

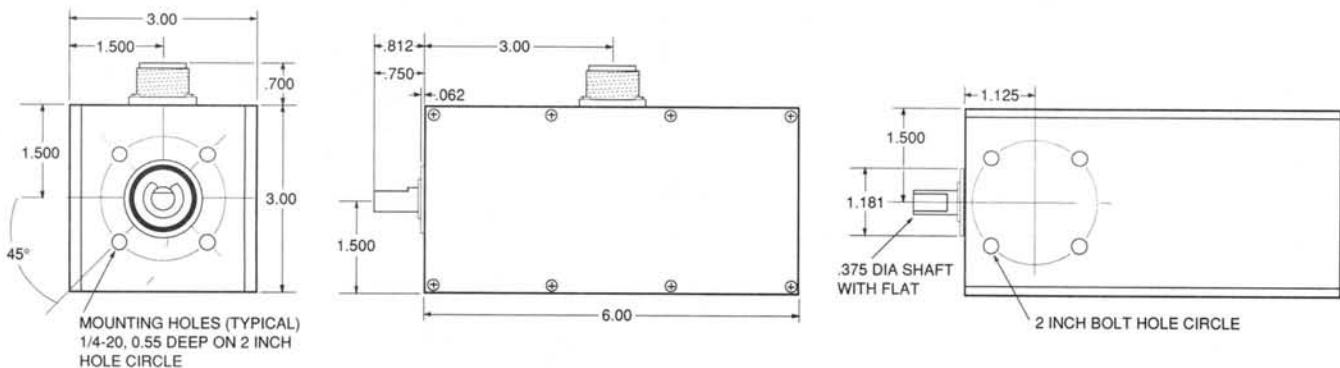
**Heavy Duty Rotary Shaft Encoders**

- Heavy Duty Housing
- Single Channel and Quadrature Models
- Easy Plug Connection of Outputs



The two models of this Durant heavy duty encoder are offered in standard ratios of 60, 100, 120 and 600 pulses per revolution. Other ratios up to 1270 PPR are also available. Both the single channel model and the quadrature models are rated for radial loads of 50 pounds, axial loads of 25 pounds. Either can be bottom or front face mounted externally on industrial machinery. Their solid aluminum housing provides protection against fluid con-

tamination and isolates them from potentially damaging axial, radial and body impact forces. The outer casing carries a separate sealed 3/8" working shaft which is connected, internally, to the shaft of the rotary pulse generator through a flexible coupling. Electrical connection can be made with standard MS connectors, cable and grommet or conduit.



**Transducer - Specifications**

**ELECTRICAL SPECIFICATIONS**

**INPUT**

Voltage .....9 to 16Vdc  
 Current .....60 mA. max. @ 16Vdc  
 Ripple ..... $\leq 2\%$

**OUTPUT**

Type .....Current sinking transistor with  
 1.5k $\Omega$  pullup  
 .....Sinking current: 100 mA. max.  
 .....Max. voltage @ 100 mA: 1.3 Vdc  
 .....Blocking voltage: 40Vdc max.  
 Polarity .....Positive  
 Wave Shape .....Square wave  
 Pulse Rate .....0 to 20,000 pulses per second  
 (0 to 10,000 quadrature models)  
 Rise Time ..... $< 1\mu$  sec.  
 Pulses Per Rev. ....1 to 1270  
 Accuracy .....within  $\pm 0.1^\circ$

**ENVIRONMENTAL SPECIFICATIONS**

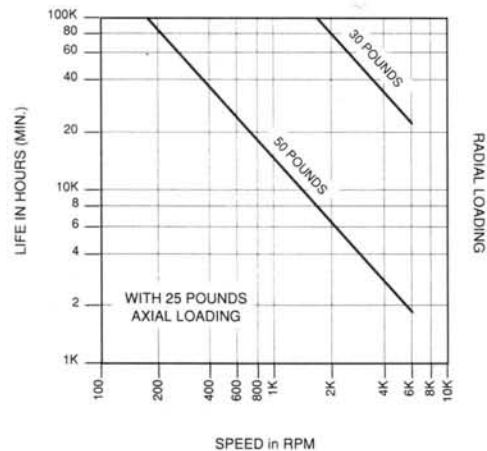
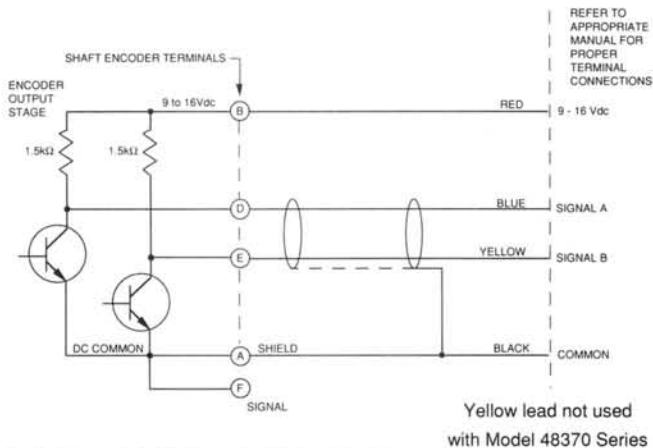
Operating Temperature .....0°C to 75°C  
 Vibration .....3 g's at 5 to 1000 cps  
 Shock .....20 g's, 10millisec.

**MECHANICAL SPECIFICATIONS**

Shaft Speed .....6000 RPM max.  
 Shaft Rotation .....CW or CCW  
 Bearings .....Sealed ball bearings  
 Starting Torque .....1.0 ounce-inch  
 Radial Loading .....50 pounds operating  
 Axial Loading .....25 pounds operating  
 Shaft .....3/8" dia.  
 Operating Life .....See Life vs. Speed table  
 Housing .....Aluminum with black anodized  
 finish. Sealed against dust, oil  
 vapor and moisture  
 Mounting .....Provisions for bottom or front  
 face mount  
 Weight .....3.75 lbs. max.  
 Connector .....MS-3102E-14S-6P (Connector  
 mounted on encoder)  
 Mating Connector .....MS-3106A-14S-6S with 10'  
 shielded cable and termination  
 for electronic controls is Durant  
 Part No. 29665-300  
 MS-3106A-14S-6S with clamp  
 and bushing only is Durant Part  
 No. 29729-300

**ACCESSORIES**

Part Number	Product Description
29665-300	Connector assembly with clamp, bushing, and 10' of shielded cable
29729-300	Connector, clamp and bushing only
XXXXX-XXX	Measuring wheels - see page 122



**ORDERING INFORMATION**

Model Number	Product Description
48370-060	Encoder 60 PPR, Single Channel
48370-100	Encoder 100 PPR, Single Channel
48370-120	Encoder 120 PPR, Single Channel
48370-600	Encoder 600 PPR, Single Channel
48371-060	Encoder 60 PPR, Quadrature
48371-100	Encoder 100 PPR, Quadrature
48371-120	Encoder 120 PPR, Quadrature
48371-600	Encoder 600 PPR, Quadrature