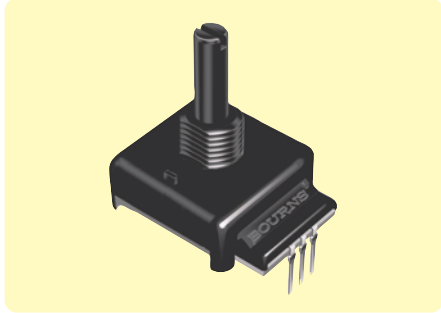


**BOURNS type ECW**

Digital contacting encoders can also be referred to as digital panel controls, bit switches, gray switches or digital switches. All such devices utilise a digital gray code signal output rather than a conventional potentiometric voltage ratio output. The advantage with digital contacting encoders is that they permit the direct entry of digitised analogue data into a digital circuit without A/D conversion. The two channel gray coded signal of this incremental encoder allows the user's decoder circuit to sense direction of rotation, as well as up/down counter capabilities. This permits a reduction in memory overheads, wiring & interconnects and can provide greater MPU speed.



- ◆ Incremental encoder/quadrature output
- ◆ Long operating life
- ◆ Sturdy construction
- ◆ Bush mounted
- ◆ Slotted 6.35mm (1/4 in) shaft



**Specification**

**Electrical Characteristics**

Resolution range ..... 6PPR to 24PPR  
 Output ..... 2-bit gray code, Channel A leads Channel B by 90° electrically with clockwise rotation  
 Closed circuit resistance ..... 5Ω max.  
 Open circuit resistance ..... 100kΩ min.  
 Contact rating ..... 10mA at 10Vdc or 0.1W max.  
 Insulation resistance ..... 1,000MΩ min. at 500Vdc  
 Dielectric withstand voltage ..... MIL-STD-202 method 301  
 ..... 1,000Vac min.  
 Electrical travel ..... Continuous  
 Contact bounce ..... 5ms max. at 15rpm  
 Operating rpm ..... 120 max.

**Environmental Characteristics**

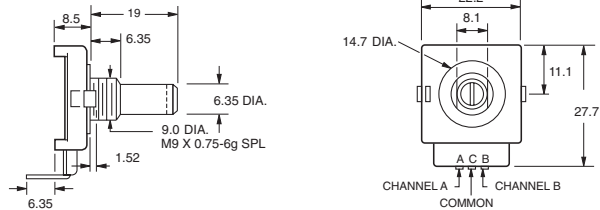
Temperature range  
 storage ..... -40°C to +85°C  
 operating ..... +1°C to +85°C  
 Humidity ..... MIL-STD-202, method 103B, condition B  
 Vibration ..... 15G  
 contact bounce ..... 0.1ms max.  
 Shock ..... 50G  
 contact bounce ..... 0.1ms max.

**Mechanical Characteristics**

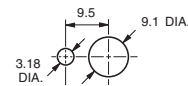
Operating torque ..... 0.5 to 1.5Ncm  
 Mechanical rotation ..... Continuous  
 Rotational life ..... 200,000 shaft revolutions  
 Static shaft side load ..... 44.5N

Resolution (Pulses Per Revolution)	Detents	Cycles Per Detent	Manf. Part No. & anglia Order Code
6	24	1/4	<b>ECW0J-B24-AC0006</b>
24		1	<b>ECW1J-B24-AC0024</b>

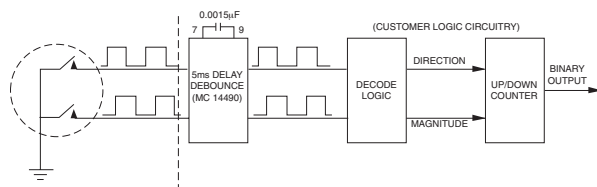
**Dimensions (mm)**



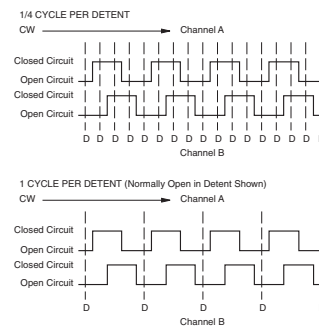
**Mounting Holes**



**Incremental Control Diagram**



**Quadrature Output Table**



**PCB brackets and other shaft styles available**  
 Please contact our Sales Desk for details