vdc MIN at } V_{CC} = 3.30 \text{ Vdc WITH } 2.2\text{k}\Omega \text{ PULL-UP RESISTOR.}$
		LOGIC LOW: $V_{OL} = 0.8 \text{ Vdc MAX AT } I_{OL} = 2.0 \text{ mA WITH } 2.2\text{k}\Omega \text{ PULL-UP RESISTOR.}$	LOGIC LOW: $V_{OL} = 0.8 \text{ Vdc MAX AT } I_{OL} = 1.0 \text{ mA WITH } 2.2\text{k}\Omega \text{ PULL-UP RESISTOR.}$

WAVEFORM AND TRUTH TABLE Standard Quadrature 2-Bit Code

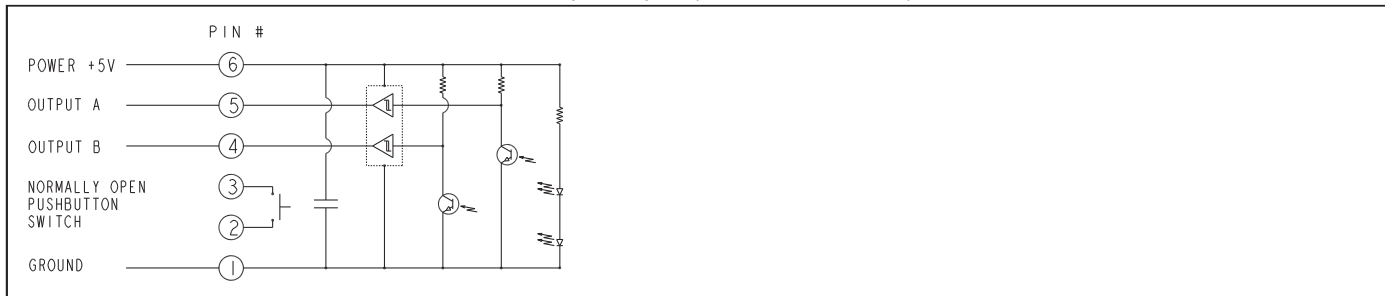
WAVEFORM (CW ROTATION)

TRUTH TABLE (CW ROTATION)

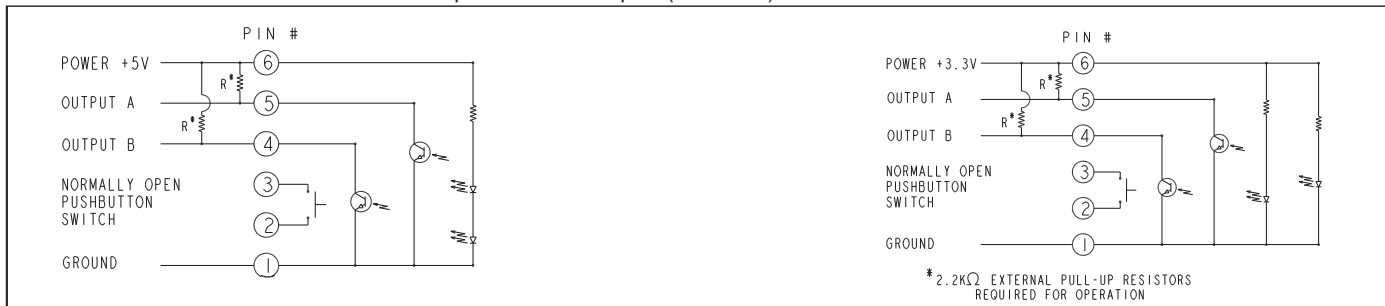
POSITION	OUTPUT A	OUTPUT B
1		
2	○	
3	○	○
4		○

BLANK = LOGIC LOW ○ = LOGIC HIGH
CODE REPEATS EVERY FOUR POSITIONS.

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



CIRCUITRY: WIREBOND OPTICS Open Collector Outputs (All Others)



Optical and Mechanical Encoders